

Uneven Absorption:
World-Class Delhi, Domestic Workers and the Water that Makes Them

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Dedication

This dissertation is dedicated to P.D. and the women and girls of Delhi;
ये अपने कहानियाँ हैं।

Informants and Name Meanings

The names and identifying characteristics of collaborators have been changed to protect their anonymity, unless they wished to be named. The new names all were selected to reflect the cultural background and character of the collaborator. I chose to select common names that have meaning in Hindi, Urdu, Sanskrit, and English that are tied in with the theme of water. Some are direct, like Sanskrit “Jeevika,” which means water, while others like “Anita” derive from Urdu as the name of a goddess of water, but also reflect her role in the community with its Sanskrit meaning “a leader without guile.” Some names, like “Piyush,” are near interpretations of the theme.

In Order of Appearance:

Nahlah	Drink of water
Chandani-devi	Moonlight/A river
Ami	Nectar
Sejal	River water/Pure depth
Jalahasini	Water’s Smile/Water’s Laughter
Vahini	A river/Armed force
Jaldhar	Swollen raincloud
Varda	A river/Giver of boons
Kauthar	Fountain in paradise
Muna	Hope/Fresh spring
Chanchari	Vortex of water/A bird
Ashita	Yamuna river
Noshaba	Water of life/Elixer
Varsha	Rain
Kuvalai	Water-lily
Manju	Dew drops
Atreyi	Container of glory/Nectar vessel
Urmi	Wave
Neelaja	Blue water
Jenni	White wave
Nandika	Water/Lakshmi
Rithika	Stream
Barsha	Rain
Avisa	Clear water/Ocean
Jeevika	Water
Arali	Water-lily
Parul	Flow of water/Graceful
Neera	Pure water/Nectar
Varun	Lord of the sea
Irsia	Rainbow
Piyush	Sweet water/Nectar
Kalindee	Yamuna river

Glossary

<i>bartan</i>	vessels for cooking or carrying water
<i>basti</i>	informal settlement
<i>b'de log</i>	lit. "big people," middle-class people
<i>boond</i>	drop
<i>chulha</i>	wood-burning handmade stove
<i>chuppals</i>	sandals
<i>dehliz</i>	threshold
<i>dupatta</i>	multi-use garment worn for modesty
<i>firengi</i>	foreign
<i>jal</i>	water
<i>jivan</i>	life
<i>jhopadi</i>	a community of <i>jhuggis</i>
<i>jhuggi</i>	handbuilt one-room informal homes
<i>kabaadi</i>	re-use or recycling
<i>kadai</i>	a type of pan
<i>kirana shop</i>	local convenience store
<i>kuchcha</i>	informal, of low quality (opposite to <i>pukka</i>)
<i>kurta-pajama</i>	garment set
<i>ludai</i>	a fight
<i>mangal sutra</i>	a necklace indicating marriage
<i>nal</i>	a canal or gutter
<i>namkins</i>	savory snacks
<i>paise</i>	coin
<i>pallava</i>	the decorative end of a sari
<i>panchayat</i>	village council
<i>patil</i>	police liaison
<i>pukka</i>	formal, of high quality
<i>rangoli</i>	decorative threshold design
<i>roti</i>	Indian flat bread
<i>sabzi</i>	vegetable or vegetable dish
<i>salwar</i>	ladies garment
<i>samanjasya</i>	compromise
<i>shauchalay</i>	bathroom or toilet
<i>sindoor</i>	red powder applied to married woman's hairline and part
<i>swadesh</i>	self-rule
<i>wallah</i>	suffix. "thing that" or "person who"
<i>yagna</i>	sacrifice

Before

Before the clustered, hovering buildings of picturesque Gurgaon rose as if by magic out of Delhi's peripheral, methodically tilled agricultural soils, and before hundreds of illegal borewells lapped up the National Capitol Region's groundwater;

Before the Tehri Dam displaced 85,000 peasants, some in-migrating to Delhi, and before it redirected 270 million imperial gallons of water and 346 HW of power to Delhi each day;

Before the economic liberalization of 1991 that laid the groundwork for water utility privatization and before international bottled beverage manufacturers were suspected of groundwater overdraft, beverage pesticide contamination, and heavy-metal contamination of village water resources;

Before the Crystal River's glistening planks were installed over Indira Gandhi's last living footsteps and before her Green Revolution made ripples in the way India saw foreign aid, agriculture, and water;

Before Mahatma Gandhi's *antyesi*, his cremation, on the bank of the Yamuna at verdant Raj Ghat and before the parceling of his ashes for scattering in the watersheds where his legacy lives;

Before Partition, when the branches of the Indus watershed and the branches of family trees were severed, and before refugees set up informal camps in Delhi;

Before King George V stood under the blue-grey December sky and announced New Delhi as the new capitol, the laying the founding stone of New Delhi too near the floodplain, and before Delhi showed the world media a glittering, modern façade as it dug canals for the sewage of temporary durbar camps instead of the growing city;

Before the decorative fountains Shah Jahan built within the complexes of Delhi's Red Fort and the Taj Mahal, and before Delhi's impact on the Yamuna was so great that it threatened this wonder of the world;

Before communal step-wells, like Agrasen-Ki-Baoli, were built by Mughal families vying for political support and alliances, and before these wells went dry;

Before the foundations of Buddhist temples were supported by the undulating forms of *yakshi* water nymphs, and before the water as the foundation for life was no longer revered;

Before the exquisite plumbing only 450 kilometers away in Harappa; and before its ancient commitment to separating and treating wastewater was forgotten;

...before all of this, water coursed through Delhi.

Abstract

Concern over sustainable development and urban water allocation is growing worldwide. Moreover, within the context of climate change, many presently socially marginalized populations are at even greater risk for future water crisis. It is critically important to understand not only the present water practices of marginalized populations, but also how their social status also affects their relationship to water. This study, grounded in eighteen months of ethnographic fieldwork, traces the changing patterns of water allocation and water ethoi of the water-poor. The findings suggest that water is used as a signal of class identity and although the water-poor are typically seen as a homogenous unit, there is variation in the adoption of urban water practices. It argues that the contemporary anthropological language for global flows does not explain the rich negotiations of water values, identity and local spaces. It interjects a new metaphor of absorption to explain global flows. As approximately 1,000 people in-migrate Delhi, India each day, the vast majority to informal housing with limited water access, this overlooked population stands to drastically impact the urban waterscape.

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Introduction –
Water and Culture: Absorption, Ambiguity,
and the Paradigm of Flow

This chapter orients the reader to the main themes and questions of the dissertation. It explores the relationship between water and culture, establishing the relationship as dialogical. It then traces the ways that water is associated with the production of hierarchy in culture and how social hierarchy also affects water. It relates these concepts to recent theories in the anthropology of globalization, most notably the concept of flow. It suggests a new paradigm, the metaphor of absorption, to understand the shortcomings of the term flow. Finally, it lays out the trajectory of the dissertation.

Statement of Purpose

Concern over sustainable development and urban water allocation is growing worldwide. Within the context of climate change, many presently socially marginalized populations are at even greater risk for future water crisis (Bakker 2010; IPCC 2007). It is critically important to understand not only the current water practices of marginalized populations, but also how their social status affects their longitudinal relationship to water (Thomas and Twyman 2006). Urban areas present special challenges to water allocation as myriad needs compete for the same resource in a concentrated area. The negotiation of competing water needs leads to the prolific development of rhetoric about the value of water. Competition grows more dire as the increasing adoption of middle-class¹ consumption patterns and water values puts additional strain on water supply (Hoekstra and Chapagain 2007). Megacities, especially those in developing countries, experience unprecedented increase to water demand and, as such, provide a rich context for

¹ I use Shridarhan's concept of the middle-class based on income in concert with Deshpande's classification by consumption patterns (2004; 2006).

understanding the negotiation of urban water values and allocation (Richter 2014; NIC 2012). As 1,000 people in-migrate to Delhi, India each day, the vast majority to informal housing with limited water access, the urban waterscape is impacted by the sheer volume of users regardless of their small proportion of allocation. This study traces the changing patterns of water allocation and water ethoi of the water-poor, specifically among domestic workers who are exposed to middle-class water values everyday.

This dissertation asserts that water-poverty does not dictate the ways in which urban domestic workers attempt to integrate middle-class water values into their lives and homes as a means to signal upward mobility and class identity. The adoption of new water allocation patterns is not universal—there is both resistance to and unevenness in the adoption of middle-class urban water practices, which underscores the interpretive role of domestic workers in applying these practices. The significance of the interpretive work domestic workers do in producing middle-class waterscapes beyond middle-class spaces directly counters the tendency to understand the urban water-poor as a passive, homogenous unit concerned solely with the functional value of water and sheds light on the agency with which this population shapes the urban waterscape.

While the overall ratio of urban water that marginal, lower-class communities receive is fractional in comparison to middle-class industries and homes (Narain 2012), the water choices that this burgeoning population makes will indeed determine the sustainability of the urban water future. The adoption of new water values, such as those championed by

development campaigns, recommended by NGOs, and insisted upon by middle-class employers simply are not viable when adopted by entire cities. This is to say that while middle-class governments, institutions, and individuals strive for imperforate adoption of “developed” or “modern” water allocation, current water supplies, infrastructures, and technologies are unable to meet this water demand.

This leads to a quandary wherein lower-class urban citizens are pushed to use more water but are constrained by a system that does not support their increased water use. In transitional areas like slums and tenements where new in-migrants are being exposed to urban water values, conflict is rife over the legitimacy of water allocations since scarcity and irregular availability have led to vigilance during common collection. Neighbors vie to increase their own water access, often creating legitimacy of use arguments that accuse others of wasting water. Legitimacy of use is often coterminous with the forced conservation allocation patterns that are inflected with values of water poverty. This is in contrast to arguments of illegitimate water use, which are grounded in accusations of middle-class water wastage. This is to say that within water-poor communities middle-class water values, while aspirational on one level, are also condemned and can lead to constrained access. Middle-class or urban standards of allocation are even more difficult to attain.

Imagining urban water use as coterminous with middle-class water use is grounded in a trajectory of water development that has a deep history in cities like Delhi. Colonial

structures of social and infrastructural water disparities carry through to contemporary hegemonic systems (Guha 2006; Gupta 1986). As a result, water governance systems still often imagine urban waterscapes as a system of dynamic flows that reach middle-class consumers. These imagined flows are controlled by policies that support urban development or civilization missions. They construct ideal policies for flows at multiple scales, beginning at large with international river basin allocation, moving into national rur-urban allocation policies, and finally decisions of when to open certain pipes or send water tankers into neighborhoods. While these practices are evident throughout scales, they become most poignant when they encroach on the everyday experiences of the private moments and practices that occur in spaces like homes and shower stalls.

This dissertation examines domestic water use as integral to urban middle-class identity formation, and argues that to reproduce class, families are burdened with maintaining greater flows of domestic water to signal this identity. This is to say that to be middle-class in the city, is to be able to demonstrate an affluence, or an access to flows of water and the water technologies that make these flows possible. Access to the flow of water, or hydrological affluence, is linked to economic affluence. Overcoming slow or stagnant hydrological flows puts even greater strain on populations of the aspirational middle-class. This aspirational identity includes several million people, and each day one-thousand new in-migrants to Delhi join the struggle, often arriving to live in informal, slum areas called *bastiya* to make this dream come true.

The most compelling definitions of class identity come from those who are in constant negotiation between the water worlds of different classes. Domestic workers in particular are professionals in class negotiation (Dickey 2000; Ray and Qayum 2009). Crossing literal and symbolic class thresholds involves the spillover of physical bodies and materials, and also intangible things like ideas. In a domestic worker's transition over the thresholds between their employers' culture and their own, the culture of the employers' homes and neighborhood is rarely able to be simply left at the gate. The lessons and the chiding that come with the inculcation of modern, bourgeois aesthetics and ethics follow domestic workers home and occupy their mental spaces, challenging and creating a *mélange* of cultural markers for how to, as a middle-class wife and mother, manage a home properly, and hence, how to manage water properly. Simply put, domestic workers must grapple everyday with middle-class employers that ask them to use more water to wash their floors than the domestic workers' families have access to in a week. This exposure affects their identity as urban citizens and as stakeholders of the city's water.

The domestic workers of Delhi, India are very much like the water they use in their domestic work, and not just because they are foundational to everyday life in the city. They flow between houses, flooding neighborhoods during brief periods of the day only to recede into invisibility, often flowing back to the figurative "underground" of the city—the informal communities where they live. Both occupy an ambiguous identity of agents of purification whose own pollution causes anxiety about their admittance to middle-class spaces (Douglas 1966). Like water, the domestic workers of Delhi are

counted on to cleanse and purify homes of their dust, grime, and other impurities: a job which Dickey establishes is physical but also strongly symbolic (Dickey 2000). They are both critical living infrastructures of Delhi—the presence and working order of water infrastructure and these workers are what equally make the average back-lane street and the most extravagant, affluent parts of Delhi possible.

With Delhi growing ever larger and more thirsty—thirsty for water and for an upper-middle class lifestyle—resources are drawn from beyond the city to sustain its development. National papers, like *The Hindu* and *The Times of India*, continually report on Delhi's ongoing quest to source more water for the residents and industries on which its development rests. In-migrants also flow into the city each day, at the rate of three-hundred thousand a year. A growing number have left their rural homes, at times even proper homes with farm estates, to live in a place that they consider to be the future of India. But the future of India relies on the future of water in India.

Global water is not simply an apolitical substance whose circulation is even and natural. Rather, water is allocated according to its perceived value to uses that are deemed legitimate. The flow of water often follows the flow of power, and hegemonic water systems can be found globally. Decisions about legitimacy of life, of livelihood, and of lifestyle are forms of structural violence that are poignantly changing our world and these decisions are weighted with water. Before understanding the role water plays in injustice, it is important first to understand water in relation to life.

Water as Central to Life

How does one begin to understand the substance that is the basis for all life? Water is most often characterized by what it is lacking (color, taste, smell), but because it has life-generating potential, water contains much more. Modern science defines water as a chemical compound that is formed through the covalent bonds of one oxygen molecule and two hydrogen molecules. This simple, pure compound has long fascinated scientists as the precursor to and basis for life: Thales of Miletus, one of the earliest of the pre-Socratic Greek philosophers, proposed that water was the source of life; and millennia later contemporary missions to Mars seek water to confirm the possibility of interplanetary life. Yet, our elemental scientific knowledge of this substance does not comprehensively biograph water.

Exploring the history of water linguistically, its properties are further defined by cross-cultural descriptors linked to clarity and simplicity. Etymologists trace water through linguistic history, finding the nature of water to be differentiated by two distinct Proto-Indo-European roots. The root, “wed” referred to water much as modern science does today, as an inanimate substance with the potential to be used as a building block for life. However, this primary meaning was complemented by another root, “ap,” which corresponded to a dual notion of water as both the bearer of vitality and also a living force in itself. Defining water by its capacity to foster life and as an animate agent in vitality captures the deep relationship of water and life.

Contemporary social science scholars bring human-water relationship to bear in their increased interest in “hydrosocial” dialectics (Linton 2010:28). The social nature of water and its ability to generate social identities, infrastructures, and relationships renders water a generative source of social life, a reinterpretation of “living-water” (Strang 2004). Indeed, cultures have invented myriad ways to preserve their vitality through the control of waters, but waters also have had agency in generating cultures throughout history and geography (Kaika 2005).

Water in Dialogical Absorption with Culture

Water, as a life-bearing agent, must act in partnership with the inanimate and the living in order to generate life by being absorbed. This is to say that water is valuable when it is able to circulate within and beyond membranes, thresholds, and borders at micro- and macro-levels. This multi-scalar circulation, or flow, generates life and growth. Flows of water are necessary to people, to homes, to cities, to ecospheres, and to nations in order to create the basic foundations of life or of vitality.

Just as water is absorbed into people and things, likewise, water “absorbs,” or is inflected by, cultures in two distinct ways. Water absorbs physical cultural artifacts which are manifest to biologists, chemists, and keen-eyed users who examine water’s contents: suspended or floating, diffuse or crystalized, swimming or stationary. Water’s absorbed cultural artifacts, whether contaminations or enhancements, are also manifest to the non-

sentient, for example the aquatic bacteria that negotiate human detritus in the Great Pacific Garbage Patch or the rural topographies that are changed by hypoxic creeks. But beyond water's physical absorption of culture, water also absorbs the cultural *meanings* ascribed to it. The cultural meanings of water delineate the socially normative behavior towards allowing or accepting what water can physically absorb, and more deeply, the cultural meanings of water affect the rhetorical and symbolic absorptions that resonate with water's social identity.

Water's cultural meanings, though they may not directly affect water's physical composition, have the power to alter its substance. Cultural meanings alter water's function and being to represent more than those of a passive chemical substance. Across many cultures, water has been documented as having agency, most notably in the personification of water, including full human characterizations such as Old Man River, Mother Ocean, but also as having control beyond human capacities in its deification in Ganga, Vishnu, Anuket, Gong Gong, Poseidon, and so forth. Strikingly, in many of these depictions, water has an agency that is endorsed by society. The cultural process of classifying water by imbuing it with properties and characteristics multiplies the essence and capabilities of water. Cultural interpretation allows water to become more than water itself. But yet, water is not completely socially fabricated; it also has an indelible agency that can withstand the ascription of cultural meanings.

Water does not absorb without exception the cultural meanings ascribed to it—at times water defies these meanings. For example, the culturally ascribed values of certain types of water as healing or as contaminated reflect an expectation that is not necessarily met by physical reality. In more extreme examples, water that is considered manageable, such as rivers bisected by dams, often prove untamed. In this way, the essence of water remains untouched by cultural meanings. This is not to say that water's movements and character are devoid of anthropogenic causation. Indeed, processes such as damming affect the response of water but do not affect its essence. This is to say that even in the process of cultural interpretation, water retains a degree of agency in its definition. The cultural process of classifying waters, though it may not directly change the essence of water, creates a dialogical interaction. Within this dialogical interaction, there is a negotiation of agency between the cultural interpretation of water and its physical reality, resulting in the co-absorption of water into culture and culture into water. Hence, water is a deeply cultural artifact in itself, but also an agent in making culture.

In its dual role as a cultural artifact and an agent in making culture, water becomes a tangible substance through which intangible cultural values can be synthesized. Through looking at values of water that are present in cultures, a deeper picture emerges of the way social structures impact individual lives and broader cultures through processes of resource valuation and allocation. Water allocation operates through culturally constructed systems of social stratification, and as such, it is a traceable resource through which these structures can be examined. The study of water flows in culture additionally

provides insight into human-nonhuman relationships within and extending beyond the human biosphere. Because of its dialogical interaction with culture, water can both be a point of departure for studies of culture and also a measured effect of studies of social organization, civilization, and development.

Absorption: Water, Value, and Identity

The metaphor of absorption is further useful in understanding how the human allocation of water is a process that is linked to the transmission and absorption of cultural values about water and is a site for cultural and identity formation.

Human water allocation can be understood as the deliberate distribution of water with the intent that it will be absorbed by specific entities or tasks.² Allocating water to be absorbed by something emphasizes a statement of value between the scarcity of the resource and the value of the thing that absorbs it. As water is absorbed by the thing, not only the water is absorbed, but also the value of the water. Therefore, to allocate water towards a specific absorber is also to make a statement about the worth of the absorber. When water is scarcer, people are shrewder in their allocation of it, indicating more directly the higher worth of certain absorbers. Hence, water allocation can be read as a gauge of value for objects, places, and processes which becomes more reliable as water becomes scarcer.

² This holds true for uses where the addition of water would maintain or enhance the value of the absorber, that is, when water allocation does not devalue the absorber. For instance, deliberate human allocation of water to cleaning or to maintaining life, rather than allocations of water as a means of damaging property, processes, or situations.

Water allocation as a gauge of value also extends to the value of people: their lives, lifestyles and livelihoods. To allow people access to water to perform their basic and complex life functions is to deem those functions as legitimate and worthwhile (or in the very least worth the expenditure of the resource). Some of these values are inelastic and directly relate to the preservation of human life, but many other values—particularly those relating to lifestyle and livelihood—are culturally constructed allocation patterns that reflect the social structures of the societies from which they emerge. In particular, water allocation can be measured as a judgment of value that reflects overarching social structures which privilege certain types of human vitality over others. This can encompass how hegemonic governance institutions allot water to specific high-yield economic industries, how extended kinship networks regulate well access, or even how mothers may choose to offer water to their sons before their daughters. As social structures affect notions of the value of specific forms of life's preservation and vitality, they dually affect resource allocation.

Beyond this, absorption also describes how within cultures, social identities can be formed around differing patterns of water access. Water affects social identity in India to a large degree. Water access, allocation and legitimacy of usage at once produce and are a product of social identity. In many areas of the world, water is collected by women. The gendered identity of water collection creates a relationship between women and water that is different than with those who do not traditionally perform the task.

Technologies and infrastructures further mediate the relationship between water and people; this often is associated with class identity. In rapidly developing global megacities, middle-class residents' water is delivered to private taps through pipes and motorized pumps, which results in a very different relationship than those who must wait in public spaces for a commonly held allotment and manually carry their water home. The identity of "active water collector" in either of these examples can dictate vastly different ideas about legitimate water allocation patterns.

In turn, the method and level of access to water affects identity. Water access categories become culturally marked identities when water access levels are performed conspicuously, and this process is diffused, or absorbed, by people in cultures. There are many methods of identity expression that are related to performative water use. Signaling identity includes self-presentation which relies on comportment, grooming practices such as bathing or wearing clothing, and requires water to maintain. Delineations in the ability to reach socially-constructed levels of appropriate personal water use affect the ability to perform identity. For instance, to work in a middle-class office, it might be expected that an employee regularly bathe and wear freshly-washed business clothes. Without the water to support this, a potential employee could be out of a job. In this example, middle-class access to water is a prerequisite for the attainment of a middle-class identity. This extends to other material culture signals as identity can also rely on the maintenance of possessions which require water, such as a freshly washed car or clean, mopped floors of a home. But water use affects more than the outward

performance of identity. The ability to use water also affects peoples' inward perceptions of their own identity and self-worth, a speculation which often can carry over into their interpretations of how they fit into larger systems of social stratification.

Within society, resource allocation is closely linked to social status. Stratified, complex societies tend to have a hierarchical distribution of resources and this holds true for water. For this reason, water access can become a sign for a certain level of status. This is to say that status within a society can be indicated by displays of water wealth—as status is higher, a greater access to water can be displayed;³ likewise, simply by increasing displays of water wealth, a higher overall status might be assumed. Consequently, outward displays of water use are tightly tied with social identity.

In this sense, like other cultural values, the ritual practices and ethoi surrounding water are socially constructed. But this is not uniform—water behaviors and values are unevenly disseminated, resisted, and modified within societies and among its individual members. By regarding the exchange of ideas about water as a process of “absorption,” it accentuates the fluid nature of ideas (their ability to circulate) and the various possibilities of appropriation, including their rejection. By using the term absorption, rather than flow, it reinforces the importance of the agency of the absorber, reflecting the

³ Though sometimes, a deliberate forgoing of water can indicate an even higher status. This is because of two things: first, the value of conservation reflects current philosophies of the global high-classes, and second, the ability to renounce not only water but also the system of status production through water use reflects a high status that is beyond the need for further enhancement.

conceptual idea of a border or a membrane through which ideas must pass in order to become internalized or absorbed.

In this way, water is generative of cultural values and of cultural and identity formation. This generative capacity can be extended into other realms of cultural formation; the processes that generate from human-water relationships not only shape values and identities, but also broader generative processes like urbanization and the making of cities.

Absorption Giving Form to Urban Flows

As cities burgeon worldwide, governance institutions, urban planners, and residents undertake what often seem like straightforward, planned efforts to develop their urban centers into world-class nodes in global networks. In part, this means building the necessary strategies to accommodate new flows of resources and in-migrants which must be absorbed into the city.⁴ The planned absorption of new people and resources into urban centers is largely addressed by structural changes—developing land into new housing and employment facilities, piping, paving, and wiring neighborhoods. However, these efforts to structurally-absorb the influx of the materials necessary to build a city cannot keep up with the frenetic, rapid pace that characterizes the contemporary era of city and megacity proliferation. Even if on-pace, structural absorptions of planned cities

⁴ In this case, the word “must” is used in the sense that urban centers rely on the absorption of both people and resources to be demarcated as an urban center. This is different than the use of a reluctant “must” which would view the influx of “non-urban” people and things into cities as an obstacle to development.

are imperfect and complicated, just as cities are dynamic, ever-changing entities with fuzzy borders and subjective definitions.

This means that the process of formal city-making also must have a component of unplanned development—that the city must accommodate development through unplanned urban absorption. Unplanned development is often identified as the informal economies, squatter-settlements, makeshift or pirated infrastructures that proliferate alongside the formal, planned urbanization. However, although unplanned absorption involves the ways planned elements are incorporated within spaces that are intended to be developed or modernized, it also includes the absorption of these elements beyond their anticipated applications. For instance, when city planners install water pipes in communities nearby informal settlements, sometimes residents incorporate the infrastructure of piped water into their own communities. The impetus for the unsanctioned tapping of municipal water pipes goes beyond simply the convenience of water theft, rather, it can reflect the absorption of the belief that piped, municipal water meets higher, global, developed standards for water which should be preferred over “undeveloped” water delivery mechanisms. In this case, the concepts and aesthetics valuing piped water as a sign of development is absorbed into informal life. Rather than losing its meaning as a sign of development in its application in an interstitial place, the perforated pipes and the informal settlement’s absorption of piped water ethoi becomes a site of contention over the delineation of the concept of urban development, interrogating the limits of city-making.

It is precisely these limits of city-making and their dialogical relationship of absorption with water that are called into question in this dissertation. In one sense, city-making can be explained by the broad-scale movements of planned and unplanned absorptions of people and resources into urban centers in particular patterns that are collectively recognized as urban development. However, it is also critical to note that the application of structural, social, and philosophical patterns of development relies on people for their implementation—people that are active agents, collectively and individually. The notion of agency here directs the focus of attention to the conscious transportation of these patterns into everyday life. To see people as agents of urbanization, and their integration, or absorption, of urban patterns as connected to small-scale, everyday choices is a critical move to ground the broader discourse of disembodied, placeless, global scale movements both socially and spatially.

Social and spatial tensions arise from an absorber's interpretation and implementation of urbanization practices. Because the absorption of urbanization practices is not uniform, everyday interactions become sites of social and spatial tension where people must consider the terms more closely. These tensions create interstitial sites of ambiguity that define cities perhaps even more than the pure, uncontested instances. This is because these interstitial places are active sites of negotiation between urban and rural, planned and unplanned, modern and traditional, developed and undeveloped. Far more often, these dichotomies exist as layers of continua. To take one example, it is not a

dichotomous tension between urban and rural, but rather, the term urban is in consideration and negotiation with the peri-urban, the underdeveloped “urban village,” the rural small-scale town, and the illegally developed new urban construction sites. These ambiguous spaces are often rendered invisible by modernization processes (Latour 1996), as are the agents that actively make them. The invisibility of agents of city-making coincides with those who are also marginalized from development processes at large, which can be seen physically in their exclusion from infrastructure like water systems. This again indicates that water access affects identity, and furthermore, that the ambiguity created in imperfect processes of absorption is not limited to spaces.

Uneven Absorption and Ambiguity

The imperfect processes of uneven absorption discussed above create categorical ambiguities in objects, people, and places. Ambiguity results from transitions and negotiations of classification that are complicated and rarely linear or homogenous; hence there is a degree of categorical fluidity which creates ambiguous states. The uneven absorption of classification standards and practices creates ambiguity. For instance, water is an ambiguous substance whose ambiguity is affected by the uneven absorption. Water is often classified along a continuum of dirty or clean, although these values are not uniformly absorbed, or accepted, by everyone. Water’s provenance, the processes through which it goes, and its intended use are all factors that affect its classification. Water’s cyclical transitions also produce ambiguous states of substance. Like many things in transition, water is often too fluid to remain static in a final classification; rather,

it transitions in cycles or circuits, allowing water that was once classified as clean to be considered dirty once more. The relationship between cyclicity and ambiguity can also be observed for transitions of people and places. Also adding to the ambiguity, water can be at once “clean” and “dirty,” particularly if it is being considered for different uses. In this way, water can occupy two states at a time.

Ambiguity affects people’s identities in an equally fluid way. Like ambiguous substances, there are ambiguities in the classification of people because of their ability to hold, or absorb, multiple identities simultaneously. For instance, an urban in-migrant might both identify with their rural kinsmen and with their urban neighbors concurrently. The transition to becoming an urban resident is not marked formally, and if it is by a residency permit or a deed, to many this is simply a legal formality that does not necessarily reflect their actual state. Instead, the absorption of the new identity is gradual and subjectively marked. For this reason, when in-migrants make decisions about their instances of water conservation it may very well be their concern as a rural farmer, as a member of a rapidly desiccating city, or a combination of each. Like ambiguous substances, their state may not be fixed either, as people frequently oscillate between identities, allowing their actions to unevenly absorb one identity’s ethos or another’s. Additionally, like the classification of water, the process of classification for people is also ambiguous because classification is subjective. People do not uniformly absorb the identities or classifications ascribed to them. While an in-migrant may identify as a

member of the middle-class because of their middle-class possessions, another person may declare them lower-class because they lack formal water infrastructure.

In addition, spaces can be ambiguous due to uneven absorption. Spaces can be anywhere on the continuum of public to private, formal to informal, modern to traditional, and so forth. For example, domestic workers navigate interstitial places throughout their entire days. These places do not fit traditional classifications of class, privacy, and so forth because they are nexuses that absorb values from intersecting flows. Domestic workers' places of work are also private, family spaces and their informal homes, neither theirs nor not theirs, are at once part of and apart from the city. Their employers' homes may cycle from being more public to more private along with the flow in and out of non-family domestic workers. But this category also depends on subjective perspectives; while a child may consider the *ayah*'s, or nanny's, presence to not conflict with the private nature of the home, the *ayah* may never categorize her employer's home space to be private. In this way, spaces can occupy multiple states according to their subjective evaluation.

Just as ambiguities are a product of unequal absorption, so too do categorical ambiguities perpetuate uneven absorption. The categorical ambiguities in objects, people, and places reciprocally lead to further uneven absorption because of valued patterns of allocation or flows. Uneven absorption can be viewed as a product of varied evaluations of categories of water, people, and places to which allocation patterns are ambiguous. Fundamentally, uneven absorption happens when the circulation of substances, values, and identities

follows classification patterns instead of flowing freely and equally. These classification patterns establish hierarchical values that direct flows. But it remains that one of the obstacles both to equal and also to hierarchical absorption is the interstitial, ambiguous states of things in physical or metaphysical flux.

Absorption: Capturing the Anthropology of Flow

Flow is a metaphor that is used to talk about the movements of goods, currency, people, and values in an array of fields—a term whose use has proliferated in the social sciences along with the fields’ exploration of the term “globalization.”⁵ However, according to Rockefeller’s deep investigation of the metaphor, the term is problematic because of two consequences in the “managerial perspective” through which it is currently used (2011). He notes that from his compilation of the use of the term and its interpretation, flow often is characterized by smooth, “pure,” agentless movements. Like many critical anthropologists and geographers, he argues that the present constructions of flow metaphors minimize the importance of local, spatially grounded cultures while emphasizing instead broad, sweeping movements as the engine behind increased interconnectivity and social change. This undermines the acknowledgement of the significance of local instances where globalization is carried out by people who are the agents who drive the small encounters which become cumulative, broad flows (ibid; Escobar 2001).

⁵ Favero notes that although the concept was rarely used in the preceding decades when Deleuze and Guattari’s tertiary concept of *flux* was published, many English-speaking anthropologists began to borrow the translation of the term, “flow,” to describe large-scale movements during the 1990s focus on globalization because it coincided with the release of the English translation (2011).

A controversial change in the use of the word happened as “flow” was appropriated into the language of globalization, namely that it no longer explicitly articulated what was flowing. Because of this, Rockefeller ontologically differentiates flows of water with flows that are made of multiple objects or abstractions, highlighting the lack of specificity in the contents of flows such as “cultural flows” or “transnational flows” (2011:559). By examining flows through absorption, the absorbers and absorbed become central to the movement, bringing the content of the flow back into relation with the movements and stasis of the flow.

But not all theorists think that the division between flows of water and larger globalized flows must be so stark. Anna Tsing opens *The Global Situation* with an interdigitation of metaphors of global flows and flows of water (2002:66-7). In this conception of flows, internet connectivity, human migration, international capital, and global cultural ideologies move like water in a creek bed, suggesting that “to tell the story of the landscape requires an appreciation not only of the changing landscape elements but also of the partial, tentative and shifting ability of the storyteller to identify elements at all” (ibid.). Tsing highlights that when social scientists conceptualize flows, the cyclical, subjectively defined, multi-stated landscape is not always considered to be this complex. Tsing’s theory resonates with the idea that uneven absorption takes place in conversation with the ambiguous. The new model of uneven absorption and corresponding ambiguities responds to her urge for anthropologists to interrogate the premise of global

flows, including the anthropological paradigm of local resistance. Through the use of the metaphors of uneven absorption, the problem of scale is addressed while placeless, agentless “global” forces are in actuality found both emanating from and being absorbed into ambiguous objects, people, and places. Hence, there are local flows and global places, and this is evident in this ethnography and its application of uneven absorption and ambiguity.

The absorption of new cultural values has been examined since the beginning of anthropological theory by using different words like cultural diffusion (Boas 1938; Kroeber 1952). Like Tsing, cultural diffusion does not differentiate between the content or the process of the flows; flows of human migration are sometimes the mechanism by which the exchange of material culture and of cultural values flow. Absorption as a term also intervenes in the understanding of human migration, including the in-migration to urban areas. Migration patterns are often described as “flows” of people (ibid; Brettell 2000; Horovitz 2009). However, using the term flow emphasizes the “form [of] unbroken, agentless movement over any content,” which depicts people incorrectly as uniform homogenous objects (Rockefeller 2011:560). In the case of urban in-migration, by examining the concomitant absorption of people into cities and of urban practices and values into the lives of people, the large-scale agentless flow of migration patterns becomes anchored in spaces through people who control the flows (whether their own or others’).

In Deleuze and Guattari's seminal version of "deterritorialization," subjects acting in processes indeed go through a period of *flux*, or "flow," as they are dissolved into the processes by which they are defined (1987). In Deleuze and Guattari's example, a wasp's identity as an autonomous insect is superseded as it is complicit in the process of pollination, resulting in its identity of "becoming-orchid" (ibid:10). This is problematic in that it represents a full integration, or full absorption, of one into the other or into the process of interaction. In reality, the interaction only partially modifies identity and has some degree of mutuality. For example, as the urban poor wait and haul water from tanker deliveries, although they momentarily become stagnant infrastructure, they do not entirely lose their identities nor agency. This is to say that they are not completely dissolved into the process of water collection and they still retain a choice about how or if they will be integrated into the informal human water infrastructure. The choices of the water poor about their integration into water delivery methods does have some impact on the systems themselves, if not formally then to some degree in shaping the informal exchange circuits of water. In this way, the metaphor of absorption would reinterpret Deleuze and Guattari's phrase in the context of water in Delhi as "mutual semi-territorialization."

Many globalization theorists have reinterpreted deterritorialization in its broader application to large-scale flows which is contemporary phenomenon. They argue that, in an unprecedented way, global flows are driving the production of the local in processes of spatial, identity, and cultural formation, rendering their production "deterritorialized"

(Appadurai 1996; Gupta and Ferguson 1992). Culture, in this contemporary sense, can no longer follow the historical conception of theorists like Clifford who formerly wrote of its “expectation of roots, of a stable, territorialized existence” (1988: 338). In this way, new, enhanced, global connectivity appears to sever these processes from their geographical roots.⁶

Hannerz also champions applying anthropological studies of flow to the broad, global scale (1992). Yet, Hannerz avoids Appadurai’s opposition of global flows to local places by using flow to refer to both the ideas that circulate among cultures and also the “internal dynamism that [gives] any one culture its vitality” (Rockefeller 2011:561). This vitality is like the one produced in the negotiation of absorption of and into objects, people, and places. In this way, Hannerz’ notion of flow as vitality and process is concurrent with the “reinscription” of culture, or the “reterritorialization” of cultural production that Inda and Rosaldo suggest, though their context is largely spatial (2008: 15). These perspectives are exemplified in the vitality of the process of absorptions in Delhi. For instance, in the waterscapes of domestic workers entering middle-class spaces like their employers’ homes, the global standardization of cultural goods, practices, and ethoi is evident. As global water standards flow into Indian homes as cultural practices, they are modified by the specific cultural context of Delhi. In this example, the absorption includes a modification of the practice, interpreting the global aesthetic or standard of a clean floor into one that is washed multiple times a day to counter the dust

⁶ Rockefeller points out that Appadurai advocates remedying this through, ironically, a new genre of questions that rely on flow as an analytical tool.

that comes through homes' locally-valued open woodwork joints. In this way, the global standards for water allocation to produce clean floors is reinterpreted, or absorbed, into the Indian context.

Absorption is a way to ground the overarching metaphor of flows in small-scale, relatively robust, concrete places embodied by people with agency. It examines the ways that broader flows are captured, or absorbed, unequally by objects, people, and places. Absorption as a metaphor addresses the centrality of place. Instead of examining flows that transcend place, absorption involves a site with an outer layer into which flows enter. This relates to concepts of customization (Inda and Rosaldo 2002), subaltern localization (Escobar 2001), indigenization (Appadurai 2002), or, the “interpretation, translation, and customization” discussed by Tomlinson as the local’s counter to global flows of cultural imperialism (1999). These spatial absorptions rely on people to make active choices about which elements will be absorbed and in what way.

The role of people as agents in creating sites of ambiguity through uneven absorption is crucial to capturing the effects and dynamism of flows. People “do not always absorb the ideologies, values, and lifestyle positions...[they] always bring their own cultural dispositions to bear” which creates the unevenness (Inda and Rosaldo 2002:20). This absorption of flows recognizes that there is a transfer of something into a site that exists. With absorptions, the rate by which things flow inside is mediated and controlled by the unique properties of the outer layer. This outer layer is both the spatial site and the agent

which both determine the context of the absorption. This is to say that each instance of absorption is grounded in specific, local conditions that regulate what gets absorbed, how it is absorbed, to what purpose, and at what rate. The metaphor of absorption therefore recognizes the potential agency in the rate and composition of absorption and further posits that the absorption is not unidirectional.

The stark unevenness of global flows follows exclusive connections and widespread disconnections to establish places with uneven political, economic, social and infrastructural relations (Cooper 2005; Ferguson 2006). This patchiness can be explained as “awkward connections” (Inda and Rosaldo 2002) but it can also be explained by uneven absorption. Uneven absorption of flows, whether absorbed at the individual, cultural, or spatial level, both causes and is caused by ambiguity. Ambiguity of objects, people and places represent sites of partial flows peppering the continuum between the key, hyper-connected nodes imagined in global flows and the “black holes” of polarized exclusion described by Trouillot (2001:129). It is in these interstitial situations that there is more balance between views that privilege local realities and those of global cultural imperialism.

Methodology

In order to examine how these flows take shape as processes of absorption in spaces by agents, I conducted eighteen months of ethnographic fieldwork. To perform ethnographic data collection properly and with the least amount of disturbance to data

veracity, I followed many classic and contemporary ethnographic examples. This drew from four different steps in producing ethnographic data: project conception, preparation, and design; data collection; coding and analysis; and writing up the data.

Before going into the field, I designed my project in conversation and cooperation with University of Minnesota's Internal Review Board (IRB). It was based on a total of preliminary, pilot field research of nearly a year. I developed the project further when I sought input from my interdisciplinary examination committee that represented the fields of anthropology, English, geography, history, and sociology. In addition, I underwent language training to reach the advanced Hindi level before entering the field. These project development steps prepared me to commence with data collection as soon as I entered the country.

My data collection principles were grounded in both canonical and contemporary methodological practice. Geertz underscores the importance of the interpretive aspect of anthropology when he writes, "the claim to attention of an ethnographic account does not rest on its authors' ability to capture primitive facts in faraway places and carry them home like a mask or a carving, but on the degree to which he is able to clarify what goes on in such places, to reduce the puzzlement—what manner of men are these?" (1973). Towards this goal, I also followed sub-field specific ethnographic techniques on ethnographies of work, specifically in relation to laboring alongside workers (Smith 2007); ethnography and material culture, especially in my techniques to capture the

powerful non-verbal qualities of water in my writing to engage the reader as a co-producer of meaning (Tilley 1991), and sensory methods, which grounded my commitment to the documentation of the sensory worlds of my informants (Stoler 1989). I used H. Russell Bernard's methods for interviewing as a starting point, and also as an initial model for coding and analysis, specifically by beginning with his methods for textual analysis (2011).

I also recognize the central place of writing as another step in the creation of anthropological data. It is not only in the coding of data that choices are made about themes and their presentation. To this end, I followed the *Chicago Guide to Writing Ethnographic Fieldnotes*, especially during the final phases of developing thematic narratives, transposing fieldnotes into the ethnographic text, and imagining my readers (1995). Similar to Katherine Boo, journalist to India, I made the decision to remove myself from the text in order to prevent my readers from experiencing the narrative through me as an intermediary (2012). Although Ethnographies are ultimately an individual's interpretation of a narrative which they craft from particular embodied situations, my constant presence on the page would have been an encroachment to my focus on bringing the waterscape of Delhi to my reader as unadulterated as possible. As it is impossible to completely remove my presence and agency from the ethnography, I have devoted the following section to exploring it separately from the thematic chapters, as a site to examine questions of identity and practice.

Scope of Project

I acknowledge the importance of the ongoing conversations in academic literature on the issues of water, urbanization, and women at the broad scale and the conversation as it is embedded in the cultural context of Delhi. There are references to the literature throughout this study to orient the most germane points to canonical and contemporary texts. However, there is no pretension about this study being comprehensive in this regard. Rather, the aim of this dissertation is to elucidate and underscore the importance of space and agency on these issues through the sustained collection and presentation of primary-sourced data, which are the perspectives expressed by Delhi's urban water-poor.

Relying more heavily on the ethnographic testimony of marginalized populations gives informants dignity and a credibility as specialists (Nader 2012). To avoid the analytical weakness which is due to a disconnect between ethnographic data collection and theoretical discussion that manifests itself in improper analysis (Wacquant 2002), the connections that guided analysis are signposted throughout the study. However, it is because of potential for further marginalization (rather than due to a perceived antithetical relationship) that theoretical evidence is minimized. This is in part because the scope of this dissertation is that of induction-driven discovery, rather than deductive validation (Wilson and Chaddha 2010). It is also because unadulterated perspectives are critical to understanding how the marginalized are making sense of their lived experiences; their contributive roles in issues of water, urbanization, and gender; and their limitations and possibilities for overcoming marginalization.

While including a more comprehensive discussion of how these perspectives fit in with the sustained trajectories of anthropological theory and South Asian studies on the issues of water, urbanization, and women would have deepened the implications of the findings, the choice to limit the inclusion of these perspectives instead highlights the crucial turn of the recognition of the agency and authority by which the voices of the marginalized should be regarded. By establishing this text as both an argument for these challenges to be more inclusive of the vast diversities among the population of Delhi's urban water-poor, it would be remiss to further disempower the voices of these marginalized populations through the use of references that serve to "legitimize" them through ongoing conversation with the academy.

This study has been guided by the commitment to giving a rich, informational backdrop to the issues of water, urbanization, and women by establishing informants as social theorists themselves. This is reflected in the conscious reliance on their testimonies as the major organizational context of the study. It is also reflected in the choice to use the present tense for contributions. While there are prescribed style guidelines for referring to academic authors in the present tense to reflect the importance and relevance of their contributions in ongoing academic discussions, there are none such for informants. In order to underscore the equality in importance of these sources—published academic theorists and marginalized informants who possess specialized insight—the testimonies of both have been presented in the same tense. The reliance on a greater quantity of

informant-driven theoretical discussion provides a unique contribution to the academic discussion. Further, it sets the framework for future inquiries which have broader, theoretically-oriented scope. The inclusion of this sustained dialogue was beyond the scope of this project, but will be the natural second step to analyzing his data in a crucial theory-driven future project which will complete the ethnography-theory dialogue through deductive validation (Wilson and Chaddha 2010).

Dissertation Overview

The aim of this dissertation is to ground the new paradigm of absorption in ethnographic context, specifically by examining water in the cultural context of lower-class Delhi. The dissertation has been framed by a historical overview of the hydrological infrastructure, governance, and social exclusion in Delhi. Next, the dissertation research is grounded in the setting chapter. This chapter delves more deeply into the specific context of the research, including the fieldsites, the methodological challenges, and the role of the ethnographer. These framing chapters will hone the reader's understanding of the cultural context of the research in preparation for the four thematic chapters that follow which establish absorption as a model.

The first thematic chapter explores the disparity of Delhi's water access and its inextricable association with the flows of women, time, water, and money. These flows are salient and enter into narratives of development through the perspective of domestic workers, who are embroiled in flows as they cross literal and symbolic thresholds of

affluence every day, and their neighbors, who feel that even in the most affluent slums of Delhi, their lives are defined by stagnancy. It argues that even in lower-class Delhi, there is uneven absorption of people into neighborhoods and also into the economic life of the city. Those who are more deeply absorbed into the city's economic circuits are able to circumvent water scarcity. They do so through the absorption of water values that are marked by the current rhetoric of corruption. By comparing working lower-class women to corrupt government officials, it underscores the transformation that takes place as lower-class women are absorbed into the middle-class spaces of the city, and the urban middle-class values are likewise absorbed by the women. These new values are tracked by their neighbors through their changed ability to access water. The chapter establishes the significant change in water access as lower-class in-migrants become more deeply absorbed into the world-class city.

The next chapter tracks the flows of lower-class in-migrants as they are absorbed into middle-class spaces. It reveals how the transformation of a resident into a worker requires flows of water to maintain. The transformation also requires the ability for workers and ideas about water to flow past the rigidly protected borders that define the middle-class. As middle-class water ethics are inculcated in domestic workers, both compliance with and resistance to new water management techniques manifest themselves in the homes of employers. The chapter argues that as domestic workers are absorbed into middle-class domestic waterscapes, their absorption is not entire. Further, the training that they receive in order to become absorbed enough to reproduce middle-

class aesthetics around water use is not absorbed passively. This establishes domestic workers as reflexive agents who control their absorption of these values.

Domestic workers' reflexive agency extends as they selectively import water ethoi to be absorbed into new spaces. The chapter examines the context beyond the concrete, middle-class thresholds, into which global standards of imported water ethoi find mixed acceptance. While the previous chapter examined how flows of water and rhetoric of legitimacy are inculcated in the work environment of domestic workers, this chapter considers the penetration of water ethoi beyond middle- and world-class contexts and into tenements and slums. The chapter further develops the reflexive agency of domestic workers in their ability to interpret global flows in their own spaces. It shows that domestic workers subjectively delineate practices for the absorption of middle-class water values into their interstitial spaces. This foregrounds the importance of space and how informal slums and formal tenements absorb the middle-class water values in different capacities.

The question of space and absorption is further pursued in a discussion of the wider implications for the absorption of middle-class water values for the city at large. The chapter explains the ramifications of domestic water allocation on the urban ecosystem, particularly in the interactions among the city's waterscape, green spaces, and urban poor. Support for infrastructures, like functional green spaces, allows indiscriminant participation in the political, economic, and social vitality of the city. This support can

come from the city's most water-poor communities. This chapter establishes how urban spaces are absorbed into nature and how nature is absorbed into urban spaces through a deeper look at the dialogic relationship between urban and natural flows in the production of vitality. Further, it shows how the failure of one of these flows impacts the ability for residents to circulate and be absorbed equally into the city.

These themes and their relationship to the dissertation's thesis supporting absorption as a means to capture flow are discussed vis-à-vis ethnographic evidence throughout the dissertation. The concluding chapter serves to reorient the reader to the broader implications.

This chapter has established the focus of the dissertation. It articulated the co-constitutive relationship of flows of water to cultural flows and explained the ways that water is associated with the production of hierarchy in culture and how that hierarchy also affects water. It connected the overarching metaphor of absorption to the contemporary literature on globalization that currently uses the metaphor of flow. It addressed how absorption can mediate the problems of agent and space in the conception of global flows. The chapter concluded with an overview of the dissertation argument in relation to the themes explored by the ethnography that follows.

Chapter 1 –
Boond-Boond Se, Drop by Drop:
Building a Body of Water Knowledge

This chapter provides a setting for the field research in three senses of the term. It situates the two primary fieldwork sites in the broader historical and cultural context of Delhi; situates the research in a deeper discussion of methodological practice; and situates the ethnographer within the field research by describing the relationships that were created through the execution of the research project. Through examining the practice of ethnographic research in the specific context of this research project, readers will be able to understand where and how context-specific particularities could have affected research outcomes.

There is a saying in Hindi, “*boond-boond se sagar bharta hai*,” meaning, drop by drop the ocean fills. This proverb articulates that the world’s most immense bodies of water are made up of numerous smaller drops that are seemingly insignificant. This can be taken to understand the process of knowledge creation around global water, too. In order to understand water disparity, it is critical to look deeper into global water by examining it in terms of the contexts of specific countries, regions, cities, neighborhoods, pipelines, and homes. The dynamics of how water flows in the specific hydro-contexts of these smaller settings ultimately make the totality of global water movement. This begins with understanding the way that water flows through specific hands in specific homes which are impacted by their foundations in a specific neighborhood, geographically and culturally. This research is a “drop” into the ocean of knowledge about global water disparities.

There are many studies, or “drops,” that already describe the context of water in India and, more specifically, in Delhi (CSE2012; Narain 2007; Zerah 2000), though rarely attempted to describe Delhi’s waterscape from the point of view of the urban poor (Joy 2010). There are similarities between Delhi’s poor and the disenfranchised in other global cities (Bannerjee and Duflo 2007; Barlow 2007; Davis 2006; Shiva 2002). However, Delhi’s specific historical, geographic, and cultural context make it different than even India’s other megacities and a close study of the flows of water through Delhi can provide broader implications for global water disparity.

Delhi’s lower and working classes are not homogenous. Their methods of water collection, distribution, and disposal are just as varied as their styles of housing, economic exchanges, family structures, and hopes for the future. As such, this study seeks to bring new insights to the variety of Delhi’s hydrosocial flows by examining water in the context of the diverse lifestyles of the urban poor. In so doing, it also will bring light to the respective opportunities and barriers that stem from their diversity that affect their ability and willingness to adopt new water practices.

This ethnography covers two different styles of housing inhabited by Delhi’s urban poor. Delhi, as a self-fashioned world-class city, seeks to mitigate the world’s perception of it as a developing city and through this seeks to limit the visibility of its urban poor. This has resulted in a bifurcation of the urban poor into two categories: the visible and the invisible. In part, the visible poor are those deemed to be destitute, living on streets with

or without makeshift tents and are those whose transience has been more deeply anchored as squatters with semi-permanent hand-built *jhuggi* huts. In an effort to wipe this population from the streets and the line of sight, the city has undertaken many schemes to clear slums, some relocating the homeless and squatters to formal, often remote, housing units. This makes the issue of urban poverty comparably invisible and consequentially, the needs of the invisible poor become less central to the everyday experience of the city.

This study takes city officials' bifurcation of the urban poor into account by examining two "slum" communities: a formal tenement community and an informal squatter settlement, or *basti*. The sites of these were not chosen at random, rather, the specific areas of study were each selected because of their juxtaposition with and proximity to neighborhoods that exemplify the world-class urban aesthetic.

The formal tenement community and the informal squatter settlement are located in the heart of Delhi, respectively in Central and in South Delhi. These two neighborhoods are important governmental, economic, residential hubs in the city. They also have historical geographic roots; Central Delhi was initially settled as Mughal Shahjahanabad and later British New Delhi, and South Delhi comprises four other of the city's eleven incarnations.⁷ The *basti*, Panchtare, is only beginning its third generation of consecutive settlement, whereas the tenement community, Zamrudpur, has historical lineage that can be traced for hundreds of years. However, these two communities both share an exponential influx of urban in-migrants in the past thirty years. This significant

⁷ This includes the settlements of Rai Pithora, Mehrauli, Siri, and Tughlaqabad.

population increase and demographic change has meant that the water patterns and ethoi of the areas have been under great internal scrutiny.

Situating Zamrudpur

Delhi's population growth, particularly mitigated by in-migration and the push to formalize housing, its development and infrastructural goals, as well as economic liberalization have all affected the historic Zamrudpur village. Zamrudpur is a microcosm in which Delhi's broader changes can be seen operating, but it also is inflected with particular circumstances that make its historical trajectory singular.

As Delhi has grown, the enclaves of middle-class areas have grown, too—in size, in breadth, and in frequency. In the past generation, South Delhi has become a middle-class juggernaut that has emerged as one of Delhi's poshest areas. Land speculation and new-construction, multi-family, luxury condominium flats are changing the face of what used to be a more modest community. South Delhi, like many other neighborhoods in the National Capital Region is speckled with many working-class communities whose residents fulfill various important roles in the area. One such is Zamrudpur, a working-class legal tenement colony which houses around 67, 000 people. Its area of 3.4 hectares is full of two- to eight-story tenement buildings with breathless hallways, balconies tangled with electricity cables, and centimeters-wide gaps between buildings.

The nature of Delhi's historical literature is such that individual neighborhood histories are rarely published. A few neighborhood histories cover areas that have been considered sites of major events or the neighborhoods of the most elite. The everyday neighborhoods of working-class Delhi have not yet found a place in scholarship. Despite its historical roots, the dynamic history of Zamrudpur is not well known. In the National Archives and in the regional Delhi Archives, mentions of Zamrudpur are so rare that one senior archivist clearly remembers his surprise running across it in an historic Persian poetry collection about the different neighborhoods of Delhi which has been indefinitely requisitioned by a higher official. With the dearth of the written record, the history of the neighborhood can only be found through oral history.

One of the most fastidious living experts on this history can be found in one of the large tenements adjacent to the Zamrudpur main market, past the parking lot and through the narrow pedestrian walkways between the cramped buildings. Chetram Chaturvedi, Resident Welfare Association (RWA) President and sharp septuagenarian, greets his guests from a charpoy in his front room. A two by three meter painting of Arjuna and Krishna surging forward in their chariot on the way to battle hangs over the spacious front room. He walks through the airy floor-to-ceiling wire fence that divides his front room from the sitting room and rummages through the cupboard for the stack of photographs, contracts, and copious notes in various scrawled handwritings that make up the bulk of Zamrudpur's history.

He pulls out an old black and white print of a few water buffalo up to their haunches in water, their muddy hoof-prints receding into the blurred edges of the frame. He describes Zamrudpur as a previously rural outpost of Delhi, a place where riders could stop to rest and a place where herders often brought their animals. Zamrudpur's water history began here, as a small village on the cusp of the growing city. The photo is unrecognizable as a part of today's Delhi, though with its resemblance to 1980s, pre-economic liberalization Gurgaon, the dramatic transformation from bucolic waterhole to cityscape does not seem implausible.

In Chetram's mind, Zamrudpur plays an historical role in the formation of modern Delhi. The founding family of the urban village was originally from Rajasthan and settled in Haryana six hundred years ago. Four hundred years ago, their descendants shifted from Haryana to Delhi and settled largely in present-day South Delhi. A Gujar man still comes from Rajasthan once a year to record the births and deaths, a tradition, Chetram explains, that dates back just that far. Seven generations ago, Chetram says, a family that had four brothers settled at this site. This family was responsible for founding the plot of land that would eventually delineate Zamrudpur and some of the surrounding areas. In Chetram's words, "All of Zamrudpur has been built from the blood of four brothers. We are one family."

The notion that an urban neighborhood can be more than a cluster of strangers is a constant refrain with Chetram, "*Ek hi parivar hai*," he interjects, "We are just one

family.” But this past is not completely bound by sanguine ties. Chetram describes that five generations of his family before him have lived in Zamrudpur. Like many other families, Chetram’s was called to join relatives in the new settlement—a story that is shared by many of the tenement renters today.

But it is not only renters that have brought outside influence to Zamrudpur. A large inflow of new residents has contributed to making the community what it is. He recalls that when the capitol shifted to Delhi, the British confiscated a lot of lands from the area, compensating the families twenty-five *paise* per plot. He searches through his cabinet’s myriad overstuffed folders to find the receipt. He explains that Partition again required residents to surrender land. The Hindus that arrived in Delhi were given plots in Lajpat Nagar, East of Kailash, and also Zamrudpur. He estimates that the free plots of land were about one hundred meters each, and estimates that now those plots are worth *crores*.

In his lifetime, he has seen that where there used to be *jhopadi*, now there are *pukka* flats, and many new people to fill them. He described that the buildings came slowly. Before, there was no electricity, and a public oil man would come from Merauli daily to fill the streetlamps with oil and again to shut them off in the morning. The water infrastructure was also minimal, but self-maintained. Now, Chetram says, Zamrudpur must rely on the rest of Delhi to “give enough importance to water” so that each neighborhood can be fairly allotted enough. He says that it is a problem that there is “one-hundred percent dependence on Delhi Jal Board,” and he is frustrated that Zamrudpur complied with the

mandate to close its privately maintained water sources, while new middle-class personal homes have built ones after the mandate.

Zamrudpur is certainly feeling the pressure of water scarcity. Nowadays, sixty-seven thousand people live here and the landlords number about two hundred and fifty families.⁸ The RWA controls “*chota mota funds*,” which they put towards repairing roads and sewers.⁹ Recently there have been discussions about improving the sewage lines that run through the neighborhood. Because of the population increase in the neighborhood, eighteen inch pipes are required, but the colony faces difficulty in getting an upgrade and still is relying on ten inch pipes. The copies of petition letters that Chetram fans across his coffee table span the past three years, and though the government has promised the implementation, no new pipes or crews have arrived. Yet, he smirks, the sanitation and water bills have arrived, and the fees have been raised a drastic fifty percent in these past years alone. The pressure of population is not just in Zamrudpur, that “population *Hindustan ke samasya hai*,” Chetram says, “population is the problem of India.” These larger national trends can be seen in his neighborhood.

⁸ The landlords are largely government employees, civil servants whose jobs used to be more elite, and although still prestigious today, they receive less pay relative to other multi-nationally involved occupations. The idea that the landlords are still a “service class” resonates with Chetram’s idea of the Gujar caste, whose martial history means they are strict and strong. Chetram believes that this foundation in a largely Gujar community means that residents have learned to make decisions according to consensus, and this translates directly to water.

⁹ The RWA does not take care of any local parks, as the RWAs do in the nearby middle-class neighborhoods. They say this is why they don’t need to collect as many funds from the residents. However, they do sponsor teams for Volleyball and also Cricket for inter-RWA competitions during holidays like Diwali.

Zamrudpur has suffered greatly from the growing middle-class enclaves and consumption patterns that squeeze them from all sides. Contemporary Zamrudpur is located on the bustling purple metro line, connecting some of Delhi's wealthier areas. It is tucked away off the main streets, behind vibrant businesses—both storefronts and street vendors. Its location puts it between two private schools, and it is flanked by a public park. It is also very close to Lady Sri Ram, a prominent women's college. The residents of Zamrudpur contribute a lot to the vibrancy of the area by providing necessary services in terms of employment, economic consumption, safety, and civic responsibility; however, many people do not even know the neighborhood is there.¹⁰

To Chetram, this lack of recognition also translates to a lack of consideration. He explains, “the middle-class enclaves nearby are the worst offenders; they have four cars in each family and wash them daily, they use a washing machine and after using the water once, throw it away.” Additionally, he says, eighty percent of people in Greater Kailash and East of Kailash rely on water from illegal borewells. The borewells, while on private property have ramifications beyond the property line as they bring the water levels down for the entire community. The private access, Chetram underscores, gives their illegal owners undue priority in water collection. It is this same lack of consideration for others that separates Zamrudpur village from what Chetram calls the “*hi-fi*” way of life. “*Yha pe Hi-Fi hai to nhi*,” he underscores, “there are no *Hi-Fi*, or *Bde Log*, here.” This ambiguous identity of being both a part of the middle-class city, but

¹⁰ This was underscored by my mentees from Lady Sri Ram, who exclaimed that they had no idea that there was a colony there, nor a tenement colony in that condition.

also separate from it is, in this way, not a point of frustration. Zamrudpur residents share Chetram's sense of pride in their "village" culture.

Chetram stresses that it is residents' conception of the community as a "village" that makes them value community bonding. "*Humara culture ek blood relation padampada hai*," he reiterates, "Our culture is based on blood relations" which is similar to the social structures of rural India. He says, "Just as the business man looks down on the *chai-wallah* for having no *Hi-Fi* belongings, so the *chai-wallah* looks down on the business man for having no culture." In the nearby middle-class neighborhoods, he says, there is no culture. He illustrates this by telling a joke about a four story building in Greater Kailash, "The first floor person does not know the second floor person, who does not know the third floor person, who has no idea who lives on the roof." But in the urban village of Zamrudpur, he argues, because everyone knows everyone else, there can be cooperation. Chetram explains that there is a deep difference between the "friendship culture" of the "VIP" areas and the "relationship" of the people in Zamrudpur. He explains that neighbors here are treated like extended family members. "In this colony," he underscores, "if there is a marriage, the celebration invites everyone in the whole lane for all the activities, and for births, sweets are distributed to the whole village." This cooperation and inclusion is not relegated to important symbolic gestures of big events, rather, it is a part of the everyday, mundane tasks of a neighborhood that includes addressing failing water infrastructures.

Situating Panchtare

With the growth of Delhi's middle-class, the changes in Delhi have not solely been in a linear, forward progression. While the majority of processes have led to gentrification, there have also been parallel processes that would be considered a form of backwards progress in the eyes of developers. In part, this is reflective of the fact that as the city—namely the city's housing and water infrastructures—modernizes, the process is incomplete and leads to the improvement of some to the detriment of others. One place that shows this second trend in particular is an informal “slum” settlement situated in the heart of the Embassy District. Embassies from all over the world flank Central Delhi's Chankyapuri streets, both physically and symbolically lending force to arguments of Delhi's world-classness. Central Delhi also boasts some of the city's most elite private schools and several five-star hotels. But turn a corner, or cross a park, and the true range of the economic and social living conditions of Central Delhi becomes clear. Panchtare *basti* is an illegally built slum community that occupies a 1.8 hectare plot of land that an embassy surrendered during political turmoil.¹¹ It is the home to about six-thousand residents, many of whom work in and otherwise contribute to the neighborhood outside of the *basti*.

Like Zamrudpur, the story of this community does not appear in historical accounts of Delhi. However, its origins are alive in the oral history of its older residents and its NGO workers. The NGO field director explains that Panchtare, called a “camp” in

¹¹ To further describe the events that led to the founding of the *basti* would put its residents' anonymity at risk. Because this ethnography describes some illegal water harvesting practices, it is conventional to withhold the exact location.

international circles, has its roots in a long tradition of temporary camps in Delhi. She explains that during and after Partition the area hosted refugee camps. This, she says, contributed to a more relaxed notion of temporary squatting. The contemporary settlement of Panchtare was formed about twenty-five years ago, when an embassy abandoned its mission. It was not too soon before squatters settled the area by building *jhuggis* on the vacant land. Despite frequent threats of evacuation, the community has since only expanded. It now forms two distinctive lobes, its expansion beyond the initial embassy territory briefly interrupted by formal buildings beyond tall barbed-wire fences.

The single-story construction method of each family's *jhuggi* means that fewer families can live on the same plot of land than if homes were constructed vertically, like in Zamrudpur. This limits the boom of population growth and construction. However, the informal building techniques also have resulted in narrow lanes that jog and weave, bottlenecking pedestrians and the odd cycle resulting in a feeling of congestion that gets overwhelming during water collection from tanker drop-off sites and community taps.¹² The community is similar to Zamrudpur in many ways, but is also very distinct. Like Zamrudpur and other tenements, Panchtare and *bastiya* like it house a large proportion of Delhi's rural in-migrants. In-migrants, especially women, find that domestic work is a common initial entry point to the city's informal economy for workers of any age or

¹² The water delivery mechanisms will be discussed at greater length in chapter 3. The residential water delivery mechanisms—the communal taps, ten-thousand liter capacity tanker trucks, and civil lines—require residents to wait for thirty minutes to five hours a day. The delivery hour sometimes coincides with school timings, work schedules, and sleep. For those in the *basti*, this means waiting in a public place. Those in the tenements have a similar waiting time, but their homes are much closer to the water source, so this allows tenement-based collectors the ability to engage in household activities during their wait.

gender regardless of their previous work experience. Other typical occupations include security guards, auto-rickshaw drivers, *kabadiwallahs*, shop-hands. Although there is a lot of occupational overlap in the two communities, more tenement residents meet higher eligibility requirements for employment, compared to fewer residents in the *basti*.

But even within the *basti*, there is cultural and occupational variety. The *basti* can be divided into two sections. These sections, Embassy side and Road side have very different histories, cultures, and economic circuits. Embassy side was settled first and is in their third-generation, while Road side has been slowly filling in over the last ten years. While only forty percent of Embassy side residents are original settlers, many more still own their *jhuggis* but rent them to tenants. Some of the tenants are entire families, but many are working men that room together in order to send more remittances home. Exposure to the city's more diverse economic circuits than those in rural India, this has also meant a relaxation of gendered cultural expectations to include women in outside work. There are fewer men working on Embassy side than on Road side, and rates of illegal (criminal) work and gambling, though present on both sides of the *basti*, are much higher.

Changing economic practices have also affected the family life of those living in the *basti*. On Embassy side, there are more instances of nuclear families living in *jhuggis*, whereas on Road side, traditional joint family structures are still common. The average family size, six to seven, is similar on both sides of the *basti*, as well as in the Zamrudpur

tenements. Often, families will have members of their nuclear or joint family living in a property that is jointly owned in their origin village. These villages operate on a subsistence economy. The move from these villages almost universally represented the first experience of in-migrancy, in both the tenements and the *basti*, with a market economy like Delhi's. Not only do these changing micro-economic circuits affect economic participation in the greater city-wide economy, but they also generate ambiguous domestic spaces where families must decide how to value exchange of domestic labor, financial resources, and vital natural resources like water.

Although on the surface, it appears that many families have shifted to nuclear households, in fact the social fabric of India's traditional extended kinship are imported into these transitioning spaces. This is both observable by and a cause of language-based migration. In both fieldsites, the common language of communication was Hindi. However, regional languages were spoken in clusters throughout. This reflects the method of "calling" someone into the city. The majority of in-migrants came to Delhi, and their particular living situation, through the word-of-mouth recommendation of relatives or members of their home village with whom they could claim distant relationships. When rural kin decide to come to the city, they reach out to contact those in this kin-based social network to help them make the transition. Often, this results in pockets, or clusters, of in-migrants coming from the same village and settling in the same area.

While these clusters also affect other cultural aspects such as the value of water, measuring neighborhoods on the whole resulted in a more normative sample. This is to say that elements like religion, for instance, when taken in one single cluster may have been skewed toward Islam, the neighborhood demographics on the whole reflected religious statistics that more closely paralleled statistics from greater Delhi, or India on the whole. In this way, the clustering of cultural identities, and hence cultural values about water, could be corrected by sustained, broad interactions throughout the communities.

Situating Methodological Practices

Used indistinguishably from the other iteration, Hindi has another saying, “*boond-boond se ghara bharta hai*,” or, drop by drop a vessel¹³ fills. This proverb highlights the patience and steady effort by which tasks are ideally undertaken, and also engenders appreciation for seemingly insignificant contributions that collectively make a project complete. With many proverbs holding over from centuries and generations of retelling, their imagery and symbolism are often antiquated. However, this proverb could not be more relevant to my examination of contemporary water allocation questions in Delhi.

My ethnographic research began with simply sitting with the women, children, and occasionally the men that joined us, on overturned vessels on the periphery of Panchtare *basti* and later by standing in the hallways near the water tap in the Zamrudpur

¹³ Ghara translates directly to “pitcher”

tenements. We waited together—for the spurt of the communal water spigot to gurgle as the civic pipes were infused with water below, for the long plastic *pipe*, or hose, to be passed to the next outstretched hand, and for the inevitable slowing of the flow to a trickle. As the water pressure was short lived, the majority of our time was spent in this first phase, alert and staring longingly at the lifeless spigot. Sometimes this wait began immediately when the trickle petered out into a slow drip, even though it would be another ten to twenty hours of waiting before full pressure would return. A person would put their *bartan* underneath the slowly dripping drops that swelled from the spigot seemingly only slightly faster than the speed of evaporation. The *bartan* would collect each drip that rolled out of the spigot's now hose-less metal lip, or from a leaky pipe joint's shopping-bag tourniquet. Drop by drop a bucket fills.

The swelling of the crowd that joined in the slow, fixed wait would begin at the spigot twice a day. One by one, we would gather. Each day at a time I would meet someone new, start or deepen a conversation. Each of these encounters at the water collection sites built upon the next until I found that, like a bucket, my ethnographic notebooks were full. The processes of waiting every day for interviews, conversations, and for larger community events was sometimes extremely slow, and whole days would only result in a few lines in my notebook. But, like the residents' experience in their similar anticipation for water, at times there was a bubbling, gushing flow of conversation that was difficult to capture and control. Just as the crowd directed the flows of water, I grappled with how to direct flows of conversation.

Situating the Ethnographer

By encountering people as they were collectively waiting for water, individuals were in a comfortable space surrounded by their peers. It was difficult for some to initially understand my presence. Why was a *firengi* woman in Panchtare or in Zamrudpur, waiting by the water pickup sites, without *bartan*, without *bhartaa*? My conspicuous presence as a foreign white woman waiting to collect water without vessels and without a husband was illogical to some, and to a few men, an opportunity. But after waiting together for a week, more and more of the residents of Panchtare invited me to conversation.

After the water tanker delivery, as scores of my informants took-stock, gathered, and carried home their heavy vessels, I was initially left conspicuously clutching my pen and fieldnotes. I developed a constant refrain offering to help carry water home for families. After a few weeks, my offer began to be accepted, and later, was assumed as a duty by certain families. It was also met by offers to come study the interior water taps of the *basti*.

To my informants, I was known by many names. In the beginning, I was almost exclusively called *Didi*, or sister, especially by the beautiful, energetic children of the *basti*. My crossings along the intricate network of lanes and gullies of the community was punctuated by high-pitched choral refrains, “*Namaste, didi, didi, Namaste!*”

My volunteered participation in the chore of collecting and hauling domestic water enabled me to be incorporated, or read, as a daughter of the community. The explanation that I was at Panchtare to complete a “school report” furthered the notion of me as an unmarried daughter, since plans for marriage usually commence once a girl has finished her schooling. This has to do with women and housework.

My relationship as an insider was also explicitly confirmed. One day waiting for the tanker, the high-noon sun felt particularly draining. Though I had switched to a light *salwar* and *dupatta* set, the heat made my skin endlessly bead with milky-white sweat as my sunscreen rehydrated and washed away in the outpouring of liters of fluids through my pores. Nahlah,¹⁴ who would become a main informant, sat with me and instructed that I should wear my *dupatta* over my face in the same manner as she to guard my skin against the darkening effect of the sun. While I clumsily shaded my face with the scarf, we giggled and resumed talking. But when Chandani-devi arrived, she sternly scolded me for keeping *purdah* in my natal settlement, “You are a daughter, not a wife.” Having just accepted a “wheatish” bride for her second son, Chandani-devi was perhaps uncharacteristically protective of the bridal spotlight on her own home, but nonetheless, her comment indicated the inappropriateness of me behaving as anything other than a

¹⁴ The names and identifying characteristics of collaborators have been changed to protect their anonymity, unless they wished to be named. The new names all were selected to reflect the cultural background and character of the collaborator. I chose to select common names that have meaning in Hindi, Urdu, Sanskrit, and English that are tied in with the theme of water. Some are direct, like Sanskrit “Jeevika,” which means water, while others like “Anita” derive from Urdu and Persian as the name of a goddess of water, but also reflect her role in the community to reflect its Sanskrit meaning “a leader without guile.” Some names, like “Piyush,” or the drink of the gods, are near interpretations of the theme.

daughter. In an incident during her first years of fieldwork, Raheja experienced a similar scolding. (Raheja xxiii; 1994).

My decision to live separately from my fieldsites in a middle-class neighborhood was three-fold, but largely reflected the danger of acting inappropriately. First, the terms of one of my grantors required me to live in formal, legal housing. Second, as an unmarried woman in Delhi, it was important to live in a secure community, which included keeping male informants at a safe and irreproachable distance from my personal life. Third, in conducting long-term research over a period of eighteen months, it became important to delineate a personal space where I could have all the liberties that I needed. During my fieldwork, my role as a woman was prominent. Certain allotments were granted to me because of my status as a student and a foreigner; however, I was still held to a strict moral code that I did not think I could maintain throughout my entire length of research. My informants were insatiably curious about certain aspects of my personal life. In the spirit of reciprocal sharing, I wanted to allow them to learn about my life as an American anthropologist just as I learned about Indian life through them. Yet, the distance of living separately afforded me a critical element of selectivity. I was able to have the ability to share the things I deemed would not have a major effect on the research questions, for example, that I washed my own floors and clothes, and the ability to suppress others, for example, that I was able to take days off from work each weekend, or how I chose to spend that time. In my experience, my male contemporaries were able to live in the world of their informants without as high of a barrier for information. The same

American leisure activities and household management that can be forgiven of a male anthropologist is often damning for a female anthropologist. The separation of my home life thus afforded me a degree of personal safety, while also safeguarding my reputation, and maintaining more neutrality in my role as principal investigator.

As my relationships grew more deeply on-site with a few of the families, they gave me a home name, *Gori*, by which I was addressed familiarly. *Gori* is a familiar nickname used in many Indian households to compliment the fairness of a woman's skin or her beauty. My conspicuously fair skin and blonde hair, comparably pale, made this familiar household nickname an obvious choice in a few different households. As *Gori*, I was able to participate more fully in the household's day-to-day activities.

My proper given name, Heather, was at times taken as *Hyder*, which is a Muslim name generally used for males.¹⁵ The confusion over this made my informants attribute some of my strangeness to a very confused upbringing at the very extreme, and to religious difference at the least extreme. The groups of women and children with whom I shared greater acquaintance learned that "Heather" is the name of a purple flower from the Scottish hillsides. When I explained this, many were charmed that both Americans and Indians sometimes name their girls after flowers. However, even knowing this, I was still

¹⁵ The mistaken assumption that someone named "Heather" would be a Muslim man was very common in every echelon of Delhi life that I encountered. The confusion was compounded at times by my full name, Heather O'Leary, sounding very near to *Hyder Ali*, an eighteenth-century sultan that ruled over Mysore in Southern India. During my first trip to India, I was employed at a social research firm, where an extremely time-sensitive document was misplaced in the mail room because it was mistakenly addressed to "Hyder Ali," to the chagrin and then amusement of all. On a more frequent and prolonged basis over my subsequent trips, my masculine, Muslim name only delayed the acceptance of a few reservations and packages, and surprised many people with whom I corresponded and met for the first time.

addressed in the familiar names as *didi* or Gori which generated spontaneously in each fieldsite.

Establishing the Project in Panchtare and the Ramifications on Research

Techniques

My movements in the greater *basti* area beyond the water sites initially began by my shadowing NGO workers. I would go with them to visit expectant mothers in various lanes on both of the two sides of the *basti* and through this I began to internalize the map of the area.¹⁶ The other major benefit was that my face became one that was known in the *basti*, and my status as an insider was formed. The NGO workers and I explained that I was not a worker for the NGO (although I did office work as a volunteer) rather, that I was a student studying household water for a school report.¹⁷

My identity as a student was important to my informants' understanding of me. Indian arranged marriages, including those in the *basti*, are generally planned only after the daughter has finished her last year of schooling. My identity as a student served to remind the community that although I was an independent female moving around the

¹⁶ One of the tertiary goals of the NGO and through them, the women's groups that they formed, was to map the previously unmapped informal settlement. This involved numbering the homes' front doors, rounds of piecemeal drafting, and ultimately joining the maps together on larger posterboards. With the help of the women participants, clusters of social cohesion were identified and marked.

¹⁷ My dissertation research on the path to a doctorate was very difficult to explain, often taking upwards of ten minutes, leaving my conversation partners dually perplexed. Instead my doctoral research was explained as a step in my writing of a long school report, which I hoped I could share with Indians and Americans to learn about life in Delhi. After submitting this report, my teachers would decide if I would be allowed to teach college in the future. Explained in these terms, my conversation partners understood the parameters of my research, the goals and the purpose. Many gave me and my project blessings for success, and several beseeched me to become a college teacher in India.

basti, that I was not yet ready for marriage. This juvenilezation desexualized my presence and allowed me greater access to women whose husbands would normally attempt to protect them from social interactions with non-traditional, modern women.

Once I knew how to navigate the area on my own and my presence was known to community members, I began to make observations beyond the tanker pickup points and taps on the periphery. I mapped and conducted ethnography at the communal taps on the interior of the settlement. My initial observations lead to greater rapport with many of the clusters of women within the tap areas, including several domestic workers. However, we found that we did not always understand each other for a number of reasons.

In Panchtare *basti*, a large number of residents are new in-migrants to Delhi.¹⁸ Although for many, Hindi has been a national language for their entire lifetimes, many do not know it well. This is in part because of their in-migration from other places where their first (and sometimes second and third) languages were regional. It is also because those who moved to the *basti* also often forwent formal education in order to economically support their families. This meant they were not exposed to the Hindi-medium government schools in their region. Those that knew Hindi would also lapse in and out of their regional language seamlessly because their extended families, and often their employment network, were formed from regional ties. Additionally, those that spoke

¹⁸ This is explained at greater length in other sections.

Hindi with great technical proficiency would sometimes have a regional accent which was hard to decipher.

In parallel, I was also difficult to understand. The unshakable remnants of my American accent, paired with my growing, but non-native grasp of Hindi's nuances made me a difficult conversation partner. Additionally, my attention to *shuddh Hindi*, or "pure," grammatically correct Hindi, separated my language from daily parlance. There were two breakthroughs to my use of Hindi that ameliorated my speech. The first happened when I was doing library-based research in Mandi House Social Science Library. The library consisted of a single large reading room flanked by the collection's stacks. When I visited to do research, I began my query to the head librarian on duty. Wary of the quiet research happening all around us, I whispered my questions. After a few minutes of conversation, many researchers stood up from their work and gathered around us. They asked me if I had grown up in India with a Hindi-speaking *ayah*. Explaining my nationality and upbringing, the group exclaimed that it was wonderful that an American student was learning Hindi and had such proficiency. I often received praise for speaking Hindi, even during my first visit in 2006, when my Hindi was very basic and afflicted. However, even with my advanced Hindi knowledge during my 2011 research, whether on the street or in interviews, I had never been mistaken as a native speaker. I realized that their praise stemmed from not just the verbal component of my speech, but also the tone and tenor of my voice. My desire to respect the quiet work environment meant that I spoke with quiet deference. This speaking style was in-line with the demure, respectable,

good Indian girl image that is popularized as desirable. As I spoke more softly in subsequent research situations, I found that my respondents' understanding of my speech, and of me, to be easier.

The second breakthrough happened at a wedding celebration. I was seated next to a woman with severe cataracts, rendering her nearly completely blind. I began our conversation by complementing her sari and, when asked, described my own. We spoke in Hindi at great length, and at the end of the wedding she urged me to contact her. When her daughter-in-law came to get her, the daughter-in-law did not realize that I knew Hindi and asked her mother-in-law why she was bothering to be in contact with a *firengi*, a foreigner, who would obviously be leaving the country soon. The mother-in-law was very surprised, and told her daughter that I was not, in fact, a foreigner. Both women made assumptions about my identity—because of my deep knowledge of India and ability to speak Hindi, I seemed to be Indian, and because of my coloration and comportment, I seemed to be foreign. Judged only aurally or visually, I made sense, whereas together, I was a relative anomaly. The strangeness of this juxtaposition was a semi-regular occurrence in the *basti*. I would sometimes have five-minute back and forth conversations with people in Hindi that were suddenly interrupted with a dumbfounded look of puzzlement. After a moment, my conversation partner would say, “Silly me, I have been talking to you in Hindi this whole time! You can’t speak Hindi; you are foreign!” or “Wait, am I speaking English right now?” In these cases, it was because of

the lack of linguistic mistakes and obstacles on both our parts that made our conversation smooth. This temporarily suppressed linguistic differences.

As I delayed the decision to employ a translator, an incident ended up making the decision for me. As I stood at one of the taps, small children would often approach me to talk and play. Often, they were left alone for the day—fathers either at work or napping after working a night shift, mothers doing chores or working outside the *basti*, and their older siblings at school. I was engrossed in talking with a woman who was wrapping a new tourniquet on the tap. One of the children began to swing on a bamboo rod that supported the electric line which supplied the water's motor pump. A man on the periphery saw this and came over to mildly chide the child, and also me. He explained that the philosophy of raising children in Panchtare *basti* was that the children belonged to everyone. As an adult or elder sister, it was my responsibility to watch over the children, encourage them to better behavior, and scold them when they misbehaved. Appreciating his willingness to talk about child care philosophies and coping mechanisms for working parents, I began to record his points in my notebook. I listened enthusiastically, smiling, nodding and fervently writing. What did this mean for working women and dispersing childcare responsibilities? Did domestic workers rely on their neighbors for help with childcare, and in turn give back in another way?

As the man spoke, many of the women at the tap began backing up and leaving. After a few more sentences, one grabbed my wrist, "bad man," she struggled to say in English. I

knew that conversations between men and women were often fraught in the *basti* and that it would have been culturally appropriate for me to address my male respondent with less alacrity; however, I was eager that he keep talking and since he was beaming back at me as he talked, I did not think I was committing any cultural affront. But knowing that my conversation was making other potential informants uncomfortable, I relented and walked back with the woman, flanked in a close circle by her kinswomen. I was brought into their courtyard area, and we sat near piles of *chulha* wood. After a few minutes of conversation with the women, it became clear why the man was smiling. He was usually an upstanding man, and I knew him to be so because of his close relationship with Nahlah. However, as I learned, at times he was also a drunk and a notorious flirt. He did not smell like alcohol, nor was he unsteady in movement, so I did not expect him to act out of turn. But I learned that that morning he did what the NGO workers called “smack,” where men “get high” by drinking nail-polish remover. Even so, his words had not seemed overtly offensive.

In actuality, the women said that he made a subtle linguistic change and this nearly ruined my reputation in the *basti*. What began as a speech about community responsibility in raising children, “these are our children,” became a segue into sexually driven sentences that suggested that he and I should bear children together. “You must be a mother here,” in the sense of watching over other’s children, became “You must be a mother here,” in an entreating command. I went on smiling for three reasons. First, his deliberate strategy of delicately easing into this proposal was lost on me; second, because of the

compounding problems of the verb construction for “must” involving stems from “to be” and “to want;” and third, because I was confused because of the dual literal translation that indicates either something that is likely to happen, or otherwise, is a command. A respectable woman would not have talked to a man in public without having close enough social ties with his family to know that talking together would be considered appropriate. If inter-gender talking is necessary, it is ideal to do so in the presence of other women or a crowd because the audience reminds the man to speak respectfully, else his reputation would suffer.

When the women explained his transition to me, I was grateful that they took the risk to claim me and right the problem. I showed my gratitude by warmly smiling, thanking them, and telling them that though the transgression was outrageous, I would easily recover. However, this alarmed them, and the young daughters of the joint families were dispatched to fetch the male NGO fieldworker to mediate. The worker first gave the offending man a vicious tongue lashing, and then joined our band of women in the courtyard. He listened intently to the whole story from the matriarch. Next, he made sure I understood the transgression through the eyes of the women.

As a foreign woman, the women said, the men of the *basti* expected me to be sexually available. The women knew that I was a student and after speaking with me over the course of several weeks, they knew me to be a “good girl” who was not interested in many of the vices the media suggests of western women. They knew that I was still

learning Hindi, and could forgive me the misunderstanding of the man's words.

However, they remained concerned that the problem would happen again because many men just assume the worst. They cautioned me about speaking directly to men, anything more than a returned "*namaste*," as it would come off as provocative from their point of view. This, they feared, would lead to a tarnished reputation, whether or not I intended to follow through with a liaison. Additionally, they worried, interactions like this might lead to a man becoming overwhelmed with desire and his forcing me into his *jhuggi*.¹⁹ If I carried on like this, they said, they would be unable to freely accept me into their homes.

What made matters worse was that my smiles of gratitude and my overall resilience to the altercation indicated to the women that I was used to sexual attention. They dispatched the younger girls from the courtyard not only to perform the function of fetching the NGO intermediary, but also to distance them from what they found to be my lewd behavior. In their perspective, no woman who had been publicly demeaned by hearing these words should be able to go on smiling. The seriousness of their perspective overwhelmed me, and I felt my face fall and tears well into my eyes. Many came over and began to comfort me. "Your parents are not here, so it is we that must do the job," they said of their scolding and their comforting. I learned that to have autonomy in the *basti*, I would need to rely on the social capital of the women to connect me to other

¹⁹ Although my interactions with men in the *basti* were later only supervised there were instances when I was traveling through the *basti* alone when I was grabbed. As explained below, the community's reaction to these instances and the perpetrators was strong enough to generate gossip. The stories that were told reflected my "kin" relationships with families in the neighborhood and under their protection men became less likely to be inappropriate.

women, to vouch for me as a good girl, and to go out of their way to protect me from transgressions that would jeopardize my reputation, and consequently my safety and my research.

In the next weeks of fieldwork, I stuck staunchly to the sides of some of the elder women. I did not respond when men or adolescent boys greeted me, and I learned to cast my eyes downward and speak quietly to the male relatives of my main informants. But, eager to branch out into the rest of the *basti*, I tried to find a middle ground for interactions. Luckily school's summer holiday yielded a few high-school and college aged young women that were eager to learn more about my project. By taking them on as mentees, they were able to shadow my work. These young women became my translators for non-Hindi dialects, research assistants, intermediaries for sticky situations, and friends. I mentored them and trained them in anthropological methods and theory and gave them a modest stipend. My mentees joined the fieldwork, some at only one site, while one from each side came to make observations in the other in a supervised comparative exercise. Their presence as young Indian women, native Hindi speakers, with strong social and kinship ties in the *basti* protected them from advances by men. By association, I was considered to be of the same moral caliber as the young women, so I was protected both in their presence and, eventually, in their absence.

Establishing the Project in Zamrudpur

To establish myself in Zamrudpur, I began in the same way anyone connects with another person: through word of mouth. I served on the Resident Welfare Association (RWA) of my neighborhood, which was near Zamrudpur. The president of our RWA connected me with his domestic worker, and asked if she had any friends who could come to my home, too. Instead of paying them for an hour of cleaning, he proposed, I could pay them for an hour of talking about water. The search brought a few candidates; however, they were very reticent of being compensated to just sit and talk. Therefore, no one returned.

However, these interactions had been so strange that word spread in Zamrudpur and my neighborhood. Several domestic workers approached me on the streets, eager to introduce themselves to the student who is interested in “servant stories.” One, Ami, was a domestic worker for Ajay, a man in my neighborhood who worked as a “fixer,” an odd-jobs man who made connections between people with problems and those that could fix them. Ami got permission to have some domestic workers and I come to his house to prepare a few lunches. Ajay sometimes hired several of them to cook for various events, so it would not be out of the ordinary. I was able to get to know them as they worked in a familiar environment within the safety of their friends. Ajay would take a fee for connecting us, and for arranging a comfortable place for an initial talk.

After meeting Ami’s friends during group lunch preparation, I was able to interview each of them individually. This happened in public places: on the streets in between their shifts at different homes, in the park during their breaks, and so forth. This led to more rapport between us and sometimes they would stop me in the street to tell me about their

lives or salient points that had happened since we last spoke. It often involved introducing me to other worker friends of theirs, which broadened my network substantially.

Once I had established a strong network of Zamrudpur women with whom I was affiliated, I was confident about visiting the dark hallways of the tenement communities. During my first visit, I was chaperoned by both Ami and Ajay, since Ami worried that a white woman had never been in the private spaces of the tenement hallways and she was not sure how the men would react. On subsequent visits, I was invited home with other workers, establishing my presence in each building as a known person with relations in the building, and hence others expected consequences for their misbehavior. After a few trips with workers, I began to visit the tenements on my own, or with my research assistants.

Supplementing Ethnography with Survey

One of the first ways of establishing my research was by taking data at water sources. This enabled me to be in a public place for a long stretch of time. The conversations I had with residents began out of curiosity about me and my presence, which naturally led into conversations at the core of my work about water and domestic work (both professional and personal). The more timid residents were able to loiter and listen in to my conversations with the more bold, and many eventually pitched in with their own

questions. Many began to know me not through my initial contact person, rather through my presence at the water tap. After a few visits, I began the water diary project.

The water diary project was designed to establish a baseline pattern of the water collection and allocation of residents, but also to serve as an exercise to make respondents more alert to their water habits and as a starting point for more abstract conversations about conservation and allocation ethos. The surveys were given to the families once a day for one week. Each day, my research assistants and I would meet with a family member, in most cases the eldest wife of the youngest generation of parents, and discuss the information in the diary entry. This enabled us to receive timely feedback about anomalies in the diary, and to address thematic topics, too. Each pickup day had a different thematic question that would either establish more information about the family, or dig deeper into their relationship with water. Some thematic parameters were recording an oral history and kinship chart of their family, cataloging the possessions that they considered to be indicative of a “middle-class” lifestyle, or asking open-ended descriptive questions, for instance, soliciting their most emotionally charged memory of water.

Through these conversations, informants self-selected, and became more substantial key informants for a number of other water conversations and observations. In order to balance their perspectives, I was able to draw from the broad network of those that preferred to only participate in the diary to temper the narratives and initial findings from

which I would draw my analysis. The week-long water diary project was revisited a few times throughout the year, when I asked families to fill out the diaries during different seasons of water availability and weather to see how much their responses varied. With statistical analysis, there were very few changes to the allocation of water that were statistically significant and defensible. These changes included the operation of motorized air coolers in the *basti* during the summer, and the amount of water family members consumed across the board, and the frequency of weekly bathing (especially in the *basti* where many bathe in the middle of a lane and home insulation is minimal). The water diaries established the first body of data on the domestic water habits of the urban water-poor, but largely did not contribute to the main thesis other than as a baseline for beginning conversations about water, as a tool to establish relationships with informants, and as a framework for statistical analysis by which to add confidence to my ethnographic claims.

This chapter provided a sense of where the research in this dissertation was collected and why the fieldsites were chosen. It also delineates a framework for understanding how the field methodologies both paralleled and departed from established ethnographic field methods. This chapter also directly addressed the identity of the researcher and how these characteristics specifically affected the researcher's integration into the social fabric of the fieldsites. It also highlighted some challenges and the corresponding actions taken by the researcher to mitigate difficulties. By understanding the background of the data collection, the reader can better understand the context of the project's implementation.

Chapter 2 –
Historical Hydrological Infrastructure, Governance,
and Social Exclusion in Delhi, India

This chapter lays the foundational social and historical context of water in Delhi and in India at large. It traces the flows of water governance and social exclusion by the unequal absorption of water infrastructure in Delhi's development through the precolonial period and British Raj. Next, it transitions into a broader examination of contemporary social and political water disparities in the global context and returns to the question of how water allocation relates to the social structures and identities present-day in India. This serves to show the co-absorption of water and culture in the context of India. Surveying the social and historical contexts for water allocations yields a deeper understanding of Delhi's water trajectory and Delhi's relation to other water traditions. These insights interrogate ideas about cultural values of water and the way they are transmitted to, or absorbed by, peoples.

Precolonial Water and Social Organization in Delhi

Over hundreds of years, empires have chosen the site of the contemporary city of Delhi, India as a political and economic center. This was in part because of its strategic geographic advantages. Not only did this site offer a ridge that could be used to tactically shield the city from invasion, but it also offered proximity to water, in the form of the Yamuna River, which both satisfied the basic needs of the growing population and provided access to a network of trade. The succession of governments defined the political and economic trajectory of the city, and also altered the city's structure through planning and developing Delhi's natural hydrological virtues into extensions and symbolically-weighted expressions of the socio-political economy and rhetoric of rule.

That is to say, the physical manifestations of hydrological development were not only shaped by the discourse of legitimacy of each regime, but concurrently they were symbols that reified these ideals.

The structural history of Delhi is not simply the story of the building of a city. It is the story of a creation of a series of capitals; Delhi was many times over the vessel for symbolic rulership and authority. Even during Mughal imperialism, the city itself carried significant meaning beyond being a central site for economic and political transactions. Henry Sender reflects that Shahjahan “was creating more than a city [...] Delhi was the physical expression of the fact that the Mughal empire was a cultural sphere as well as a political structure” (Sender, 317). For Mughals, the capital was the “axis mundi,” the center of the earth, the celestial, and the mundane (Blake, 153).

But even more basic to governance, to maintain a population, access to water is critical and becomes a major consideration when selecting the base of political power (Naqvi, 143). Because of its geographic location, the Yamuna provided Delhi as a capital site “strategic strength,” and was used to support civilizations for thousands of years (Frykenberg, xxiv). Historically, the rulers of Delhi were attentive to the flow of the Yamuna; as its basin shifted, so did the succession of cities (Frykenberg, xxiv; Ali 36). Frykenberg observes, “the continuous flow of [the Yamuna's] water promised a reliable supply, sufficient for drinking, irrigation, and commerce” (Frykenberg, xxiv).

However, this is not to say that the Yamuna's waters were only recently considered inadequate for the civilizations it supported. The insufficiency of the supply of water from the Yamuna was a concern even as far back as the early 13th century (Ali, 35). Before Iltutmush built the large urban tank, Hauz-i-Sultani or Hauz-i-Shamsi, residents had to travel more than 18 kilometers to reach the bank of the Yamuna from the settlement's closest point, Qutub Minar (ibid.). Even though the tank was very large (200x125 meters), it could not support population growth (Ali, 36). Harassment of water fetchers by the Meos in the 1260s and the later Mongol raids increased the importance for the population to be protected within city walls much nearer to this source of life (Ali, 37). Ali cites the hyperbole of Amir Khusrau, who chides, "the waters of the Nile and Euphrates would have been insufficient to meet the needs of the increased population of Qutub Delhi" (Ali 38).

But by 1638, the population growth was less curtailed by the limitations of water access (Naqvi, 143). The structural investment of the government into supplementary technology allowed water to be more accessible. During this time there were water shortages in Shahjahanabad which were mitigated by the construction of new relief-based canals and reservoirs to complement the system of monsoon reservoirs. However, in turn, the growth of the population on this site, and the environmental degradation—affecting to a large part the runoff waters of the Aravalli Hills—increased Delhi's vulnerability to water shortage (Ali, 37).

Even during this time of increased water infrastructure and vulnerability to shortage, Delhi (then Shahjahanabad) used water to indicate opulence and economic might (Blake, 162). The disparity between classes and quality of life was striking as far back as in Bernier's 1638 account of Delhi (Gupta 1981, 2). In his observations, he notes the absence of people in the "middle state" of the economic continuum, struck by Delhi's "opulence and abundance of provisions, but also great squalor," the disparity was marked structurally by "palaces, ringed by mud and thatch houses" (ibid.). Bernier was not alone in this observation; Forbes and Herber also noted the "vast differences" in the social and economic status of Delhi's residents (Gupta 1981, 3). This hierarchy was reified in water infrastructures. Nahr-I Bihisht granted water for the elaborate canals, waterfalls, fountains and pools of the Sahibabad garden (ibid.). This waterscape served as a "pleasure area...for the sole purpose of pushing out of mind the uncomfortable reality of the hot, dusty world outside" (Blake, 162). Although the Mughal courts disappeared, Delhi retained a gossamer layer of Mughlai "conspicuous consumption" which included water (Bayly, 233).

The water flow from the Yamuna into the thirsty city continued in this way throughout the centuries. Shahjahan's construction of a canal system provided irrigation for agriculturalists in the city's periphery, and their payment of water tax was used to maintain the canals' flow to reach the city (Blake, 163). Aside from two periods of disruption, in 1707 and in 1740, the government canals provided water to Delhi's citizens

(ibid.). The canals also served as a method of transport for goods and workers, and powered a burgeoning number of mills (Gupta 1986, 253).

Water and “Civilization” under British Occupation

Shahjahan’s efficient system sputtered with the dynamic political shift in the wake of British occupation (Blake, 163). With “the collapse of order and government” the canals were desiccated (ibid.). Half a century went by without any maintenance or repair of the canal system (Gupta 1986, 253). Individual entrepreneurs, first the British engineer Mercer, followed by Kishen Lal, saw the resurrection of the canal system as a financial opportunity, and proposed to revitalize the canals with their personal funds, if they would be granted the ability to reap profits in the form of tax or fixed payment schedule (Gupta 1986, 253). Although the government was in no position to provide this service itself, it prohibited the canal revitalization by private parties, and waited until it could reap the profits itself (ibid.).

Finally, in 1820, the British attempted to re-open the canals (Blake, 163).²⁰ Mardan Canal was reopened but, within decades, farming desiccated it once more (Gupta 1981, 19). To make matters worse, wells were neglected and by 1843, 555 of the city’s 607 wells were brackish (ibid.). Greater action was not taken until the health of the military became a popular public concern (Gupta 1981, 161). While the canal was in working order by 1867, the water was gray—thus not potable—as was the water in three-quarters

²⁰Ironically, as the British “tinkered with” the Shahjahani drains, they flooded all of Delhi with filthy drainwater (Gupta 1981, 19). The British blamed the indigenous drain and canal construction for the health problems of Delhi, not their inability to maintain and repair them (ibid.).

of the town's wells (Gupta 1981, 88). Water could be sourced from the Ridge's springs or from Jhandewalan, but this was neither inexpensive nor reliable (ibid.). In 1869 the municipality unanimously accepted the Punjab Sanitary Commissioner's proposal to build an underground waterworks funded by taxes (ibid.). Gupta cites an article of the time that remarks that "the native inhabitants...entered heartily into the scheme...[ready] for sanitary improvement" (ibid.). Demonstrating Chatterjee's argument, the discourse of modernization, with its value on improvement and central planning, led residents to accept the taxes of a modern government to deliver this "sanitary improvement."

The British occupation heralded in an era of unprecedented structural "improvement," in part reflecting an increased availability of new technology, but, at the root, due to their rhetoric of legitimacy which hinged on "development" and missions of "civilization." By upgrading the water infrastructure, the British sought to reinforce their legitimacy as rulers. Instead of ornate displays of water-wealth typified by the Mughals, the British favored a sophisticated network of piped water and sewage which was to display their rationality, modernity and mission for public improvement.

It was these rational moves of "progress" and "improvement" in the development of the colonies that helped British colonial forces erect a hegemonic social artifice of both distance and inclusion. Britain was the gold standard, and the resident British and the Indian elites of the metro areas held an intermediary position (Chatterjee, 83).²¹ In cities,

²¹ Although it is impossible to understand the social, economic and structural development of Delhi without understanding its relationship to its hinterland, Bayly reads cities as social and economic constructs of the

the close interaction between the British and the Indian elite was a logistical necessity to managing the affairs of the greater colony at large. The social and economic disparity between the Indian elite and the hoi polloi was a welcomed precaution for maintaining the distance necessary to preserve British hegemony. This hegemonic social artifice was reflected in (and to a degree reinforced by) the disparity of access to water infrastructures.

This two-tiered water infrastructure development process is best seen after The Rising of 1857, when British flight from the walled city to Civil Lines lead to social upheaval and fragmentation (Gupta 1981, 227). This period was marked by the historical shift from company rule to the Divine Providence of rule by the British crown, and this shift intensified the attenuation of Indo-British relations. The Rising of 1857 changed the demographics of the city, the geography of the city and its hinterland, and ultimately provided a model for the tiered Indian urban waterscape. Before the rising, Gupta notes 1830-1857, the notion of becoming “civilized” was at the core of the urbanization of Delhi, and rested on celebrating high Urdu culture, regardless of religion or cultural origin. The British Raj based much of its legitimacy on maintaining distance from the Indian population, and through borrowed religious and medical arguments, did so without compunction. Gupta writes, “the Victorian fetish about cleanliness drove the Europeans into the healthy isolation of the Civil Lines. The belief in godliness led them to zealously

elite which should be taken in isolation from their adjoining societies (Bayly, 220). He suggests that this is “particularly important” to do when examining the emerging cities of eighteenth and nineteenth century India (ibid.). It is for this reason, and in the interest of space, why rur-urban questions will not be addressed in this piece.

keep alive the myths of 1857, and to nurse their fastidious distaste for ‘degenerate’ Muslims and Hindus” (Gupta 1981, 125). This hierarchical division began with the formation of European enclaves. Before long, this permeated into access to different infrastructure and civic services, including water.

The European community was mainly based at Civil Lines, the residential area just north of Nicholson and Qudsiya gardens which acted as a “*cordon sanitaire*” (Gupta 1981, 58). This area became a “sacred ridge,” as described by Newbolt and Tennyson, and provided a symbolic center of European refuge from the “unthinkable:” a life passed living among Indians in the “conquered city” (ibid.). The walled city was not only disparaged as a damned site, rife with communalism and squalor, but these conditions were directly transferred to imply the Indian inability to modernize.

Although the feeling of superiority in social organization and urban planning intensified after The Rising, the seeds of this hierarchy were sewn well before. Much of the analysis of urban health in the late 18th century is preserved in accounts authored by European travelers or residents who frequently reported the disrepair and decay of buildings, and judged the success of cities accordingly (Bayly, 224).

The push toward Delhi’s “development” projects were underwritten by “that favorite Victorian term[,] ‘improvements’” (Gupta 1981, 83). Gupta acutely questions the British investment in the uniform improvement of Delhi:

What did [the improvements] amount to? Did it 'improve' conditions for the inhabitants of the town generally, or did it only concentrate on public works which were ancillary to the development of British trade and the boosting of the British self-image? Some, like the poor-house, would fall into the former category, but public works chiefly concentrated on 'imperial' improvements. (ibid.)

This critical perspective has much merit. For example, improvement to water infrastructure was not equally applied. Canals with high water capacity were "extensively" provided to Civil Lines's "huge compounds" (Gupta 1986, 256). And in the 1870s, thousands were displaced in the name of building wider, straighter roads (in part to accommodate new sanitation infrastructure), shifting the city center from the established Indian historical main artery of Chandni Chowk to the empire's newly built Queen's Road (Gupta 1981, 56). This infrastructural favoritism is not limited to critical hindsight, rather, it was publicly palpable even then that access to infrastructure like lighting and water varied with the nature of the relationship to the British.

In 1870 the Municipal report claimed that all roads were lit by kerosene, but a local Urdu newspaper in 1876 said that only the main roads were well-lit, and that the Municipality was being guided 'not by the convenience of the people at large but only by their own comfort.' The dichotomy between the interests of the loyalists and that of the people at large appeared very real to many people (Gupta 1981, 82).

The municipality served those whom it had vested political interest in serving, and neglected to develop the remainder of the city's infrastructure.²²

The onus of financial support of public works projects in Delhi was messy. The city was slated as a "first class municipality" and because of this, its internal financial workings were only scrutinized if the city was under government audit (Gupta 1981, 83). Left

²² To the contrary of reports of elite favoritism, in this period, there were also myriad registered complaints that a disproportionate amount of public works projects were confined to the intramural city, leaving the new Civil Lines underdeveloped (Gupta 1981, 93). This further establishes that the two-tiered system of hydrological infrastructure was palpable on both sides of the city walls.

unchecked, Delhi's public works schemes could be elaborate, lengthy, discriminatory, or problematic (ibid.). Additionally, due to this designation, Delhi was not supported by the Provincial Government (Gupta 1981, 161).²³ Because of this, fiscal support was more erratic and public works schemes were often put on hold and completed in stages (ibid.). There were two major periods of infrastructural development: the two decades of "improvements" after The Rising of 1857, and again when Delhi was declared to be home to the Imperial Capital (Gupta 1981, 84). During both of these periods the British used, among other infrastructures, hydrological infrastructural development in Delhi to assert their authority and legitimize their occupation of India.

Initially, water supply wells were built on the site of a local village, Chandrawal, whose population was displaced to accommodate them (Gupta 1981, 161). The scheme proposed to pipe water according to population density, thus laying pipes first to the Cantonment in Shahjahanabad, then the remaining area of the walled city, the western suburbs, and finally Civil Lines (ibid.). The municipality proposed to charge the military for water consumption at the same rates as private customers, and argued that Civil Lines must wait for piped water, as it was already reaping the benefits of the special canal system (ibid.). This proposal did not serve British needs first, and much public uproar ensued. However, the scheme held; the municipality needed to recuperate the expenditures of infrastructure construction, and did so through the service of high-ratio

²³In 1889 the new Provincial Account Code allowed a loan to be obtained by Delhi from the Provincial Government to begin its water scheme; while this was supportive, it was offered much later than it was to other regions (Gupta 1981, 160). Lahore's water scheme had been completed for twelve years before they considered the loan to Delhi (ibid.).

profit-to-pipeline areas first. Within the walled city, private connections were requested, but not always granted (ibid.).

Once the walled city had a piped water supply, drainage and conservancy projects began (ibid.). However, this type of modernization upset other systems of social organization in Delhi. For instance, there was a strike in 1876 by the Sweepers Guild, whose entire profession was being redefined, if not made redundant (ibid.). Many of these sanitation workers were lower caste or minorities, or otherwise marginalized; the price of development was disproportionately falling on their shoulders.²⁴ By 1879, the municipality formed a sub-committee that focused the aesthetic upkeep of the streets, defending this governmental unit's function because Delhi streets were "more frequented by Europeans, and wider and with more traffic than any other city in Punjab" (Gupta 1981, 162). By 1889, when the sweepers went on strike again, Delhi's inhabitants, who found the municipal improvements to be "clean [and] aesthetically pleasing," went against them (ibid.). As residents complained to the municipality about the strike, the sweepers—who (in the form of affordable lawyers) benefited from the spread of values like rationality, education and modern law—were confident that their strike was well within the confines of the law (ibid.). This upset the traditional relationships between homeowner and sweeper, yielding more control to the government, which served as an intermediary for these bifurcating groups.

²⁴In this case, the local opposition overpowered the proposed municipal seize of control, and the sweepers were allowed to (temporarily) "retain their monopoly" but were not invited to paid municipal positions (ibid.).

The drainage scheme also created a structural separation in the water of the Indians and the British. The detritus of the military fort and the European enclave flowed through Salimgarh gate, while the rest of the city and the infantry barracks at Daryaganj all surged through one drain at Delhi Gate (Gupta 1981, 162). This prevented the native effluvia from entering the channel reserved for British waste. The construction of a two-tiered water infrastructure system, thus also kept hierarchy in human waste. “This discrimination,” Gupta writes, “is the same which dictated a *cordon sanitaire* between the ‘native city’ and the ‘Civil Lines’” (ibid.). Although this plan privileged a limited population, and “illustrated a significant discrimination,” there was little protest because it did not require extra taxation (ibid.).

The substitution of modernized methods of water collection, distribution, and disposal was justified in their supplantation of traditional methods with the discourse of progress and improvement. The “scale of civilization argument” which Chatterjee exposes would convince Indians and colonists that it was imperative to bridge the “deviations” from the development of Europe (Chatterjee, 82). In many ways, the traditional water infrastructures were in disrepair, but could be nurtured back into efficiency. However, this recognition would make the British lose their superiority, and might provide a slippery slope for the criticism of modern systems. Although the water infrastructure schemes were, albeit slowly, reaching the population and reducing water-borne illness and fatalities (e.g. typhoid, cholera, and the “Delhi boil”) the modern infrastructure was also damaging to urban structural health (Gupta 1981, 166). The infrastructure required

more water resources in its upkeep; the new open drains required regular flushing, roads needed to be watered to mitigate the encroaching dust-pollution, and the new sewage farm required water (ibid.).

Also, modernized Delhi was attracting a “swelling population” with “increased density” whose needs quickly exceeded the supply that the new waterworks could deliver (ibid.). The Western Yamuna Canal had been split and extended to serve Delhi’s growing footprint. However, the amount of flow into the canal was not increased. In 1900, the municipality mandated that water service along this canal would be restricted to ten days per month, a luxury compared to districts without sugarcane fields (ibid.). As the soil became desiccated from lack of irrigation, it wicked nearby wells dry (ibid.). Between 1900 and 1904, the consumption more than doubled as over two thousand private connections were added (ibid.). Before long, Delhi was facing potential scarcity and it became “imperative to secure more water” (ibid.). Yet, this did not stop the forward progress in Delhi’s modernization.

The Coronation Durbar of 1911 became the symbolic moment where Delhi was consecrated as a “modern” city. The Durbar became a two-fold cause of precipitous modern development. On the one hand, the modernization efforts were accelerated in order to show the visiting royalty, King George V and Queen Mary, and the world media, the success of the British modernization efforts in India. The high degree of infrastructural development completed before the Durbar was striking. The deputy

Commissioner struggled to prove that the extension of the waterworks to Civil Lines and the hastening of the drainage project was not a “side-effect of the Durbar,” nor was the consequent increase of charges (Gupta 1981, 167). An appeal to drain a known source of malaria, the Bela, was finally entertained after eleven years, because the site was deemed ideal for the Badshahi Mela ceremony of the Durbar (ibid.). But, the modernization was not to stagnate after the emperor and empress left. At the Durbar it was announced that Delhi would be the new capital city of India, a proposal that had been suggested at the turn of the century. This announcement ushered in the next era of development. As Delhi became the central seat of government, officially representing the British Raj, it was incumbent to show utmost modernization.

Before this period, Delhi was a site of military and commercial might, and it funded local projects accordingly (Gupta 1981, 229). For this reason, medical and environmental projects without direct military or commercial consequences were overlooked, including the construction and maintenance of water infrastructure (ibid.). When the population swelled in the 1890s, it was no longer possible to continue city planning without recognizing Delhi's role as a multi-faceted site. In 1911, development in other structural spheres was hastened because of “the need to make Delhi a respectable neighbor to the new capital city” (ibid.). Delhi's medical, environmental, and educational structures became significant as a reflection of the British Empire's ability to modernize, improve and develop its colonial charges.

National and international interests often took precedence over the interest of the city and its basic infrastructure, like water. Gupta writes, “partly because Delhi has the misfortune to be the national capital, the national is crushing the city” (Gupta 1981, ix). Gupta cites a 1921 article in *The Tribune* that reflects the value placed on the budding, modern nation; as the metropolitan government withdrew from resolving local incidents, the paper encouraged its readers: “The inhabitants of Delhi ought to remember that they are no longer a provincial, or insular people but enjoy the dignity of being citizens of an important metropolis” (Gupta 1981, 200). The modern government was not there to settle local quarrels; Delhi acted as the locus for the budding nation’s national and international affairs, specializing to such a degree that the city’s local affairs were tertiary, at times even undermined.

But as the trajectory of modernization grew exponentially, Indian resistance to it began to increase regardless of their affiliation as metropolitan citizens of India’s capital. This was very evident in terms of frustration with inadequate access to water. “The nadir in relations between officials and inhabitants,” according to Gupta, happened in March and April of 1919, an incident called *The Rowlatt Satyagraha*, when city wells were closed (Gupta 1981, 204). Soon thereafter, the water supply system, then the “most well-developed municipal service,” began to selectively supply New Delhi to the detriment of the old settlement (Gupta 1981, 221). In 1925, *The Joint Water Board* was created as a means of monitoring the politics of water flows in both New Delhi and the old municipality (Gupta 1981, 220). Nonetheless, the issue of preferential service was

“polarizing;” by 1930, sick of the reduced trickle (now split among the Notified Area, New Delhi, and the Cantonment), the old municipality refused to pay the increase in fees (Gupta 1981, 220).

The main arguments opponents put forth suggested that the British infrastructure and system of governance reflected not a modern “improvement,” but a setback to development. They cited that the drainage scheme did not improve the health and sanitation of the city, which had been the hallmark of proper development (*ibid.*). They connected the poor infrastructural conditions produced by the British, and modern culture, to the inability of citizens to make civic contributions, which ultimately undermined the strength of the modern state (*ibid.*). They framed their argument through the apotheosis of rational order, the modern legal system, specifically citing the Punjab Municipal Act (*ibid.*). Most strikingly, they seemed to turn the “scale of civilization argument” around on the British, citing that the Shahjahani drain and canal systems were superior even to other planned capital cities such as Washington D.C. (Chatterjee, 82; Gupta, 1981, 144). Further, they suggested that the municipality could liquidate a tract of land (much beloved by the British), Queen's Gardens, to both fund the water schemes, while concurrently reaching their goal of developing modern settlements (*ibid.*).

Chatterjee notes that the British Raj fell prey to its own logic: “To pursue hegemony, the colonial state had to create an agency outside itself. And this gave rise to a fundamental paradox” (Chatterjee, 83). British discourse constructed rationality as the ideal by which

they could shape the colonial social order. On the one hand, modernization and rationality were used as criteria by which the British made themselves distinct from Indians. Yet on the other, their principal mission was to ultimately share these values with Indians. This position was ultimately precarious. The British rule was justified by the argument that the Indians could not rule themselves because they lacked modern systems and capabilities, which the British occupation would eventually establish. This logic had “inherent contradictoriness” and it “shifted uneasily” (ibid.). As the native elite had become capable agents of modernity, this argument would attenuate the British regime's legitimacy as sovereign (ibid.). The legitimacy of imperial rule was the eventual “obstacle” to India's rise to a modern, rational society (ibid.). Chatterjee writes, “the very pursuit of its hegemonic project required that the state cease to be colonial” (ibid.).

The effects of the colonial rhetoric of hegemonic discourse are not limited to social organization. The construction of Delhi as a primary site to negotiate this interaction reflected the enactment of this discourse—not only manifest in the physical remapping of Old Delhi, the addition of suburbs, extensions and the creation of New Delhi, but this discourse compelled the ethos underlying these changes. Delhi's geographic layout, infrastructural plans (and realities), and ultimately its waterscape reflects the imperial hegemony, at the same time building an empire from the paradox, and being built by its instantiation. This transformation is not just written in history and theoretical analysis, but in the scars of the physical infrastructure and geography of the city itself. It still shapes the way citizens fulfill their basic needs—affecting the way they retrieve water.

Indian Water in the Contemporary, Global Context

Privatization, a spreading contemporary global water phenomenon, has changed the course of water in India. In the pre-colonial period, Indian customary law granted water rights to the community en masse rather than to individual owners (Hardiman 2007: 43). Water, which used to be a shared right, is not currently equitably managed—not by policy, by technology nor by people. Contemporary India is experiencing scarcity, desiccation, and urban shortage. This history has been explained as compatible with Hardin's theory, the tragedy of the commons. When a resource is open to consumption by all individuals, Hardin argues that its use is not governed by maintaining its sustainability, rather, by a rational calculation of profit by its users (Hardin 1968: passim). Hardin reasons that because resource use generates individual profit, and the costs of resource depletion are shared by all, overconsumption occurs, making everyone's long-term profits precarious. In the case of India and countries with high-risk water security, this privatization threatens the cultural, ecological and human survival of marginalized stakeholders.

Hardin's position, that commonly held resources are unsustainable, has some criticism. Shiva indicates that common property is sustainable when users are shareholders and are responsible for its collective management (Shiva 2002: 26). Furthermore, Hardin's scenario takes for granted that social organization rewards competition, while Shiva sites cooperation and need-based production as the indigenous regulating forces in much of

South East Asia. But these traditional water management tactics of cooperative shareholding were displaced by a series of governance institutions, but most recently and extensively by the Washington Consensus. The Washington Consensus is a model of liberal market economics that advocates the privatization and commodification of resources like water. Traditionally, water in India was “incapable of being held in property relations,” and as water became commodified, as Hardin would predict, it has become overexploited (Barlow and Clarke 2002: 87).

The precedent of water as property began in the US and Europe. Like many of the land speculators and homesteaders, the eastern water doctrine of riparian rights was imposed on the dry American West (Outwater 1996: 87). When water became property, especially in this environment of scarcity, it created a bifurcation of its values; the right to water, and its use value as a necessary element to life, was outweighed by its potential exchange value, resulting in networks of exchange that followed cultural ideology rather than natural limits (Postel 2000). Reisner establishes the historical trajectory of urban sourcing, subsidized infrastructure, subsidized extraction and the destruction of ecosystems, valley villages and lives (Reisner 1993). In all, Reisner says, federal water development policy was an act of “creative vandalism...of both natural heritage and economic future” (Reisner 1993: 485). The act of regulating water’s flow with neoliberal market policies represented lucrative short term gain to those with enough fortune, but, as Postel and Reisner suggest, created structures of long term disenfranchisement.

These policies were exported to the global south through the World Bank's Poverty Reduction Strategy Papers, which required compliance to public-private partnership programs, one of the more popular models of privatization. There are three types of privatization: full privatization where the government transfers all water treatment and distribution to corporations (as in the UK), public-private partnerships where the government leases the right to operation, maintenance, and revenue collection for limited time (originating in France), and the restricted model where the government collects revenues and grants administrative fees to corporations to manage water services (Barlow and Clarke 2002: 89; Pangare 2006: 277). These policies built the precedent for extracting water for profit—mining water as a commodity.

To Ashworth, understanding the long-term consequences to unsustainable groundwater harvesting is paramount. His research pertains to one of the most over-exploited water sources in the world, the Ogallala, in the US. He quotes an engineer to bring this point home, "There's nothing intrinsically evil about mining groundwater, as long as everyone understands just what he's doing" (Ashworth 2006: 11). To a degree, the global water consumers—people eating corn and peanuts, wearing cotton, and other High Plains products—know about the unsustainable pumping, but, Ashworth argues, they do not know the environmental and social disaster appended to their transactions (Ashworth 2006).

In a series of steps in the US, the management of the Ogallala aquifer was limited to “reasonable beneficial use,” and restricted to agriculture by supreme court rule considering this use to be of “unquestioned moral good” (Opie 2000: 186). The “exploratory-expansionist phase” of the High plains was reeled in by the self-governing groundwater conservation districts, whose local vested interest ushered in the “mature conservation phase” (Young 1984: 245). This created what Shiva might deem cooperative shareholders, or what Barlow and Clarke would call “local civic societies” (Shiva 2002; Barlow 2002). Opie describes the necessary re-creation of a “moral geography” that is a “deliberately conditional...responsive approach” championing the local needs of particular geographical landscapes and their inhabitants (Opie 2000: 255). Much different than environmental ethics, it is “based on an internal logic defined by a unique local culture and distinctive environment” (Opie 2000: 256). This local “civil society resistance” can articulate with a broader “global water justice movement” in order to reify, but should remain staunchly embedded in local context (Barlow 2007: 106). Potentially, this could grow out of the decentralized, grassroots initiatives recommended by Bhoorana, but eventually, Barlow believes that it becomes a harbinger of democracy, as an unparalleled “politically galvanizing milestone” (Bhoorana 2002; Barlow 2007: 102). But it is important to remember that the particular cultural and environmental history of local areas might also alter the conception and trajectory of water justice and moral geography. For this reason the history of water allocation in India becomes vital.

In India, the 2002 National Water Policy endorsed the privatization of water networks wherever possible, though many transnational corporations had already entered India's water market. The Ministry of Urban Development mandated that water rates would be amplified 1000% to accommodate the profit-guarantee that accompanies World Bank imposed privatization (Barlow 2007: 112). In India, this meant that many homes with water access would be losing 25% of their incomes to water (Barlow 2002: 90). Price jacking in urban, middle-class homes with piped water was not the only ramification; nearly 90% of owners of the water tankers that provide much of India's lower classes with water are politicians that have vested interest in maintaining barriers to public water availability (Pangare 2006: 280). The systematic privatization of civic water departments means much more to arguments about water ownership and rights, and has manifested itself in the commodification of water across the whole of India, in villages and megacities, between and within communities, and within individuals themselves.

One of the most well-known cases in the global literature on violations of water rights in India is represented by the vilified "Global Water Lord" transnational corporation, Coca-cola (Barlow 2007). In 2000, the Communist Party of India (Marxist) encouraged Coca-cola to build a plant in Plachimata, in Kerala. Initially on-board, within two years the local population felt a drastic decrease in the groundwater available, and experienced physical ailments from contact with both their well water, and the cola-byproduct fertilizer they purchased from Coca-cola (Surendranath 2010: 422). In response, a swath of official and independent pollution measurement agencies tested the capacity for Coca-

cola's groundwater extraction and the quality of its discharge, with conflicting results both exonerating the transnational corporation and holding it culpable (Surendranath 2010: 423). The tribal adivasi community launched a multi-year sit-in outside of the plant, attracting the attention of the global news media. Further, the local *panchayat*—whose authority can be granted by the legislature of the state under Indian Constitution Article 243 G—denied Coca-cola license to operate, a decision that was revoked by the High Court of Kerala, and was a point of contentious litigation for another eight years (Saleth 1996: 37; Surendranath 2010: 421). Joining the struggle against the company, the middle-class condemned Coca-cola on their own personal grounds: soft-drink contamination (Vedwan 2007). After an NGO disclosed the discovery of moderate levels of pesticides in the bottled beverages, the Indian middle-class garnered public momentum through the news media and protests, giving decisions regarding the transnational global attention (Vedwan 2007). This double-fronted attack allowed each stakeholder to pursue Coca-cola for violations to their own community, making their struggle most effective.

In particular, the non-violent participation of the local, subaltern people and self-governing water management of the *panchayat* is the type of ideal water management proposed by Barlow and Clarke, Bhoorana, Opie, Shiva and Royte. Shiva praises the local effort against the “mighty global corporate” as an exemplar of “real democracy at work,” and others deemed it “a symbol of grassroots struggles against globalization” (Surendranath 2010: 421). But, it is paramount to understand how the simplification of this narrative undermines the local community's best interest. Transnational discourse

insufficiently understands, and thus insufficiently represents, marginalized people's subjectivity which further compounds the marginality of these groups (Ghosh 2006: passim). Surendranath notes in passing that Pepsico's nearby activities were not severely pursued, and that instead, Coca-cola was targeted as the symbolic enemy, the persecution of which was a "game of political one-upmanship" between the Janata Dal party, and the Communist Party-Marxist (Surendranath 2010: 421).

But these interventions are also questioned. Although this brought help in the form of political initiatives, global water justice movement resources, and public attention, the pursuit of other agendas, against a simplified transgressor rendered the aid and support symbolic, too. The "waves of enthusiasm" that compel outside actors to help are unreliable, and can undermine sustained local participation (Hardiman 2007: 59). In the case of Plachimata, the local civic activists targeted Coca-cola, against whom charges were filed. However, at the time there was rapid proliferation of bore-wells, the adoption of which may only correlate with Coca-cola's water extraction. Pearce notes that the 130,000 gallons of water per day that Coca-cola is contested to remove is in fact "not large on the scale of rural Indian water use" (Pearce 2006: 44). It is the same amount as a single local rice farmer with 25 acres of paddy. Pearce notes that the village had to have been taking more water than Coke and states in the (likely) event that Plachimata does not see recharge, it is a "typical story of what India is doing itself to its most precious resource" (Pearce 2006: 44).

To Pearce, desiccation is desiccation—the user’s identity is secondary. To Barlow, and many other “water warriors,” the user is paramount, and ideally should be local (Barlow 2007). But, this reduces the conflict to local-transnational, and does not provide a framework for understanding local-local conflict (Attwood 2007: 37; McKay 2010: *passim*). Das and Pangare’s local-local study in Chhattisgarh raises the question of the government’s role in value-based allocation decisions of diverting water to industry or community (Das 2010). Das and Pangare examine the lease of Sheonath river water to a local Indian private firm, Radius Water, and the disenfranchisement of the local fishing and farming villages (Das 2010: 429). Although the firm acquired a legal contract from the eager state development board, the state privileged the use of water to local industry over the farmers, who were no longer allowed to pump water, and over the fishermen, whose catches were limited by the barrages, and by colonial conservation-based law preventing fishing in “private” waters (Reeves 1995: 277). In this case, the government is defending the local, but with its neoliberal ideology privileging factories in Borai, not tangibly for the citizens. The demand for water across many diverse uses is bound to increase, and as conflicts intensify, Gujja contends that structural interventions bolstered by dialog with and between different stakeholders in local communities is a critical way to manage the conflict (Gujja 2010: 6).

In Bhanera, a village just north east of Delhi in Uttar Pradesh, the issue of water rights brought 5,000 diverse local activists together to engage in civil society protests. In August 2002, the Delhi Jal Board authorized the French multinational corporation,

Degremont, to divert water from the Upper Ganga canal to be treated in the Sonia Vihar plant in Delhi for drinking water (Das 2010: 59). This privatization involved economic, environmental, legal, and social transgressions typical to the narrative of urban water sourcing (Matin 2002: *passim*). Delhi is portrayed with classic urban greed: already sourcing water from the Yamuna, groundwater, Bhakra reservoir, and the Western Ganga canal, all the while resisting conservation, infrastructure improvement, and stringent water pollution laws (Narain 2010: 411; Lundqvist 2003: 1991). The Upper Ganga canal, which has for over 150 years been the source of bumper crops in the 924,000 hectare agricultural area, was to be lined in preparation for diversion of more water for Delhi (Das 2010). While this increases efficiency by preventing water seepage, it also means that there is no aquifer recharge (Outwater 65). The wells that farmers used to supplement the Upper Ganga canal irrigation began to fail, and the state placed a moratorium on drilling deeper (Das 2010: 60).

The irrigation techniques in this area were deeply ingrained. Gilmartin notes the national problems in water allocation began during the colonial period, where the centralized state system subsumed previously local irrigation decisions and employed a market-model of rational, self-interested human behavior, to maximize return on production (Gilmartin 1995: 219). The Sarda canal, as explored by Whitcomb, exemplifies the damage of this centralization which relied on mathematics, rather than practice, to understand irrigation, thus desired “clean balance sheets” and only became involved in profitable ventures, all in spite of shared local knowledge and eventual local protest (Whitcomb 1995: *passim*).

Hardiman also points to the difficulty of hierarchical cooperation and declares “overcentralization of [water] management” in his study of the decline of small dams of the Sahyadris and community based control because, like the colonial state, the post-independent government micromanaged projects during the planning phases with irrigation boards and then neglected the management of the dams themselves (Hardiman 1995: 190). But without this dialog and partnership, infrastructure atrophies and water is reallocated.

The future for farmers in this previously fertile area is looking rather bleak. The Green Revolution crops require large investments of irrigation (De Villiers 2000: 136; Hardiman 2007: 41). Though state officials proffer the solution of modifying farming practices to respond to the lack of sufficient water, this would also result in significant lifestyle changes. In Punjab, where a similar situation occurred in the wake of the Yamuna Sutlej link canal, the amount of cultivatable land was reduced in the wake of irrigation reforms, which was paralleled by agricultural and social fragmentation, and later regional violence (Khurana 2010).

But rather than accepting social fragmentation, instead, the Bhanera protests exemplify the local civic dialogs that brought together diverse participants. Ahmed notes the success of programs on the Jholapuri River only after the inclusion of socially marginalized groups in a primary stakeholder dialog before approaching the state and the private sector (Ahmed 2010). This type of dual-phase solution allows small-stakes locals

to unite in their common interest before being pitted against each other (Bhai 2010).

There were four basic types of activists: the people from the Tehri region who opposed the Tehri dam which would eventually also supply Delhi; the anti-privatization activists who opposed the involvement of the multinational; the farmers from Muratnagar region, who wanted transparency regardless of to whom their water was going; and religious leaders who protested the commodification of the Ganga (Das 2010: 60).

Specifically, the participation of “water warrior” veterans from the Tehri region marked a new level of participation where multiple areas galvanized to protect common interest in a trans-local network (Barlow 2007: 102). It is estimated that the Tehri dam project will affect about 18,000 families, across 125 villages (Bhai 2010: 353). Tehri was marked as the site for the dam in 1965, and in 1972 The Planning Commission approved the displacement of families by 1978. However, in these six years there was no formal policy to aid the displaced families; rehabilitation plans did not include land grants, and because of this, structural and institutional support networks (in the very least, loans) were unavailable to the displaced (Bhai 2010: 355). It took until 1995 for any programs to begin to take shape.

Other than arguments of human rights, ethnocide prevention, and environmentalism, the dam has been attacked because of the tremendous amount of risk—since it is projected to be working for about a century, and seismologists assert that within the century a major quake will make Tehri unsuitable to sustain the dam (Patankar 2010). This makes the

benefit to Delhi short-lived, and the imminent risk and permanent loss to the villagers crippling. Yet, in 2005, in violation of Supreme Court orders, the submergence began. In Tehri, the local civic society organizations, even with local government, *panchayats* and international aid agencies' support, could not adequately battle the "Global Water Lords." This power differential is built in to the loan policies of the World Bank, and manifests itself in Tehri and in Bhanera.

Degremont's urban water service plan rests on sourcing water in succession from these two areas. The government claims that the sourcing of the Upper Ganga canal water will be ultimately superfluous, since it expects to reap the yields of the Tehri dam. The trajectory of this project mirrors that of early Los Angeles, and if this is true, the city will never be satiated, nor return the Upper Ganga canal flow (Riesner 1993). It is likely that even if the water is returned, these villagers, like the Owens valley residents, will find life as they knew it "cease to exist" (Reisner 1993: 100). Once the Upper Ganga canal water is allocated to the Degremont plant, 70% of the flow will bypass the agricultural region and be given to Delhi (Das 2010: 60). In recent years, even with full flow, the region underwent serious water stress, but the government is adamant that the plans to take 70% will do no harm. Water is a finite resource constantly moving through the biogeochemical cycle making it impossible to divert water to one place without creating a loss somewhere else (Ball 1999: 21). Shiva estimates at minimum 1.4 million tons of annual crop loss (Shiva 2003).

The World Bank's Structural Adjustment Programs limited the provision of public funds to subsidize these losses. However, Degremont expects the Delhi Jal Board to cover their losses for the delay in plant operation; though contractually Delhi was not named to supply the water, World Bank policies indicate that they must balance the losses (Das 2010: 62; Narain 2010: 414). But even with the plant in regular operation, the government will be at loss. In an effort to keep water-using modern conveniences like the flush toilet available to their developing middle class (and to keep political office), Delhi politicians provide water subsidy to residents at a loss of Rs. 8.7 per m³ (Narain 2010: 413-4). The Government of India, as with the heads of many other developing nations, have been invited under the Sword of Damocles; they must attempt to strike a balance between private, transnational involvement, centralized state planning, and the local moral geography.

Centralized, public water management, to even the most minimal degree, is a necessary part of India's development to protect water resources, public funds, and social justice. As late as 2003, there were no parliamentary standards for deeming water clean or potable (Sharma 2003: 402). Thus, a citizen exposed to low quality water had no legal grounds on which to contest, nor could the government legally protect them from this. There are still no parliamentary standards ensuring the allocation of life-sustaining water to citizens as a guaranteed, inalienable human right. The onus of responsibility to maintain equitable safe water distribution must be with the government, and demanded by its citizens, because without controlling such a basic, necessary element, citizens

surrender their autonomy (Royte 2008: 225). In the most basic sense, each battle over India's water is not about globalization, but about the right to water, and to life.

Water Allocation, Social Structures, and Identity in India

The privatization of basic human necessities like water has led to a new system of priority and power that centers on citizens as consumers. However, these global movements do not manifest themselves the same way regardless of place and period. Before examining the way privatization and global water movements have driven a salience of new identities in India, it is first important to take a closer look at how traditional identities in India have coalesced to gain power in their waterscapes.

Changes in contemporary, modern India cannot be understood except within the context and framework of the “great tradition” of Indian civilization (Redfield 1955: 13; Singer 1972: 42; Marriott 1986: ix). Some claim that the economic individualism categorized by highly efficient, rational competition has led to the decline of traditional Indian society (Hardiman 2007: 47). Traditional Indian society—according to colonial thought, nationalist leaders, new traditionalists and capitalists—“embod[ies] the virtues of self-sufficiency, social harmony, and...harmony with nature” (Attwood 2007: 13; Grove 1998: *passim*). However, the Indian past is also marked with a social exclusion and environmental exploitation that is divergent from the standard narrative of modernization and neoliberal development. These concepts can be explored in relation to the allocation of water, which holds economic, ritual, social, semiotic and practical value.

As established earlier in this chapter, water allocation is inexorably linked to ideas of status, power, and ultimately exclusion within the Indian tradition. Separate water infrastructure was available as far back as 3500 BCE to Mohenjo-Daro's elite with access to the great bath, to the community at large in the form of piped water that was kept pure with city sewers and household drains, and to the wider public on the banks of the Indus (Kenoyer 1996: 86). In the High Hindu era, the construction of a free, public well was the most meritorious *yagna*, or sacrifice, a high caste person could make (Livingston 2002: 7). Later, the building of fusion wells, which married elements of Mughal and Hindu aesthetic, were used to reify the legitimate rule of sultans and rajas (Livingston 2002: 93). The succession of cultural influences transfused India's water with different aesthetics, but kinship and caste remained the steadfast regulators of water allocation (Dehejia 2008). While this ethnography explores class and urban, middle-class water aesthetics, it is important to note that the enduring undercurrent of forces of kinship and caste mark class-based water allocations in India and sets it apart from other cultural contexts.

Singer notes that caste²⁵ is reinforced everywhere—"the very tissue of the culture is made from Puranic themes" (Singer 1972: 76). Caste is reproduced symbolically through prohibitions, rituals and daily activities (Fruzzetti 1975: 35; Fruzzetti 1982: 5). Although modernization is seen as the harbinger of deritualization, materialism, and devaluation of

²⁵ In this paper caste will be defined according to Gidwani as "an endogamous group with a specific ontology, a specific claim to social rank, and a specific set of ritual practices" (Gidwani 2000: 234).

traditional institutions, Singer argues that there is a degree of continuity where the context of Indian tradition also shapes the process of modernization (Singer 1972: 140-4). This extends to the study of flows of water—Indian traditional rituals, material culture, and institutions all shape water flows. The hybridity of modern India, rather than being context-free, ultimately produces a context of its own (Ramanujan 1990: 55-7). In Ramanujan's example of conflicting taboos in the north and south, taboo is acceptable based on a specific location in space (Ramanujan 1990: 48). To extend this, taboo can also be ritually acceptable based on a specific location in time, i.e. modernity. A breach of caste-based taboos created by modernization have come with new acceptable contexts, just as modernity has made some previously acceptable behaviors taboo. This does not represent deritualization, or floundering social structures, rather the recreation of the traditional system within a modern context. In this perspective, the potential of universality of laws is abraded through contextualization—the universal laws of caste and society laid out by Basham have never been ubiquitous (Ramanujan 1990: 49; Basham 1963: 137-88). The juxtaposition of tradition and modernity is the crux of understanding India's modern context for social order, and through this, the context for water allocations.

Beals notes that after World War I, village India's exposure to external influences grew exponentially, which resulted in social, political and economic transformation (Beals 1986: *passim*). With this came a transition from material wealth stored in granaries and jewelry to state-manufactured wealth in the form of promissory notes and deeds, and the

threat of the deterioration of the vertical integration that was the backbone of community (Beals 1986: 92; Shrinivas 1986: 41). As centralized state-run development appeared to dissolve traditional systems like the joint family, the panchayat, and the caste system, the modernization of traditional India and its subjugation to external economic systems became contentious (Gough 1986: *passim*; Beals 1986: 93).

Attwood looks at the way modern state infrastructure, such as roads, railroads, industrial technologies, and markets tamped mortal dangers so well that it then threatened long-term sustainability and security, and this can be applied equally to water infrastructures (Attwood 2007: *passim*). Attwood makes an important argument considering the welfare of village India prior to its exposure to national and global markets, indicating that the introduction of the modern market, and the subsequent exposure to external economic shock, are risks much less violent than the insular trade relationships that dominated feudal India (Attwood 2007: 14). The standard forms of kin and caste reciprocity of the “moral economy” of localized redistribution suggested by Scott mitigated lifecycle risks, but, as Jodha points out, would be impotent in times of high covariance of risk, such as during drought (Attwood 2007: 18). While development infrastructure and the invisible hand of the market softened the erratic extremes of subsistence farming for everyone, the caste and social status of market participants were not invisible (Attwood 2007: *passim*).

Market operations reinforced pre-existing social structures creating financial and hydrological networks of inclusion and exclusion. Dubash examines the effects of

traditional moneylending and state-based credit on access to water access technology and the proliferation of cash-cropping, deeming “groundwater development and social change in agrarian societies as mutually constitutive” (Dubash 2007: 98). In the case of the Patels in Banaskantha, they use kinship ties to mitigate the financial risk of drilling wells and pool money for a diesel pump, which they use on neighboring Patel land in Mehsana (Dubash 2007: 99). The Patels were able to continue reinvesting their profits and grew their enterprise into large farm partnerships. However, their agricultural partnerships, mentorship and endorsement through the state-loan process enabled this advancement to stay confined within the bounds of their caste. The hegemonic hydrological and economic “affluence” affirms the importance of these social ties. The stable categories of social relations that are manifest in caste and kinship systems crystallize in systems of exchange, and enable alliances (Dubash 2007: 111). Caste and kinship were “the glue” that held this high level of economic water partnership together, producing a unique strategy of economic and hydrological development (Hardiman 2007: 50). Caste and kinship ties bolstered economic and hydrological power and atrophied oppressive lines of hierarchy in favor of lower-castes, too—in each place low-caste farmers were also able to mitigate their exclusion through reliance on caste and kinship networks, reaching an apex of economic power never thought possible (Dubash 2007: 104). The kinship structure of a village with 150 households is “the locus of affinal ties with over 400 other villages” (Lewis 1986: 163). Traditional Indian endogamy formed the basis for a broad economic network, which challenges linear models of modernization, both in terms of individualism and the Weberian progression towards modernity.

While Indian village life has shown potential for a strong and wide economic network, it remains “primitive” in the eyes of scholars like Lewis, as its political engine still rests on kinship and caste relationships. If taken with the exploitation theory of caste, put forth by Mechner, which bifurcates society into the exploiting upper-caste and the lower-caste or untouchable exploited, the underlying Hindu ideology becomes a hegemonic tool constructed for the prevention of mobility (Barnett 1976: 636; Fruzzetti 1984: 20-2).

In the village of Vadali in Gujarat, caste discrimination was wielded in conflict over water allocation. The varying economic power between castes affected water project trajectory because of different stakes in water projects (Raju 2010: 248). Of Vadali’s 354 households, 120 are of the Ahir caste, who own 90% of the irrigated land (Prakash 2010: 40). The remaining households comprise 100 Kolis, and 130 Dalit, Suthar, Bawa, and Bharwad families. After the monsoon harvest, the shallow wells go dry and the village depends on Ahir water sharing, which places those of lower-caste in a vulnerable position (Prakash 2010: 41). To mitigate this, the state built check dams, which over the years became silted. In 2004, the state proposed to de-silt the dams and bore a public drinking well at the site. This was so successful that the ensuing water abundance allowed Ahirs to plant winter crops. Fearing the creation of a public drinking well would limit their hydrological windfall, they used their substantial political majority in the *panchayat* and Pani Samiti, to quash the drilling (Prakash 2010: 42). Further, this protected the contracts their fellow out-of-town caste members received from Gujarat Water Supply and Sewage

Board to supply water to the village in times of scarcity. Dalits and Kolis, who rely on the Ahirs for employment, were warned not to oppose them in public hearings (Prakash 2010: 40). The political maneuvering of the upper-caste farmers siphoned public funds and services for private gain and the preservation of economic and political superiority.

But modern caste conflicts over water cannot be limited to economic and political spheres. In the transactional theory of caste, those lower ranking in caste can be defined through the inability to exchange with higher ranking transactors, making exclusionary observations about pollution, contagion and ingestion paramount (Fruzzetti 1984: 18).

In Gujarat, Hardiman contests that Shah's model of economic rationality does not take into account the performance of caste identity through the abstention of goods, services, and activities. After independence, tenancy legislation allowed tenants to claim ownership of land, but because of deference, in the village of Virsad, only Patels and Kachhias were tolerated to claim Amin landholdings (Hardiman 2007: 48). Rather than continuing to reinvest profits by working their own land, Amins preferred to renounce agricultural labor in favor of "higher status" activities such as management. By 1976 only 2 Amin households of 200 worked their own land—the rest was undertaken through paid wage labor to lower-caste workers (Hardiman 2007: 56). Though their economic superiority was declining, they performed caste superiority through social and behavioral exclusion, in part by selectively sharing their near monopoly of irrigation water with Patels, who practiced similar transaction rules, avoiding the purchase of low-cost water

from the adjacent Vankar scheduled caste communal tubewell, even in times of scarcity (Hardiman 2007: 49). The Patels boycotted the use of the Vankar water, citing caste pollution and the need to remind them of their subordinate place. These water sharing taboos use a pre-existing social framework “according to a precise local knowledge in which each family is only too aware of its standing within the hierarchy, its corresponding entitlements, and the bounds beyond which it cannot step” (Hardiman 2007: 50). Hardiman shows that economic rationality cannot operate without the social marking of the transactional theory of caste.

In other areas of Gujarat, Dubash observes that Ratanpura’s water prices were fixed by a high-caste water cartel, which differed from the Paldi method of individual dominant caste family negotiations (Hardiman 2007: 51). Though there are local differences, neither the methods involving annual uniform price setting enforced by intimidation in Ratanpura nor the caste-based pricing of Paldi represent a modern system that is free from hegemonic caste-based ideology (Hardiman 2007: 51). The proliferation of state-based initiatives of political representation to counter practices of exclusion and discrimination in part reinforce the practice of economic exploitation and exclusion by the higher-caste elite in the effort to retain power and status (Hardiman 2007: 52).

This type of exclusion is fleshed out in the production theory of caste, which is grounded in Marxism (Fruzzetti 1984: 27). Beteille, in examining ritual status in South India, finds that although lower caste people had gained political and economic power, their ritual

status did not improve (Beteille 1965: *passim*). This separation of political-economic power and observed status can still be found in contemporary water allocation decisions. As modern democracy has resulted in a resurgence of religious, purity-based exclusion of lower-caste people, it indicates a perceived threat to upper-caste status, which in some areas increases secular ideology from the bottom up. Cohn examines the adoption of anti-religious secularism, and contrary to the widely held belief that secularism, like other aspects of modernization, would trickle down, in Madhopur of Uttar Pradesh he finds that the lower-caste chamar Adi-Dravidas to be the primary adopters since they discovered new autonomy through the acceptance of a secular communist identity (Cohn 1986: 70). The acceptance of the authority of the centralized state system is not always uniform across populations, within sub-groups, nor in all situations.

Paranjape, Adagale and Pomane studied caste conflicts over water in Mangaon taluk in Maharashtra in 2003. In the village of Kuravade, there are two separate wells serving the 55 Savarna and 7 Dalit households. The Dalit well was nearby the field of an old upper-caste *patil*, or police liaison. Conflict broke out when he found excrement in his irrigation watercourse, accused the Dalit women, and smeared the parapet of their well with excrement (Adagale 2010: 110). This escalated, and when the Dalit well water was polluted, the Dalit women filed a criminal case against the *patil*, who was briefly jailed before the upper-caste dominated *panchayat* negotiated his release (Adagale 2010: 111). The new *patil* assigned to the matter had the well cleaned, yet the Dalit women refused to draw water until another cleaning was funded and were subsequently assigned to share

the Savarna well. To prevent the proximity of Dalits from polluting their water, Savarna women had to fill the Dalit vessels at a distance from the well, increasing labor, creating tension and dependency (Adagale 2010: 112). Incensed by this performance of untouchability, the Sarvahara Jan Andolan led Dalits to draw directly from the well, and the police threatened any Savarnas who acted to uphold religious law over secular law.

In nearby Hatkeli, the conflict is seasonal, since the shallow Dalit well dries up in the summer (Adagale 2010: 110). After the Dalits drew water from the Savarna well, the pollution through caste contact was so great that the Savarnas not only ritually purified the water, but pumped all of the “contaminated” water out and retaliated by sending away the Dalit water delivery tanker (Adagale 2010: 112). Eventually, the state intervened by proposing *samanjasya*, a compromise, which piped common drinking water into the villages which dispersed it through different spigots (Adagale 2010: 114). This embodies Singer’s observation, that there has been a shift from the authority of local specialists toward the centralized state system as means to regulate conflict (Singer 1972: 75). However, this shift is not complete, since after the installation of the pipes, the Savarnas, taking their own justice, reduced their employment of Dalits by 40%, and excluded them from traditionally inclusive ritual village functions. However, participation by the state in local water allocation does not always favor the low-caste.

Traditionally, water storage tanks were managed by local communities, but after the 1956 reorganization of the state from feudal Nizam’s reign, they were allocated to the state

irrigation departments (major/minor) and *panchayats* (*zila/gram*), which has diffused responsibility, opportunities for funding, and feelings of ownership (Bhende 2010: 269). As the water tanks deteriorated, the government financially endorsed private well boring to large landowners.

However, this right to water is under scrutiny, especially by the upper-caste Lingayats. The state's water tank renovation program seeks to keep the water tank full year round to support a second crop, and the Lingayat land, which is closest to the water tank, would benefit the most (Bhende 2010: 267). With new contestations about the authenticity of the lease, the Lingayats, joined with support from their Dalit Kabbe wage workers, to insist that the state move forward with the renovations that would double their gains (Bhende 2010: 268). In this case, the 90 Lingayat and Kabbe caste households were able to dominate traditional and modern panchayat bodies, though the middle and tail-reach landowners are neutral; Madars remain confident that if they remain inflexible, the state will intervene and meet their demands (Bhende 2010: 266). Just as they initially received their means of subsistence from the Nizam, so too do they look to the state as continuing this traditional relationship of political authority and exchange.

This water governance relationship is explored historically by Dirks. His examination of the gifting traditions of South India refutes Dumont's idea that caste operates within the domain of the religious under the basic tenant of purity and pollution, through substantiating the inherent link of religion, political honor, ritual exchange and statecraft

(Dumont 1980: *passim*; Dirks 1990: 61-7). To Dirks, the separation of politics from a construction of caste as separate and belonging solely to the religious realm was a hegemonic tactic of the colonial state to aid their governance—in part its successful manipulation of the system speaks to caste’s fluidity with the political sphere (Dirks 1990: 61). The importance of defining the political sphere and the groups within it becomes key to water governance.

In her examination of public representation in water allocation politics, Brara builds on Habermas to assert that the public sphere is built in private through consensus by exclusion (Brara 2007: 123). With Independence and the creation of democracy in India, villagers were in a way freed from their traditional feudal oligarchy, and in the 1950s the state created democratic decentralization in the form of the *panchayati raj* (Brara 2007: 121-3). The *gram panchayat* was representative of a population of 5,000, often not conforming to village limits, included the participation of lower-caste members through quotas, and evoked a lot of suspicion and frustration (Brara 2007: 123). Because of this, informal village committees called “*parde-ke-pichhee*,” or “the behind-the-scenes local-level body” consisting mostly of headmen, handled many concerns of the village that the “*sarkari panchayat*,” or “government’s local-level body” could not (Brara 2007: 124). The informal village committee had a flexible number of participants, calling in members with project-specific experience, and deliberately embraced members from lower castes (Brara 2007: 125). This type of socio-political modification is praised by Paranjape and Joy as “often the cheapest and the optimum solution” (2010: 68). The informal village

committee raised money to support water projects in the village and monitored the revenue policy for electricity to provision drinking water, modifying the tax exemption of guests to include village daughters—who would ultimately leave the village for marriage—a measure not considered in the *panchayat* (Brara 2007: 128). Brara notes that the use of the traditional term did not compensate for nor internalize the new state-delineated area of jurisdiction, nor the accompanying centralized ideology (Brara 2007: 129). However, the use of the English term “committee” signified the commitment to a new sense of democracy, leaving feudal politics, including caste discrimination, behind (Brara 2007: 130). Marriott views the conception of Indian identity as operating through caste, but also through many other principles. Through this perspective, Indians are “dividuals” formed with “multiple layering of conceptualizations,” each a “composite and contingent outcome of the world’s multivariate processes,” and as such their social relationships are fluid and chaotic (Marriott 1990: 17; xiii; 6). Taken with Brara’s research, this definition of identity affirms that people, as well as organizations, can fluidly transition between multiple identities.²⁶

In de Souza’s research, it is evident that these layers of identity are rarely unified, and almost always characterized by “a state of animated tension” where a community is not only struggling to subsist, but also to create themselves (de Souza 2007: 141). The village narrative of unity focuses around the construction of a water tank to ameliorate conditions of water scarcity (de Souza 2007: 143-151). Although comprised of 83% high-caste Marathas, and about 1% scheduled castes, there are internal striations within

²⁶ This fluidity becomes central to the conception of identity in several subsequent chapters.

the Marathas that make their community fractitious (de Souza 2007: 144). Many households have a member who has left for work in nearby Pune, and these urban in-migrants are typically seen as better educated and more *sudharlee*, or “improved” (de Souza 2007: 146). The story of the water tank describes how the specialized help of both ex-pats and village residents transcended “politics” to improve their community (de Souza 2007: 146). The story is an imaginary “utopian space [that] allows people to forget the very real caste, faction, and class differences that exist between them” (de Souza 2007: 163). As Turner might describe it, the storytelling becomes a liminal space and moment, where its narration evokes a sense of *comunitas* (de Souza 2007: 162; Turner 1969).

But the definition and performance of community unity across economic and caste lines was not just internal. The urban in-migrants created new meaning and financial value for their village in its external representation by “using the rhetoric of the modernist welfare state” by “represent[ing] the backwardness of rural India to government and the media” (de Souza 2007: 156). Like Levi-Straussian bricolage, the shared narrative has myriad forms as different aspects were juxtaposed to elicit different meanings (de Souza 2007: 164). In this way, the categories tertiary to “traditional” India—the caste system, rural villages, agrarianism, subsistence—were fed back into the development discourse of the state. The reclamation of this identity within the context of modernization and development challenges the category of marginality.

By recreating “traditional” within imagined and formally acknowledged parameters, this identity is pushed within the bounds of what is modern by at once masking and unmasking its concomitant origins. As many development efforts seek to eradicate traditional elements of Indian culture, such as the caste system, these social structures also are reinforced, within the public sphere, within relationships and individuals coping with new social structures for resources like water. As processes of development and modernization shape India, so too does India proffer a perspective in the multi-vocal narrative of development and modernization.

Globalization, Development, and Class-Based Identity: The Drivers

This brings to light a nuanced understanding of caste and kinship, not as separate from modern forms of social hierarchy and structure, but rather, as a social foundation upon which reflexive negotiations of identities like class are enacted. As globalization and development are shaping urban spaces worldwide, it is important to not only track the global trends of similarity, but also to track specifically how methods of local support, resistance, and transformation manifest themselves differently according to local cultural contexts. The foundation of contemporary water allocations is based in the larger political economy of communities, cities, regions, nations, and the world. An understanding of Delhi’s or of India’s hydrology would not be complete without an overview of recent global political economic structural changes that bring new constraints and opportunities to both historic and emerging social identities.

Today, India's economy is booming; its compound annual growth rate (CAGR) in the first ten years after economic deregulation was over 14%; fifteen years after deregulation it still soared at over 7% (United Nations 2008). India's contemporary participation in the global economy has led to its unprecedented growth. In the historical moment that Prime Minister P. V. Narasimha Rao deregulated India's economy, making it possible for foreign participation in the Indian marketplace, India was swept into "a high-tech boom, a stock-market bubble...[and] Cinderella cities rose overnight (Davis 2006: 170). Many economic speculators would agree with Das, that India "enter[ed] the twenty-first century on the brink of the biggest transformation in history" (Das 2002; 346).

The modern global economy has been governed by several institutions—including the General Agreement on Tariffs and Trade (GATT)—which became the World Trade Organization (WTO)—the International Monetary Fund (IMF), and the World Bank—all of which are based on Trilateralist doctrines of economic liberalization. Between 1974-75 both the IMF and the World Bank began lending to the global south, rather than to their traditional borrowers in developed industrial countries.

In the 1980s, the IMF and the World Bank used the mounting debt as a point of insertion to the governance of the global south. The 1985 Baker Plan marked a formal transfer of the state-run development programs in 15 nations to international management by the World Bank. This moment marked a major battle in the "capitalist revolution" fomented by the Regan, Thatcher and Kohl regimes (Davis 2006: 153). This domestic management

by international organizations enforced not only economic policies to ensure debt remittance, but social policies as well. These were generated under the ideology that it was “essential that capital, goods, and services be allowed to flow freely across borders around the world, unfettered by government intervention or regulation” (Barlow and Clarke 2002: 82). Countries who applied for loans from the World Bank were required to submit Poverty Reduction Strategy Papers, in which they abdicated responsibility for subsidizing and/or providing public services to their citizens, adopting instead severe neo-liberal market reforms—often privatizing these services as a condition for the loan (Barlow 2007: 41). This set the stage for the transformation of India into a clientelist corporate-state wherein citizenship was determined by participation in the global economy.

In this mindset, policies are considered that yield the greatest immediate profit. Pearce, in his collection of global research involving India, China, and Pakistan, criticizes the World Bank for its myriad large projects that have gone sour—the benefits of which are short-term, but the costs of which are long lasting if not permanent (Pearce 2006: 138). To Pearce and, to some degree, de Villiers and Reisner, the infrastructure projects of the World Bank were failures because of the ideology of the modernization era, wherein development was carried out in too large of a scale and the fates of the environment and local communities were not anticipated as externalities (de Villiers 2000; Reisner 1993).

But not all scholars are as generous about the World Bank's policies of development. Among the most vociferous is Vandana Shiva. Shiva compares the enabling World Bank policies and other associated "corporate terrorism" to the September 11th attacks (Shiva 2002: xiii). Shiva considers the outcomes of famine and suicides following the Green Revolution, the displacement in the shadow of large dams like the Suvernarekha, and other North-South projects to be inexcusable violence. Many other scholars began to be wary of the large implications of the slower, undocumented changes to the social fabric of India as the ideologies of the neoliberal economy permeated its borders.

The Structural Adjustment Programs (SAPs) and subsequent decentralization of government authority not only caused direct affects, but also diffuse, indirect changes in social structure. As those marginalized in rural areas saw funding flooding the cities, they moved to follow. Economic upheaval caused a restructuring of neighborhoods that parallels the urban slumming Jane Jacobs observed 50 years ago in New York and Chicago: the flight and enclavement of those making profits, overcrowding in lowbrow neighborhoods, deteriorating working conditions, and waning economic choices (Jacobs 1992; 176). Like the economic upheaval in the United States, in the Indian cases, the urban lower classes in city centers like Mumbai and Delhi are put under increased strain to meet their basic needs. Furthermore, with the influx from international and internal immigration, the cultural landscape of cities changes to reflect cosmopolitan networks.

The values of global identities and networks are implicit in the inculcation of a global, or

world-class, aesthetic of development. Often, these values are translated into bourgeoisie development tactics that privilege the middle-class lifestyle. Elyachar, Jacobs, and Simone clarify what is at stake by clearing slums, and making some of these cosmetic urban changes (Elyachar 2005; Simone 2004; Jacobs 1992). Development planners and many NGOs imagine only benefits to moving slum-dwellers to new, planned areas. However, Elyachar illuminates the struggles of displaced people in Cairo, and shows the hidden values of informal lifestyles that become more precarious with state intervention (Elyachar 2005: *passim*). This is not just an acknowledgement of the functional order of informal settlements, but also speaks to their legitimacy as alternative, legitimate systems of social organization.

Jacobs, in her study of New York, also shows the merit in cities' organic informal networks versus the sterilized gentrification of forced urban planning (Jacobs 1992; *passim*). In areas of urban planning, informal networks are mutually constitutive, in Simone's description, as a way of making ends meet where formal (often state) planning falls short. Additionally, authors like Engels and Sinclair explore the dark underbelly of urban planning—exposing the corruption of life that emerges in the enactment of the ideal city (Engels 1958; Sinclair 2003). These authors together show the tension between the ideal global aesthetic and its actual application on the ground. They also show how these ideals are subjectively made—therein implicating processes of development as an inherently politically charged form of dominance.

Through these plans, the IMF and the World Bank “offered poor countries the same poisoned chalice of devaluation, privatization, removal of import controls and food subsidies, enforced cost-recovery in health and education, and ruthless downsizing of the public sector” (Davis 2006: 153). This was accompanied by SAPs “devastating rural smallholders by eliminating subsidies and pushing them sink or swim into global commodity markets dominated by heavily subsidized First World agribusiness” which also greatly impacted the water sector (Davis 2006: 154). Balogun describes the effects of both a decreasing middle class and a “brain drain” across the global south (Balogun 1995: 80). Effectively, this was a form of national slumming, not just affecting urban pockets, but binding entire nations in a “cycle of increasing immigration, decreasing formal employment, falling wages, and collapsing revenues” (Davis 2006: 155). The beneficiaries of which comprised the global north, and the westernized, modern, cosmopolitan, middle-class Indian capitalist—shaping neoliberalization as the only financially tenable position.

The private sector, through the policies of the World Bank, was the direct beneficiary of public subsidies. Barlow clearly states, “the World Bank uses its power to open markets in the global south for northern corporations...for every dollar the United States contributes to the World Bank, American corporations receive \$1.30 back in contracts” (Barlow 2007: 38). This is true for market transactions at large, but also in the privatized water markets within poor countries. Furthermore, World Bank policies encouraged corporations to invest in developing countries like India through generous protection

from over-speculation with full-cost recovery policy, and freedom to set prices at lucrative profit rates. The risk had therefore been shifted to the host countries, obliged to divert public funds to ensure foreign profit (Barlow 2007: 57). Middle-class consumption and economic participation could allay these financial risks, because of which the Indian government actively endorsed the cultural production of a modern, middle class.

The liberalization model predicted that the profitable consumer-goods economy would provide the underlying support for bolstering the nation's development, and minimize the public funds necessary to ensure foreign profit. In other words, consumption driven by modern families would be the engine behind India's modernization. Mankekar says explicitly, the family was transformed into a consumer unit which "served as a metonym for the nation" (Mankekar 1999: 48-51). Televised family dramas that drew emotive viewership, such as *Chunni*, were framed by advertisements promoting rational modernization through commodity consumption within family units (Mankekar 1999: 49). Ad campaigns like the one for Bajaj scooters made this claim unambiguous in their tagline which affiliated families who owned their product as "the portrait of a strong India" (Mankekar, 48). This rhetoric framed citizenship through the consumption of aspirational products, frequently beyond the reach of the majority of viewers.

This called for the corporate production of the Indian middle class. Mazzarella notes that Indian cultural producers, represented in his ethnography of the advertising and

marketing industries, “insisted” on the cultural difference of Indian consumers as a “strategic and ideologically necess[ity]” (Mazzarella 2003: 216). This was not only a form of ensuring their own job security, but more importantly, it reinforced their active role as co-producers of the Indian consumer (Mazzarella 2003). This cultural production was informed by myriad concepts of Indian identity, but even in the hands of Indians themselves, the process of representation streamlined and simplified Indian identity into a stereotyped caricature, often of Hindu middle-class existence.

This new notion of consumerism was met by a long tradition of Indian concepts of desire and renunciation, but also environmentalism and identity. Guha traces the intellectual traditions of environmental and developmental consumption theory by extending Galbraith’s work on American consumerism to his comparative work, “How much should a person consume?” (Galbraith 1958; Guha 2006). Rather than taking the unit of analysis to be the nation, as Galbraith does, Guha highlights the Gandhian concept of *swadesh* and the contributions of the Indian environmental movement to explore these patterns on an intra-national, micro, individual scale (Guha 2006: *passim*). In his exploration of “modes of resource use” in the ecological history of India, Gadgil refers to the consumer patterns of “omnivores” and “ecosystem people” (Gadgil 2002). These “omnivores” are India’s industrialists, rich farmers, state officials, and the burgeoning urban middle-class who “can draw their resources from all of India,” particularly India’s North-East, creating in its wake “ecological refugees” who in turn in-migrate to cities. The promise of India’s middle class, as observed by Mazzarella, or a nation of Gadgil’s

“omnivores,” rested on what Guha calls “the fallacy of the romantic economist,” characterized by the optimistic belief that the deregulated market would uplift people as consumers, enabling them to participate in a globally-diffused American style of (over)consumption (Guha 2006: 235).

Even so, not all citizens identify themselves as or aspire to belonging to the category of urban capitalist and consumer. A shift to this identity could proscribe individual and local cultural identities, uni-directionally dictate urban social networks, and result in the cultivation of worker-citizens of high specialization. Certainly these trends exist—Williams examines how the history of trade ossified relationships of profit extraction whose function in building cities produced sites for this transformation, and Sassen acknowledges the high specialization, and polarization of the work force who become socially marginalized, yet functionally integrated—but these identities are subject to individual and large-scale negotiations with other identities and relationships (Williams 1994; Sassen 2005).

Although ideal, or normative, identities are constructed through the discourse of nation building or world-class city building, the deployment of these conceptions of citizenship do not abrade other identities completely—these competing identities and behaviors are resilient, and at times further reinforced by the erected norms. Hyper-local identities, such as the ones mobilized by Hindu nationalists or by the less bellicose Muslim support networks Simone studies in Africa, articulate both a direct and indirect reaction to the

processes of globalization that are depicted and understood as ubiquitously manipulating local systems (Hansen 2001; Simone 2004). At the same time, the assertion of these identities reshapes globalization by imprinting its processes with unique local forms. This is to say that development, and subsequent processes like privatization, in shaping India, is also shaped by India to form a unique manifestation that can be used to adumbrate its meaning.

The negotiation of identity and power in global, urbanizing India is an important piece in the understanding of water flows both locally and globally. Recent political-economic structural changes manifest themselves in global water politics and also in the imagined and enacted identities of families and individuals. Both of these scales of human-water relationships must be studied in local contexts to understand and enrich the overarching processes.

This chapter reviewed the foundational social and historical context of water in Delhi and in India and established a deep history of water and culture in mutual absorption. It elucidated the connection between water governance and social exclusion by disparate development of water infrastructure in Delhi through the precolonial period and British Raj. It then explored the contemporary social and political water disparities in the global context, confirming uneven absorption. Next, it provided the context of how both traditional and emerging identities can be used to control water allocation in a larger argument about social structures and infrastructure. This comprehensive overview has

grounded the reader in the social and historical contexts for water allocations in Delhi which provide a point of entry to larger, questions about water governance, political economy, and social structures globally.

Chapter 3 –
Between Stagnancy and Affluence:
Upward Mobility and Water Circulation in the *Basti*

This chapter tracks a story of bribery for water in a Central Delhi slum to demonstrate how groups of people that are experiencing water scarcity construct interpretations for their exclusion. In many senses, their uneven absorption into flows of urban water also hinders their absorption into the city's economy. A close examination of the water narratives reveals that water narratives are imbued with language of developmental struggle and social injustice which brings voice to abstract issues of time, ownership, management, markets, borders and circuits. In the slum, residents mark the success of their lives, and their measure of the future, by the passing of time in wait for water—some residents are believed to live in a state of financial, temporal and hydrological affluence, while others identify the circuits in their lives as stagnant. These abstractions become alive in stories of daily water struggles and reflect identities and worldviews that shed light on perceptions of development which are otherwise difficult to express. This difficulty in expressing the connections between these flows is also a challenge for theories of flow that is surmountable when using the metaphor of absorption.

Everyday 1,000 people in-migrate to Delhi in hopes to become a part of the new India—some propelled by the promise of economic opportunities of the world-class city, and others pushed by the idling growth of their villages or the fragmentation and desiccation of their farms. Though many hope that simply moving to the city will incorporate them into flows of progress, their in-migration does not ensure this change. Instead, in-migrants' incorporation to the city is fraught. Much of their struggle is felt as the persistence of metaphors of time and timings mitigate in-migrants' inclusion in

contemporary India and its modern, developed Delhi. While metaphors range from antiquated, unidirectional ideas of backwardness, progress, and modernization, more cogently, the relevance of time is grounded in everyday difficulties managing the transition from village to urban life where discrepancies of time are experienced by in-migrants through changing material and social relationships that critically affect the ability to collect water. Like many in-migrants and immigrants to global cities worldwide, the majority that arrive in Delhi live in tenements or in illegal "slums" with limited access times to water infrastructure (Zerah 2000), and many, particularly women (Sassen 2002), enter urban India's informal economy as full-time domestic workers (Ray and Qayum 2009).

The flows of women, work, water, and money all interrelate to form subcultures of affluence and stagnancy not only between Delhi's middle-class⁴⁰ and urban poor, but also within the internally stratified communities of the urban poor. Access to temporal, spatial, economic, or natural resources interconnects in a circuit of overall affluence that propagates greater affluence. Strang discusses these affluences and stagnancies in relation to her metaphor of "productivity," wherein the circulation of water has a generative capacity beyond sustaining landscapes and into wider realms of circuits of economic exchange (2009). A lack of access to one of these resources, conversely, results in difficulty overcoming stagnancy broadly. In-migrants perceive these circuits of affluence and linear stagnancy as major obstacles to their lives, and they are also acutely aware of alternative forms of exchange that transcend these traditional categories.

⁴⁰ I use Shridarhan's concept of the middle-class (2004).

Collection from water tanker delivery trucks and community taps involves a process of becoming infrastructure by waiting for hours for inconsistent flows. This complicates the lives of workers, who must find alternative ways of negotiating the time spent waiting and working. This involves building new circuits that circumvent the workers' non-working neighbors, including "black market" access elicited through bribery. Although domestic workers participated in wider circuits of economic exchange and were considered to have wider circuits of hydrological agency, their participation in these wider circuits of exchange also exposed them to rhetoric that made their perception of adequate water problematic. This is to say, that while domestic workers were considered to be less stagnant than their non-working neighbors, they still experienced stagnancy in relation to their employers.

As domestic workers cross into the water-rich areas where they are employed, their conceptions of water—its appropriate use, quality, per-capita allotment, and meaning—are challenged by what Massey calls the compression of space and time by advanced water technologies (1994). Water technologies reduce spatiotemporal constraints, making water collection far easier and faster. This change in access to infrastructure disrupts values of water that are rooted in conditions of difficult access. Further, domestic workers were exposed to the rhetoric of bourgeois, modern middle-class households that valued a high degree of cleanliness at the expense of relatively easily accessible water. The importance of the commitment to using increased amounts of water as a hallmark of elite Indian household management has persisted through history since its propagation in

the colonial era (Walsh 2004). This culture of water management reflects Delhi's deep history of class-based water disparity that is founded on what Chatterjee calls a broader "scale of civilization" argument that legitimized classification based on deviation from European standards of development (Chatterjee 1994). The "Victorian fetish about cleanliness" led to stricter delineations in Delhi's enclaves and the acceptance of disparate development of water infrastructures (Gupta 1981, 227). This has resulted in unequal water access and a struggle to attain technologies of water access.

As domestic workers leave their employers' homes and return to their communities, they do so with altered expectations of adequate domestic water thresholds and encountered suspicions of overconsumption from their non-working neighbors, thereby calling into question global water themes of ownership and management and the borders of legitimacy and rights. This chapter explores the disparity of Delhi's water access and its inextricable association with the flows of women, time, water, and money. These flows enter into narratives of development through the perspective of domestic workers, who are themselves in flow as they cross literal and symbolic thresholds of affluence every day, and their neighbors, who feel that even in the most affluent slums of Delhi, their lives are defined by stagnancy. Through understanding the role water plays in the lived development of women in lower-class Delhi, many other flows become visible that delineate and maintain power relations and stratify the ability to cope with marginalization.

Many technologies facilitate the collection of water in the informal settlements known as *bastiya*. Some are expected: wider hose pipes pump the water from the tanker truck or durable plastic containers with removable lids to keep water contained. Many are innovative: scrap metal rebar formed into S-shapes allow otherwise prohibitively heavy vessels to be attached to bicycles; plastic bag tourniquets catch the drips from leaky pipes into a harvestable one-liter puddle; holes chipped through concrete access civil lines; and the homemade siphons and soda bottle-top funnels bring water above ground. However, some things, like Coke and sandwiches, are completely unexpected, yet powerful, technologies of water access. To understand the relevance of Coke and sandwiches to water collection, it is critical to understand first the social waterscapes of lower-class Delhi.

Sejal and Jalahasini have spent about twenty minutes walking back and forth from their *jhuggis*, carrying their empty family water jugs up and down over the bowed cement lanes of the *basti*, past the many found-material doorways on their way to the tanker distribution site. They live in an informal slum area, called a *basti*, or settlement, in the heart of Delhi's Embassy district. Panchtare *basti* is one of the wealthier "slum" areas of the city, and though it is not formally named Panchtare, when its name is mentioned around Delhi, the first reaction of many is to call it the "five-star" slum.⁴¹ While the luxuriousness of any of Delhi's slums is dubious when faced with gutters of raw sewage

⁴¹ The name of the *basti* has been changed in order to protect the informal settlement, and hence illegal lifestyle of the residents. *Panchtare* translates to mean five stars, which as noted above is one of the first conversational reactions to this site. This places one of Delhi's most favored categorizations of world-class luxury alongside the slum conditions it seeks to rout out in its development projects. The complexities of this juxtaposition are explored further in chapter 5.

that flow past each doorway, the degree to which this slum has “modernized” in the view of Delhi’s urban poor is remarkable. Many hold Panchtare *basti* as an aspirational ideal and see Panchtare as the closest that an informal *basti* can get to the middle-class lifestyle. But despite this, the residents of Panchtare *basti* do not have adequate access to critical physical infrastructures. Much of their infrastructure is pirated, such as the illegal power and water that is siphoned from legal connections, because the government-sanctioned infrastructure is not adequate to serve their burgeoning population. As in most of Delhi’s *basti* settlements, residents rely on daily water tanker deliveries and a few hours of pressure in communal taps to meet their water needs. Water collection hinges on the ability to wait, to fill, and to carry—a process that requires what can be the scarcest resource of all: time. For this reason, the wait for water has taken on significant value for residents who have found ways to circumvent the wait, and equally for those who have not.

After transporting all of their vessels, Sejal and Jalahasini sit on the larger water drums, joining the growing number of neighbors and their jugs, some vessels are eighty-liter “*assis*,” black, rounded, and rectangular, others are the white, thirty-liter cylinders made of thicker plastic, which originally held chemicals: Murga Industrial Use, Dulux Weather Shield Paint; Dulux Acrylic Emulsion Base; Tijab Acid; Clax Xtra Soft Fabric Softener; National Peroxide Limited, Mumbai; Tarsem Paint Thinner. These vessels were initially built for holding toxic chemicals and are sturdier and hence preferred by residents. They

are repurposed for domestic water collection and can be bought from the local *kabaadi*⁴² for around one hundred and fifty rupees.⁴³ The women's smaller vessels bunch around them on the ground. Saffola Cooking Oil jugs are ubiquitous, having built-in handles and being light enough for small children to carry, one in each arm, over multiple trips. As Jalahasini speaks, she nudges a few of the vessels with her foot. She suffers from leg pains, and as she stretches her legs out through the maze of buckets she lets out a relieved groan. These small infractions are tolerated, and the foot not seen as a major obstacle to the purity of the water. However, there is heightened awareness of the tops of the vessels, and although they are used for sitting, the rules are not completely relaxed.

Some women knit as they wait, protecting the skein from the elements of the *basti* with a reused plastic shopping bag tucked into the drawstring of their sari petticoat. Others wait while eating mango ice pops sold in one hundred and fifty milliliter plastic bags for ten rupees apiece. The ice cream trolley, evidently nearby the *basti* just outside the grounds of the private college, has managed to sell a few of its low-end frozen treats. A mature-looking teenaged girl tears open the long end of a neon package of O'Yes brand *namkins*⁴⁴, bought from one of the family-run *kirana* shops in the *basti*. The metallic underside of the multilayer polypropylene film glints a salty, greasy, crumpled reflection of the four o'clock sun. She listens to the radio through an ear-bud plugged in to her mobile phone. She attends a college nearby, and is one of the oldest unmarried daughters

⁴² A *kabaadiwala* is a person who collects small appliances; bottles, vessels and containers; and various bulk items. They sell these items for repurpose or recycling.

⁴³ This is about three U.S. Dollars in 2011, or a little more than two and a half days wages for a domestic worker.

⁴⁴ savory snacks.

in the *basti*.⁴⁵ She schedules her classes to accommodate her duty to be home to collect her family's water. Around the same age, a new bride in purdah passes by with her nieces and nephews to join her mother-in-law; she bows to touch her senior's feet three or four times, bringing her hands back to her forehead and heart. Normally scowling, the mother-in-law smiles, and the vivid orange-pink lipstick which she has applied every day in the month since her son's wedding stretches to a wide crescent.

There are a few small groups of children playing marbles, or *kanche*, and the nieces and nephews scurry off to join them. The children stand a half-meter from a circle drawn in the dust and take turns pitching their own marbles at the marbles within the circle.

Peddlers come into the *basti* lanes on foot or pulling cycles laden with goods; most carry saris, spices, or little wood and glass hinged cases of costume jewelry, but some sell small toys like *kanche*. After an hour sitting with her mother, Vahini joins the marble game, and as one of the taller children, she is forced to stand back a full meter. As she pitches, her lanky arm swings underhand and her left leg, like a pendulum, swivels upward. Sejal sighs and murmurs that next year they will begin looking seriously for a marriage match for Vahini—her days of marbles are waning. Another group of smaller children play the stone game, which begins by holding a number of small, two-centimeter angular rocks that they have collected from the ground around the *basti* perimeter. One by one, they face their fists of rocks, palms upwards, toss the rocks as high as twenty-

⁴⁵ In the *basti* as well as other places around Delhi, parents expressed the practice of finding a groom for their daughters in their last year of school or in their first year away from school. For some, this meant delaying marriage until a daughter pursued post-secondary education, while for others, this meant curtailing a daughter's education for a marriage.

centimeters up, and race to flip their hand palm-down to catch as many stones as possible on the back of their hand. The number of stones a player can toss either increases or decreases depending on the number they can successfully catch. Unable to join the marble game without owning marbles, some relish in playing the stone game, while others wander over to the commotion of the marble game as spectators. A couple of kids wheel past on bicycles, and their friends follow after them on foot. Another boy rolls a salvaged bald automobile tire along the road with his hands. Just a toddler, his head barely bobs above it, and he wears nothing more than a pair of underwear.

A few of the ten-year olds who have just changed from their school uniforms pull the broad leaves of a crawler that hangs from the middle-class enclave beyond the thick gray stone-composite wall. They crunch up the leaves in their palms and squeeze them between their fingers, and begin to write their names on the asphalt and then on the stone wall itself. The leaves juice, separate and curl into small balls like eraser debris, and the grassy scent mingles with the acrid smell of sweat and the syrupy sweetness of a few blackening banana peels which were discarded after the morning sale of damaged fruit out of a shallow wicker basket by the community tap. The goats have not wandered by yet, but will surely eat up the mashed, sticky peels as they scavenge the *basti*.

A man crouches a little ways from the women, children, and vessels, puffing on a *beedi*⁴⁶ that he conceals with a cupped hand as he slowly exhales the smoke through *paan* stained lips and teeth. He is stationed by the long-since abandoned police officer post, with a

⁴⁶ an inexpensive betel leaf cigarette of about five centimeters tied at one end with a piece of string.

view of the road, and his darting glance scans the horizon each time his neighbors' voices become animated. After another twenty minutes, a few more men join him. They all squat near the post, one or two leaning their bicep and forearm on another's shoulder for camaraderie rather than stability. After a few minutes exchanging words, a pack of cards is produced out of the front pocket of one man's mushroom colored slacks and they begin to gamble. In some moments they are oblivious to the sounds of approaching engines, but in others, they struggle to keep their eyes on the cards.

A fifteen-year old boy grows anxious, neither resolved to join the children's games nor the men's. He walks a few meters past the police post to a neighbor's pile of collected branches for the *chulha*, pries out a three-centimeter stick, returns, and begins to drum rapidly and rhythmically on the container on which he sits. As one hand strikes with the stick, the other alternates between strikes of the wrist, palm or fingers to produce different intonations, in *Purbi Baj*. His drumming is tolerated for a few minutes, but he is scolded into silence by the group of middle-aged women who for the next half-hour complain amongst themselves about the loudness, aimlessness, and disrespect of this next generation.

The wait for water in Panchtare *basti* is resplendent with flows, an affluence of social, hydrological, and economic discourse, which is formed in part by collective narratives that define the identities and social norms of the community. While waiting, children vibrantly debate the rules of a rock-catching game and reminisce with tall tales about

their major wins at marbles. The few men discuss the difficulties of work and money, networking as they gamble petty sums on cards. The women cluck about household economics and their children's futures and reprimand children regardless of kinship. For these hours, there are representatives from every family on the street, producing and strengthening critical community flows, in a way that indicates urban vitality (Jacobs 1993) and vibrant market flows (Elyachar 2003). But while the circulation of narratives and exchange of information could be seen as a form of social affluence—a vibrant, rich, and gushing flow of social interaction—the residents deeply feel this waiting time as insurmountable stagnation. The metaphor of stagnation operated in the women's descriptions of the choices they made about water circulation in their homes and in their own ability to circulate in their settlements, city, and, ultimately, economy.

The women's interactions are interrupted by a cry from one of the women. Nahlah hollers again at a three-year old who has pulled down his shorts and begun to defecate on the sidewalk across the road. The splatters and mounds are fresh on this left bank every morning, when adults and children relieve themselves there, but it is not considered appropriate to go there during the hustle and bustle of the day, even for children. Some of the waiting women complain that no one should defecate there—since it is so near the evening market and the tanker distribution site, the scat is unsanitary and impedes the use of the public space. As a result of the pollution, the daily ratio of buckets and pipes on the clean sidewalk is severely skewed.

The vessels are densely arranged on either side of the road, as if to beckon the imminent tanker to its intended parking place. But, despite the crowd, the distribution around the awaited arrival spot is not even. The left side is used regularly by only about one-third of the people collecting water from the tanker. The trouble is that they are wont to avoid lining up their buckets near the soiled sidewalk, but the closer they cluster into the street, the narrower they make the thoroughfare. If the tanker is unable to fit, it is parked farther away from the *basti*—everyone must then adjust their buckets and walk that much farther to their homes. Some people reluctantly join the collectors on the left side only after they are squeezed out of access on the right side after the tanker arrives.

In the tense seconds before the tanker fully stops, the crowd surges forward, lunging a few yards to ensure an unobstructed spot to hoist and receive the hose, or *pipe*, that will siphon the tanker water to their vessels. The driver and his assistant let out warning cries, lest someone get run over by the ten-thousand liter capacity tanker truck.⁴⁷ Within milliseconds, and while the sloshing water inside makes the stop jerky and unpredictable, a few wiry boys and a couple of girls mount the ladder in the back and climb atop the tank. They scramble to the circular hatch in the center of the tanker's roof, throw it open, and plunge their family's pipe inside. These hoses are reinforced in the final half-meter, with a male metal tube threaded through the end of the pipe, to make it sink and continue to collect water without interruption as the tank's water level drops. Once they drop the

⁴⁷ The damage and casualty reports that are covered by the Indian news media focuses on middle-class losses, like car and scooter accidents caused by tanker collisions and spillage. Though there are cases of corporal damage and fatalities during the slow-moving approach and departure of tankers at their drop-off points, these events are not recorded as newsworthy, though they live in the oral narratives of tanker drivers and residents.

pipe in, they suck the pipe to begin the water flow and pass the tube to a family member below. These children then are able to catch and embed the pipes of other community members who struggle to be next in line. In the commotion, pushing and fights ensue as people climb over each other's vessels (sometimes tipping them over); as they clamor, reach for, and snatch pipes that splash into fractionally full buckets; and as they nudge, push, splash, and otherwise occupy the space of their neighbors.

As at other water distribution sites, there are a lot of arguments and accusations bandied about as the collectors jockey for their stake in the finite resource (Shiva 2006; Joy 2010; Zerah 2000). The sooner a pipe is inserted into the tanker, the faster the water is able to fill the vessels.⁴⁸ While at the taps, the rhetoric centers around the amount of time a collector has invested in waiting, here at the tanker, where there are so many pipes drawing water at once, the struggle is also territorial and based on identity. The legitimacy of a person's allocation is determined by the time spent waiting, and when others from different spatial areas claim another area's water, with or without waiting, their exclusion is argued for because they are people from another time. Time continues to be the primary lens through which water rights are legitimized; claims about time are evoked at the tanker to accuse interlopers of missing their allocated time at a tanker carrying "their" water. "*Futafut khali ho jata hai*," residents say, "[the tanker] becomes empty immediately," which means that the interlopers have the ability to desiccate the

⁴⁸ This is both because the "start time" is sooner, but also because the siphoning process is more rapid when the water level in the tank is high. In chapter 5 the idea of "infinite" water access is explored in relationship to the arrival time or the technology of a person. In this sense, the ability to reach adequate water quantity is not limited for everyone in the community.

tanker before those who come at their allotted time are able to collect enough. The water that comes to this tanker distribution point and the time period of service, argue the residents, are allocated to the residents of the limited area around the site. When a person misses the pickup time for “their” tanker, community members argue that they should not be allowed to dip into the allocation for their neighbors. Water rights at the tanker are thus based on identity and proximity, but only as reflected through time.

Disputes about fairness in time and timings drive the core water concerns in the *basti*.

The issue of Embassy side residents having better water timings is a major frustration for the Road side of the *basti*. The New Delhi Municipal Corporation (NDMC) sends four deliveries of water each day to the entire community.⁴⁹ The tanker stops on the eastern back road of the *basti*. It stops twice on the Embassy side, once in the morning at around eight o’clock, and again around two o’clock in the afternoon. After each of these stops, the tanker returns to the filling station, and makes its second-round of stops in the *basti*, on the Road side, one hundred and fifty meters south-west of the Embassy side stop.

Roughly speaking, it takes about an hour from the time the tanker leaves Embassy side to fill its tank and return to its stop on Road side. But the tanker often arrives late, waylaid by traffic, trouble filling, or myriad reasons.

⁴⁹ During the majority of my fieldwork, and several years before, the NDMC sent four tanker deliveries each day to Panchtare *basti*. A community-driven, NGO-organized group lobbied for two more deliveries each day to the front road of the *basti*. These deliveries began near the end of my fieldwork. These new deliveries did not seem to raise much of a reaction within the community nor did narratives of affluence or scarcity change. However, the amount of observation after the new deliveries were added was too short to make any final conclusions that the deliveries had no effect.

To Road side residents, the consistent arrival time of the tanker at Embassy side underscored the illegitimacy of Embassy side latecomers claiming Road side water. Sejal tsks, “they know when their tanker will come; they should be there. If they are late, they should not get water. They don’t care; they just take our water.” Some Embassy side residents actively plan to collect at Road side so they can commit to another hour of work outside the home, but this puts additional strain on their time at home, since carrying the water back takes longer. For this reason, many only collect at Road side if they accidentally miss their tanker delivery. Some Embassy side residents regularly collect water at both sites, whether to top-off a capacious reserve of *bartan*, or because the amount they were able to collect was severely inadequate and they did not get enough to complete their chores before the next delivery time. Of these Embassy side visitors, some unapologetically stake claim at the right side of the road. Others slink in, quietly putting their buckets, one at a time, into the hodge-podge clusters. Many stick to the left side of the tanker,⁵⁰ especially those who plan to fill large vessels, topping off their first round of collection. Jalahasini sighs, “*Aagr pipe ho, to sub aa jaega*,” if there is a pipe, then everyone will come.

Jalahasini’s sigh audibly expresses the frustration with the disparate water access is that she surmises is supported by a disparity of lifestyle between the Embassy side and Road side residents. The Embassy side families have very different economic circuits than the Road side families. Embassy side was settled twenty-five years earlier, and is in their

⁵⁰ In addition to being less crowded and disfavored because of the feces, the left side of the tanker faces Embassy side, and hence provides a blind spot for residents who have not waited or who have missed their delivery time to slip their pipes into the tanker without as much commotion.

third-generation. This has been enough time for children who came to the *basti* in their early years, to be shaped by its unique social formations and inculcate these values in families of their own. About forty percent of Embassy side residents are original settlers; while a large percentage of original settlers have acquired additional *jhuggis* which they lease. Some of the lessees are entire families, but many are working men that live two or three to a *jhuggi*, otherwise alone in the city to work or study.⁵¹ For some of the original settlers, this rental income has allowed them to have leeway to take days off, or to survive on rent income alone.⁵² But the change with even wider reach, extended to long- and well as short-term residents, is that economic circuits have adjusted to include women in outside work. There is more leniency in the judgment of female workers. The local Hospital-Birth NGO workers in the community say that the “village mentality” has left this side of the *basti*.⁵³

The NGO workers used this English phrase to describe some of the traditional social values that they found in the settlement and largely contrasted the presence of the “village

⁵¹ Some are single and others are married, but both strive to send remittances to their families (nuclear and extended) in their natal village, which is why they choose to live in an austere residence.

⁵² Many family earners do not take any days off of work. One domestic worker says, “a day that I do not work is a day that I do not eat.” While many people living in the *basti* are allotted one day or a half day a week where the earner is not required to be at work, this day is filled with chores and activities that cannot be outsourced in exchange for money. This means a day off of work is still a day of work. Further, while families in the *basti* for the most part have enough savings to plan for visits to the village, a sudden illness that keeps an earner from work for as little as a week can economically devastate a family. This is explored in greater detail in chapter 4. For a family whose income consists of or is supplemented by rent collection, it opens a new lifestyle of “free” time.

⁵³ The NGO workers used this English phrase to describe some of the traditional social values that they found in the settlement and largely contrasted the presence of the “village mentality” on Road side with an evolution beyond it over the generations living on Embassy side. They frequently used this phrase with negative connotations, but sometimes used it to positively ascribe values like modesty, obedience, innocence, and humility. This usage underscores their Romanticism of village India as well as their equation of urbanization and evolution.

mentality” on Road side with an evolution beyond it over the generations living on Embassy side. They frequently use this phrase with negative connotations, but sometimes use it to positively ascribe values like modesty, obedience, innocence, and humility. This usage underscores their Romanticism of village India as well as their equation of urbanization and evolution. “The taboos about women working outside of the home have lessened [there],” said the field director. “On Embassy side we have documented that sixty percent of the women work [outside the home].”⁵⁴ While the exact trajectory of family poverty alleviation is heavily debated (Bannerjee and Duflo 2011), there are fewer men working on Embassy side than on Road side, and rates of illegal work and gambling, though present on both sides of the *basti*, are much higher on Embassy side. Many families on Embassy side have dual income due to women’s work, and at times, in single income families, the earner is female. Women who leave the house are supporting their families, often as construction laborers, salespeople (selling items from the home like small packets of shampoo, spices, or knitwear, also managing a blanket on a sidewalk spread with wares), gardeners for the municipality, domestic workers, or sex workers. Their economic contributions, coupled with rent collection, are a major reason for the financial affluence on Embassy side.

In contrast, the economic circuits of the Road side are closer to traditional Indian economic models. Although women on Road side engage in extra-domestic work, it is to a lesser extent and has a different character. The NGO field director estimates that

⁵⁴ One can save money by consuming less and internalizing the work, but this makes the family’s overall scope to circulate much smaller. Outside work allows more money to come in, but more money must also be spent to make up for fewer people working within the home.

twenty-five percent of the women on Road side work, and although there are fewer sex workers on Road side, there is a much higher incidence of shame surrounding women's work. To the field director, this was a relic of the "village mentality." She says, "these people come to the city to get modern, but letting go of the village mentality is slow." Some of the men say that it reflects poorly if the women in their family work outside the home; they say things other than their salary are considered inadequate (Gamburd 2002). Other men do not consider it an affront to their reputations, but say, like Thorstein Veblen's theory purports, that their reputations are enhanced if they can afford to keep their women inside the home (Veblen 2009). In some households, it is not necessarily the economic earning that threatens a woman's reputation, but her mobility (Nussbaum 1995). In these homes in the *basti*, men are more likely to share the chore of water collection, but also might restrict their women's movements to within view of their home.⁵⁵ Bebi Haladara, in her autobiography of growing up in informal communities and working as a maid in India's burgeoning cities, confirms this practice is widespread in these diverse communities (Haladara 2006). Though residents here, as on Embassy side, are not homogenous in their support or distaste for specific, gendered economic circuits, there are preferred practices on each side. On Road side, the circulation of money, women and water are all under close observation, and this keen management plays a role in the creation of an environment of slower circulation resulting in greater stagnancy and less upward mobility.

⁵⁵ Many of these women report being prohibited from wandering farther than a few doors down their lane, and being completely restricted from entering anyone else's *jhuggi*, regardless of the reason or who is inside.

These differences in part fuel the prejudices that Embassy side residents and Road side residents hold against each other. The circuits of social and economic power map onto to water: access to water and the rhetoric of legitimate water use, ownership and control reflect the social differences between the two sides of the *basti*. This is shown in India at large by several authors in *Water Conflicts in India, a Million Revolts in the Making*, and the parallel between social and economic power and access to water is not lost on the residents of the *basti* (Joy 2010). Jalahasini explains her perceptions of Embassy side, “*vha se lalchi log aate hain*,” greedy people come from there. As she waits, glancing over her shoulder anticipating the tanker’s approach, she describes that the “greediness” of the Embassy side residents is not limited to water, and names a variety of commodities that their families have: washing machines, air coolers, scooters, blue jeans, the list goes on. She says, “*yeh cheez, voh cheez, sub ko paani zarurat hai*,” meaning “this thing, that thing, water is necessary to it all”. She does not think she can do much about the people from Embassy side coming to take Road side tanker water, just give them a hard time by not passing them a pipe, maneuver around them during filling times, and make them feel unwelcome. But other residents think there is a little more to be done.

Nahlah sometimes comes to the tanker point early, not just to help Road side residents, but also to keep an eye on Embassy side. Today, she sits on a water drum beside the high curb and bounces a new great-grandson who stands wobbling on her knees, the clink of his one silver anklet punctuating his footsteps on the folds of the parrot-green chiffon sari that covers her lap. Her daughters-in-law, out to collect wood for the *chulha*, come to

pick up the small boy on their way back into the *basti*. As she hands off the child, Nahlah reports that the Embassy side water delivery has just departed, making it about ten minutes late, “*Das minute dair se tanker gya.*” Her daughters-in-law, heads elegantly poised to bear the brunt of the thick bundles of branches, with her older great-grandchildren, heads affixed with shorter bundles of kindling, gracefully turn and begin their gentle walk back into the *basti*, diffusing the news of the tanker’s estimated arrival time at the second stop into the lanes and clusters of homes along their path.

As her daughters-in-law leave, Nahlah begins to explain why she reasons that a lookout is necessary. She says that not everyone can afford to be idle for the hours that it takes to watch for the tanker. “My children and their children all work, the men outside [the *basti*] and the women work [inside the home] here. Some are in school. Many families are the same. We are all busy here.” She describes how lucky she feels to have a family large enough to shoulder more of the housework and support her now that she is in her fifties. She is able to take some time to herself in the afternoons, and sits here when she can. She says, “If I sit here, I am of use.” She pulls the *pallava* of her sari to her shoulder, looping the edge over her hairline, and with the clinking of her multi-color glass bangles, holds the modestly decorated hem a few inches forward like the brim of a cap. Her squint relaxes and she leans in closer, divulging the story of why she keeps an eye on the tanker’s movements.

She explains her reasoning. Nahlah estimates that within a half-hour of the arrival time most of the community would start to line up their *bartan*. Of course, if a lookout watches for the tanker, as many as a few hours of idle waiting can be shaved off of the busy residents' schedules. But more than watching the tanker's movements, Nahlah thinks it is important to watch the movements of the tanker driver and Embassy side residents. Their circulation and exchanges are relevant and impact Road side residents, and watching them would, in Nahlah's mind, ideally make them accountable through perceived transparency. "Someone should be seen waiting here and watching," she says.

She purses her lips and the tone of her voice becomes a little playfully defiant, with a melodious warble that characterizes the deliberate building of suspense when a Bollywood heroine is withholding something she will ultimately divulge. "Oh, you know, don't you," she builds, "*Aare, tum jante ho, hai na?*" her eyes scanning left and right as though to make sure no one is listening. This is a theatrical embellishment, since everyone in the *basti*, regardless of the side, has heard the urban legend of why half of the *basti*, Embassy side, gets its water on time, and why Road side residents must wait.

With calculated precision, she delivers the punchline, "they give him Coke and sandwiches." She raises her eyebrows to provoke her listeners into response and then delivers the final blow, "Corruption *hai*," she says in Hinglish and gives the information time to sink in before elaborating. She looks again over her shoulder and gestures "*aao*," come,⁵⁶ to a few other women who had tentatively put their *bartan* three yards away.

⁵⁶ This gesture is common throughout India. The arm can be outstretched or bent, and held at any level, provided it ultimately points toward the beckoned. The hand is held palm down, thumb relaxed and the

The women smirk slightly, perhaps in evidence of the fact that they were far enough to not justify reprimand from Nahlah, but within close enough proximity to eavesdrop on what, given Nahlah's carriage, must have appeared to be a salacious story.

"*Sach hai*," it's true, says one of the women, lugging a collection of Saffola cooking oil jugs. She stands while she talks and her worn blue and white flip-flop *chuppals* quietly creak with sweat as she shifts her weight. She wipes her cheek and neck with her *dupatta* and contributes her evidence. "Every day, they give the driver sandwiches and Coke. They buy the Coke from outside [the *basti*], and get the bread from the local *kirana* shop. He sits inside with a cooler running and eats. This is the reason [why he is not late for Embassy side]." In the arrangement she proposes, the Embassy side residents convert money into goods that are exchanged with the driver for time and reliability of water flows. This circuit implicates the driver in beyond government-sanctioned water exchange circuits, in the informal exchange of priority in resource access for consumer goods.

The lack of visibility—literally when the driver goes behind the closed *jhuggi* door, and figuratively in terms of covert actions—is often underscored in the accusation of the driver's engagement in informal exchange. The group of women waiting for water

loose, outstretched fingers are bent at the first knuckles (those connecting the fingers to the hand), bringing the fingertips to the heel of the hand. The thumb remains unbent, and if the wrist moves, it is only slightly and a result of the fluid finger movement. The fingers return to their outstretched position and this series can be completed a few times at a rate commensurate with the urgency or desire of the beckoner to compel the beckoned to come. Often, the motion is paired with the conjugated word *aana*, to come, each time the hand closes.

discusses how this resonates with them. The third woman declares that she has seen the driver getting out of the tanker's cab, and instead of waiting on the roadside, like he does on Road side, he disappears. She plays with her *mangal sutra* as she speaks, fingering the silver links with her henna stained fingertips, her other arm lightly resting on her gaunt ribcage and supporting her whisper of an elbow. For Nahlah, the disappearance of the tanker driver alone is not enough to make the bribery story legitimately true. Nahlah says that she has seen the driver, with her own eyes, enter a *jhuggi*, and has heard Embassy side residents talk about offering him food. His disappearance, into what Nahlah confirms to be a *jhuggi*, condemns him as guilty of whatever thing he is accused, since this is a social norm in the *basti*. The close vigilance of people's movements, especially on Road side, is based in a dichotomy of visible, known activities and invisible activities where presumption can be taken as truth. The importance of remaining within the gaze of the community to protect a reputation is not lost on the group of women. By entering another's *jhuggi*, the worst can be assumed to be true.⁵⁷ In the case of the driver, by rendering part of his official circulation invisible, he is accused of corruption, and implicit in a narrative of a trans-national, modern economy ruining an otherwise well-founded government based in Gandhian independent-rule, *swaraj* and Nehruvian modifications of socialism.

⁵⁷ Many people in the *basti* will not enter the *jhuggis* of their neighbors, and this is even more pertinent to women. The NGO field supervisor elaborates that there is a similar taboo about cooking in another's home. The fear of being associated with a person whose reputation might tarnish one's own is very strong in the *basti*, especially on Road side. She says, "getting involved in the lives of other women can be dangerous." But there are exceptions to interact. Sometimes the NGO would hold official women's group meetings in the homes of the members. This officially sanctioned, and hence supervised, meeting allowed an element of freedom from accusations. One overall exception is that it is common to see relatives in each others' *jhuggis*, which might reflect the inextricable link between a family member's reputation and the family's reputation as a whole.

In bringing this political governance narrative to life, Nahlah and the women outline that the corrupt Embassy side residents convert money into goods that require more water and also into goods which are exchanged with the driver for water. In addition to showing the connection between contemporary urban ethos of increased consumption, this circuit implicates the driver in engaging in not only government sanctioned water exchange circuits, but also indulging in granting priority access to state resources through informal exchange for consumer goods.

For the Road side, the bribery narrative reflects a discomfort with the unequal distribution of water, and their hopes for coping with the disparity. Hydrological narratives are windows into the social and historical context of a society, and as such, the context of these narratives is paramount. In the *basti*, residents transpose an anti-corruption narrative that has defined the political discourse in Delhi since 2011 onto the daily struggles between disenfranchised citizens and corrupt government gatekeepers that privilege the already affluent upper- and middle-classes.

This is to say that the Coke and sandwich narrative fleshes out not just a new context in which the political movement is produced, but it provides insight into the permeability, or absorption, of the anti-corruption movement into the mundane elements of everyday life. The rumors of Embassy side's practice of bribery were diffuse in the times leading up to the spring of 2011, but the re-telling of the narrative of bribery rose exorbitantly during

the enhanced public discourse on anti-corruption. Though concerns over corruption had been building, at this moment in Delhi, Corruption Fever was sweeping the city (Engineer and Puniyani 2012), especially the middle-class (Joseph 2011). Daily text-blasts inviting people to Jantar Mantar for protest rallies and bolded headlines in English- and Hindi-medium newspapers circulated widely, spreading outwards to provide the direction and fodder for conversation at every level of society. Though some of the *basti* residents attended the anti-corruption rallies at Jantar Mantar, and others followed the progress of Anna Hazare and the Jan Lokpal campaign closely in news media, the abstract terms and ideas that they used had found little traction in the *basti* at large in the way that specific, grounded, contextualized examples do. By looking deeper at the way corruption is perceived by this population, the concept of “corruption” can be developed beyond the ideal-type constructed through the publicized discourse of the movement. This enrichment allows the term to be meaningful for a greater proportion of Delhi’s population.

Understanding the differences in the interpretation of corruption affects the solutions to corruption. Unlike the tenets of the Jan Lokpal Bill, which are grounded in exposing and requiring retribution for officials who are found guilty of corruption, Nahlah and other Road side residents do not indicate that collecting undeniable evidence, or proof of bribery, is at all a priority. The importance of Nahlah’s watch, in her mind, is not necessarily to catch the Embassy side people bribing the tanker driver, since she is convinced that this happens regularly. Aside from providing a specific incident to file a

complaint, which would go unread she surmises, her watchful gaze would show the tanker driver and the Embassy side residents that their actions are transparent. Nahlah says that it is not just about seeing the tanker driver, but being seen at watch.⁵⁸ When the tanker driver sees someone waiting, and keeping track of his arrival and departure, Nahlah hopes, like others on Road side, that he will be inclined to act more honestly and this will result in prompt water delivery. Nahlah anticipates that surveillance will compel them to act without corruption.

In her own way, Nahlah is being a watchdog against a form of political corruption that privileges modernized citizens. To the Road side residents, legitimate hydrological circulation and economic circulation can be interrupted, or corrupted, with informal exchange. The bribery narrative maps the informal flow of “foreign” goods onto the informal flow of water. The goods in the narrative were representative of transnational consumer patterns, but were also foreign in the sense of being external to the natural circulation of water in that they were not sanctified to be a part of the official flows. The informal exchange of priority in resource access involves the cooperation of public servants with citizens who have access to consumer goods, rendering an ideally equal distribution system into a weighted circuit that rewards economic affluence with hydrological affluence.⁵⁹ This is to say that, in the minds of residents, access to

⁵⁸ The importance of the reflexivity of both seeing and being seen is a central element that is investigated deeply in the Introduction chapter.

⁵⁹ This system is even more skewed when it comes to the levels of technology of the middle class. This is explored at greater length in chapter 4.

economic power means access to water, and that the government is complicit in maintaining this bias.

The ability to affect purportedly just systems of governance with money, foreign goods, or modern consumption patterns is at the core of the residents' "hydrosocial" discomfort (Linton 2010). The fact of the matter is that the narrative does not suggest bribery with common, domestically produced goods or with liquid currency, rather, it suggests that the bribes are a part of a transnational, post-economic-liberalization India—an economy in which as many as 90% of the population are left behind, often purposely (Ghertner 2011). In the Road side narrative, the bribe is not the *rotiya* of the traditional Indian kitchen, nor is it Thums Up, one of the still-surviving original Indian cola brands that Coke now owns. The origin of the bribe is external: from the industrial bakery that distributes western-style sliced bread, to the global soda franchise. Even the sandwich ingredients are called into question, and Road side residents chatter on about whether they are veg or non-veg, or dressed with chutney or ketchup. When discussing the alleged bribery, Sejal bemoans, "we have no money for bread, and Embassy side eats it daily." She adds that even if they did, she is not sure if the driver would accept a sandwich from them. Sejal, like others on Road side, knew that people did not regularly accept their hospitality because of their socio-economic position. The perception that the tanker driver would not engage in the exchange of food with them hints at an extremely valuable point, that they perceive that their hierarchical position limits their participation in reciprocal exchange.

The water bribery narrative further articulates this point as it assumes that there is less hierarchical difference between the tanker driver and the Embassy side residents, which allows them to have reciprocity in exchange. Like the Embassy side residents, the tanker driver has access to economic circuits and mobility that the majority of Road side residents do not. For one, the tanker driver is a government employee, which is a position of status and an indicator of being middle-class (Fernandes 2006; Shridharan 2004). But more than this, the driver is, and strives to be, conspicuously middle-class.⁶⁰ As he jumps down out of the cab of the tanker and walks into the shade of the stonewall, the masculine scent of his aerosol body spray, pungently enhanced by wet patches from sweat and splashes of water, wafts among the natural smells of the *basti*.⁶¹ Like many government employees in Delhi, Jaldhar, the tanker driver, wears pressed slacks and a collared oxford shirt with his leather belt and shoes everyday as he delivers water on his rounds. Though some wear soberly embellished pressed *kurtas*, Jaldhar has never worn one to deliver water. “Dress to impress,” he says in English, as he continues in Hindi how he would like to be promoted to a desk job someday.⁶² To Jaldhar, this means

⁶⁰ It is important to note that the tanker driver probably falls into the category of lower-middle-class. In his previous employment, a private sphere truck driver, he would not have likely made this category. His official government position and pension are important factors to the residents in making this assessment. Residents assign him to middle-class at large, because they do not typically sub-categorize people beyond this. The preferred term to indicate the achievement of economic “security” is *Bde Log*, literally “big people.”

⁶¹ The residents, like many people in India, are meticulously committed bathers, and though their clothes might be stained and tattered, they are almost always freshly washed. Many people in India go *au natural*, bathing once or twice a day, and using talc and sometimes deodorant to manage natural scents. Everyday cologne and body spray are relatively new to the Indian market, and have not been widely or evenly adopted.

⁶² Though Jaldhar is not the focus of this inquiry, it is relevant to note that his conception of gaining economic and social power is also linked with the ability to show that he has access to middle-class

wearing the uniform of a global citizen: western style garments and grooming. He dresses more casually for deliveries on Saturdays but still wears a collared polo shirt with a logo on the breast tucked into a belted pair of Levi jeans, and a comfortable pair of Puma athletic shoes. To afford them on a modest salary, these *pukka* branded items might be purchased at night markets for factory-reject or stolen materials, but copies are ubiquitous in a city whose “pirate” economy thrives (Sundaram 2004). Many of the Embassy side residents, and some of the Road side residents engage in these black-market transactions, buying specters of *pukka* clothing for their enthralled youth.

In a basic way, these simulations of middle-class items have more power than the *pukka*, branded items. The referent has lost its meaning, or in many cases, never had one. In this sense, it is not important to have the pedigreed, branded middle-class item, but a visual simulation of it. But just as these simulated garments are more real than their counterparts, the bribery narrative can also be viewed as a valuable fabrication that tells more truth than the “real” story. In Baudrillard’s theory of simulacra, the simulacrum, in Delhi for instance, a pirated pair of fake Puma shoes, is more real than the thing it represents, the real Puma shoes (Baudrillard 1994). This is because neither representation is real; however, the fake is authentic because it is a representation. In the *basti*, like the simulated garments, despite its fabrication, the bribery narrative is more relevant than the actual exchange circuits.

exchange circuits. Jaldhar’s narrative shows that this desire to become a part of a middle-class India, to some degree, permeates class boundaries.

As Nahlah and the women express, confirming that the act of bribery is real is not a priority. Though many residents meet Jaldhar at least once a day, no one asks him about the truth behind the corruption accusation. Yet when prompted, Jaldhar claims that he has, on a few occasions, eaten sandwiches and taken cold drinks during his stop on Embassy side. To him, the brand of the beverage is not salient. He also says that in the hot months he regularly accepts invitations to a cooler-ventilated *jhuggi* nearby the distribution site and waits there while the tanker is emptied. “*Sirf mehamandari hai*, corruption *nhi hai*,” he chuckles, “it’s just hospitality, not corruption.” Jaldhar says that the tanker schedule is assigned to him, and although he has the control to deliver water to the Road side first, he is hesitant to change the delivery pattern. “No matter who gets their water first,” he says, finger pointed into the cup of his left hand punctuating his conclusion, “someone will complain.” This is not favoritism, he explains, “*aise hi*,” “it is just like that.” Jaldhar’s statement that “it’s just like that,” he explains, ultimately reflects the Indian idea of hospitality. Because he uses this as a euphemism for the feelings of entitlement to hospitality that comes with having a higher position, it further equates his self-identification as a middle-class person of higher status. In this way, Jaldhar, like many of the middle-class residents of Delhi, coopts this Indian tradition to defend his exploitation and usurping of resources.

Including this perspective shows that the driver’s view is aligned with the residents’: there is less hierarchical difference between the tanker driver and the Embassy side residents which allows reciprocity in exchange. It also highlights that the driver is still a

step beyond the Embassy side residents on the continuum of modernization. The details of these circuits of exchange and their implications on modernity are paramount in the discourse of India's development. The developmental project of moving people along the continuum of development through the ability to consume world-class goods (Fernandes 2006) is, according to neo-liberalist agendas, an indicator of India's legitimacy as a self-ruling nation. The ability to produce a middle-class majority, according to Mankekar, has consisted of systematically prioritizing the inculcation of middle-class aesthetics, consumption, and values (1999). These values have permeated every household of India (ibid; Brosius 2010), and whether to reject, embrace or ignore them is built into a myriad of choices every day. However, this choice is fraught, Rajagopal argues, "as consumer society has become coterminous with [Indian society], the alternative is not resistance but death" (2001, p. 317). The enhanced water access of those with greater incorporation in consumer cycles allows for an affluence that counters the stagnancy which spells loss of life and livelihood.⁶³ The *basti* narrative suggests that certain choices affect hierarchy and the ability to exchange, and thus many worried about their ability to survive. Just as the Embassy side residents have a connection to the middle-class through domestic service, and strive to "upgrade" to middle-class, the driver is, and also strives to be, conspicuously affluent. Jaldhar, the driver, is not a man to be tempted with the handmade *rotiya* of "village India," but a man to be won over with world-class sandwiches bought with wages from domestic service.

⁶³ The loss of life and livelihood will be explored in greater depth and in relation to urban vitality in chapter 6.

To articulate these truths which serve as evidence of stagnation, the community also represses some alternative narratives. This is to say that there are things that do not make it into the main narrative. Tracking the circulation of the water tanker over months elicited no significant difference in priority. Upon closer observation, the timetable at both locations is in fact erratic. Though the variation in arrival time to Road side is indeed greater, the Embassy side residents also face uncertainty in the arrival time of their water and similarly spend significant time waiting. Further, since Embassy side residents do not have the ability to calculate their tanker arrival time by surveying for its arrival at the preceding location, they arrive earlier to ensure they do not miss water delivery. Though some versions of the narrative acknowledge the evidence that external mediating factors (e.g. traffic, mechanical failures, trouble filling) affect the arrival time at both locations, the perceived excessive tardiness of delivery to Road side is thought to reflect the driver's unwillingness, or disinterestedness,⁶⁴ to overcome the delays and to reflect the government's lack of supervision, or surveillance. The narrative version, though "fabricated," reflects greater truth than observed "reality" in timing (Baudrillard 1994). It reveals the otherwise tacit yet widespread perception that the stagnant poor are not desirable participants in circulation, not just in micro exchange circuits between individuals and communities, but also with their government and society at large.

The marginalized residents of the *basti*, like the majority of India, are not enveloped in circuits of development the way the Indian elite is (Gidwani and Reddy 2011). In a very real sense, as India surges forward with economic and social change for the top 3%, the

⁶⁴ disinterest in the sense of lack of personal stake as well as concern

reminder, about 1.2 billion people, by comparison seem stagnant. This is acute in Delhi where the 30% of the city's population that live in *bastiya* must wait for 3% of the city's water allocation (CSE 2012, p. 29-31). However, this disparity is not only about absolute quantity, rather, it is also about rhythms and spatiotemporal availability in the necessity of waiting for water delivery versus the ability to simply switch on a faucet. This stagnancy breeds more stagnancy, as exclusion from circuits of water and exchange mean fewer opportunities to integrate. The affluence of some circuits spells stagnancy for others as water flows are increasingly available for cities, industry, and large-scale farmers, whilst the lifestyles and livelihoods of others become more precarious. Stagnancy manifests itself in macro-economic flows and abstractions—but it also manifests itself in the ability to collect water every day. As capital grows, families are able to access technologies that make water collection require less of a struggle. Essentially, these technologies—from simple vessels, wide-diameter pipes, and bicycles, to the technologies of the middle class: formal, piped infrastructure, motor pumps, automatic fill devices, and generators—compress space and time, as Massey might argue, allowing uneven surges in hydrological and economic circulation (2004).⁶⁵ And for many in the *basti*, exclusion from one of these circuits also meant exclusion from the other, resulting in a feeling of insurmountable stagnation.

The people sitting on the side of the road are not just waiting for water, they are waiting for the government to treat them with equity, and waiting to be incorporated into the new India. This equity and incorporation require the government to acknowledge the

⁶⁵ The compression of space and time by water technologies is explored to a greater extent in chapter 4.

legitimacy of the urban poor as productive citizens, without whom a world-class city would be impossible (Chaturvedi 2010). When the government plans for infrastructure like housing, water, and transportation, it has a history of prioritizing the upper- and middle-classes. For equity and incorporation to begin, at the minimum the poor—their time and work—must no longer be externalized. But for now, waiting means becoming infrastructure—the infrastructure that the government does not provide. This means that the urban poor must build a lifestyle that is hinged on their ability to be infrastructure.

The limiting factor of the water collection is not, as many would think, and as many experience in other areas, a problem of an insufficient amount of water allocated by the government. In fact, the water delivered in the tank is often not exhausted, even in the summer months, and tankers go back with some water still inside. The problem is that the people are externalized by the city as elements of the water infrastructure. The government and city planners, including the officials at the Delhi Jal Board, do not construct adequate piped water input nor sewage output to the *basti*, but instead rely on the residents to pick up where their infrastructure leaves off. People become stationary pipes, waiting to become temporary conduits, and they become the motors, as they power and push the water to the place where it is needed, and sweep and guide it out once more. Access to life's essential resource is based on the ability to become infrastructure, to become stagnant. Becoming stagnant to facilitate flow illustrates the necessary temporal dimension and the productive roles this stagnancy ascribes to water collection. By devaluing the time and work of the urban poor, essential deliveries of water become

based on their ability either to ante up, or to become infrastructure—waiting stationary as the kilometers of invisible, un-built pipes that the government does not provide. The idle waiting prevents residents from working, both inside and outside the home.

In the slow moments before the tanker is sighted, blurry in the refraction above the hot road, the neighborhood waits. Although each person bides her time differently—socializing with peers, spending time with family members, buying small treats—many say they long to be elsewhere. Waiting at the tap is different, some say. Varda articulates this best when she says, “At the tap I am active: watching, making sure I’m not cheated, moving my buckets; at the tank I only wait.” Varda and others feel that their time is of better use when they are actively negotiating the flow of water at the taps, whereas the inactivity of waiting is a source of frustration. But the majority of residents understand the management of water collection at taps to be just another form of biding time.

But in the stagnation, there is a flurry of activity which cannot be ignored. There is peer-group socialization and intergenerational discourse, including encouragement, commiseration, reprimands. Sejal combs her daughter’s hair, knowing that she will soon be married and move away. Children laugh and squeal as the next marble is chucked, and as the stones are caught. The women sympathize with each other while policing the sidewalk. This social circulation is interwoven with economic circulation as residents bring, buy, sell, and share goods. The toy bike is lent for water transport to an old auntie.

A new *bartan* is brought from the *kabaadi*. Playing cards and money shuffle around a circle of neighbors. A bag of *namkins* is passed between friends. Though there is a sense of stagnation in their participation in formal circuits, informal circulation flourishes. In this mundane stagnation there is undeniable circulation and vitality in which the community thrives. However, this theoretical view that understands waiting as a nexus for informal circuits should not overshadow the experiential fact that those who participate in such circuits experience it as stagnancy, to which they contrast activities and identities of affluence.

The residents' stagnation implicitly limits diversity in identity and in action. The idle waiting prevents residents from working, both inside and outside the home. Jalahasini calculates, "if the tanker always came at the same time, I would take [employment at] one more house. I would put that money in the bank for my child's life...I would buy good food and spend on education." Kauthar, a former domestic worker, knows that some families cannot afford to forgo work at an extra home. She explains that she shares water with a few of these neighbors sometimes, lending just enough water to soak grains. She remembers how hard it was to manage work outside and inside the home. She says, simply, that often there is no choice: without water to drink and prepare the family's evening meal, a woman is forced to quit. But Kauthar is exceptional: families do not share water on a regular basis. Many residents' intentions are the same as Jalahasini's and like Kauthar, they believed that with less stagnancy they could begin to be enveloped in India's new circuits of economy. This brings the trajectory of the bribery narrative

full-circle. Embassy side residents convert money into goods that are exchanged with the driver for time, which can then be exchanged for money through work. This circuit of affluence is self-propelling: those who receive water on-time can commit to more work, and their financial empowerment gives them access to more reliable water infrastructure, whether through formal government prioritization or through access to informal circuits of exchange.

The transition from stagnancy is not just marked by the temporal “wait” for water, but also the physical and emotional “weight” of water. Affluence, economic and hydrological, is important to many as a way to remain in the circuit of economic progress, but women like Muna crave affluence to sustain her identity outside of the economic sphere. Muna’s stunted leg from her childhood polio infection makes it difficult for her to collect and carry water and as she walks, the *bartan* sloshes back and forth, wetting the length of her *kurta-pajama*. The arduous walk back and forth from the distribution site to her *jhuggi* is not the worst part of water collection for her, nor trying to balance while sitting on a *bartan* or while vying for a turn with a pipe.

Although Muna fears that like her, her children will be exposed to Polio because of the water’s proximity to the open sewers, but of even more concern, she worries about how her children might be less like her. Muna says that when the tanker comes late, she must miss the call to prayer at the *basti*’s mosque. “Sometimes the tanker arrives just one-two minutes before I hear the *azan*,” she says, “then I must choose what need is more

important.” Most times, Muna chooses to continue to be the water infrastructure instead of being a devout Muslim and observing the call to prayer. “If the tanker always came at the same time,” she says, “I could go to prayer.” This conflict is de-humanizing and reduces Muna’s multifold identity to inanimate infrastructure—no longer a mother or Muslim, Muna is a makeshift pipe. Muna worries that this will impact her children’s commitment to Islam. While the literal weight of water can complicate bodies, to Muna it is this loss of identity that more cogently “weighs” on her. Muna has lost not just her body to water, but also her peace of mind.⁶⁶

As manual water collection creates a stagnancy that suppresses other activities and identities, it also is a heavy burden with literal weight. This is to say that the “wait” for water is not the only thing that impedes affluence, but also the “weight” of water. The physicality of the collection indentures not just the minds and identities of the residents, but also the bodies. Similar to Muna, Chanchari likewise suffers from the literal and metaphorical weight of water. Chanchari has osteoporosis, and many of the disks of her spine have been abraded by the pressure of a lifetime of carrying heavy loads on her head, making water collection near impossible. When she moved to her present *jhuggi* with her family, the walk was too far for her. Like many of Panchtare *basti*’s daughters, her daughter has been called on to help inside and outside of the home—forgoing school, and braving daily harassment, she bolsters the family income by working in construction

⁶⁶ Polio is most frequently transmitted through contaminated water and food. In the *basti*, contaminated water sources are frequent, but the greater risk is the open sewage, flies, and lack of hand washing that creates a larger risk for fecal/food contamination. In this sense, the poor water conditions also caused Muna’s bodily disfigurement.

and also carrying the water every day. “*Yeh meri parishaan hai*,” Chanchari says, as her collapsed ribcage and bobbed head seem to sink impossibly deeper. “It worries me that [my daughter’s] life will be the same as mine.” Chanchari, worries not only that her daughter will suffer from a broken spine from a lifetime of heavy lifting, but also that all the family has invested by in-migrating to Delhi—to raise children with greater opportunity for upward mobility and to be embedded in the affluence of the new Indian middle-class city—has been for naught. A stagnancy that is, perhaps, the hardest to bear.

The stark contrast between the families that are characterized by their affluence and those characterized by their stagnancy is largely determined by their ability to engage in methods to circumvent the wait for water. This ability is directly attributed to the power women gain from being employed outside of the home. Domestic work is one of the most common areas of outside employment. However, with exposure to this job the domestic workers’ relationship to water also changes. The transition of women into the role of the domestic worker, into private middle-class spaces, and new water environments will be explored next in chapter 4, *Of Pukka Thresholds and Porous Membranes: The Fluidity of Domestic Work*.

This chapter has demonstrated how hydrological systems and their interpretations are reflective of the social systems from which they spring. It tracked the flows and circuits critical to a micro-, or community-level context in order to explore the broader-scale interrelation of political economy, water governance, and gendered work. It described how disparate water access at this level is perceived and interpreted by members of

different groups within the community and how water access can affect, and be affected by, identity. This contributes to the argument that peoples' identities can be both affirmed and challenged by their relationship to water. The chapter suggests that being a domestic worker is a prominent identity that affects water relationships in the Central Delhi slum. The ways that domestic workers are different than their neighbors in water-poor communities will be explored in the next chapter.

Chapter 4 –
Of *Pukka* Thresholds and Porous Membranes:
The Fluidity of Domestic Work

As described in the previous chapter, the transformation from a non-working lower-class resident to a domestic worker for the middle-class is marked by communities in their use of metaphors of flow and affluence. This chapter examines how the transformation of a lower-class non-working resident into a domestic worker for the middle-class requires flows of water to maintain, requires domestic workers to be fluid in their acceptance of new values about water, and requires porosity of the otherwise rigidly protected thresholds of middle-class households so that both workers and ideas about water are able to cross. These three requirements build on the concept of absorption in that it creates three ambiguities: (1) middle-class water thresholds for personal comportment in the water-scarce lower-class neighborhood; (2) uneven acceptance of ethoi about domestic water within the mind of the domestic worker; and (3) middle-class homes that are at once exclusive and inclusive of lower-class elements. These ambiguities are suppressed but are necessary to the process of city-making because they allow the flow of domestic workers into middle-class areas of the developing city.

In the hours before the *shankha*⁶⁷ horns are blown for the *pujas* of first sunrise, many domestic workers are already awake. The female domestic workers in the *basti* rouse their small, trusted circle of women to go together to defecate, some to the government *shauchalay*,⁶⁸ some to the mobile toilets which are parked on the back lane of the slum, but many more to the railroad tracks and a secluded sidewalk nearby. When they return,

⁶⁷ The *shankha* is a conch-shell horn that is used for *puja* (prayer). It is played in the Hindu and Buddhist temples that are ubiquitous to Delhi neighborhoods.

⁶⁸ This translates as toilet or bathroom. The government *shauchalay* in Panchtare *basti* consists of a permanent construction of separate banks of stalls for men and women, and open areas for bathing in the center, which are sometimes used for washing clothes.

they start burning wood that they have collected to heat the *chulha* and begin to make breakfast for their family—often *chai*, *sabzi*, and *rotiya*. They walk outside and pull open the lid from one of their water *bartan* using a drinking glass or plastic dipper to draw enough water for the morning meals. Many get their children ready for school—making sure they defecate and bathe, put on freshly washed uniforms, eat breakfast and wash their hands—while some wake their husbands to take over the morning responsibilities.

For the domestic workers that come from Zamrudpur, some of these morning chores are made easier by access to common taps and toilets, but nonetheless, many peoples' morning chores are the same regardless of their class, the legality of their housing, or the degree of development of water infrastructure—in the first moments of waking, every person in Delhi relies on their neighborhood's water and sanitation flows.

The practices of domestic workers are largely the same as their *basti* or tenement neighbors. However, the presentation of oneself as an employee, or specifically a domestic worker, requires additional care and, almost always, additional water. The processes of getting ready and grooming their bodies for entry into middle-class homes is an important ritual that marks their transition to a new domestic space that has different rules about water and cleanliness. To prepare themselves and their bodies for the transition from their own home into the middle-class homes where they work, the domestic workers bathe, using twenty-liter buckets which are stored outside of their

doorways—slightly chilled by the *basti*'s night air or room-temperature in the tenements' airless halls. The women straighten the pleats on their freshly washed saris, or fluff and brush smooth their clean *duppatas* and *kurtas*. They use coconut oil and comb their hair into neat braids. Their husbands likewise bathe and put on freshly washed and pressed collared shirts and trousers. Their husbands may apply *sindoor* to the part of their wives' hair, rinsing their hands with a half-mug of water. Their non-working neighbors often choose to hold over on these water-thirsty chores, bathe fewer times a week and re-wearing garments a few times before washing them—just as some domestic workers do on their rare days off. However, on working days, these water rituals are compulsory. The domestic workers leave their *jhuggis* and walk out of the *basti*—or through their common halls, down the dark stairwells and out of the tenements—toward the neighborhoods beyond the barbed wire fences, guard houses and wrought-iron gates that delineate employer neighborhoods.

Many in-migrants to Delhi find that domestic work is relatively easy to secure for a person with little or no education. One of the most important credentials is a personal character reference, which is often proffered by another domestic worker. Potential workers that are new to Delhi largely rely on the referral of their temporary host, a person or a family in whose house they initially stay when they reach the city. New in-migrants usually select a host who is a relative or a person from their village who has already made the transition to the city. Among other things, these hosts act as guides and liaisons and try to link the potential domestic worker to other workers in the community (with vested

interest in hastening their guest's autonomy). Some families and couples that come to Delhi expect to look for work for one wage-earner, while others feel that the only tenable way to in-migrate is if there are multiple workers in a family. Whether for one or multiple workers from an in-migrant family, domestic work is a common initial entry point to cross into the city and to be a part of the urban economy for workers of any age or gender regardless of their previous work experience.

Delhi beckons citizens from India's farthest reaches; from a very early age it enters the imaginations of schoolchildren who learn about the nation's pluralistic capitol from afar. Ashita, a domestic worker who moved to Delhi a few years ago from peri-urban Chennai described her decision to move one-thousand five-hundred miles to a city that was not already at her doorstep. She looked up from her *chulha*, letting the cucumber *sabzi* drip off of her spoon into the bubbling steel vessel below her, wiped her hands on her sari and smiled; "we all can come to Delhi—it is ours." Since its founding in 1911 as the capitol of India, Delhi has been shaped as a city that strives to be comprehensive of its constituents—at least on the surface embracing its intra-national plurality.⁶⁹ Delhi's plurality is translated into the very patchwork of its urban vitality, and through this reworking its citizens become cosmopolitan, the very essence of this word—they are the citizens (albeit sometimes illegally) of a world-class city, the future of a world-class India.

⁶⁹ This framing of a city's diversity is unlike another world-city: Mumbai. Hansen's scholarship on the rejection of in-migrants from this city describes it in great detail (Hansen 2001).

Domestic work as a way to enter the porous border of Delhi's economy is not only used by Delhi's in-migrants, but is also used by its long-term residents. The choice for members of established⁷⁰ Delhi residents to join the workforce is sometimes spurred by a family wage-earner's inability to work. Oftentimes, these workers begin in a state of substitution⁷¹—their work understood as a temporary stopgap measure—and are often mothers, daughters-in-law, and daughters, while sons are drafted to work only if their education is complete or as a last resort. These types of workers find particular traction in the field of domestic work. The majority of domestic workers on Road side have similar stories of being unexpectedly thrown into work initially as a substitute for a primary wage-earner. Some prohibitive work-related injuries of the primary wage-earner happened in an instant, like a dislocated shoulder from a construction site accident; others came over time, like the slow collapse of Chanchari's⁷² spinal disks, where the move to the *basti* and the weight of daily water collection rendered her unable to work. Other slow-onset conditions that impede work are the alcoholism, gambling addictions, and drug use that has begun to afflict a growing population of the *basti* and the tenements. The vulnerability to job-loss even affects the most affluent families. On Panchtari's Road side, the Gupta's were one of the most economically steady families; he was a professional personal driver, a community leader, and a frequent lender to neighbors in the *basti*. Neighbors would say that his daughters were poised for great marriages. For several months, he became immobilized after a mysterious burning sensation afflicted his

⁷⁰ In this case, "established" families refers to families who have reached a level of economic earning or stability that they were comfortable with, and maintained for a few years while living in the city.

⁷¹ The word "substitute" or its equivalent is not used by these workers, however, they describe their employment as temporary, hinged on their family's primary wage-earner's return to work.

⁷² Chanchari's story is found at the end of chapter 3.

large toe. For about four weeks, he writhed in agony, moved to tears in front of visitors to whom he normally showed stoicism. In these weeks, his wife abandoned her early role of primary caretaker—preparing cold compresses; shuttling back and forth between the *jhuggi*, Bengali doctor⁷³, hospital, and chemist; and weeping quietly—and began employment as a domestic worker to help pay for the mounting bills for medical treatment. In a few more weeks, the family of four had exhausted its financial cushion, and their two daughters joined the mother in employment in nearby homes. Like many workers, they heard of open positions through one of their working neighbors on Roadside.⁷⁴

Noshaba lives on the opposite end of Panchtari's Roadside, in a *jhuggi* with a separate kitchen and a sunny courtyard along one of the major footpaths shared with Embassy side. The Gupta daughters attended the same government school as Noshaba's son, after his sudden move to the *basti*. Noshaba came to Delhi with her husband just after their marriage in her natal village. Her husband worked for several years at a nearby embassy as a floor and window washer, but when he contracted an illness that prevented him from working for longer than his standard leave would allow, he and his family were asked to

⁷³ A "Bengali doctor" is a person that provides medical care without a degree in medicine. In Panchtare *basti* there are at least four "Bengali doctors," which is the local word to describe the informal consultants that give medical advice. Many people know that the doctor is an unlicensed quack, but as they have experienced some symptom alleviation in the past, and are hard-pressed to leave the *basti* or pay for a visit to a licensed doctor, they return (Economist 2008).

⁷⁴ Many women in the *basti* socialize with their immediate female neighbors and their children. Larger social groups can form during water collection. The groups that form around the interior pumps are generally insular and include clusters of neighbors, since access is generally based on a *jhuggi*'s proximity to the pump. But for the exterior pumps and tanker deliveries, the women socialize in larger, more heterogeneous, groups with women in the *basti* whose *jhuggis* are farther away from their own.

move out of the embassy's employee housing.⁷⁵ Although they had saved money from his years of work and could afford to move to a tenement, they chose to move to the *basti*, hoping to remain close enough in proximity to resume the job once he was capable. But he passed away soon after the move, and Noshaba and her son had to fend for themselves as their modest savings dwindled. New to the *basti*, but familiar with women working outside of the home, Noshaba quickly networked with some of the working women on the footpath, and soon after getting employed in a few nearby homes, became a primary source for employment information to her neighbors on Roadside. When the Guptas came to her for job placement recommendations, she was not surprised, she says, since her husband had been comparatively financially secure, too. "*Keval kuch dinon ke ek jivankal purvavata*," she says, "only a few days undo a lifetime [of work]." The precariousness of life, lifestyles, and livelihoods in the *basti* does not escape the residents.

This pattern is similar in the tenements as well. Varsha began working when her husband needed ocular surgery. While he left Delhi to go back to his family in Chennai, she took a position in his previous employer's neighborhood, and has worked there ever since to

⁷⁵ In *Panchtare Basti*, thresholds are crossed in many ways. The men and women often work as domestic workers in middle-class Indians' homes, but also penetrate the borders of nations, leaving their "domestic" homeland of India, and entering the external, sovereign territory of foreign governments. In these areas, the performance of nation and culture leaves an indelible mark on everything, including mundane water use. As the capital of the nation, Delhi also strives to be India's primary international node and is home to well over one-hundred foreign embassies which not only act as a wellspring of world citizens in-themselves, but many of the foreign missions spearhead initiatives dedicated to increasing the knowledge and awareness of their country and its culture in the minds of Indians. These cultural programs target every strata of life, including water. From seminars for governmental employees who supervise the NGO workers that are responsible for demonstrations of proper hand-washing techniques for the women from slums that prepare their family's meals, to workshops for the public on how to determine the best R-O filter for their kitchens, the values and aesthetics of a transnational world-class city are disseminated.

earn enough for his surgery. Her daughter took a position as a live-in ayah to contribute to the surgery, and so her mother could share their tenement with other working women who could afford to split the rent. They both miss him, but know that their family could not afford to stay together without his income, and so are grateful overall that they could send remittances to his family to care for him in the more affordable peripheral Chennai in the meantime.

By relying on paid domestic work, many families are able to make ends meet in the face of a medical or economic catastrophe by propelling otherwise non-working members into wage-earning positions, which is the most frequently cited way that women and children become domestic workers. Other domestic workers work not only to supplement the temporary loss of a wage-earner, but also as a permanent source of livelihood, and this is becoming more acceptable for women as generations progress. Though often considered a female occupation, this workforce is not solely so. Like Mr. Gupta, Rajesh, Varsha's husband and others, many men are employed in domestic work and support themselves and their families through various domestic occupations.⁷⁶ Often in the domestic work sector there is a gendered division of labor, with drivers, gardeners, errand-boys, and car-washers being almost solely the province of male workers; and *ayahs*⁷⁷ being nearly always women. Yet while it is possible for both men and women to serve as floor-

⁷⁶ Some domestic workers begin paid domestic work in their childhood, especially if they grow up in a city. Children learn to clean their own family's home as they contribute to the family's household management. This could be because of a large family size that generates more time-consuming chores, or because the adults in the family work outside the home. Children also learn as paid domestic workers, sometimes shadowing an elder friend or family member to work, or otherwise finding a job on their own. Though this practice is discouraged in cities, the employment of children as domestic workers is persistent.

⁷⁷ Nanny or nurse

washers, dish-washers, cooks, clothing-washers⁷⁸, landscapers, and cleaners, the majority of those employed in these gender-neutral positions, and the domestic sector at large, are women.

In Delhi's embassy district, as well as in the affluent South Delhi residential area, the wages for a domestic worker vary by the position and whether the domestic worker is full or part time. Cooks and drivers, for instance, are far more likely to be employed at one to three homes, at most, while car-washers might wash the cars of a client list of five hundred households every two days. The majority of domestic cleaners in Panchtare *basti* and Zamrudpur tenements are part-time workers who cobble together work at several homes in a neighborhood, scheduling through a whole day. The average number of homes that a domestic cleaner services during the day is around four to six, depending on the constraints placed on them for their own domestic responsibilities (their "second-shift"). Many will work a ten hour day, from six in the morning until four in the afternoon, when their childcare duties interrupt their work schedules. Others whose youngest children are old enough to feed themselves or whose older children are able to walk themselves home from school are out of the home from six in the morning until eight in the evening. The limits of daily work tend to be cleaning from one home to up to eight, and while few cleaners work at only one home part-time, several work at eight.

With the exception of those who live in the *basti* and wait to collect water from the tanker

⁷⁸ *Dhobis*, are professional (though often informal) clothes-washers who are typically male, but operate at a common facility outside of the employer's home. This pickup and delivery service does not bring the *dhobi* or *dhobi's* delivery-boy into the private spaces of the home the way that paid domestic workers are that are employed to launder clothes on the premises.

in the afternoons, most domestic cleaners have a morning schedule of three to four homes, and either return to the morning homes for an afternoon shift or go to new homes.

Domestic workers' work is largely a clear list of tasks, but extra tasks are frequently assigned at the discretion of the senior female members of the employer's household. These tasks are rarely remunerated, and of greater consequence, have the potential to render a whole day's timetable awry, putting employment at other homes at risk. Some cleaners build a cushion of time between employers, spending ten minutes to an hour in the neighborhood park, or chatting under the trees in the parkway.⁷⁹ Although this time cushion frequently gets usurped by the extra tasks, they feel it gives them a better chance of maintaining their employment. Others persist with a schedule of back-to-back cleaning, arguing that the regular wages from working one or two more homes far outstrips the risk of dismissal for habitual tardiness and the temporary loss of wages. Each employer typically pays about two-thousand rupees to a domestic cleaner each month.⁸⁰ By crossing a threshold of identity and adopting the role of being a domestic worker, a large social hurdle of obtaining paid domestic work outside the home has been surmounted and hence adding more homes in the employer's neighborhood has a low cost, but a lucrative benefit. The extra wages are difficult to refuse, and many

⁷⁹ The importance of these public, green spaces and their maintenance through municipal water allocations is explored at length in chapter 6.

⁸⁰ This is equivalent to about forty U.S. dollars each month. However, this amount can vary based on the number of occupants in an employer's household, the size of a home, and the stringency of cleanliness expected. Other factors include the amount of time a domestic worker has spent with a family, the number of other domestic workers employed in the household and their seniority, as well as their specific job expectations (e.g. floor washer, dish washer, laundress). Some workers will accept less money from senior employers who are presumably living on a fixed income, while others will accept lower wages if the employer includes a light lunch (*sambar* and rice at the most substantial, tea and one to two *rotis* at the least).

“temporary” family wage-earners find themselves working in more homes than initially planned and working on a permanent basis. The Guptas also grappled with the question of when to reduce the number of jobs the family worked.

Unable to identify the source of the pain, Mr. Gupta’s toe was eventually amputated. He expected to go back to work after the wound healed enough to expose it to the infectious elements of the *basti*, and after he is able to balance well enough to walk without a stilted gait. Like many other homes that rely on substitute workers, the household wrestled with the idea of returning to fewer workers and was thrown into debate about which of Mr. Gupta’s wife and daughters, if any, would continue to work outside of the home. The factors for making women’s work a permanent source of income centered on the potential lifestyle changes resulting from the options—the women were now accustomed to work, and the daughters had missed so much school they were not likely to pass to the next standard that year. It is also unlikely that their lifestyle would improve at the same rate, if at all, without the women continuing their employment in the domestic sector. One of the local NGO fieldworkers predicted that the family would not go back to the way it was before. She says, “his daughters’ work is now necessary. The family sees the money come in and they already have the reputation of workers.” The family members ultimately resolved that the women would continue to work until they earned enough money so that they would not have to lease portions of their *jhuggi* and so that they could earn back the things that they sold during the illness. Their neighbors were not so sure. They thought that working is an irreversible step; once taken, it is difficult to go back to

the way things were not only because it is hard to reduce monthly earnings, but also because the act of crossing physical, mental, and metaphorical thresholds changes people.

Each morning, the domestic workers cross over literal and symbolic borders that render their ideas about water changed. This begins in their own homes as they groom themselves for the transition, crossing over from the category of mother, father, or child into the category of domestic worker. This continues as they leave their homes and physically cross borders and travel over thresholds into their employers' neighborhoods and homes.

They spill out from their lanes and mount the high curbs of the city's major road sidewalks, walking one half to five kilometers, growing en masse, and joined by hawkers whose wares are tucked under an arm or weigh down a slumped shoulder, warming up their vocal chords to induce the day's auspicious first sale; street-food vendors fragrant from commuting, from preparing the food, and from their mango-sized cones of incense; students laden with books in low-slung backpacks that patter low against their thighs; and aunties and uncles in loose leisure clothes and tennis shoes returning from yoga, fitness walking, or a laughing club in the local park. Once the pedestrians pile up enough to overflow into the road, the group charges ahead, crossing past buzzing motorcycles, roaring trucks, and humming compact sedans to the oasis of the median. After only a few close-calls they surge across once more towards the guard houses and weighted-lever arm

gate usually operated by a guard dressed in a pressed security uniform, indifferent to the burgeoning commotion of the day.

Domestic work is fluid in many ways. In one of the most general ways, it generates a circulation of people into the otherwise private spaces of neighborhoods and homes. But in another way, employment in informal work allows people to ebb in and out of employment in the system at large as domestic workers in-migrate, enter, or leave the workforce with few formal requirements. This informal system allows for flows between employers, for easy transition into different positions, and for meeting changing expectations and constraints. The domestic workers are nodes in a network that is in constant fluctuation. Like water flowing through pipes, easing its way from public infrastructure and spaces to the private, intimate spaces of the home, domestic workers also have a fluidity that allows them to cross over thresholds. Both come for a few hours a day to meet the life and lifestyle requirements of families, and as such, during certain hours, the part-time domestic workers flow into homes, too. Ironically, employers use their roofs as storage for both domestic workers and water. This location allows both the domestic worker and water to be present on demand, but also relegated to a liminal place that is both a part of the household and separate from it. This area is also out of the gaze of the family, making them invisible until needed.

Finally, the value structures that maintain the disjointed relationship of the middle-class to its water are similar to the value structures that maintain their relationship to their

domestic workers. Water's precious, essential flow is supplied to middle class communities at little cost, and likewise the indispensable services of the domestic workers are also sourced at an amount that will not sustain them. Each resource—the majority flowing into the city sourced from the reaches of India—is divided, stretched, and spread thin over the thresholds of Delhi. Although the current structures make resource appropriation relatively easy, these structures also give the appearance that both domestic workers and water are surplus commodities, which has deleterious consequences for everyone involved. In Delhi, as in much of the world, the true costs of domestic workers and of water are externalized and not reflective of their vitality to households, communities and cities. The necessity of water and domestic workers in middle-class homes challenges the deliberately constructed thresholds to become more porous, as outside, potentially dangerous, elements are required to pass inside. One of the most overtly defended thresholds that the domestic workers pass through is the first threshold: the neighborhood gate.

The gates, thresholds and protective borders are critical to the delineation of middle-class spaces. The borders maintain strict divisions between spaces of constructed purity and pollution; as such, their protection, functional and ritual, is meant to keep the disorderly ambiguities from polluting the developed spaces (Douglas 1966). In the creation of these boundaries, there is also a suppression of the ambiguous categories that are created in order to maintain the borders and the purity (Latour 1996). For these reasons, there is a lot of anxiety about the gates, thresholds and protective borders of pure spaces.

The security at the main gate between Zamrudpur tenement and the employers' neighborhood is like many other gates found around Delhi, and the scene one day varies little from another. A grey-whiskered man perches on a stool-height slice of a pilfered electric power pylon, rubbing his moustache's henna-stained tips absent-mindedly with one hand and holding the cord to the counterweighted gate arm in the other. He stares ahead, his eyes sometimes following behind beautifully-figured women, boisterous children, and potentially *badmaash*⁸¹ youth—the latter are most likely to spur him into action, though he rarely rises or reprimands. In part, this is because he is likely to have an affinity (if not direct affiliation) with many of the people who pass through. Beyond seeing the regular crossers in the context of their jobs, guards frequently live in the adjacent *bastiya* or tenements themselves. One reason is that their commute is shortened which means they can stay for longer shifts, but another reason is that they are within comfortable distance to home, and can be easily found by neighbors, friends or family members if their home responsibilities need immediate attention. On any given day behind one guard, another guard, tired from an eighteen-hour shift, can be found asleep on a makeshift seat of bricks and cement slabs, marginally cushioned by an old high density polyethylene rice bag, his robust phlegmy snore amply drowned out by the din of the street. At his feet, an unofficially adopted street dog might laze in a pile of sand near a few *namkin* wrappers and a *tiffin* of leftover *sabzi*, unlikely to be roused for anything other than the approach of another dog.

⁸¹ "*Badmaash*" can refer to a person who is temporarily behaving in a delinquent manner, or to a character-type of ruffian, scamp, or scoundrel. These are usually teenage men, and often (but not always) lower-class.

The guards of the threshold of the community are at most times apathetic to the penetration of strangers beyond the neighborhood borders, but they become more vigilant at night, when all auxiliary gates are chained shut and each driver or pedestrian is asked to provide the address of a resident who is expecting their arrival within. But during the day, there are many *kabaadi*, *sabzivalle*, salespeople, delivery people, mail carriers, errand-boys, and domestic workers, whose comings and goings are vital to the existence of the neighborhood. In fact, this flow of people, goods, and services is a measure that defines the Indian neighborhood as successful and healthy.⁸² The affluence of this middle-class neighborhood is dependent on its porous borders and its ability to absorb the participation of agents in several different exchange circuits.

But despite the vitality associated with these human flows, the residents are still wary of allowing the threshold between their community and the outside to be more porous, and when this disjuncture is threatened, actions are taken to reconstruct the division. One employer community's Resident Welfare Association (RWA) dealt with community border issues on a regular basis and spent much of its bi-annual meetings dwelling on transgressions and strategizing for physical and procedural border reconstruction. The RWA representatives used the bi-annual meetings to share concerns of the community

⁸² As explored in the previous chapter, affluence can be read as the ability to control the flows of goods, services, water, and people. Groups, families, or neighborhoods that can control greater flows are seen as successful.

and collectively determine solutions, to then return home to disseminate the news.⁸³

During one such meeting, the security of the neighborhood's borders was addressed through multiple concerns that ranged from the disappearing peripheral sidewalk and the motorbikes that rode on the sidewalks threatening the safety of residents as they crossed outside of their gates, to the fear that cash machines installed nearby on an outer road would invite a criminal element within the bounds of the neighborhood.

The concern about “outside” threats penetrated within the gates. A chief concern was with unwanted residents, recently provoked by municipal drain workers and private home renovation contracted laborers who had set up *jhuggis* in the alleyways and lesser-traveled roads. In the case of the drain workers, entire families had been bussed in from the city's periphery as laborers for the neighborhood's six to eight week municipal storm drain renovation project. Because they could not afford—in time or money—to commute to their village, many ate, slept, and defecated in the employers' neighborhood. Many did these things in the open air; some constructed semi-permanent brick, wood, and cloth *jhuggis*, but both practices concerned the residents. At the meeting, the members expressed concern that their streets were being pulled into the state of an informal slum.

⁸³ These meetings took place in a mixture of Hindi and English. Written reports were documented in English, whereas oral reports were given in both languages, depending on the context. Community information would be shared through word-of-mouth and flyers in the past, but in recent years mass text-messaging has become the preferred method. Community social events, political rallies, and death announcements were frequently texted, while paper copies of the latter were also put into letterboxes. RWA business, the docket, minutes, and resolutions are primarily only shared with the constituency conversationally.

The struggle between formality and security and neighborhood vitality penetrated into the inner sphere of the neighborhoods: individual homes. To address even deeper concerns about danger within household thresholds, the police commissioner was invited to emphasize the necessity of obtaining proper paperwork to invite regular visitors and temporary residents into a private home. The most anxiety expressed over regular household visitors was the danger of the home's own domestic workers. Contrary to typical hiring practices, the officer underscored that domestic workers should provide official documentation which must be verified, and employers should phone workers' previous employers to make sure they were not guilty of crimes. There were also concerns about outsiders who stayed as residents within the community on a temporary basis. As a measure of security, the officer conveyed that renters and boarders should be registered by police to not only protect residents from violent crime and robberies, but also to protect the *homeland*, since all terrorists must live somewhere. The discussion of closing off and protecting the community dominates RWA discourse, and perhaps this is because of the paradox of the parallel necessity to bring in people from the outside. On a daily basis, the ability for workers and others to cross the exterior community gates, imagined category borders, and interior thresholds is essential and inevitable to the existence of the way of life in these neighborhoods.

As they enter, the domestic workers flow into the gate and break off from the main road into the arteries of shady side streets and the capillaries of narrow shared walkways on their way to the next guarded threshold: the front door. The threshold of a household

doorway in this neighborhood is a *pukka* one in the sense that it is made of cement, marble or stone, but also the entry to a formal, legally authorized home. It is also *pukka* because it is a “proper” middle-class threshold.⁸⁴ Rajesh, a floor washer, describes the threshold of the home of one of his employers. “*Pukka ghr hai, toh pukka dehliz hai*,” he emphasizes, “a proper home has a proper threshold.”⁸⁵ The lintel and frame are wooden and hand-hewn to hug the whitewashed walls with only enough room for a line of diminutive ants to find their way in during the hot season. “*Kutch nhi andar aa sukte hai*,” “nothing is able to enter,” he says as he gestures to the frame.⁸⁶ Rajesh also points out that the door also has a proper lock and handle, unlike his door, which he padlocks shut. Many homes rely on a padlock method, which becomes difficult to provide security for possessions when one must either lock family members in or out. No one can be in a home when a door is padlocked shut without being stuck inside. This highlights the comparative difficulty that *kuchcha* homes have in controlling their own thresholds—while mongooses, rats, insects, and other pests can cross freely over a locked door, their own family members cannot.

⁸⁴ Add somewhere that “proper” also has its roots in “clean.” *Pukka* is also used in place of the word “proper” in British English. For instance, instead of saying that a person would like a square meal, or a “proper” meal, instead of a snack, a person might say that a “*pukka*” meal is in order. “Proper” can also mean personal or individual, which has a connection with the concept of ownership, which is explored greater in depth in the next chapter in relation to the cleaning grid.

⁸⁵ Following the multiple meanings of “*pukka*” this could also be translated as: “a middle-class home has a middle-class threshold,” or “a concrete home has a concrete threshold.”

⁸⁶ Rajesh does note that *hava*, wind or air, is able to come in underneath the door, and during the *loo*, it allows dust to blow in—a stubborn powdery layer that he must wash. This gap is desirable, as emphasized by both him and his employer. Both men show concern about sealing the cracks in the window frames or installing gaskets in the doorframe. This shows an interest in preserving a little exchange of air and threshold-crossing.

But there are similarities between the thresholds that Rajesh highlights, too. Both doors are adorned with a garland of mango leaves tied individually by the stem so that they form a wide, twenty-centimeter long fringe hanging against the lintel. These are auspicious and hung in part to invite oxygen to the home.⁸⁷ The cleanliness of the home, beginning at the threshold is also thought to invite in the divine, including Lakshmi, the goddess of wealth (Haberman 2010). To this end, the *pukka* threshold has an indelible red, finger-painted swastika in the center of the raised marble step. Likewise, Rajesh has a sticker adhered to his own threshold depicting two cartoon footprints adorned with designs and surrounding a swastika, and though it is worn with dust and water damage, he does not want to remove it. Both his door and his other employer's door have a demonic mask facing the entry to shy away negative forces. Many of these auspicious or defensive symbols decorate domestic thresholds regardless of class. As an architectural defense to tangible threats, nearly all household thresholds—the *pukka* threshold and those built in the *basti* and tenements—are several centimeters higher than the surrounding entry space outside. This is a measure of security to keep the dirt, sewage and pollution of the outside, and of outsiders, from coming into homes.

When domestic workers cross inside a domestic threshold it is a potentially dangerous act (Douglas 1966), and even more so when the threshold is *pukka* because crossing it is not only a matter of entering a private space, but also crossing class lines. This is a dangerous act to both the domestic worker and the employers (Dickey 2000). The

⁸⁷ The invitation of oxygen to a home and the importance invested in this substance is explored more in a later chapter.

home's threshold is the second physical barrier that domestic workers penetrate. Each of these barriers requires the allocation of water to meet an expected standard of cleanliness for admittance. First, they must look like domestic workers to be granted admission at the neighborhood's front gate. But also, when they cross from the public street into the private space of a family home they observe self-directed water-based cleaning rituals.

After ringing the bell, the domestic workers remove their *chuppals* and enter into their employers homes barefoot. With a *namaskar*, they almost immediately head towards a water tap. Whether to wash dishes, clothing, or the floors, domestic cleaners first need water to complete their tasks. This is the same for cooks, who wash their hands and the family's vegetables or run a *bartan* of water to soak grains to prepare for meals. It is also true for car-washers who fill a bucket at whatever garden tap they can find before washing their first vehicle. Gardeners also fill a bucket or can, or turn on a hose-pipe to replenish the plants they are responsible for tending. Water is universally the most relied-upon substance for domestic workers, as it is central to almost all tasks in maintaining the cleanliness of a household.

Just as the domestic workers pass through a number of thresholds to come into the middle-class community, domestic water also passes through thresholds to reach middle-class homes. At the broadest scale of passage, state borders are crossed as increasing amounts of water are imported from increasingly farther sources to address the demand of Delhi's thirsty middle-class and their water habits (CSE 2012 Vol 2). The water flows

over a cultural, political, and geographic landscape. It flows through the Upper Yamuna Canal, through sluices, into pipes and tankers to cross the city limits into Delhi, where its character is changed as it is transformed and internalized as Delhi water.⁸⁸

The borders of the employers' neighborhoods are not just constructed by barbed wire, wrought iron, chained locks, and security-guard operated arm-gates, nor are they only hydrologically constructed with filtration methods, sealed pipes, locked reservoirs, valves, and screens. The borders are also constructed politically through the water infrastructure of the city, with pipes that are opened during certain hours, sanitation flows directed in certain areas, and predetermined volume allotments. While the parks of British Colonial Delhi were seen as a *cordon sanitaire* of the city, segregating the water and sewage of the British and the Indians (Gupta 1981: 58), the *cordon sanitaire* of Millennial Delhi is a complex network that penetrates the soil in the form of piping, wells, and sanitation facilities.⁸⁹ The proliferation of piped infrastructure and private water technologies has allowed a vast disparity to emerge between neighborhoods that otherwise would share the same waters. The ethoi that develop in these separate waterscapes follow the larger metaphor of *pukka* thresholds and porous membranes. Political decisions regarding the proper water allocation systems for the different classes are based on a premise that the *pukka*, middle-class homes have priority in closed-system water allocation, a privilege that is only possible when the water systems of the urban

⁸⁸ The way domestic workers are also transformed and internalized as a part of middle class households is explored at greater length below.

⁸⁹ Parks are now understood in a different way, as explored in chapter 6.

poor are porous systems based in multiple methods of collection, informal market exchange, and water theft.

As the water flows into the city, and before these allocation decisions are made, the water must become Delhi water. This is to say that like the domestic workers transform themselves as they cross into middle-class homes, water that comes from outside the city must also be transformed and appropriated by the city as “Delhi water.” As part of the water appropriation process, it is purified in Sonia Vihar and other plants, which were constructed to assuage (largely middle class) concerns about the water’s purity. In this way, the water makes its first transition over a threshold of purity. Updates to piping infrastructure are continuous in Delhi, making the threshold between groundwater and official, formally-supplied water more heavily guarded from crossover or contamination.⁹⁰ The water is sucked by motors into tanks on the roofs of middle-class homes, which are guarded from outside contamination with locked lids, which prevent unwanted human or non-human interference.⁹¹ The household plumbing threshold is designed to allow only the desired amount of water within the home at one time; the faucets allow the occupants to control and monitor the water flows, permitting the water

⁹⁰ Although this underscores the importance of formal, state-sanctioned water use, the reality is that the threshold between formal and informal water and water sourcing in middle-class homes is not strictly maintained. There are myriad cases of hiring private water suppliers, both illegally from the growing reports of “water mafias,” or through licensed independent suppliers.

⁹¹ Many thirsty creatures can be found searching for water on the roofs of Delhi’s middle class neighborhoods: monkeys, pigeons, crows, hawks, and bats. There is also the suspicion of human water theft or contamination. Temporary workers, such as internet or cable suppliers, household construction workers, or fix-its, have access to roofs, but are not always vigilantly supervised. The locks on the water reservoirs prevent these workers from petty infractions, like dipping a hand in to drink a handful, to the more absurd, such as entering the tank with the whole body to bathe. Neither of these threats are entirely imagined.

to enter as they cast their eye over the point of entry. This is also like the *pukka* doorway that Rajesh described, which gives residents the power to control and monitor what passes inside, shutting and opening the door to effectively control the inward flows. The middle-class water infrastructure has taps with screens to further regulate what passes into the hands, vessels, and bodies below, like the middle-class doorways only allowing the smallest intruders. The water is further domesticated as geysers regulate the temperature of the water to assimilate it with the interior, leaving the influence of the outdoors behind. Lastly, drinking water passes through filters—carbon or reverse-osmosis—which are trusted to quash the stalwart remnants of pollutants.⁹²

Varsha and other domestic workers sit together on a Sunday afternoon in the tenement halls after washing their families' clothes. They burst out with laughter as they consider what their employers would do without their geysers and other water paraphernalia. They say that all of their employers have had geysers since before they began working for them. They reflect that in the past few years all of their employers have added drinking water filters. "This was not the case three-four years ago," Varsha explains. She first saw a filter two years ago, they have proliferated since then and are now ubiquitous. As Varsha fills a bucket to wash laundry, she shows Kuvalai, a domestic

⁹² For water that does not first pass through a domestic filter, soaps are used. The hand soaps of the middle class have also appropriated the idea of safeguarding the home and the family from outside germs and pollution. The symbol for Dettol is a sharp sword, making the user a defender of the threshold between the outer threats and their vulnerable families. Commercials for the soap often depict a middle-class family, the father and children dressed in western clothing, and the mother in a modern, tight-fitting *salwar-kameez*. The mother stops the father (sometimes a doctor) from touching their child when he comes home from his job as a doctor or another white-collar profession. The father exclaims that he has used Dettol, all are relieved that he has removed the threat of outside pollution, and the family is safe again to interact in intimate ways.

cleaner on trial, how to switch on the geyser to make the job easier in the cold months. “*Humara ghr pe, pani tanda hai*,” she explains, “at our home, water is cold.” She continues, “If there is time, and cooking gas is there, I heat some water on the stove, so washing clothes is not painful. Here you should use hot water each time. [My employer] says hot water is required for washing clothes. It will get out the dirt.” Kuvalai listens attentively, tilts her head in understanding and acknowledges with a quiet “*theek*.” It is Kuvalai’s first job in Delhi, and although she is responsible for the domestic work in her own home, it is her first time as a paid domestic worker. As Kuvalai is instructed by Varsha, and during her subsequent stint as a domestic worker, she will receive countless hours of edification on the proper allocation of water, among other things, in her new role.

The inculcation of middle-class water ethos in Kuvalai and domestic workers like her is ubiquitous, but not necessarily omnipotent. Initially, domestic workers are not very unlike their non-domestic worker neighbors, but their daily transitions change them in different ways. This transformation includes adopting a new identity, the role of the worker, which is established through social designation, physical commuting, and symbolic grooming, in addition to a degree of training which is required to make this transition. For domestic workers, the training is supervised by another worker, or at times by an employer directly. This training seeks to inculcate the employer’s values in the domestic worker and often times includes things as diverse as domestic worker

comportment and timing, to the more directly work-related, such as the proper way to clean, or the amount of water that is appropriate to use in specific tasks.

This training reflects an ethos that is distinct from the training and instruction that is received by other residents in a worker's home community.⁹³ Those who are not employed outside of the *basti* or tenements are exposed to a different kind of water rhetoric from NGOs and government outreach programs that target the "underdeveloped" areas of the city. This discourse is more prominent in the *basti* than in the tenement, since these programs prioritize informal sectors as those most needing intervention. Its rhetoric is based on the tenets of educating and civilizing the urban poor by teaching basic water practices through demonstration, rallies, song, and drawing contests. Programs target several different strata of the population, but largely focus on educating women and children on how to properly relate to water. Although this training is distinct from the training received by domestic workers and seeks to inculcate different values about water, both are methods of "mental colonization" that represent the desire for the working class to be porous to new information and values about cleanliness, hygiene, and water.

The penchant for the middle-class to indoctrinate others with a new consciousness of resource management in daily life is not new; Walsh elaborated on a form of hegemonic domestic discourse in nineteenth century colonial India that completely transformed the

⁹³ Though the training and instruction are different for non-workers, like the reception of water training from employers, it is important to note that the internalization of NGO messages is not universal.

daily life of the nation (Walsh 2004). Today's domestic water discourse also prescribes acceptable everyday practices of water collection and allocation which also reflect Bourdieu's "symbolic power"—signs of social hierarchy made palpable through practices (Bourdieu 1984).⁹⁴

Domestic work requires a degree of fluidity so that the domestic workers can penetrate the borders that are constructed by the middle class. In crossing these two thresholds, the neighborhood gate and a home's front door, the domestic workers are expected to cross over borders that are expected to be stringently maintained. It is through the maintenance of these borders that the middle-class is able to define itself as standing apart from other classes' forms of living. To integrate the lower-class domestic workers into the home, a third threshold must be porous: the domestic worker themselves. Domestic workers are defined as "other" in that their layers of clothing, bodies, and behaviors are demonstrative of lower-class values. These directly translate to the workers' use of water. Domestic workers must groom their bodies to be accepted as belonging (though not equally) to a middle-class home, leaving their physical and mental impurities behind. This often translates to changing their culture around water.

Because of the desired malleability of the worker, the idea of a membrane—the pliable outer layer of a living thing—is relevant in the context of understanding the thresholds and borders of mental colonization in domestic work. Describing the absorption of

⁹⁴ also penetrates the socially constructed, "visible" threshold separating "home" and "world," "private" and "public" in a way that underscores the tenuous hold it has as a separate space.

domestic work practices through the metaphor of a membrane lends credence to the interpretation of domestic workers and processes of cleaning as living, as animate, as changing (in so far as they are changeable, and agents of change), and as possessing a surface that acts as a conduit through which things pass in both directions.⁹⁵ In domestic work, some of the divisions and categories are malleable, temporary and porous, while others are *pukka*⁹⁶, in the sense that they are perceived as real, unchanging, genuine, and concrete. Domestic work allows for a degree of fluidity in crossing over boundaries, but, at the same time, begs the reinforcement of other boundaries. Likewise, the circulation of water through domestic spaces both transcends and is contained by these boundaries.

As established, when people become domestic workers, their inclusion in a middle-class household changes them more than just visibly or on their outer layer, reflecting change in appearance and comportment on a skin-deep level. Their fluidity also allows ethos to pass through and be absorbed, ultimately changing the worldview of the worker.

Conversely, their participation in their work environments allows more than just sweat to pass through their skin into the homes. A domestic worker's body acts as a physical conduit and a physical presence, but also the body is a symbolic conduit that reflexively allows a worker's own values to enter into the homes where they work. This exchange can be seen as either a moment of complexity, where what are conceived of as two separate entities are united in interaction with one another. This is to say that the

⁹⁵ This metaphor also accentuates the fluidity of domestic work and its parallel to water and liquids.

⁹⁶ The secondary meaning for *pukka* is first-class, respectable, having to do with high-society.

domestic worker vis-a-vis the employer and his home are not two separate categories; rather, they are defined in conjunction with one another and are mutually constitutive.

In so far as the middle-class makes domestic workers, the domestic workers also make the middle-class. Like water, the domestic workers of Delhi are counted on to cleanse and purify homes of their dust, grime, and other impurities: a job which Dickey establishes is physical but also strongly symbolic. They are *both* critical living infrastructures of Delhi—the presence and working order of water infrastructure and these domestic workers are what equally make the average back-lane street and the most extravagant, affluent parts of Delhi possible. As Dickey describes, the status incurred by families that can employ domestic workers comes not just from interpreting the ability to employ domestic workers as a symbolic marker of middle-classness, but it is magnified by allowing employers to pursue other activities that will enhance the middle-class status of the family. The domestic workers themselves signify that their employer is middle-class, the work that they do produces a middle-class aesthetic in the household, and their work frees their employers to enhance their own middle-class producing activities. Without one, the other one would not exist in the same form. Some of these values are manifest in the way that domestic workers relate to and use water in their employers' homes, and their water ethoi produces tangible changes to the amount of water flowing through these affluent homes.

The affluence of middle-class employer neighborhoods and their homes are not autonomously generated; instead, they are a product of a stratified system that both requires the work of the lower, stagnant working class as well as their complicity. Ranjit, an employer, describes his home's water allocation, glossing over his ease of access to technology and domestic worker labor that makes his affluent flows possible. As in other neighborhoods, his water comes for a few hours each day. And like other upper middle-class homes, his is equipped with a motor, which increases the amount of water he can pump and store in his private roof-top tanks. This motor, switched on and off by one of his domestic workers, quickly fills the two three-thousand liter tanks each day. In the hallway, just behind his orange velour sofa is a battery backup power supply, ensuring that if there is a temporary outage of electricity, a rare but occasional threat in his neighborhood, his water collection would not be interrupted.

Ranjit's six-thousand liters of water appears on-demand to faucets below and is seldom exhausted completely in a day. His domestic worker, Manju, calls this type of water "automatic," and it is a marvel to her. Seeing water flowing this way has changed her relationship to it and her allocation of it during cleaning. She remembers using it for the first time. Having grown up in the *basti* settlements on the Yamuna river in the nineteen-eighties her family did not have a tap. When her family members moved inland to the *basti* near her current tenement, they relied on collecting water from a hand-pump in a local park. Manju used her muscles to pump the water, and to carry it back with her sisters to her shanty. When they did chores, they dipped a plastic or steel mug into one of

the open buckets—a method that is predominant in *bastis* and tenements presently—and rationed the water for each use, conscious of each drop.⁹⁷ Water is a substance defined by its physical and manual collection and distribution characteristics, as described by people living outside of adequate, piped water delivery areas, and as such, domestic workers like Manju are quick to report the amount of water that they use for each household chore in their own homes, able to specify their water allocation within a couple hundred milliliters. Residents of these neighborhoods could also estimate how much water their neighbors used and in what chores they wasted the most. This estimation became laughable to domestic workers when it came to chores in the homes of their employers, whose “automatic” faucets, invisible reserve, and larger scale of water use renders estimation extremely erratic. Crossing the threshold into a home with “automatic” water means a critical, yet nearly invisible, change in relationship to it—so much so that shrewd, lifelong estimators become befuddled.

And yet in Manju's opinion, people who lived an “automatic” water lifestyle were also confused, but in their case the confusion was over the amount of water that was necessary to cross an object over the threshold between “dirty” and “clean.” Although several domestic workers could no longer estimate the amount of water they used in their employers' homes during chores, they repeated that their employers asked them to use “too much” both in their initial training and during regular inspection of their work. Manju's opinion can be read as a critique of a form of hydrological colonialism; the new water practices are not passively accepted, rather put into local context, and contested

⁹⁷ This water has the presence of human hands all over it. “Automatic” water does not.

internally. This internal contestation indicates the receptivity to new values, in a sense showing their enculturated value of water to be porous, but it also shows that some values are engrained enough to persist as social resistance, or that some water limits remain *pukka* thresholds.

This struggle can be seen in the decisions domestic workers make about the amount of water to use for their work. The threshold of what is “too little,” “enough,” or “too much” water for certain tasks is directly related to another central conceptual threshold in domestic work. The process of cleaning is also a threshold or a membrane through which objects pass to be purified physically and symbolically and transformed into another state. Just as water passes through a worker’s mouth and becomes no longer a disembodied fluid, but instead the material of the body and the self, households and household objects that are dirty also pass through a threshold of being, moving through water by the hands of the domestic worker and being rendered clean again through the process of cleaning. The process of cleaning is active and carried out by animate domestic workers, but also by active solutions like water, which are defined not only by their hydrological properties, but, as Linton argues, by their social properties (Linton 2010). The amount of water that has to be used to transition an object over the threshold of dirty to clean is not universally accepted as fixed. Rather, the value of water and the concept of dirt as a substance that pollutes and remains are socially constructed concepts which, in turn, affect the transition. To one person or social group, the amount of water necessary to wash a garment properly might be one liter, whereas another might think it

requires three rinses, each twenty liters, to render it clean. Often coming from different waterscapes with different delineations of dirty and clean, employers and their domestic workers must negotiate a common understanding of this threshold.

Atreyi, among the other domestic workers is the first to chuckle when she thought about the new water practices impressed on her in her employers' homes in order to establish cleanliness. Atreyi and her domestic worker friends all shake their heads back and forth, “our mothers taught us to clean.” Though some admit that they learned how to use new machines like the clothes washing machine and the water purifier, mostly the domestic workers are convinced that they did not learn anything new about “cleaning;” instead, what they did learn was how to use more water to get the same job done. Urmi sums this up, “more water is just more water, not more clean.” To these domestic workers, using water to clean does not happen in gradations; if water is used, things became clean. The impact of water use on cleanliness is more of a binary.

In an employer's stairwell, scrubbing marble steps with a one-inch triangle of sandpaper and splashes from a one-liter bottle, Rajesh explains that he is asked to clean the floor of his employer's four room house with thirty fresh liters of potable water for each room. Like many supervisors, his employer is a vigilant housewife who frequently corrects his techniques even though they have been working together for over twenty years. Rajesh chortles and explains, “On the days when she does not watch, I use only ten liters total—she cannot tell, only thinks she can. The floors are still clean.” Rajesh hits on an

important point: to employers, clean is not something that can be observed in itself, but is invisible until it is reified with enough water.⁹⁸

The aesthetics of modern middle-class domestic households rest on rhetoric that assumes the insignificant value of resources like water that are externalized, and the category of “enough water” seems to be without limit. The domestic workers who are trained in this world-class aesthetic by their employers go home to an entirely different value of water. In these homes, water is a deliberate process which involves the acknowledgment and practice of waiting, negotiating, lifting, and rationing. These manual processes effectively put a price on using more water: water costs the salary from working in one or two more homes a day. In domestic worker neighborhoods, *efficiency*—surrounding time, and thus water use—is critical. The domestic workers who live with a foot in each world must manage this value of water alongside those from a world of “automatic” water.

Rajesh demonstrates that the flow of water ethoi is not unidirectional. Although power hierarchies prevent him from openly defying the water aesthetic of his employers, his clandestine practice of water conservation is transmitted to this middle-class space. Further, this space, cleaned with unacceptable levels of water, is still evaluated as clean according to middle-class standards. Rajesh contradicts the middle-class priority of devaluing water by proving that working-class water allocation standards can be

⁹⁸ “Enough” here refers to as specified according to a standard, rather than the amount necessary to cross it into the category of clean.

acceptable. This proves an important point about the porous thresholds of pukka homes and the ability for domestic workers to be agents of resistance.

These domestic workers are not passive cleaners who drift in, perform a function and return to their own neighborhoods unchanged.⁹⁹ In the process of crossing the thresholds into the private spaces of middle-class neighborhoods, homes, and lives, the domestic workers not only actively contribute to the changes in their work environments, but the crossing also contributes to changes within themselves, which affect their own homes and their home neighborhoods. The extension of these values beyond the workspace will be explored in-depth in the next chapter.

This chapter demonstrated the process of transformation of a lower-class non-working resident into a domestic worker by describing the circumstances and means by which people gain employment, the expectations of self-presentation for employment, the training of new workers, and the expectations of obedience—all in relation to water. The absorption of these new water practices and *ethoi* change domestic workers' relationships to water and to the city around them as their water use enables them to be absorbed into spaces previously closed to them. It described how three ambiguities are created in this process (proper water thresholds, acceptance of *ethoi*, and exclusive/inclusive homes). These ambiguities reflect the uneven absorption of middle-class values, or in other words, the ambiguities illustrate the limits of what is considered a lifestyle and value for water

⁹⁹ This is not just about reinterpreting the effects on the cleaners, but also in examining it is important to note that there are also unintended consequences to the crossing, including unanticipated changes to the employers' community, homes, and lives.

that is considered a deep aspiration on an individual, city and national level. It raises the question that if there are anomalies of class within middle-class homes, what other anomalies of class lie beyond middle-class thresholds. By understanding how middle-class values are understood and performed outside of middle-class spaces, greater light can be shed on the category itself.

Chapter 5 –
Beyond *Pukka Dehliz*:
Bringing the Aesthetic Home

This chapter examines the concept of absorption as it relates to traditionally-classified non-middle-class spaces. It examines the incoming flow of middle-class values about water quality, quantity, and proper use; middle-class water technologies; and the middle-class cleaning rituals that are water-reliant. This builds on the knowledge of the breadth of absorption of these concepts, and also highlights the ambiguities that are created in a space that is neither middle-class nor entirely bereft of middle-class cultural values about water. It raises the question about how human-water relationships that seem to straightforwardly stem from identity can be complicated in reality, defying classification as “middle-class” or “lower-class” in origin. The human-water relationship also mediates human relations with each other and with the material world.

The comings and goings over the thresholds and borders that cleave Delhi are not smooth; rather, these crossings are complicated because the physical borders—the neighborhood gates, a home’s front doors—are porous constructions that overlook the real amount of flow between inclusion and exclusion over categories of space. Crossings, as such, involve the spillover of physical bodies and materials, and also intangible things like ideas. In the transition over the thresholds between their employers’ culture and their own, the culture of the employers’ homes and neighborhoods is rarely able to be simply left at the gate. The lessons and the chiding that come with the inculcation of modern, bourgeois aesthetics and ethics follow domestic workers home and occupy their mental spaces, challenging and creating a

mélange of cultural markers for how to manage a home properly, and hence, how to manage water properly in an environment of scarcity.

On the one hand, this means domestic workers are trained as committed to middle-class water consumption patterns live in a home environment that is marked by a stagnant water supply. Domestic workers must be more efficient in their water use, since they spend less time at home and are more likely to miss the tanker or the tap time, since the precious resource relies almost entirely on time for its collection. And on the other hand, the time constraints also pressure domestic workers to use water in a more haphazard way. This is in part because they spend less time at home and cannot engage in as many water conservation methods, and it is also because their crossing into middle class homes requires more water use to prepare themselves for a visit that ultimately primes them to use even more water for their own chores. To be a domestic worker in Delhi is to have one's water culture challenged by one's employers' requirements, be they a demand on time, a standard of water use for self-presentation, a new rubric of domestic cleanliness, or a desire to instill new personal domestic values in their domestic workers.

While the previous chapter examined how flows of water and rhetoric of legitimacy are inculcated in the work environment of domestic workers, this chapter considers the penetration of water ethoi beyond middle- and world-class contexts and into tenements and illegal *bastis*. This chapter examines the context beyond *pukka dehliz*,¹⁰⁰ or beyond

¹⁰⁰ *Dehliz* means threshold. It generally refers to a household threshold, or a doorway, however, it is used in this chapter to also refer to other physical and metaphorical thresholds.

the concrete, middle-class thresholds, into which the imported ideas find uneven absorption. These water ethoi closely involve middle-class aesthetics linked with distancing. Developing a middle-class aesthetic involves the conspicuous consumption of world-class goods and services in an attempt to underscore the embeddedness of a person's life and lifestyle in the culture of the world-city. This indulgence is often laden with costs associated with scarce resources, including cultural capital, money, and sometimes even water. Showing overt displays of world-class consumption, in effect, demonstrates distance from resource-poverty (Veblen 2009). The middle-class aesthetic also includes a deeper delineation between the categories of dirty and clean and is accompanied by an ideal of keeping distance from others (Douglas 1966). This manifests itself in priorities such as the privacy of the home and a preference for privately held resources, rather than communal. In this sense, crossing beyond the concrete, middle-class thresholds marks a break from middle-class distancing practices and is evident in the murkiness of categories of dirty and clean, an increase in commonly held resources, and less anxiety about social pollution.

The word *dehliz* is also an apocryphal etymon of Delhi, the city's name (Cohen 1989). In this sense, looking beyond *pukka dehliz* is a strategy to examine the construction of the narrative of modern, world-class Delhi by probing what defines Delhi as *pukka*, where the permeation lines of *pukka* are drawn, and what is the process of shaping the city's residents, resources, and their homes into the components of a *pukka* city. The idea of the *pukka* city occupies an imaginary space in the minds of residents who would

categorize themselves as a part of the world-class city, in an act of self-reflection that is important to identity and manifest in behaviors and practices that, among other things, affect water use.

Yet, it is a mistake to examine the idea of a *pukka* Delhi solely through the elements that are least contested. *Pukka* Delhi is also conceptualized by the urban poor and India's rural population—both honing and articulating a definition that stems from a perspective cultivated by occupying the category outside of *pukka*. The imagined category of *pukka* in the perspective of the urban poor comprises more than that which is staunchly categorized by the middle-class. Rather, since the urban poor are on the fray of the contestation of the transformation to *pukka*, their perspective takes more imaginative liberties with the category and is comprised of a range of things that are undergoing the transition into becoming *pukka*.

This transition is of the utmost importance to understanding “developing” Delhi. For some, this transition marks India's and South Asia's entrance into the global economy as players with growing potential to be equal participants if not future leaders, while for others, this transition is deleterious to the country's essence (Gadgil 1992; Guha 2006; Narain 2012; Rajagopal 2001). But for both sides of the continuum, the fact remains: by deliberate appropriation, aspirational modeling, or passive acceptance, and in spite of resistance, the middle-class water ethos is increasingly being found beyond its *pukka dehliz*.

In the summer of 2012, as Delhi's seasonal dry spell reached an alarming new low, the flow of water talk reached record high. The neighboring state, Haryana, was exceeding its threshold of comfort for water exportation and its water resources were unable to meet the needs of its residents. In response, government officials sought to prevent further water reduction by placing an active ban on its contribution to Delhi's water supply. Haryana officials needed not only to protect the flows of water to its major city in the National Capitol Region, Gurgaon, but also its largely rural, agrarian constituency. In a balance that at once represented the nationwide negotiations between centralized and decentralized authority over the control of natural resources, Haryana officials defied the National Capitol Region's demands. This *ludai*, or fight, as it was called on the streets, was comparable to the fights the water-poor saw every day. In the *ludai*, an unambiguous message came through about the spread of middle-class water ethos both inside of and beyond their *pukka dehliz*.

At a press conference about Haryana's water ban against Delhi, the Chief Minister of Haryana suggested that the city of Delhi was experiencing scarcity because of the residents negligent use of water. He was adamant that the residents of Delhi needed to conserve water. His prescription for water conservation was succinct. He did not suggest that the city should limit its industrial use. Nor did he cite the 40% of water that is lost due to leaky infrastructure like Raj-era pipes. Instead, he suggested that Delhi conserve water by asking its residents to bathe only once per day. This request was repeated over

and over in the city's back-lanes, on news stations, over chai, at the *dhobi*, in five-star hotels—all of Delhi was abuzz. This comment, though hydrologically weak, became salient in the minds of all of Delhi's residents because it challenged hegemonic discourse about domestic water values in the world-class city. This comment moved people interacting in every level of Delhi society to words. The first city-wide water topic was not a multi-*crore* project somewhere in the periphery, nor a protest about the rampant water disparity within city limits, but instead it was about the freedom to do with one's two to thirty liters what one chose to in the privacy of one's own bathroom.

This brought the abstract issue of national urban water allocations literally close to home for Delhi and Haryana residents. It highlighted the tensions around making domestic and personal changes to fit in to the development narrative of *pukka Delhi's* 16 million-strong middle class (local adaption of Mazzarella 2003: 215). To live in the city, and in so doing accept world-class aesthetics for water use, was to have the ability to alter regional water supplies simply by the small act of bathing. The ascription of the problem as a specifically urban problem neither recognized the millions of Delhi residents who practice forced conservation nor acknowledged the over-use of water in Delhi's famous world-class satellite city, Gurgaon, which belongs to Haryana. The blame of water exhaustion was foisted on the people of Delhi without discrimination from a position outside of the city. This idea about the *pukka dehliz*, in the sense of the proper thresholds for water consumption in a world-class city, is also an imagined category which merits exploring.

The Chief Minister of Haryana is not the only person that imagines the water life of Delhi's residents from the outside. Neelaja in-migrated to Delhi about three months before her cousin was able to come to visit her. The two of them had always imagined the city to be a dirty place, but a place where workers would not get as dirty in their work, as they compared the physical differences between working outdoors in agrarian labor versus the indoor work of the city. Neelaja, wide-eyed, said that when she began domestic service, she was told to bathe before her morning and afternoon shifts, and again in the evening. She was also asked to change her sari before the morning and afternoon shifts to be fresh for employers. When she told this to her cousin, then living in nearby Haryana, her cousin could not believe it. "How could life in the city require that?" they wondered aloud together.

Prominent officials at the Ministry of Water Resources in Delhi say that "the average *Dilliwallah*," or Delhi resident, "is not conscious of water problems;" "does not conserve water;" and "does not think about guarding [it] as a sustainable resource" (personal interviews May 15th, 2012). It is true, at the average juice stall not many people can quote figures about the changes in output of the Tehri dam. However, there is a vast disconnect between the ministry's conception of what constitutes an average Delhi resident and their experience of water crisis. Through understanding the intersections of these broader water issues with daily life, what comes to be a significant and growing percentage of Delhi's population has first-hand expertise on water issues. Neelaja's

everyday negotiations of water allocation, like those of other domestic workers, are experiences that articulate how transnational discourse, processes of urbanization, and aesthetics are making an impact on the speed at which Delhi, and cities like it, are reaching water scarcity. Without perhaps fully knowing it, the Chief Minister of Haryana chose an exemplary practice to underscore the significance of these micro changes in water consciousness and their ability to add up.

Sitting together after these months apart, the two women share their impressions of urban domestic water. Neelaja recounts, “she used to think of my *basti* as a very dirty place, but we are cleaner here than at our family home in the village.” Though Neelaja’s job as a domestic worker causes her to perspire and come into direct contact with household grime, it is not too long before she bathes again. She stresses that it is important for her to clean and straighten herself for her job, which was not so in the village. Neelaja notes that she comes home tired, but enjoys straightening out her *jhuggi*, a handmade dwelling, in ways similar to her employers’ even without being able to increase the amount of water that she uses to rinse things clean. For now, her increase of water allocation is relegated to grooming her body and appearance to make her transition over her employers’ thresholds smoother.

Neelaja’s experience essentially confirms that a cost of employment in the world-class city is one or two more buckets of bathing water a day, even if they are small. Her desire to use her water to full capacity—to one day wash her floors with a ratio similar to her

employers’—represents the aspirations of several of Delhi’s in-migrants. In this way, Neelaja has integrated the aesthetic of water-wealth as a form of conspicuous consumption rather than functional use. Because of water constraints in her neighborhood, Neelaja measures the *pukka dehliz*, the proper threshold for water consumption for the water-poor in a world-class city, to prioritize public presentation. In this environment of transition from urban poor to world-class, signs of water wealth are important markers of being integrated in the modern, developing economy of Delhi. As domestic workers use water to present themselves properly, they overtly show their communities their proximity to *pukka* Delhi and the systems of power and hierarchy that come with it.¹⁰¹ This proximity is in part identified by conspicuous consumption of world-class items, some requiring an excess of water to maintain, and also by a changing recognition of the categories of dirty and clean.

Neelaja and her cousin talk about the difficulty of getting water from the *basti* tanker each day—a process that can take up to four hours of waiting, followed by arguments and heavy lifting, often ending in disappointment—but they also admit that the tanker water has its advantages. Primarily, they both insist that tanker water is the cleanest water with which they have ever come into contact. Neelaja notes that her skin feels soft and slippery under the *basti* tanker water, and that even when she sneaks a wash with the brand-name soaps at her employers’ homes, that her hands do not feel as smooth. Neelaja’s cousin laughs about her misconception of the *jhuggis*, “I thought I would feel so dirty coming here, but all [of me] feels clean and soft. My hair is so beautiful here.”

¹⁰¹ This distinction was explored more thoroughly in the chapter about Affluence and Stagnancy.

Neelaja's cousin wished that Haryana's water could feel as soft as the *jhuggi's* water.

Their discussion emphasizes that the conspicuous consumption of water is not just about quantity, but also about the quality, or the cleanliness, of the water. Clean water also, in Neelaja's example, is able to trump the cleanliness ascribed by luxury cleaning products that are out of her financial reach.

It is pertinent that Neelaja and her cousin divorce the feeling of the soft water delivered to the *basti* from the inherent ability of Haryana's water to be so soft. Since Delhi receives megaliters of water from tankers coming from Haryana, Haryana's water does, in fact, feel this soft. The significance of this comment is that it highlights the imagined, qualitative transformation that takes place as water crosses the threshold from the rural periphery into the world-class city through processes of incorporation and purification.¹⁰²

Neelaja, with a few months of urban participation under her belt is able to further differentiate the water quality in comparison to middle-class water through not only projections, but also experience. While the ascription of the cleanliness of the tanker water to urban purveyance is in part socially constructed, it is also physically evident in the measurement of the quality of the water.

The belief of the cleanliness of tanker water is not unfounded. The water being delivered by the tanker is indeed cleaner than the water that flows to middle-class homes. Middle-class water passes through pipes whose intermittent flows and motor-driven extraction create suction that leaches contaminants through the pipe system's cracks, inefficient

¹⁰² This type of transformation was explored more deeply in chapter 4.

seals, and deteriorating walls (Anand 2012). In contrast, the tanker-distributed water is purified and softened at one of the city's facilities and directly pumped into the tankers, leaving the only sources of contamination to be the tank and the pipes that residents drop into it for water extraction.¹⁰³ The water that is distributed via tanker is some of the cleanest water, according to world-class standards, in all of the public distribution in Delhi. In this way, technologies and infrastructures that exist beyond the widespread distribution of planned, middle-class or *pukka* neighborhoods are transported into the areas that seem least modern, least developed, and least world-class. The refusal to allocate funds toward the development of piped infrastructure to illegal *bastis* has given rise to some of the highest quality of water being delivered to the "lowest" strata of Delhi's population.

The informal *bastis* and tenements of Delhi often exist in a state of apparent contradiction in their patchy abilities to embrace a *pukka* way of life. The separation of these disparate worlds, middle-class, affluent Delhi and the illegal *bastis* with thousands of rural immigrants living hand-to-mouth, is not as stark as it is often depicted. To be clear, the disparity of quality of life, including the ease and ability to access life-essential resources, is vast and cannot be dismissed by an argument that the cultural vessels, from ethos to material goods, which flow through impoverished neighborhoods erase the disparity. But to dismiss these flows would be to deny evidence of heterogeneity within the urban poor, effectively imagining the poor as a static, unified object of study. In truth, this group is composed of multitudinous variety. The dreams, abilities, material culture, and economic

¹⁰³ For more on the contamination of water in water tankers, please see chapter 3.

flows are different from family to family. And as such, the way they interpret water, cleanliness, and their role in the modern urban community is by no means uniform.

Marina takes a strong stance on what it means to construct a middle-class identity in Delhi's lower-class neighborhoods. She sits on a castoff charpoy that has been rethreaded with a repurposed ream of misprinted food packaging labels rolled into rope. It sits in the shade of a billowy blue tarp under one of the trees in her courtyard. This morning, she is still damp from collecting water at the tanker and her daughter, Jenni, also wet, sits by a half-filled vessel at her feet. Marina's family is known around the *basti* for as close an approximation of middle-class life within the slum as conceived possible. Partly because of this, Marina's home is used every few weeks to host some of the women's group meetings of a local NGO when a large turnout is expected, and also for hosting foreign dignitaries when embassies organize humanitarian visits to the city's slums.¹⁰⁴ The family's prominent location and uncharacteristically large square-footage make it ideal for hosting such events.

Marina's family was one of the first to settle in the *basti*, and her husband's steady job as a driver for Foreign Service families has kept them living above the *basti*'s standard income levels. She filled in as a cook in one of the foreigners' homes, and when asked to

¹⁰⁴ Even during NGO functions, the women who participate in women's group events are watched with suspicion. There is a reluctance to enter another person's *jhuggi*, and although the presence of NGO workers helps mitigate the suspicions of culpability of participants, it is generally preferred to meet in a semi-open area where some level of spectation is possible. Places like the covered common courtyards and wider intersections are used frequently, since it underscores that there is nothing clandestine about the meeting. The theme of the importance of remaining visible is explored to a greater extent in chapter 3.

stay permanently, she was excited about how the extra income could go towards Jenni's dowry, her sons' education, and extending the household budget to include luxury items. Like her husband's, Marina's name and reputation as a versatile cook has been passed down through Foreign Service families, and these trusted recommendations have kept them employed for two decades. This sense of job security has given them the ability to own and occupy a large plot of *jhuggis* and to appoint them with many middle-class items.

The family's home is a series of four attached *jhuggis*, a triple-wide courtyard separating this complex from another two *jhuggis*: one *jhuggi* with a washing machine that is also used for auxiliary storage and chores, and the other *jhuggi* used as a bathing stall. This private domestic space is separated from the footpath with a curving row of hedges that partially shields the inner space from the view of passersby. The hedges also serve to demarcate the environment of the family home. Their leaves are a barrier not just to sight, but also shield the courtyard from a little of the *basti*'s noise and the hot, dusty gusts of wind; this ultimately distances their home spatially from the rest of their neighbors. A cage of three baby parrots hangs under one of the roof's awnings, and their rhythmic squawking makes the city and *basti* sound kilometers away.

A few nights previously, on the heels of a foreign ambassador's visit, a family in the *basti* hosted a wedding where a brand new Maruti car was given as part of the dowry. The *basti* gossip brimmed with pride about how the splendor of one of their residents had

outdone the effort of a developed country.¹⁰⁵ For the wedding, huge entertainment and cooking tents were set up blocking the front inbound roads, and the whole *basti* was fed with excess that far outstripped the memory of any other event in public recollection.

Many of Marina's neighbors consider Marina's family to be middle class simply because of the possessions they own. However, Marina believes that middle-classness is much more. "What do they know of being middle-class?" she asks, "Merely buying things only shows they are not." Marina's standard for middle-classness, like some domestic workers, is not merely the consumption of material goods. Rather, to Marina and some domestic workers, the threshold for middle-classness is a commitment to a cleanliness that revolves around both a distance from dirt and the ability to access water for cleaning. Her values for personal hygiene and modern or middle-class self-presentation make not only her body, but also her home. Marina's larger *jhuggi* compound has been modified to include separate enclosures for separate water-related chores. Marina used some of her disposable income from being a domestic cook to construct a standalone kitchen with modified basin-and-pitcher sink, a bathing stall, and an area to house her washing machine. To Marina, the distance created between the different areas of domestic cleaning is important and necessary to the construction of a middle-class home, even if it is built in the illegal slum. Marina raises the question, "How can they think of [a/c, washing machines and such] when they cook on the ground? A television does not make you a member of the middle-class, it is only washing properly that does." In Marina's

¹⁰⁵ Though the embassy had allocated a moderate sum to the production of their own visit, the tents and foodstuffs were nothing in comparison to the lavish production of the wedding.

perspective, the expression of a middle-class identity requires a household that is defined by a middle-class relationship with water which rests on cleanliness rooted in proper water use.

Marina's testimony, helps to establish that the delineation of a *pukka* home or a "middle-class" identity in Delhi is not solely overlapped with formal housing nor the consumption of middle-class goods. It is not her refrigerator, but her makeshift sink that makes her kitchen a middle-class one, just as it is not her bathing stall, but her consistency and commitment to bathing which necessitates the private stall that makes her bathroom a middle-class one. Hence, a middle-class lifestyle requires the development of a cleaning regimen for the everyday practices of domestic life. This indicates a transition that begins with a changed ethos surrounding the use of water and the importance of cleanliness. The value of specific cleaning regimen to enhance class status and demonstrate one's civility has historical roots that came to the fore in colonial domestic development literature (Walsh 2004). Adapted for the postmodern era, contemporary values still rest on a changed ethos surrounding the use of water and the importance of cleanliness.

To Marina, this presents as a distance between one's freshly washed body and the ground, the bodies encountered in the communal bathing hall, and the rush that would preclude proper cleaning. To Neelaja, this means allocating water to a clean appearance and, if possible, increasing the amount allocated to cleaning the home. Other domestic

workers interpret this in countless ways. To some domestic workers, any type of life in the informal *jhuggi-jhopdi* means insurmountable filth, so that even with a home full of luxury appliances, a private toilet, and a courtyard, a middle-class status cannot be possibly reached. Despite the differences in the exact interpretation of the relationship of water, a middle class aesthetic, and dirt, all call into question the pertinence of the *pukka dehliz*. The delineation of middle-class Delhi, of ethoi that define standards of cleanliness, and of thresholds of proper water consumption are wholly intertwined and as such, they become problematic when pushed beyond their archetypal constructions. As Veblen might argue, developing a middle-class aesthetic involves the conspicuous consumption of middle-class water technologies as well as ethoi and behaviors, in total to demonstrate distance from resource-poverty (Veblen 2009). In this way, the construction of a middle-class identity through a specific relationship with water must extend beyond corporal uses into homes.

India's development discourse also relies on the production of not only middle-class bodies, but middle-class households. The developmental project hinges on moving people along the continuum of development through the ability to consume middle-class goods (Fernandes 2006). The ability to produce a middle-class majority, according to Mankekar, has consisted of systematically prioritizing the inculcation of middle-class aesthetics, consumption, and values (1999). The typical unit used to measure the adoption of these values is not individuals, rather, households. As the values permeate every household of India (ibid; Brosius 2010), the decision to reject, embrace or ignore

the values is built into a myriad of choices every day. But yet, some think that there is no choice at all. Rajagopal argues, “as consumer society has become coterminous with [Indian society], the alternative is not resistance but death” (2001, p. 317). As families struggle to remain relevant in the face of hydrological systems that straightforwardly prioritize middle-class water services, they often cope by attempting to express their middle-classness, or citizenship, in terms of the very resources from which they are alienated. This brings middle-class water practices deeper into peoples’ lives and homes even in environments of scarcity.

Across the city from the *basti*, Nandika takes her afternoon bath in her tenement room before returning to her employers’ homes to wash floors. Like Marina in the *basti*, Nandika also eschews bathing in the common stalls located next to each floor’s common latrines because of the lack of privacy and control. Instead, she waits until a time of day between shifts when she is not expected to cook or be interrupted by family members. After she bathes, she carefully dresses and opens her door a crack to see who is outside before she opens the door entirely. She sweeps puddles from her mid-day bath with her naked-handled grass-broom held together by a few tight coils of string. She is adept with the broom, and bends into a slight crouch, and with the grace of a dancer spreads the water into elegant curved streaks which spill out of the doorway and into her tenement building’s hall. She also sweeps with the plastic-handled grass broom at her employers’ the *asana* and rhythm are the same, though her *mudra* is slightly modified to better grip

the slippery plastic.¹⁰⁶ She sweeps puddles from her mid-day bath with her grass-broom held together by a few tight coils of string. She places her empty bucket in the growing serpentine line of vessels gathered near her floor's common tap in wait for the immanent hour or two of intermittent water pressure. Finished, she stands erect and braids her hair looking into the old hand-mirror that is fixed into the plaster wall with a nail. Her fingers deftly braid, over, under, over, under while her eyes dart between her wet strands and the new outlying hairs protruding from of her partially maintained eyebrows. "*Theek hai*," she says slowly, still concentrating on her reflection, "*abhi main aapko bat keroongi*," "alright, I am ready to talk [about water]."

She stares at a honeycomb of drawings on a sheet of paper in her hands. The paper is divided into six hand-drawn representations of Delhi homes. There are two drawings depicting a *jhuggi* in a *basti*—the roofs' edges wobble up and down and there is a narrow lane separating the homes. Another two drawings show a cutaway of a tenement building a few stories high, with the stairwells zig-zagging on the outside of the building as if the tenements were bisected and one could see into the interior halls. The other two drawings represent private family homes, each behind an iron gate, with potted plants flanking the walkway, and the hint of curtains behind architectural windows. One of each in these three pairs depicts a woman on the walkway, with an arrow indicating her gait poised away from the house, accompanied by the verbal explanation that she works

¹⁰⁶ *Asana* and *mudra* are classical Hindustani dance terms that describe a dancer's pose and hand position respectively. Nandika was taught dance by her female elders when she was young and though she does not practice dancing, her carriage is smooth and graceful as though every mundane movement is choreographed on stage.

outside the home. In the corresponding three, the woman is seen inside the home, and it is explained that she does not work outside of the home; she is a housewife. This non-verbal survey tool is meant to begin discussions about the creation of middle-class waterscapes beyond middle-class domestic thresholds.

Illiterate, so leery when presented with a survey to measure domestic water use and cleanliness, Nandika considers the drawings of homes carefully and responds tentatively at first, but gains confidence with the medium as she explains her perspective. “*Yeh*,” she gestures with a pointed finger to one of the homes, “this one.” Nandika chooses the home which she thinks is the cleanest. “*Iska ghr sub se saf hai*,” she nods, “her house is the cleanest.” As she thinks about it more, she changes her mind, “*nahi...yeh*.” She pauses, thinks for another moment, and then changes it back again. The two homes that she oscillates between are the ones representing the middle-class neighborhoods, and Nandika’s inability to choose exemplifies the same patterns in her neighbors and in the *basti* residents. As more people are asked to rank the homes, some are consistently at the top or bottom for water use or cleanliness, and yet, another more interesting pattern emerges, one of uncertainty about the way certain homes rank in relation to the others.

The act of delineating the divisions between who is successful at maintaining middle-class levels of cleanliness and water consumption reveals an indication of the perceived penetration of middle-class domestic aesthetics into the homes beyond the borders of the middle-class neighborhoods. This is to say that by understanding the imagined

consumption patterns of middle-class behaviors, a clearer conception of the imagined bounds of middle- and world-classness and their spillover can emerge. With water use and cleanliness as a measure for internalized modernization and integration in Delhi as a world-city, a map of the city can be drawn that does not just reflect standard conspicuous consumption patterns, but reflects the quieter maintenance that shows a deeper commitment to the aesthetic. This map can be read to understand the general ideas about how modern domestic management is trickling down to those beyond the *pukka dehliz* of middle-class families and neighborhoods.

Nandika finally settles on the middle-class employed woman's home. She says that a working woman would be acclimated to high standards for cleanliness and work-ethic, thus would not tolerate employing domestic workers that did not keep the home in top condition. According to Nandika, a working woman also would be trained and experienced in leadership and would know how to be a stricter boss. One of Nandika's neighbors reinforces the conception of increased standards for cleanliness as corresponding with a higher level of modernization of the matriarch; Nandika's neighbor's employer would often directly compare the domestic worker's inability to complete satisfactorily chores with the success or failures of the office cleaners' ability to do similar chores. "Madam compares us," she says—and with this ability to compare comes her employer's shrewder discernment of what qualifies as "clean."

The assumption that increased exposure to the aesthetics of modern life outside of the home inevitably leads to increased cleanliness does not only apply to the middle-class women who held middle-class office jobs. Rather, the idea that a woman's exposure to any type of work outside of the home was extrapolated by others who evaluated the working women's households to indicate directly higher levels of domestic cleanliness. This was repeatedly shown when working-class women ranked the homes in terms of cleanliness. First, both of the middle-class homes were named as most clean, followed by (in either one order or the other) the tenement and the *basti* working women's homes. Part of the reason that these middle-class homes broke a common pattern of ranking all working women's homes in either the top half of cleanliness or the bottom is that the women who worked were able to outsource the job of domestic cleaning and domestic water management.

While some domestic workers agree with Nandika's neighbor that working women's households directly indicate higher levels of domestic cleanliness, other domestic workers purport that regardless of class, a working woman would be less able to maintain a clean home. These domestic workers, often pressed for time themselves, conjectured that working women of all classes sacrifice so much time and energy to their employment that they are unable to properly manage the cleanliness of their own homes and often also bodies. This point is reinforced even more when discussing water management. Neelaja says, "working women don't have time to take care over water or other household problems [...]. Worry over each cup [of water]? How can you when you are late for

work or for cooking food [for your family]?” Neelaja and others perceive a long-standing argument about working women and domestic work (Sassen 2002); they explain that the constraints on middle-class working women were assuaged by hiring outsiders to do their housework for them, but that their absence would ultimately impact their water use and cleanliness. However, not a single domestic worker argued that a middle-class working woman’s home would be less clean because of a deficiency in lower-class women domestic workers’ ability to reproduce a middle-class domestic relationship with water. This confirms that a middle-class water relationship, and hence household, can be replicated by lower-class domestic workers.

Initially, the perspective of Neelaja and others who rank working women’s homes as less clean seems to share no commonality with those of Nandika’s neighbor and others who rank working women’s homes as more clean. Neelaja speaks from her own perspective as a working woman who has difficulty balancing her employer’s needs with those of her own household. To Neelaja, working women do not have the time clean their own households—unless they are able to hire a domestic worker to put in the time for them. Hence, for working women who could not delegate the task of cleaning, their homes would be dirtier. Taking these two seemingly disparate perspectives together, the underlying commonality is that the proper management of a home’s cleanliness requires women’s time and energy, either cleaning delegated to a domestic worker who is properly managed in absentia by a shrewd working woman or cleaned under the watchful gaze of a housewife herself.

Indeed, the idea of the watchful gaze has been explored by scholars from the perspective of the employer, most notably in *Cultures of Servitude* (Ray and Qayaunm 2009).

However, the domestic workers' penchant to evaluate the cleanliness of employer homes based on supervision during cleaning shows that domestic workers also believe the act of being watched while cleaning is significant to the outcome. The significance of visibility and watching during domestic cleaning remains important to everyone regardless of class, though its effectiveness was not universally accepted. The act of cleaning something is both a performance and a spectacle. Employers worry about domestic workers like Rajesh, who demonstrates active resistance to middle-class standards of water allocation when he reduces the amount of water he uses when "Madam" is not watching.¹⁰⁷ Employer anxiety over the resistance they cannot see points to an important strain in understanding middle-class housekeeping in India, that the presence of a watchful housewife is thought necessary to a clean, home. Historically, women have been the keepers of tradition in India and their centrality to the household has persisted through their role of vigilant management (Walsh 2004). The watchful housewife is present in absentia when her logic regarding water use and cleaning procedures is internalized by obedient employees. Though Rajesh undermines his employer's authority on the subject, he still complies when she is watching.¹⁰⁸

¹⁰⁷ Resisters like Rajesh show that supervision by a middle-class housewife is not universally accepted as linked to actual cleanliness.

¹⁰⁸ The failure to defer to the expected standards while being watched would be an act of defiance that would dismiss him from employment. This would negate his identity as an employed domestic worker. Hence, all domestic workers defer to the water-use standards of the employer when being watched.

Ownership is another criterion according to which many of the working class women claim a middle-class housewife's home is cleaner. They reason that the housewife takes pride in keeping her home in good condition is because she owns it,¹⁰⁹ giving her the impetus and the authority to be the vigilant steward of her home. As the women rank the homes, several from both the *basti* and the tenements rank the middle-class homes and the *basti* homes highest for cleanliness. This is because there is less ambiguity in the role of the cleaner—the cleaner is also the owner. The tenements, say residents, are merely maintained at the minimum level by residents to avoid eviction by owners. This establishes that ownership and cleanliness are even correlated for *basti* homes, which although not legally owned, are thought to be one's own home.¹¹⁰ However, ownership is moot in the minds of other women from both the *basti* and the tenements who deemed middle-class and tenement homes the cleanest. They asserted that although tenements are not owned by those who clean them, they are ultimately cleaner than the *basti* homes because of the active monitoring of landlords and the threat of eviction for noncompliance. To extrapolate from this, the landlord is comparable to the vigilant figure of the watchful housewife/employer.¹¹¹ Like the vigilant housewife, the landlord determines the standards of cleanliness for his homes and, just as the housewife can

¹⁰⁹ Though the women attributed the ownership to the housewife, is it more accurately expressed that the homes indicated are jointly held but likely in the name of her husband or his family.

¹¹⁰ *Basti* homes, or *jhuggis*, are considered to be owned by individuals or families—generally the people who staked claim to the land or those who built a structure on it. Within a *basti* neighborhood the notion of “ownership” is prevalent, despite the recognition that there is no legal claim in most cases. This concept of ownership gives credence to squatters' rights even though these rights are not recognized by the government in all cases. The notion that the actions of the people are invisible, or not under surveillance, corresponds with the ideas of water and cleaning autonomy discussed in other housing models, making the non-legal ownership still relevant in this context.

¹¹¹ Though the landlord is also depicted in cases to have vested interest in finding fault in the cleaning methods of his residents in order to evict them and recruit new lessees who can presumably pay more. This fear is not unwarranted—as Delhi develops and in-migration rates continue to increase, residences are a seller's market.

dismiss a domestic worker for not meeting standards, so can a landlord evict his tenants.

Thus, the importance of ownership and authority in establishing thresholds for water allocated to cleaning is salient but is read in different ways regardless of the living situation of domestic workers.

Following this, there is another major break to expected patterns of ranking when domestic workers argued that homes from the *basti* are perhaps the cleanest of all, even middle-class homes. The *basti* homes are ranked as even cleaner than the middle-class homes, since they are cleaned by the actual hand of the owner. The idea that cleaning “by one’s own hand” is more virtuous and better than having cleaning performed by an employee might be linked to another common Indian domestic adage that home-food, or *ghr ka khana*, is better than “taking food from the outside,” since it is presumably prepared by a loving hand. This loving hand is not disembodied; rather, it belongs to not just a relative, but a female relative, whose love for her family helps her stay committed to quality regardless of its constraints on resources like time, effort, or financial cost. But even though domestic workers are idealized as “one of the family,” there still remains an acknowledgement that they are not (Ray and Qayaunm 2009). Cleaning by one’s own hand relates to this notion. The hands of employed cooks are not thought of as those of a female relative; hence, the food that they cook has less status than food cooked by a female family member. To those that ranked the *basti* as having the cleanest homes, the same is true of the hands of a domestic worker. When domestic workers clean their own

homes, their middle-class training, paired with their committed stewardship of their own homes, result in the cleanest homes in Delhi.

This represents a major contradiction to the dominant narratives that suggest that informal, working-class “slum” neighborhoods like the *basti* are the dirtiest places in all of Delhi. The assertion that cleanliness does not have to follow class lines, formal construction, nor access to relatively reliable private piped water supply, indicates working-class women’s agency in the ability to keep house. To reiterate this point, it shows that domestic workers and their working-class neighbors are able to bring the aesthetics of *pukka* Delhi beyond the thresholds of the middle-class. This recognition by domestic workers shows that the urban water-poor are aware of their status as contributors to the world-class city—as formally making the middle-class in middle-class spaces, and as personally trumping the standards of the middle-class through greater care and commitment in their own lower-class homes.

To domestic workers like Rithika, the *basti* is much cleaner than the *pukka* homes of the middle-class and more modern than the tenements. Despite her evaluation that the *basti* has the most limited water access of the three, to Rithika, the *basti* is the cleanest. “We are always fighting dirt,” she says, “so our homes are cleanest.” Rithika also thinks that the *basti*’s homes are more modern than the formal tenements because their informal, illegally-built home requires no monthly payments of rent or utility fees, freeing up income for the purchase of middle-class items. Her family’s self-maintenance of their

jhuggi and their consumption of middle-class objects make the *basti* aesthetically middle-class, though foundationally it is not. In Rithika's perspective, domestic workers from the *basti* are able to bring the middle-class aesthetic home more capably than to any other home because of their determination to counter the "backwardness" associated with the dirtier environment and their ability to divert funds that would have been invested in formal housing to modern material culture. Rithika considers the *basti*'s inconsistent water flow a limiting factor to her ability to clean, but she accepts the infrastructure as a condition of her financial flexibility. Rithika and domestic workers like her often sacrifice water in one realm of domestic work in order to support water use in other realms to cope with the lack of water. This often involves allocating water to behaviors and belongings that are considered "modern," a term which she explains is coterminous with being middle-class.

Rithika has two children that are in their late teens. Her daughter and son have also been absorbed into the informal economy of the city; her daughter works as a daytime *ayah* in a nearby officer colony, and she is not sure exactly where her son spends his days, though sometimes he brings home a modest amount of money saying he had picked up odd jobs. She does not worry very much about her children's whereabouts, but focuses a lot of her attention on their happiness. Her preoccupation with giving her children a middle-class upbringing despite their residence in the *basti* affects both the material culture and water flows of the household. Rithika talks as she cleans the house. She hums along as she cleans one of the family's chairs by splashing it with water and wiping it down. "*Mere*

bachche bahoot modern hai,” she explains, “my children are very modern.” To prove their status as modern people she explains some of the activities and the consumption patterns of her children. First is the fact that she allows her daughter to work and allows her son, like the children of the middle-class families where she works, to have some hours of the day free for hobbies. This freedom leads to quarreling while the family members negotiate expectations from each other, but this drawback is secondary to the strong desire Rithika has to shape her family to be readily absorbed into modern Delhi. Rithika often indulges her children’s material yearnings, too. She pulls out the drawers of a tall steel wardrobe, showing the contents of blue-jeans, English-language tee shirts, and a jean jacket. She describes with pride how she is one of the few mothers in her lane to let her daughter wear blue-jeans, though she insists on a *kurti* and *dupatta* for the modesty of her daughter’s torso. This pride vanishes as she opens the last drawer. She explains that it is her drawer and there is nothing special inside: two saris with homemade cotton blouses, one special sari for holidays, and a severely pillared sweater for winter. “I have simple clothes,” she explains. “The young people are the ones that should look good.” This orients her desire to be absorbed into the city as a future flow—one that depends on her abstention.

Her abstention is not just financial, but also hydrological. To Rithika, “looking good” means presenting oneself as “modern,” which to her means showing it by wearing the western-style clothing that is popular with the Indian middle-class even if they strain water allocations. She remembers the first time she bought her son jeans and his elation.

However, just as salient, she recalls her surprise at how different they were to maintain than traditional clothes. “*Veh sub pani le liye*,” she shakes her head, “they took all the water.” Like other mothers, Rithika explains that their children’s jeans habit is difficult to maintain, from the enormous amount of water they take to wash, to the greater amount of detergent required to get into the thick fibers, to the amount of time they take in drying. The family’s non-western laundry requires less detergent, if any at all, and hence less water. Rithika balances the drain on resources from the children’s western clothes by coping through the sacrifice of her own clothes’ modernity. Having spent years managing the western dressing penchant of her son, Rithika has taken to wearing lightweight saris that take few resources to wash and little time to dry, allowing her to make do with fewer saris. In the same way that Rithika’s constant fight against being labeled dirty makes her home cleaner, her fight against being labeled backward makes her invest resources like water in being modern.

Rithika sees modernization happening all over Delhi, and says that the *basti* has absorbed more modern flows than the tenements have. Although domestic formalization and slum clearing are on the top of the minds of many government officials as one of the most important milestones of modern development into a world-class city, Rithika and her neighbors challenge this by explaining how the middle-class flows in their lives would not be possible with their relocation to a proper tenement despite its formal water access. Rithika says that she thinks she is able to own a greater number of modern possessions by living in the *basti* than those who have to pay rent in the tenements. These modern

possessions and their upkeep are, in her perspective, one of the most important signs of upward mobility toward becoming an integrated part of the middle-class. But despite this differentiation, Marina and Rithika both underscore the introduction of an active cleaning agenda that prioritizes water allocation to modern water use. In their collective opinions, although government-supplied tenements have better access to water, it is the way one learns to allocate water that determines one's class.

The association between middle-class aesthetics, modern possessions, an active cleaning regimen, and water allocation takes many forms. Contrary to Marina's perspective, for Rithika the ability to amass and maintain objects of modern, middle-class consumption is more salient as a marker of upward mobility than access to middle-class infrastructures, including piped water. Nonetheless, Marina, Rithika, and other women strive to build their own versions of middle-class domestic water infrastructures and improvements. Marina and Rithika believe that the appropriation of middle-class cleaning aesthetics is possible, but there are some who think that the values of water and cleaning are inherent to people, and thus unchangeable.

Barsha is one of the only domestic workers encountered who makes no effort to absorb aesthetic or the ethos from her employers' homes, though she mechanically follows their chiding corrections. Barsha is a widow and lives at the bottom of a natural drop of the rock foundation of the *basti* that has evolved to become a steep landfill. Her four children are often left alone while she works. Her home life is overwhelming to her and

is consumed by managing her family. Ravaged by constant illness and her children's mischief, Barsha is kept busy. Barsha says that in two of the homes where she is watched by her employer, she is required to wash the floor three times per day. "*Adat hai*," she says. "It's in Madams' nature [to be clean]." Barsha explains that because her employer has always lived in places that prioritize the aesthetic that her cleanliness and superfluous water use have been internalized by her employer. Likewise, Barsha thinks her own upbringing in the filth of the slum has condemned her for a lifetime of intractable dirtiness. The acceptance of her life as permanently polluted and beyond any ritual purification shows her absorption of middle-class cleanliness ethoi (Douglas 1966). Feverish again and too tired to stop her two-year old from sucking on a discarded bag of *namkeens*, she says, "look, the *basti* is the dirtiest [type of home]. No one does anything [to change this]. It is in our nature to be dirty." She explains that if more water was available, people would use more, but they would not be cleaner. This resonates in part with the binary relationship between water and cleanliness discussed earlier—the amount of water that is used is irrelevant to its ability to render something clean—but departs from it in that Barsha has internalized the idea that some things simply cannot become clean with water.¹¹²

The problem of dirt and blackness is projected onto Delhi's developing areas like the tenements and the *basti* by middle-class rhetoric. Many of Delhi's "improvement" plans

¹¹² This also resonates with the practice in employers' homes of keeping separate utensils and dishware for their employees use. This reflects the belief that these items have come into close bodily contact with the domestic workers and are rendered physically polluted beyond salvation. Although domestic workers can perform the function of cleaning the dirty dishes of their employers, no amount of soap or water can remove the pollution from the dishes used by a domestic worker.

target the urban poor for their unhygienic practices and plan interventions that seek to inculcate the urban poor to move away from “dirty” habits so they can be absorbed into the hygiene-conscious developing city. Programs can target specific enclaves, or a particular issue, such as handwashing and food preparation, across multiple neighborhoods. When Panchtare *basti*’s NGO workers collaborated with an NGO in another of Delhi’s *bastis* that was located in an industrial neighborhood, their reactions included references to the dirt and “blackness” they found there. They returned to Panchtare speaking of the dirty atmosphere, remarking that all they saw were “black faces,” and that their own faces felt blackened by going there. They contrasted this *basti* to Panchtare *basti*, which, because of its location in the Embassy district and its higher rate of employment flows into middle-class homes, had absorbed the middle-class aesthetic to a higher degree. “They don’t know how to properly wash,” the NGO workers agreed. This complaint was repeated in discussing the hands, hair, bodies, clothes, material possessions, homes, and footpaths. These specific instances were followed by contrasting statements about their own successful programs that triggered the integration of proper washing habits. In this way, the middle-class aesthetic could be seen evident through middle-class instructional intervention not unlike the initial training of a domestic worker.

But with the benefit that NGO workers and domestic workers’ employers think comes from exposing Delhi’s urban poor to the middle-class, there is also the danger that the exchange will, like the NGO workers expressed, “blacken” or pollute, the middle-class

(Douglas 1966). A recent lower-middle class in-migrant from rural Punjab who had found work as a personal trainer at an international gym chain and in private homes expresses this without disguise. “Those [lower class] people have black blood,” he said, “which is why they are always sick.” He continues, “people who go [to the *bastis* and tenements] get sick because their water is black, too.” In his estimation, all of the fluids of the urban poor were in a sense polluted, and any proximity to this contagious pollution rendered a person at risk of becoming dirty, sick, or “blackened” themselves (*ibid.*).¹¹³

This in-migrant’s warning highlighted his anxiety over crossing thresholds with its potential for becoming ambiguous from the crossing and his consequential commitment to keeping thresholds strong. Perhaps ironically, if the thresholds of *pukka* Delhi were maintained as he suggests, he would be left out, ultimately lumped into what he qualifies as the impure remainder. His closeness to the division between these categories is what leads to his hyper-awareness of the problem.

The middle-class aesthetic of distancing oneself from contamination by dirt and pollution leads to an intense effort to maintain a distinction between dirty and clean, between proper and improper, and between official and unofficial (Bourdieu 1984; Douglas 1966; Latour 1993). This process manifests itself in the Indian home (Dickey 2000; Ray and Qayum 2009; Walsh 2004). The evaluation of the cleanliness of the homes reflects a parallel between social and infrastructural hierarchy that maintains the distance between objects of pollution and what is considered clean. Water has a fluidity over these

¹¹³ There is a parallel here with the employers in another chapter, who bought their ayah shampoo lest their child be in proximity to the freshly washed and oiled hair.

categories and can be considered dirty, clean, or a cleaning agent itself. By examining the water fixtures in the home, the degree of distancing practices can be observed.

The middle-class do not labor to rid themselves of effluvia, whether from elimination or from cleaning. The blackwater and greywater simply go down the drains that are built into their homes—those piped directly into bathrooms, kitchens, and the porch. Their car washing water or floor washing water are usually the only waters swept away into the streets, where shared civic drains shepherd the water underground and out of the neighborhood. In comparison, the wastewater of the urban poor circulates primarily through common drains. The homes in the tenements only have common drains which are installed in water filling areas, the communal toilets, and sometimes in the hallways—into which most of the water from domestic chores is swept. In the *basti*, gutters, called *nals*, are dug into the paths or set with cement along the foundations of *jhuggis*. Like in tenements, laundry and dishes are done in front of the home, allowing the greywater to be swept less than a meter over into the open *nal*, which also carries blackwater.

In the *basti*, bathing takes place in interstitial, ambiguous places. Men and children will bathe on the public footpath, and women will bathe in the *jhuggi*, catching the water that they can, either to reuse for washing their front path or to prevent it from wetting the floor and sweeping into the gutter. Some families have built bathing stalls adjacent to their homes. These structures are a form of distancing the act of cleaning bodies from

other community and domestic activities. The structures normally consist of all scavenged or cheaply bought items: tarps, bricks, branch-poles, and sometimes salvaged tile or cement floors. In the tenements, bathing is done in the home and the greywater is either saved for reuse or swept towards the drains in the public hallway. This reinforces that there is a relative absence of the fear of contagion that is reflected in the understanding of space, but those exposed to middle-class aesthetics seek to reproduce the distance.

The growing concern over distance from polluted waters is also reflected in the conspicuous consumption of water technologies. Avisa sits with a few neighbor women who have come to talk about their homes' water technologies. They are used to the damp air that sputters out of the water-based air-coolers, and Avisa is eager to show off her newer acquisition: an air conditioner. The guests marvel, estimating the amount of water savings it will accrue. She agrees with her guests that it will save many liters, but corrects them by saying her main impetus was that an air conditioner was more "modern," a word that often stands in for "middle-class" when describing the small steps towards the identity. Avisa bobbles her head and smiles, "that dirty water was always blowing over [the children]." One of the first of her neighbors with an air conditioner, Avisa prioritizes the modern appliance as a technology to distance her children from polluted water.

Several of her other neighbors have absorbed other technologies for the same reason, to improve the present lives of their children, and to bring them up in a more middle-class relationship to water that they hope will mark their futures. Washing machines, though not ubiquitous, are one of the first major water-distancing appliances that are being adopted in the neighborhood, since they are conspicuous in their prominent location outside homes' front doors and in the form of the new variety of clothes they enable families to wear. Though the women must manually pour in and bail out the loads of water because there is no piped water attachment, many prefer it because they say that they spend less time touching the dirty water than during the traditional method of handwashing of laundry.

In a much more private relationship to water, a few homes have built separate rooms and installed toilets to create distance from polluted water. These toilets are western-style and lacking a piped water connection, a mug sits in a bucket of water at the foot of the fixture to rinse the toilet bowl. The toilet bowl's contents flow out into a pipe, through the wall, and into the *nal* outside. Like many of the new construction homes in middle-class Delhi, the toilets in the *basti* are Western style, rather than the Turkish toilets found in less elite spaces.

To treat the water itself, some mothers, concerned about the black flecks that sometimes speckle their municipal water, have modeled their employers' water filters out of old sari material—allowing water to pass through a few gauzy membranes to remove the visible

contamination. Additionally, a few homes have adopted water coolers, the kind you would see in an American office, for their drinking water, buying the twenty liter Bisleri jugs that their employers' have a subscription to have delivered, or simply bring home drinking water in reused one-liter bottles from their employers' homes. This ensures that their drinking water meets a middle-class standard of purity and that it is kept separately from water used for domestic chores.

As these Bisleri jugs demonstrate, and as Neelaja and her cousin bring to bear, the quality of water, or its categorization as clean, is also important. In one corner of the basti and in one tenement building, a couple groups of women had devised a method of water purification. Their chief indicators of poor, impure water were the smell, the color, and whether or not there were foreign objects floating within it. Since they could scarcely address the problem of smell, they focused on addressing the visual contamination of the water. The tenement taps frequently sputtered out yellow water, which the women allowed to settle and then siphoned the water from the top into a new container. They would try to use this water for cleaning the floors and save their clear reserves for consuming, bathing, or other chores in that order.

Impurities of household water can also come from a deliberate primary use. The reuse of greywater for another domestic chore is a simple way to use more water in domestic work without increasing a home's overall intake. Domestic workers conveyed that the practice of greywater reuse is discouraged in almost all employers' homes; often,

employers give the reason that the greywater, dirty itself, had lost the ability to clean.

One or two domestic workers who had initial experience with lower-middle class civil servants said that they were permitted in times of water scarcity to reuse the final rinse of laundry water to then wash the floors provided they added enough phenyl to the bucket first.

The fact that greywater is routinely reused in the homes of these domestic workers indicates that they do not completely espouse middle-class values at all costs. Rather, it is a constant negotiation. But also beyond this, domestic workers are trained specialists in producing the middle-class, an expertise that they do not leave at the door as they leave the middle-class environment of their employers. This training delivers an ethos and they grapple with internalizing it. As they return to their own, less-affluent, communities, they make decisions everyday about whether or not to engage this ethos to direct their own households' flows of resources.

Although Neelaja did not increase the amount of water spent in cleaning her home, she admitted that she did cross back into her home space with new, world-class ideas of home organization and management. Her cousin has noticed the changes and remarks that even Neelaja's *jhuggi* seems like a *pukka*, or proper, home. She admires the accoutrements that Neelaja has acquired: a few posters, a color television with cable, and mini fridge that had plasticized lace coverings to keep off the dust. Neelaja's home has many of the trappings of a middle-class home. And yet, the simple amassing of middle-class goods is

not coterminous with achieving the middle-class aesthetic. The middle-class aesthetic requires a belief in the centrality of domestic water ritual. The constant washing is not to counter a body that becomes dirty within a day or half-day time, nor is cleaning employers' middle-class homes about cleaning perceptible dirt. In so many words, the domestic workers' perspectives on middle-class cleaning objectives emphasize that cleaning with water is an urban ritual which is a part of an aesthetic of a conspicuous middle-class lifestyle. Neelaja devotes any surplus resources to developing this ritual—at this point it is just money, but as soon as more water becomes available, she will devote that, too. As such, practices of domestic water use are sometimes performed only for their ritual value which is true for domestic workers and identity expression through water allocation in Delhi.

In Delhi, water has become a signifier that transcends its functional value even in the context of relationships defined by its scarcity. Through discussions about domestic water as a cleaning agent, deeper perspectives about processes of modernization in Delhi come to the surface. As families search for their version of the middle-class world-city, this means having access to critical resources, including water, to reify this identity. Domestic water can be used to signify upward mobility and class status, which is why the Chief Minister of Haryana's accusation resonated so widely. It also resonated deeply, as his vigilant gaze penetrated into the most private spaces of homes in Delhi, criticizing personal water allocations. The larger question becomes how and where a middle-class city is made. Is middle-class Delhi made through the grooming of bodies into middle-

class world-citizens, with multiple baths each day using the proper quality and quantity of water or clothing that takes extra resources to buy, wear, and wash? Or is it made in the homes the bodies occupy, with small changes like a sink-basin for washing on an elevated kitchen countertop, a private shower stall, or freshly washed belongings and mopped floors? Perhaps the distinction comes from processes meant to blanch out all dirty, unhygienic and “black” elements. These changes all necessitate a commitment to an aesthetic which champions increased domestic water use as an indicator of upward mobility.

These practices of ascription shape the domestic sphere but also have ramifications far beyond it. The degree to which middle-class domestic water ethoi and allocations are absorbed beyond the middle-class will be indicative of the prognosis of Delhi’s water future. As Delhi’s citizens are urged to adopt middle-class water values politically, economically, and socially, there is greater threat to Delhi’s water stability and sustainability. This is certainly not to say that the lower-classes should not be entitled to pursue water rights and water allocation freedom to the same degree as the middle-class. Rather, it brings light to the problematic dynamic of favoring support for middle-class water use through policy, economy, and rhetoric, but without developing more inclusive structures of water justice and rights in tandem with infrastructures to sustainably supply the unprecedented amount of water that will be required to support it.

However, these domestic practices cannot be taken apart from a larger realm of urban water allocation. This includes water allocation between *pukka* and *kuchcha* areas (like the tenement and *basti* communities), but also between human and non-human needs. Urban water needs outstrip sustainable water supplies for human and domestic consumption as well as commercial and environmental consumption. How does Delhi, and cities like it, maintain balance between its different stakeholders and how does Delhi legitimize the losses of lifestyles, livelihoods, and lives when disparate water flows cut off broad swaths of the human and the non-human population? Where does environmental sustainability play in to discussions of water allocation vis-a-vis compelling arguments to develop Delhi into a world-city?

These questions will be answered in the next chapter, which explores domestic workers and the urban water poor as stakeholders in and stewards of Delhi beyond the thresholds of their own and their employers' homes. It examines their role in the urban ecosystem.

This chapter highlighted the ways domestic workers interpret the category of middle-class and how they seek to replicate, modify, or challenge the category through their relationship to water. It explored specific practices to reduce pollution from ambiguity in water practices such as bathing privately, preparing food using a sink, and creating water-filters in order to underscore instances where middle-class water values were re-interpreted in the social context of lower-class Delhi. This relates to the concept of absorption because it fleshes out how middle-class lifestyles are being absorbed

throughout the city, not only through the consumption of material goods, but also are being absorbed as an ethos that drives peoples' relationship to water. Specifically, it establishes that domestic workers are agents who actively both re-interpret their relationship to water and recognize their autonomy in reproducing the middle-class.

Chapter 6 –
Jal Hi Jivan Hai:
Life, Livelihood, and Urban Vitality

This chapter explores how domestic water allocations and ethoi have the potential to affect the greater city. The relationship of mutual absorption is evident between the water-poor to parks, green conduits, cultivated botany, and individual trees. It contributes to the theme of urban absorption on the level of city-making, development and planning in two ways. First, cities are rapidly absorbing immigrants to overpopulated, water-poor neighborhoods. This rapid absorption puts a strain on not only the water, but also the physical space available to residents. Second, green infrastructures are extremely important means by which these overpopulation problems are assuaged because of their ability to allow flows to transcend the boundaries of lower-class neighborhoods. The green spaces allow the city to temporarily absorb people, but also allow people to freely circulate and absorb the city.

The centrality of water as an essential element to the vitality of people, ecosystems, and landscapes has been a tenet to global philosophies throughout time. “Water is the matrix of life,” writes Phillip Ball, as he chronicles the unique centrality water has had to life since before history. Without such a simple, yet complex, element, life could not exist (Ball 1999: xi). It follows that because water is a finite resource, taking water from one use and reallocating it to another is an act of preserving one life in exchange for the life of another (De Villiers 2000; Outwater 1996; Reisner 1993). Yet, the people that can control the flows of water make these weighty decisions every day. Decisions about water allocation grow even more dire in hotbeds of social inequality, which are a characteristic of burgeoning megacities worldwide. Many of these cities suffer from both

anthropomorphic and geological desiccation, like Delhi, India, which suffers greatly despite its adjacent river. As the waters of Delhi have reached levels not only too low to support growth, but to sustain the current residents of the city, millions of people must look to their taps and decide what life they think it is ethical to sustain (Narain 2012: 14).

As it is said in India, *jal hi jivan hai*, water is life. This sentiment is scrawled across posters at water access protests; it edges the drawings submitted by school children to drawing contests; and it runs in media conservation campaigns. It also is spoken by aunties waiting for roadside water tanker deliveries just as it is spoken during lectures by school teachers and by government officials over tea. Water's essentiality to life is echoed in different forms in phrases like *jal bachao, jivan bachao*, a command to a peer stating: save water, save life. Within the necessary connection between water and life is the idea that human agency can control the flows of water, and with it, the flows of life. As the connection among water, life, and agency is oft cited and nearly universally accepted, the phrases do not critically engage what sort of life is, or should be, preserved.

What life should be saved is a site of contention, particularly in water scarce areas like Delhi, and is articulated through everyday decisions about mundane water use. In previous chapters, the question of what type of lifestyle is privileged by control over water was analyzed within different types of domestic situations. Accounting for 86% of Delhi's water consumption, domestic water allocations have implications beyond the construction of life within human homes and beyond a solely human environment (CSE

2012: 85; Babu 2007: 40-42). Household hydrologic practices affect the urban ecosystem: the dynamic interactions among the collective community of humans, non-human organisms, and the urban environment. This chapter seeks to examine the ramifications of domestic water allocation on the urban ecosystem, particularly in the interactions among the city's waterscape, green spaces, and urban poor.

Much in the same vein as the water argument, a parallel arboreal slogan in the Green Delhi movement compels: *paid lugao, jeevan buchao*, or, plant a tree, save a life. This adage, like “save water, save life,” also rhetorically links the human practice of conservation to control over life. While it appeals for residents of the city to contribute actively to the preservation of natural life in the city, it truncates the relationship of human-environmental interaction to the moment of initiation, or planting. Though silviculture or amateur enjoyment might be assumed to follow, the dynamic human-non-human interactions of the urban ecosystem are not reinforced. This is epitomized by the city's annual monsoon campaign to plant trees, begun by Chief Minister Sheila Dikshit in 2011 (TH 2011). In the inaugural year, just before the city streets flooded with rainwater, booths in upscale corners of the municipality offered one million free saplings for citizen-run planting. Without instruction for plant placement or prolonged care, the often middle-class citizen was only vested with the task of placing the tree. From the limited echelon of participation to the lack of encouragement of a prolonged human-green relationship, this campaign, like many, only scratches the surface of “saving life” in terms of ecological preservation in rapidly urbanizing Delhi.

Campaigns for a Green Delhi and for water conservation limit human/non-human relationships and also the type of human they attempt to engage. Water allocation to Delhi's green spaces is generalized as a practice associated with municipalities and with the upper- and middle-classes, because of land ownership and a greater ability to control the flow of water—a post-colonial ideological remnant that articulates with Grove's concepts of hierarchy and conservation (Grove 1995). Because of this, campaigns citing or targeting these imagined stewards dominate conservation discourse. However, these stewards are not the only stakeholders of—nor the only contributors to—Delhi's environmental conservation. The urban poor are also important actors in the urban ecosystem who often have a more holistic understanding of ecological conservation.

The tendency to link Delhi's green movement to its upper- and middle-class citizens follows global conservation discourse patterns. These “world-class” citizens, though cultivated by the city, are complicit in the city's resource problems as the highest consumers of natural resources—often associated with their adoption of a western lifestyle (Fishman 2012; Hoekstra and Chapagain 2007). Given this, the application of global conservation arguments seems appropriate. Yet, the direct importation of global conservation rhetoric ignores the particular local realities which should ideally inflect concepts and rhetoric. Particularly, the global conservation rhetoric frames the potential and existing contributors to Delhi's green movement as middle-class, global citizens, which discounts the urban poor and their contributions.

Because the urban poor are riddled by difficulties in acquiring minimum standards for water security and are sidelined in impacting municipal infrastructures and policies, their lack of inclusion in conservation discourse is naturalized (Davis 2006: 145; Zerah 2000). While, arguably, their margins of conservation and of choice are quite limited, and hence their ability to make decisions about water conservation and allocation may seem insignificant at the individual level, as a group, their water patterns can indeed impact cities. As tenement and slum residents make up 50% of Delhi's population, their everyday water practices presently represent a sizable share of overall domestic city-wide consumption.

Further, as the urban poor are increasingly being exposed to middle-class lifestyles, their cultures of resource management are being challenged by a new ethos. At the forefront of the tension between these ethoi are domestic workers, who work closely with the middle-class and whose interactions blur the lines of belonging (Dickey 2000; Ray and Qayum 2009). As discussed in previous chapters, domestic workers are embedded in middle-class households as both belonging to and being separate from their employers' homes, at once being active agents producing the middle class as well as passive vessels of cleaning. These roles do not end at the employer's threshold; instead, they are imprinted on the domestic workers who must return to their own homes with new questions about how to allocate their own resources properly in the environment of

scarcity. This comes again to the question of what sort of life is, or should be, conserved by the future emerging lower middle-class.

Life does not have to be conceptualized literally, as the life of humans, animals, or plants, nor is it restricted to the interpretation of life as lifestyle, whether limited, middle-class, or global. Saving life can also mean allocating resources to make systems thrive. This can extend to supporting the vitality of traditional living organisms and the vitality of dynamic systems like a city or its infrastructure. Vitality in the city can be, and is, measured by different people in terms of economic development and the number of world-class citizens engaged in global business, as the complexity and breadth of “natural” non-human organisms, or the degree to which its social systems are “living” systems that dynamically respond to issues of injustice.

Urban vitality can also be understood in socio-infrastructure terms, the way it is interpreted by pioneers of inclusive urban theory as by Jane Jacobs in her close study of the monumental impact of unexpected urban infrastructures on the vitality of cities. Instead of city parks that are treated as “abstractions, or automatic repositories of virtue and uplift...divorced from their practical, tangible uses” they should be built to draw out people who will “enliven” the city (Jacobs 1992: 111). Jacobs criticizes traditional urban planning, including movements like the Garden City and City Beautiful movements, which have been applied to developing cities the world over, including Delhi (Brosius 2010: 109). These movements proffered green spaces in the cityscape by the increased

interaction among humans of different classes, non-human organisms, and the natural world. In this ideal, urban ecology is enhanced by interactions in parks. Jacobs takes this further to specify a typology of park beyond that built for the sake of green space, rather a park built as a useful site for interaction. While Jacob's recommendations stem from American parks, her theory that functionality drives people into green spaces has broader implications for increased urban vitality in "dying" megacities like Delhi.

In the Green Delhi movement, the function of green spaces has been reduced to be solely visual. A cityscape whose roads are periodically dotted with trees is seen as a successful implementation of the world-class aesthetic of the garden city. But Delhi's green spaces are central to its vitality, and following, water allocation to them does not just support a green aesthetic, but overall urban vitality. The parks and conduits provide a means through which the urban poor can source human, physical, and natural capital, which propel them forward economically and socially. The green spaces support a number of species that contribute to the urban ecology. Finally, these spaces are a site of interaction that supports dynamic social systems.

The people who understand green spaces in the cityscape in these complex ways are the urban poor. While they may not get adequate water resources to sustain their family, they nonetheless support the use of water for maintaining these spaces, even during times of extreme scarcity. Likewise, for those whose lives are defined by their crossing over thresholds of economic and hydrological affluence and stagnancy, who encounter

different systems for managing vastly different access to resources, the allocation of water to green spaces is not always a decision based in a middle-class ethos or in aesthetics—they do not passively accept the green movement’s tenets. Green spaces are enveloped in the everyday lives of domestic workers and their neighbors, and these interactions build the complexities in their relationship.

Through a deeper discussion of the complex interactions among domestic workers, and the larger communities of the urban poor, a stronger sense of the urban vitalities that thrive because of Delhi’s green spaces can emerge. By examining this discourse, a conception of urban vitality which goes beyond a local-inflection of the term can materialize to ultimately enhance the term itself. Hence these discussions are paramount in creating a Delhi that recognizes different perspectives on development as well as providing a breadth of contextual interpretations to enrich core concepts of development and social theory. These voices speak in parks, chatter under trees, whisper in tenements, shout in hallways, and congeal as a discourse for anyone who chooses to listen.

Jeevika sits under the cassia fistula tree in the eastern most corner of the park, slumped in a way that she says makes her sore hips melt like the *makkhan*¹¹⁴ she uses when she makes fancy breads for her employers. She pulls a dingy handkerchief out of the folds of her sari and wipes the beading sweat off of her brow, careful to leave her *bindi* intact. The handkerchief is freshly washed, but greyed and slightly fraying on one of its edges. “I’ve been to three houses already,” she explains, “three remaining.”

¹¹⁴ Butter.

It is May, and the heat of the *loo* wind is upon Delhi.¹¹⁵ The heat rises to about forty-three to forty-six degrees Celsius in the afternoons, as the dry wind, in cahoots with the sun, makes a slow walk on Delhi's footpaths feel like standing too close to the mouth of one of the brick kilns whose chimneys ring Delhi's periphery like urban shrines. From the air they look like clusters of Shivling temples to development, transforming the raw earth into the building blocks of urban progress. As the moisture wicks from the ground and footpaths here in Delhi, the cracked dirt disintegrates into a fine dust that puffs up with each step enveloping pedestrians up to their knees with stubborn *khak*¹¹⁶. In stronger loo winds, the dust finely coats the faces of pedestrians, clumping into viscous mud deposits ringing their eyes and oozing out of the squinted corners.¹¹⁷ But even in the gentler breezes, their eyes dry and as their mouths briefly part with each "*Ram, Ram,*" "*Salaam,*" "Good Morning," or "*Namaskar,*"¹¹⁸ the saliva evaporates from the crevices between their teeth.

There is not much relief even at night, nor in the early twilight hours. Though she has not heard of Luke Howard's formal concept of "urban heat islands," Jeevika concludes on her own that the city radiates heat. She gestures to the four-storied homes that nestle

¹¹⁵ The winds begin in the deserts in the Northwest, but this year, there was even dust that traveled from a sandstorm in Afghanistan. This year the winds created dust storms. Dust storms are also called *kali andhi*, or black storms, which is significant in the relation to blackness explored in chapter 5.

¹¹⁶ dust. The color of the dust, *khak*, in Delhi is very similar to the color of "khaki" pants. Khaki pants attained their name from the Urdu, *khaki*, meaning dusty, as in dust-colored cloth. This is from an interview with Nigel Hankin, author of *Hanklyn-Janklyn*, who explains that this color was used in camouflage and as uniforms for the British in the nineteenth century.

¹¹⁷ Mention lore of wearing kohl, to pull dust out of eyes, and to fight evil with evil, in my opinion

¹¹⁸ Greetings spoken on the street.

closely to the forty-by-sixty meter park (Howard 1818). “I don’t sit in the shade there, I sit here, under the tree.” She compares the buildings to her village in Kerala, where the densest place was the *jhuggi jhopri*¹¹⁹ of about twenty families. Jeevika says with certainty that the fields nearby were never as hot as the settlement. In the cooler months, she would sit outside with her grandmother and mother against her *jhuggi* wall, enjoying its warmth as they did sedentary chores and prepared meals. But they would avoid the wall as the seasons changed. During the hottest months, they would not even want to be inside; instead the families in the *jhuggi jhopri* would lay out woven plastic mats or blankets on the packed-dirt path just outside their threshold and sleep in the cool open air that rolled in from the untouched green land.

Many scholars bifurcate the relationship of the outdoors to the home, assuming that the home exists in the absence of the outdoors, and that home life is necessarily private and enacted behind closed doors. However, they are not diametrically opposed. Rather, the home and outdoors exist in tension with each other, and the most interesting spaces to study domestic water are the ones that penetrate these constructed categories and explore the ambiguities of the spaces. T.S. Randhawa, a scholar in Indian architecture, opines that the fuzzy boundary between the inside and the outside in India is “not just an architectural style [...] it [is] a way of life” (Randhawa 1999: 38). He explains that the use of indoor and outdoor spaces as part of the home allows a flexibility and adaptability to time and space, allowing residents to make the most of diurnal and seasonal changes.

¹¹⁹ a settlement that is made up of informal homes built of mud, brick and found objects. Slums are often referred to in this way.

This is as true for the *mohallas* that he studies as it is for the *jhuggis* in Jeevika's village.

The use of outdoor spaces for chores, socialization, and relaxing makes them an important site for creating and enacting family and community.

As Jeevika describes her understanding of heat in the city, another domestic worker who sits nearby sucks her teeth and tips her head in a nod to show agreement. Arali came to Delhi from a village outside of Chennai. As she nods her head, her small golden bell-shaped earrings catch the sunlight and are for a moment as brilliant as the cassia fistula blossoms. With the air of a great speaker, she sits up more straight and brings her long braid in front of her shoulders. She says that she remembers being held close to her mother as she listened to her hum lullabies on their mat. Arali's voice becomes melodic, her eyes shut, and she begins a lullaby in *aakaar*, using only the nasalized sound "aa." As her eyes flutter shut, she drums on the *tiffin*¹²⁰ in her cloth bag, and begins to share the words of a few lullabies. When her eyes open, she eases back into her slouched squat. She says her family enjoyed the relief that the breezes brought, but after some of the roads in peripheral Chennai became paved, strangers were seen more frequently, and it became dangerous to sleep outside. She remembers one night waking to a pair of motorcycles roaring through the otherwise still settlement—the tire tread rolled onto their mat, right past her brother's coiled body; had he slept more freely, she warns, he would have lost an arm, which would have financially devastated their family.

¹²⁰ A steel container, typically used to carry food outside of the home. Arali rarely brings food to work, and when she does it is generally one or two chappatis. She had the container that day because the home that usually supplied her with chai and a roti was closed while the family members visited relatives.

Neither woman would consider sleeping outside her threshold here in Delhi, although each would sometimes doze in one of the neighborhood's small parks between her employers' homes. Jeevika and Arali live in tenements in a cluster of densely packed working class buildings that, day or night, hum with life. These can be seen from the Metro tracks, but from the ground these dilapidated grey hives are cloaked behind the sleek façades of the imported electronics store, Gold's Gym, and the high-end modern lighting showroom which gleam along the frenetic road that divides the domestic workers' community from their employers'.¹²¹ In Jeevika and Arali's buildings, people do not sit outside their own doors, apart from their water chores. Working with water brings them into the hall—water collection is a time when people from each tenement wait together and converse, and residents also perform some of their higher water-demanding activities there, too (crouching at their threshold as they wash dishes and clothing; the men and boys bathe themselves, and the women bathe their young children). The darkness of the halls makes it difficult, but they say although their eyes don't completely adjust, it is a willing sacrifice to keep the multi-use floor of their small room dry. A few bare lightbulbs hang in each hall, supported, it seems, by ropelike cobwebs thick with dust.¹²² The bulbs in the higher-rent buildings are in equally poor condition, but slivers of cement-lattice windows let in a little more light and the breeze of exhaust from the congested streets below is welcomed earnestly like a favorite brother. In

¹²¹ Jeevika knows the sweeper at the lighting showroom. At the end of the day, the sweeper sometimes manages to bring home a few of the advertisements that customers held in their sweaty palms, dropping the folded, rolled, and fingerprinted papers onto the cool-to-the-touch polished marble floor of the showroom, or discarding into the dust and dried-paan outside. Jeevika thinks the pictures were very modern and beautiful and pastes them to her tenement wall. She dreams that one day her children will live in a beautifully appointed home, like the ones in the pictures. This dream is explored in another section.

¹²² Electricity does not always flow through the bulbs either; power is frequently lost and these buildings do not have any backup generators.

Jeevika's lower-rent building, the hallway floors alternate with cement blocks and naked steel wire grates. These let in light from the floors above, but also provide a conduit for the drips of drying laundry, splashes of dirty bath and dish water, and sweeping detritus to blanket everyone below. The halls are narrow enough, but stacked buckets of water outside each door make passing people in the darkness uncomfortable, and it is easy to end up flush against a dark wall only to feel the wriggling of a lizard or cockroach, struggling briefly to be unpinned.

The domestic workers that gather in the park explain that the halls are an undesirable place to be physically and also socially. This is in part because of the steady flow of new neighbors. Permanent tenants have a very high turnover rate, but even in low-turnover buildings, there are always strange faces on each floor. Jeevika explains, "When we were new in Delhi, we stayed with my uncle from the village, otherwise we would be on the street. We had no money. When other people come from our village we cannot say no. They will host others too, one day, but our load will not be lighter. These days everyone comes to Delhi." Communities like these are in constant flux; even though some residents have lived in the tenements for twenty years, they contribute to the flow of strangers as hosts, and their homes become stepping-stones and places of social training for newcomers to the city. Arali agrees, "these village people, they do not know how to behave." Though Jeevika and Arali trust their neighbors to a point, they do not extend that trust to the strangers that they house. Jeevika worries about her belongings and also her children when she cannot identify who is around.

Jeevika pushes her argument further, saying that the physical structure of the hallways is also the cause of social discomfort. She dislikes her building's grates because the physical grime from other people's *chuppals*¹²³ falls on her head, and even more so because the grime disgraces her. In India, many people regard feet as objects of pollution. Proximity and exposure to a foot is an indication of being regarded in a subordinate position and this extends to things that touch feet—like sandals, socks, or debris on the floor. This intentional gesture towards a person's head or face can be a forceful statement of hierarchy, and likewise, people will show respect to others by voluntarily subjecting themselves to the impure feet of the person, object or symbol that they are honoring. While the tenement grates make this contact accidental, the implied sentiment of hierarchy is so engrained that many people in Jeevika's building feel the pollution is more than just physical. Standing in the hallway, Jeevika and her neighbors feel vulnerable to this social affront.

The grates also put women in moral peril, they say; Jeevika's family standing in the community depends on her honor, and this hinges on her ability to protect her reputation and her body. The grates make simple activities in the halls burdensome because she must try to shield herself from the lewd men who try to glance up her sari and the vicious women who gossip about her because she works outside the home. Arali sucks her teeth again in agreement, but more riled, begins to talk over Jeevika. Arali's nostrils flare and her chin juts upward as her words spill out faster than people leaping from one of the

¹²³ Sandals.

Delhi busses that never come to a complete stop. “Even if you are a Sita, people will talk about you,” she says, referring to the still-revered wife, an ever-virtuous martyr from the *Ramayana* (Mankekar 1999).¹²⁴ Arali is adamant that a woman does not have to be bad to get a bad reputation and that the danger of gossip is lurking around every corner of both high- and low- end tenements. The halls, according to these women and their neighbors, represent moral and social danger. Loo winds or not, sleeping outside their tenement threshold seems unthinkable.

However, there are a few places in Delhi beyond their own thresholds where the women of the tenement colony can let down their guard, whether to sleep or to act more freely. Some drift to sleep on trains, busses, and in shared auto-rickshaws—a byproduct of long, exhausting travels.¹²⁵ But a common location where they can feel at ease is under a tree in their employers’ neighborhood park. They can be found congregating there in mid-morning and in the afternoons, passing time between houses, taking a few moments for themselves before their own family duties demand them home.

The parks, like vehicles, are in-between places. Bruno Latour observes that vehicles exist nowhere and everywhere, which allow them to be a ubiquitous network that falls beyond traditional categories of here and there (Latour 1996). Like vehicles, the parks of Delhi

¹²⁴ See Mankekar for an in-depth analysis of postcolonial interpretations of the *Ramayana*, specifically the ways the televised serial reinvigorated the narrative and altered ideas of womanhood.

¹²⁵ It is important to note that this might not be the case anymore. This fieldwork ended in July 2012, before international reports of a gang-rape of a woman traveling home on a public bus in Delhi, December 2012. Though this was certainly not the first rape reported in Delhi, the magnitude of the response to it was unprecedented. This might have lead to greater alertness on public transportation in Delhi, rendering these former sites of sleep into sites of vigilance.

are nowhere, in the sense that viewed through the aesthetic of Green Delhi they are not destinations in themselves; they are everywhere, as parks or even lone trees can be spotted in many of Delhi's neighborhoods. But even more so, the parks transcend the dichotomy of the public and the private. Within the bounds of the park the women can be seen, a visual surveillance that is not possible on their own threshold. This is an important element of community to Jacobs. To apply this criteria, the halls, because of their darkness and strangers, are spaces that impede the vigilance necessary to create a prosperous community. Many people from the tenements, domestic workers or their neighbors, venture to the parks seeking this form of public-private experience. These nodes are critical spaces of community extension.

But parks are not stagnant points—there is a lot of important activity inside them, and these activities are ones that differentiate “Green Delhi” from “living Delhi.” The contributions to Delhi's vitality are significant when taking them as infrastructures that enrich and enable interaction. As such, they are spaces that create a “living Delhi,” a complex network of nodes that support exchange and interaction on myriad levels. This has implications on other critical infrastructures of the city.

Arali's daughter, Parul, is a live-in *ayah*¹²⁶ and works a colony or two away. Arali found the job for her daughter by sitting in the park, asking the daily groups of domestic workers if they knew of any suitable positions with good families. The network for finding domestic employment is almost exclusively through word of mouth—employers

¹²⁶ Nanny.

ask their domestic workers if they know any responsible peers who are available to add to their household or to a friend's, and friends of domestic workers ask for help making connections with employers. Bebi Haladara, in her autobiography of growing up in informal communities and working as a maid in India's burgeoning cities, confirms the strength of word-of-mouth networks like this (Haladara 2006, 108). The park in Arali's employers' neighborhood was the richest site for sharing information about jobs.

Though there are placement agencies in Delhi, they are not as trusted as connections made through personal recommendations. In the local market, there are several flyers plastered to the street-facing wall of the public urinals, A4-sized blank white sheets with large block letters: MAIDS, followed by a Delhi phone number. Neighborhood residents seem not to notice the "MAID" flyers, and none admit to calling.¹²⁷ The starkness of the crisp hues and flyer edges contrasts with the atmosphere of the marketplace, making the solicitation seem even more out of place. Since the Metro had built a station by the market, the trickle of new, world-class, gentrified businesses had turned into a deluge: Gupta Movie Mart, in a dizzying purple with pixelated Bollywood and Hollywood heroes; Madam Beauty Saloon: Five Star Blow Dry, New Schemes Daily; Thai Shack; Maxim's Pastry Shop; Big Chill Italian Restaurant—their uniformed doormen stand next to the hot exhaust blowing from overworked air conditioners, guarding the thresholds. Over the months, the signs hang on display, slowly disintegrating as though part of an

¹²⁷ The domestic workers and tenement residents did not acknowledge them either. Though the single word "MAIDS" gave no indication whether employers or employees were invited to call, the flyer location, English term for domestic workers, and Roman script would suggest the flyers were mainly posted to recruit new employers. Over the months I placed a few calls, in hopes of learning much more, but no one ever picked up.

exhibit on the effects of urban elements. They peel, bleed; their faces pock, dull, and sully as their promises fade against the flashing lights and din of the fervid solicitations of the marketplace. The flyers, like the domestic workers, are caught in a gap between the idealized world-class global economies and the local realities.

When Parul still lived with her mother, Arali, she only came to this market once or twice. Parul says that her mother used to encourage her to go to one of the twenty *kirana*¹²⁸ shops in the tenement colony for anything they needed—Arali associated leaving the community with danger.¹²⁹ Now that she is a live-in *ayah*, she is given one day off every two weeks but does not visit the market or the *kirana* shops. Her braid is wet and fragrant from the western-style shower and shampoo at her employer's home. Her employers built a separate rooftop shower for her and supply her with shampoo after expressing their disappointment to her about the traditional bucket method and hair oil and her proximity to their child.¹³⁰ The braid's slow dripping and limpness contrast with Parul's energetic, attentive demeanor as she describes her day ahead. She smiles widely, her sleek rows of white teeth chattering swiftly as she speaks. Her first stop is to visit her mother at one of her employers' homes.

¹²⁸ Kirana shops are small stores that can be found everywhere in India. They are usually run by the owners and serve the local neighborhood and visitors. Like a convenience store, they have snack foods, cold drinks, cigarettes, *beedis*, *paan*, candies, cough drops, cell phone recharges, and other incidentals and sundries. They are usually a few meters wide and can be one to ten meters deep.

¹²⁹ Danger in terms of strangers, but also in terms of the market and modernization

¹³⁰ Parul's relationship with her employers and their conceptions of purity and separation are explored more fully in a previous chapter.

Arali brought her daughter there from a very young age, and the two worked together in cleaning the kitchen and cooking the food for most of her adolescence. Parul still helps her mother here on her day off and they chat as the work gets done. Quiet laughter and hushed words of advice emanate from the kitchen, no louder than the splashes of hands rubbing Vim soap into the oil adhered to the handle of the pressure-cooker. Parul likes this time very much, but the highlight of her day, she says, is her trip to the park at the Lotus temple. When her mother leaves for the next house, Parul meets two girlfriends from her old tenement building. The three board the ladies car of the Metro and go south toward Nehru Place. Before the upscale malls opened in Delhi's Southern periphery on the road to Gurgaon, Nehru Place was one of the most popular hang-out spaces for middle-class teens in Delhi's south. Its movie theater and American fast-food chains provided a great "time pass" to the city's moneyed youth. Today, the theater still entices big crowds with its six-story movie banners and air conditioners that even blow onto the sweaty, chaotic queue at the ticket booths. However, Nehru Place has never had pull over Parul and her friends. For one, Parul, who is saving for her wedding, is priced out of going to the movies,¹³¹ but even if she were not, she prefers an afternoon at the public park far from her own neighborhood.¹³²

There are people of all classes in Delhi who avoid its parks, which is especially true of women. Some deem parks unsavory: socially and morally objectionable, or physically

¹³¹ Tickets are about Rs. 200, and she earns about Rs. 2000 per month. If she went on each of her days off, these trips including transportation would eat into 23% of her income. Metro is about Rs. 16 each way, same as a bag of Lay's chips.

¹³² Also goes to the temples. Explain this more with ethnographic notes.

unpleasant. Like Jeevika and Arali's complaints about the hallways of tenements, the parks expose visitors to strangers in situations that impede surveillance. Whether strangers could be concealed behind the fronds and branches of bushes, or cloaked in unlit areas at night, many people, particularly women, avoid the parks. The testimony of the domestic workers from the tenements is corroborated by a study of Delhi's public spaces by Viswanath and Mehrotra. Their study indicates that women are curtailed from participating in their communities when there is not proper surveillance, which comes from good lighting and vigilant people (2007: 1545-1546).¹³³ This is true of the parks bordering the tenement community, whose low financial allocation means that the landscape is largely barren, but enveloped in darkness at night.¹³⁴ This park is sparsely populated during the day—usually by people with acrid breath sleeping off the effects of *desi*¹³⁵, or circles of men crouched over cards gambling—and actively avoided by the tenement residents at night. But, even the well-lit higher-income parks of the employer community, which draw many domestic workers during the day, do not draw out the domestic workers at night. Many are preoccupied with their “second shift”¹³⁶ of housework, but they also do not cross class lines after-hours, and give this reason why they do not bring their children.

¹³³ To add from my own research, women can be found at India Gate's large public park despite dodgier places, mainly due to it being a “high security zone” with plenty of police officers. Women from the *bastis* nearby also say that the high number of people at India Gate's park make them feel safe, too. This “high-security” can also be considered for the middle-class neighborhoods, whose gates are manned by security guards that regulate entry, and which often have *chaukidars* ambling at night.

¹³⁴ The visual campaign for a “Green Delhi” might prioritize any new funds to go towards adding vegetation, but for social urban vitality, lighting to make the park usable at night might be better.

¹³⁵ *desi sharaab*, or *desi*, refers to the largely unregulated, inexpensive alcohol that many tenement drinkers choose.

¹³⁶ For more see Hochschild and Machong 1989.

Neera, an employee of a foreign family with a home-business, stands above the *kadai*, and smiles so her eyes scrunch and well up with emotion. Her chest swells proudly, puffed like the *puris* she browns in the oil, and her arms gesticulate wider and higher than usual, gliding the aluminum frying ladle at times above her head. She talks about her son, the fourth child of five, who has acquired a taste for badminton after she brought home a second-hand racquet and birdie. She recalls stories of neighborhood victories and singular tricks that her capable son has performed to the admiration of all, and the frying ladle, now her racquet, swoops to whack imaginary birdies. In the cooler months of January to March, the Resident Welfare Association of her employer's neighborhood installed two badminton nets, and a separate "clay" tennis court.¹³⁷ The flurry of action on these courts settles down as the temperature hikes up and there is often an opportunity for another child to play on the courts. Neera's situation is atypical for domestic workers—her employers have different expectations for a domestic worker and her comportment. Neera cleans floors, cooks, washes laundry, and sometimes tends the baby.¹³⁸ Like other employees, she is given full weekends off and paid sick leave, sits with the family for literacy training, and is invited to the same table for communal meals. But despite this exceptional treatment of equality and belonging, she does not feel able to bring her son to play on the neighborhood's courts. It is not an issue of crossing the threshold into darkness or the unsavory, as Viswanath and Mehrotra might suggest, since

¹³⁷ This "clay" was just the normal ground of the park, packed down, delineated and watered three times a week by a gardener hired by the neighborhood. The total cost for the gardener for this and the other three parks in the block was between 4000-8000 rupees per month and was paid with dues to the Resident Welfare Association (RWA).

¹³⁸ This says something about caste still having resonance in employment situations, in terms of purity and pollution, and the different expectations outside of Indian families and outside of strict notions of home vis a vis business.

even at night the middle-class neighborhood's parks remain well-lit and watched. Rather, to Neera, at night the parks cross into the threshold of being private, and insurmountably middle-class. Though she sits in them during the day, at night, they become the purview of the residents only. Furthermore, there is a sense with other domestic workers, too, that by right of their employment, they "belong" in the neighborhood and at times the parks, but this does not extend to their children, who have not earned a "passport" to the community.

But to Parul, the park offers her a place to relax, she says. She and her friends can speak their minds, be goofy, and not suffer from major ramifications to their reputations. She argues, "In the movies, I cannot talk, and in my friends' tenement, I can talk but everyone is listening." Although many people can overhear their discussions in the public park, there is a degree of anonymity there that gives them the license to behave a little more freely. Also, the park gives leeway to accept some behavior as harmless "play." The distance of the park from her mother and employers' homes gives her a deeper sense of freedom than visiting a neighborhood park, but there are some things that she would never consider, least of which is going to the park alone. Even though parks are safer spaces when in a group, Parul echoes a sentiment ubiquitous in Delhi, that parks are places for improper courtship and even kissing. In this way, curious teenagers, especially those without means for going to restaurants, malls, or the movies, can find a place that is simultaneously public and private to *ghumna* and *chumna*¹³⁹ beyond the walls of their

¹³⁹ This combination, to walk and to kiss, is my own, though it follows a common pattern of stylistic pairing of rhyming words heard among my informants and friends in Delhi.

one-room joint-family home. In this way, larger public parks serve a different social function than neighborhood parks, offering anonymity to engage in a range of socially discouraged activities.

Just as neighborhood parks and larger public parks serve different purposes, so do the tree-lined parkways and greenbelts in the city. Varun splits his day as a sweeper between the Nerhu Place office and the Kailash Colony home of his employer. He washes the office floor in the morning before the employees arrive, and then walks several kilometers to his employer's home, where he washes the floors of the whole joint-family complex. He waters all the plants in the garden and hoses down the marble driveway, which he wipes clear of any dust. He runs any errands outside of the house, and then goes to the flats that the family rents out nearby to wash the common areas like the rooftop, stairwell and front gate. After this, he rushes back to Nehru Place for the afternoon round of sweeping. His employer offered him a Metro card so that he could take the Metro between the two stations, but Varun did not like the idea one bit because the time in the park serves an important function in his life. Varun has a lot of responsibilities at home and also at work. When he walks along *Astha Kunj*¹⁴⁰, a public park that nearly connects one job to the other, he feels like he has no problems, "*Vaha, koi parishan nhi hai.*" He prefers the shade and breeze of the sparsely green park to the blowing air conditioning of the Metro cars.

¹⁴⁰ The park name can be translated as "Grove of Faith"

As Varun describes the peace he gets from commuting through the park, he emphasizes that it is equally the exposure to nature and the absence of social hierarchies that are important to him in the park's atmosphere. He explains that one does not need to have an air-conditioned car to feel cooled in the park. He repeats several times that the park can be enjoyed equally by all, which is not so with the roads. On the busy roads of Delhi, it is easy to feel overrun by social hierarchies embodied by the might and speed of vehicles—larger cars and faster speeds demonstrate a disposable income. Varun does not like literally being eschewed to the margins of the road which is another reason that the income-neutral parks are such an appealing route.

Ram Shabad, a *fulwalla*,¹⁴¹ echoes this sentiment in *Finding Delhi* (Shabad 2010).

Before many trees were cut down as the roads were widened to accommodate private cars, Ram would stop under the trees intermittently during his daily travels around Delhi. He says, “I used to enjoy looking at the leaves and my mind used to become fresh even in the heat of the summer.” Long stretches of trees are beneficial to pedestrians and those who work outside. These green stretches act as infrastructure for transportation to prevent the “spatial imprisonment” of “power geometries” that Doreen Massey asserts are operating in landscapes of uneven capital distribution (Massey 1994). This is to say that the leafy conduits allow workers like Varun and Ram to have more of the city at their disposal, and, reflexively, to serve the city in better ways.

¹⁴¹ Fruit vendor

But the understanding of these areas and their multifold benefits is waning as access to infrastructure and the power to legitimize unequal resource access threatens the life of the greenways. The cooling function of tree groves and parks is most evident careening through the city in an open-air auto-rickshaw or old city bus. On foot or bicycle, the five degree Celsius drop is gradual, and by contrast, the closed-environment of cars and air conditioned busses masks the change completely and adds another barrier to experiencing its other benefits. As Delhi develops, many infrastructures, including transportation infrastructure, are veering towards privatization, a model of “opting out.” For most, this relegates “Green Delhi” to a category of only a visual distinction. As the city prepared for the Commonwealth Games in 2011, Delhi was manicured to look green mainly by beautifying the parkways of key routes. Visitors were not expected to stroll under the trees and into the parks, smelling, touching and imbibing the area. It was just for show—a veneer. Sunita Narain, the Director General of the Centre for Science and Environment, explains the trend of the rich and important, whom Jeevika would call “*b’de log*,” literally big people, and their ineffective method of “opting out” of problems in the city (Narain 2012). Narain describes the impulse for *b’de log* to metaphorically run away to “find [their own] island” of environmental sanctity by making private improvements, but warns with statistics and evidence that these patchy solutions are not havens from environmental problems, rather they create and attract them. By building private environments, like air conditioned cars, and by growing private Edens, like their fountained backyards, the *b’de log* opt out of investing in, but also experiencing, the living infrastructures of the city.

Irsia draws the line at private Edens. She relishes in the three-tier fountain of her employers' neighborhood park, and she barely stifles her child-like giggle each time she sees the animal topiaries being watered by the gardener. When confronted with the amount of water the community uses to keep up the world-class appearance of the park, Irsia does not react with anything more than a shrug. Though it is, in her estimation, more than her entire tenement building is allotted in a day, she firmly states that the expenditure is worth it. She argues, "We must treat our trees as we treat our mothers, with respect. Water is necessary for them—*inko zarurut hai*." She says the water is worth it because the trees and the fountains are "for the enjoyment of all." But she becomes frustrated when she works at a few of her employers' homes which have their own lush gardens. Irsia says she feels sick when she watches all the water trickle through her fingers to sustain the private Eden lifestyle of her employers. Irsia complains that her employers never go out and enjoy the space, if anything they just give it a fleeting glance. To Irsia, even though these homes physically sustain the life of trees, it is not worth the water. The way Irsia makes this distinction underscores the importance of human interaction with and respect for plants as a critical element to the green spaces of Delhi. The aesthetic of a "Green Delhi" is present in the private Edens of modern Delhi, but it only pierces the surface of what is necessary for ecological vitality. Irsia's neighbor and childhood friend, the Resident Welfare Association president of a nearby tenement colony, blames this aesthetic for the non-compliance of rainwater harvesting. He says, "it

is their duty to save water, save life—but they just want to have life, it is we who are doing the saving.”

In over half of the homes both in the tenement slum and the illegal slum, people give water to plants everyday—even on days when no water came; even after four day stretches without water. Families still reported watering their houseplants or the plants and trees in their neighborhood on water use surveys and could be seen with full mugs pouring water onto the roots of trees and plants in their neighborhoods. What could move people so near water scarcity to allocate water to a green Delhi?

On the other side of town from glamorous South Delhi—where Jeevika, Arali, Parul, Varun, and Irsia live—the *basti* residents have a similar outlook on water allocation to urban green spaces. Piyush’s home can be found just off of one of the paved main paths. Most official visits to the *basti* take this path not just because it is easier to navigate in the monsoon¹⁴² but it is wide enough for an official to be flanked by a few peons or aides. Just past four or five holes in the cement where families have broken through the cement and tapped into the official city lines to scoop out water with buckets when the embassy pipes are pressurized twice daily, is Piyush’s home. The entrance to Piyush’s home is hidden behind a dingy woven blanket, which has been jauntily sewn without regard to its squared geometric pattern as a sliding curtain-door hung on a cord. In the monsoon the

¹⁴² The cement is not pressed flat, but is bowed, segmented and tamped with footprints and the snaking lines of bicycle tracks. This is because the path is a busy thoroughfare which is used every day by almost every resident. It would be too difficult to halt all movement, including daily water collection, for the sole reason of a flat walkway, residents say.

thirsty cotton saturates and droops several centimeters, pulling the cord into a comical ellipse. As the water is wicked up and Delhi is once again dry, the dust adhered to the curtain makes it stiff, dissolving and softening only in the rain, like the paper-mache goddess effigies of Durga that soften once they are thrown into the Yamuna each October. The curtained-threshold is a step up from the main path, about twenty centimeters from the open sewage *nal* that flows past all the homes. This step has been a boon of late, since the families up-canal have a few children under three years old, who, with and without supervision, frequently defecate into the *nal* directly outside their doors. The step up to Piyush's keeps the sewage from overflowing into the home, especially during the monsoon.

As the blanket is pulled back, a small courtyard reveals itself, dappled with sunlight that streams in through the canopy of a neem tree. On the right, there is a whitewashed entrance to a home, beyond which, on a shared windowless wall, Piyush's house is found. A communal washing machine sits with brown-grey water in its lidless tank, demarcating the border of the two homes. Piyush's mother, a maid in the embassy district, was offered a good deal on it when her employer deemed it beyond repair. A year-old puppy tied to the leg of a charpoy in the doorway of a third home barks defensively as any unfamiliar person wanders through the courtyard. The view of this doorway is screened by the trunk of the neem tree; it sits opposite the curtained entrance to the main footpath. The doorway belongs to a cable-installation man, whose home is one of only a handful of structures in the *basti* that has a second floor. His younger brother built this extension so

he could have privacy from his brother, sister-in-law, and baby niece. Their dog, like many dogs in the *basti*, was brought home from a visit to the village, likely smuggled in a lap-bag or pocket, whining and wriggling uncomfortably for days on the public busses or train. Its leash is made of a few different scavenged ropes tied together to such a length that allows the dog to wander a half-meter out of the doorway, but prevents it from reaching, try as it may, the stone retaining wall that holds the tree.

This tree is not treated like many of the other trees that are in the *basti*, but revered, so special precautions like distancing it from the dog are taken. Scholars of religion cite the notoriety of trees as sites or agents of enlightenment in Buddhism, Jainism, and Hinduism. Archaeologists have found coins from the second century BCE from Mohenjo-Daro that depict tree worship. The historical record shows reverence for trees in India described as far back as Quintus Curtius in the times of Alexander the Great. Anthropologists Frazer and E.B. Tyler describe the different sacred functions of a tree, and the tree's centrality in rituals of worship, marriage and fertility (Frazer 1981; Tylor 1970). But far beyond anthropology's one-dimensional early fascination with animism under the cultural evolutionary perspective, the relationship between the home, people and trees still contributes to issues of socio-environmental ethos that are relevant today. Perhaps the most eminent theologian on Indian tree reverence, David Haberman describes the relationship by dividing tree worship into two forms. He asserts, "the three most important species of sacred trees—pipal, banyan, and neem—[...] are regarded as either the abode *or* body of a god or goddess" (Haberman 2010). In his book, *People*

Trees, Haberman describes the intimate and familial character of tree worship (2013).

Many neem trees are worshipped as an embodied form of Shitala, the mother of life, and are addressed with familiarity as “Ma, Mata, Mai of Maiya” (Haberman 2010: 108).

People describe their relationship to the trees by using the words “*rishta*, *sambandha*, and *nata*,” which are words that are usually used to mean familial relation or connection (ibid. 186). To extend this argument, as worshippers share their water with a tree, it is as though they are sharing water with a family member. The household water supply necessarily incorporates all family members, including the tree. Likewise, when the tree is worshipped as the dwelling of the divine, the tree surface serves as a portal, a door, or a threshold to the celestial realm. It is the stoop of the goddess, and keeping the tree environs clean and sharing household water with the household of the goddess is a privilege.¹⁴³

But trees are not relegated solely to the sphere of the celestial in the *basti*, they are also enjoyed in the mundane. Wandering around the *basti*, a visitor sees life, in all senses of vitality, under the trees. Stray dogs, rats, mongooses and other undesirable creatures, as well as welcomed ones like chickens and feral pigs find relief from the sun near the trees. People herd and sometimes tie their sheep and their goats to the trunks for the shade and to nibble the little sprouts of greenery that only survive under the auspice of the trees’ shade and transpiration. Large ants and small ants, caterpillars, spiders, worms, and other insects flit around, trying to keep safe from the menagerie, and choirs of birds perch on the trees’ branches. The relief of the shade is universal. Humans, too, congregate here.

¹⁴³ The implications of this and other types of domestic reciprocity are expanded in a previous section.

Under one tree a group of half-clothed boys dance to Bollywood tunes, and squeal with delight as one returns with sweets to share. Under another tree, women gossip as they thresh and winnow wheat, which they will eventually wash and grind into flour for *roti*; behind them, their small piles of garlic wait to be peeled. A few charpoys sit under another tree, one occupied by an elderly man who is fast asleep and stirs as his small grandson picks at the buttonhole of his *kurta*.¹⁴⁴ His elderly wife teaches a pregnant neighbor how to knit. Three school children rush to take off their school uniforms, eager to get the best spot at the table under the tree to work on their homework together. These trees hang over many of the paths that interconnect the *basti*.

The green spaces encourage residents to bring more of their domestic work and lives out into the streets. Interrupting the busy movements up and down the paths, the trees entice people to stand still and populate the public spaces of the slum. The lanes without trees draw people out when the sun is lower in the sky, making their hours of socialization fewer. Jacobs might consider the trees, as she did sidewalk life in New York and Boston, a critical social infrastructure (Jacobs 1992). This dimension of social flourishing is another type of vitality that the trees support.

The vitality under the trees is not unique to the neighborhood of the illegal *basti*. The trees along the path from the tenement community to the main road has four trees that contribute to neighborhood vitality. One shades the booth of a barber, another cools the ironers, and a third and fourth support an ever-changing array of street-food vendors and

¹⁴⁴ A tunic shirt

commuters. Mango *lassi*, *tanda pani*, *golgappa*, *samosas*, yams, coconut meat—*chaat* galore. As the hour of the day changes and the seasons flow into the next, the little outpost of vendors under the trees attracts people that would normally not stand so close. The excuse of food and relief from the sun bring people together, if not to talk, then at least to consider and regard each other as co-occupants of the city. The role of these trees is important, though these trees are not used as wholly as the trees in the *basti*.

It is not only living trees and their living limbs that contribute to the everyday life of Delhi's illegal slums. Trees physically support life in the city with their whole bodies even in death. Their contribution is magnified for those who live in the *basti*. Bi-weekly, women forage for wood for their *chulhas*.¹⁴⁵ These trees provide the fuel to sustain life as grains are transformed from inedible hard seeds to the fragrant yet simple *sabzi masala* dishes that stick to the ribs of each resident. The tree limbs allow water to heat, making bathing in ten degree Celsius palatable, and protecting weary hands from the bone-chilling bite of scrubbing dishes and clothing for hours in the cold. Scavenged wood is not just burned, but serves as the bones and sinew of the *basti*. Tree limbs are erected as walls, lie flat as ceiling beams, and stand tall as the posts that connect washing lines, electricity wires, cable TV cords, and streamers from one home to another.¹⁴⁶ They are also honed and sanded to become furniture like the hand-built charpoys that ubiquitously fill the *basti*. To say the community homes are separable from the trees would be

¹⁴⁵ After an enormous storm that felled many trees, the whole community was elated with the windfall of easily foraged timber for their homes. Some auto drivers dropped their charges and sped home to capitalize most.

¹⁴⁶ Grasses and mud from the park were also collected to build the walls.

incorrect, and to say that the social life of the *basti* homes was irreconcilable with the trees would be counterfactual.

In the *basti*, the trees are not just an aesthetic, a green veneer, rather, they are contributors to its environmental vitality, social vitality, and the lives and lifestyles of its residents. This neighborhood's residents fully integrate the green spaces of Delhi into daily life. Green spaces as vital infrastructure for the residents is also sought beyond the *basti*; the city's gardens, parkways, trees, and lawns are spaces where residents find human, physical, and natural capital.

Traveling between the two fieldsites from tenements to *basti*, the manicured lawns, flowerbeds and green roundabouts become more frequent and lush. The vast green lawn of India Gate and its seasonal lagoon for swan-boat paddling give way to Shanti Path's world-class gardens. The embassy district has gardeners scrambling round-the-clock to keep the streets impeccable for the diplomats and foreign dignitaries who whiz by. As one travels a few concentric streets outward, the decorative lamp-post flower sconces disappear, and the sidewalk-flanking flower beds shrink, languishing into the fading grass. Nearby, the New Delhi Municipal Corporation (NDMC) cares for a few parks, including the National Rose Garden, which comes alive once a year, but thirsts year-round.

The *basti* is a few short blocks from the rose garden, and the residents sometimes walk there for water when the tanker-trucks and pumps fail to deliver. In this area, there is no dearth of parks—the *basti* is abutted by no fewer than three. One is a golf practice range, with a yellowed but litter-free lawn. A few of the *basti* residents have acquired clubs over the years and are keen to practice in their free time. Another flanks a main road near a five-star hotel. Even in the loo winds, the lawn is clean and green and a pack of women, on their haunches, slowly pick across it with their fingers as a team of human lawn-mowers. This park is usually empty, save for a few afterschool games of cricket. Boys from the *basti* (some home from school, some truant) will group here before or after the water tanker delivery and practice batting with two bricks stacked vertically as the wickets. The third park is the most favored park of the *basti* residents, and has visitors at nearly every hour. Women and men come to get exercise before breakfast. Children play noisily to the chagrin of the auto drivers, gardeners and the unemployed who play cards and nap on the periphery. Teenagers chat and play songs from their mobile phones. Women come to sit and share news. Others come to collect *chanori* leaves to treat arthritis or grass and mud to build walls.

On regular park days, the people who visit say they come to escape the concern and anxiety of the *basti*—“*Vha bahoot sara chinta hai,*” “Tension *dur hogiya*”—and to get a dose of sweet-smelling oxygen—“*oxygen mil jata ho,*” “*oxygen kushboo hai.*” They say that as they cool their body, they can also cool their mind. Anita, a daily visitor, says, “everything here is different than home, there are no chores, no people, no family, it is

open, a different environment, a totally different mind. You need only two-three minutes, and you will be better (*achchi banata hai*).”

During a few days in March, the little park is appropriated for an exposition celebrating “Green Delhi” and its world-class aesthetic. After a few days of preparation where regular park-life is interrupted—gardeners scolding visitors for touching plants, walking and lazing on the lawn—it is transformed. The wrought-iron fence has a painted sheet indicating the NDMC Garden Show is bustling inside. Guests are welcomed by two-meter square *rangolis*, each more elaborate than the next, competing for the ribbon in flower petal design. As the women walk into the park, they find even more ornate flower arrangements, including two-meter tall animal sculptures built from foliage and flowers—several bright giraffes, a proud-tailed peacock, a few elephants and tigers, followed by a group of kangaroos and a lone cow. Beyond this is a carpet to accommodate a crowd of three-hundred below a tent whose panels waft dream-like in the breeze. Waiters ambulate with glasses of water on silvered trays for VIP attendees, who scuttle about exclaiming, “Oh my God!,” “*Are vah!*,” “*Aa-jao, Aa-jao!*” They smile and implore to each other, unable to stop trumping one another by spotting an oddity. Others slink over, glancing only briefly at the plants, wont to express their familiarity with them as already integrated into their own homes and kitchens.

A collection of tables holds an array of cacti. Eight styles of bonsai. Vivaria: varieties of plants raised in twenty-liter Bisleri bottles. Tiny “tray gardens” of a half-meter square,

complete with dwarfed streetlamps, a dollhouse-cabin and live goldfish pond whose residents lazily undulate in the hot sun. When looking closer, a Buddha can be seen underneath a tiny tree. Nearby, there is a display for oversized vegetables, and a shaded booth for baskets full of herbs—mint, parsley, basil. The women from the *basti* can recognize many of the leaves, but some are unfamiliar foreign herbs like rosemary, sage, and thyme, and vegetables like endive. “*Sare alag hai*,” someone murmurs, all are different.¹⁴⁷

There are scores of plants that are not native to Delhi, to India, or to South Asia. But this show has been orchestrated to emphasize that despite their origin these *belong* to Delhi—all of the entries in the garden show have been grown in New Delhi, and all have used New Delhi’s water. The depiction of the city as a global city, a world-class city, which is not just a consumer of global commodities, but a city that has the power to raise the world-class out of its own earth is embedded and vivified in the plants that lay under prize-ribbons on the table.¹⁴⁸ The decisions about cultivating “exotics” in municipal gardens and the spectacle of the show are markers that indicate the city is actively encouraging the nurtured emergence of this globalized, world-class aesthetic.

The women from the *basti* have never attended before because of their feeling that the garden show is a middle-class event, but encouraged by an NGO worker they put on their finest saris and followed in her wake into their transfigured park. After they take-in the

¹⁴⁷ Like the residents of the *basti*.

¹⁴⁸ For more on the connection between “world classness,” consumption, and the elite see Brosius 2010.

show, they find a place to sit and talk. Rather than risk being shooed out of the carpeted tent, they walk behind the six-by-six meter park installations and rest on the grass in a tight circle. The NGO worker asks about their previous interest in gardening. Almost all of the women in-migrated from villages, and actively planted crops, but never flowers or show plants. A middle-aged woman stands up to demonstrate the monotonous precision of planting for subsistence, back craned, squinting and moaning amusingly. A few of the women giggle, but the others sigh; despite the strenuous truths behind the parody, they say they wish they could still grow their own food, but lament that there is no space in Delhi, nor enough domestic water.

Though the women do not have the space or water allocation to garden anymore, many of them identify with the show in other ways. They volunteer that they have made *rangoli* designs on special occasions like Diwali or Dushera. The *rangoli* is a form of domestic decoration and placed just outside the threshold is meant to invite auspicious forces into the home (Huyler 2006: 111). The prize-winning *rangoli* designs at the Garden Show take the traditional shape of a *kalash*, which is a ritual water vessel. Rather than making the *rangoli* designs with fresh flower petals, which would take water to grow or money to buy, the *basti* women economize by using rice or wheat flour. Probably because of the priority of economizing both money and water, the things from the show that most capture the imagination of the women are the tray gardens and the vivaria. One of the women who works in the *basti* as an *aganwari* teacher found them to be inspiring. She says, “They are small enough and easy. We can make them in our own homes just as

they did here.” A few resound, “Yes, they take only five liters [of water];” “I have three broken [water] vessels at home [to build them];” and “Everyone who sees just one flower will be happy.” Many other women are quiet, uncomfortable in their familiar park by the presence and values of the temporary, middle-class visitors.

At this moment, an organizer walks by, toes upturned as her high heels sink into the grass. She asks Ami in Hindi, “Do you have flowers in your home?” Ami, who lives with her husband and young daughter in a smaller *jhuggi*, squeezes the pink cheeks of a *kuttaful*, or snapdragon, as she speaks, and her own cheeks become flush and firm. She responds, “*Nahi hai. Khali, main akeli hoon.*” (No, my home is empty, I am alone). In this moment, Ami equates being flowerless to being alone despite her two family members. Ami’s answer referred to an incapacity to use water to grow plants as akin to being alone, though she corrects herself later. This points to a latent connection between the life of plants and the life of people, and a disconnect when there is not enough water to support both. The organizer smiles sympathetically and wanders off as we are joined by a gardener.

The gardener’s active allocation of water to the plants on display raises more directly the question of water allocation to support the life of plants and the life of people. As the gardener walks past carrying his water backpack, spraying a mist onto the plants, the son of one of the women in the group whispers in awed English, “watering machine.” The capacity of the vessel strapped to his back is about the size of one bathing bucket. The

women make guesses of how much water it takes to keep the park green, but even as former farmers, they are way off. When they hear that the actual amount is around fifty-thousand liters per day, or about sixty percent of the water that the city delivers to the six-thousand residents who live on a plot twice the size of the park, they are amazed. These conversations of water allocation bring a different perspective to the role of green spaces and gardening in people's lives, and in the waterscape. The women begin to discuss the legitimacy of water allocation for the preservation of Delhi's green spaces.

They all try to determine criteria for whether they think the city's water allocation is fair: the boy says it is wrong to use that much water for the park. "But the oxygen!," says a woman, "We need it." Another weighs in, "*Inko zarurut hai*. It is necessary." "Yes," another agrees, "it is necessary, so it is neither good nor bad." Another voice argues, "What is good for the garden is good for us—*humari bhi achcha hai*." Kalindee, literate and the most highly educated of the group sums up, "Just as water is necessary to us, it is necessary to plants. The needs for children are the same needs as a plant. We must care for plants as we care for our children. Humans also need oxygen, so they have to take care of the plants." Like Irsia, the women evoke familial relationships and responsibilities to describe their watering and stewarding the trees. At this Ami looks up again from her *kuttaful* and asks, eyes cast downward, "if the park is not watered, will anyone still come?" "No," the women shake their heads and respond unanimously. She continues, "and what would become of everyone in the summer heat? Like the plants, we will burn

up. Everything will go dry. If water does not come, then we will die. It is the same for the plants.”

Ami hits the nail on the head. She summarizes the importance of functional interaction among humans, non-human organisms, and the waterscape in a way that recognizes the symbiotic foundation of urban ecology. Plants need water and humans to bestow it. Humans need water and the oxygen and shade bestowed by plants. Water needs shade from plants and humans to allocate it properly to maintain this. To add Kalindee’s point, the proper allocation of water would direct it to these lives as though they are equal.

This discussion represents a profound understanding of the urban ecosystem and the importance of mutual interactions. In the discussion behind the VIP tent, the women are able to articulate a relationship that people in Delhi are rapidly forgetting, and one that many urban planners have long since forgotten. The Green Delhi movement in practice creates the veneer of ecological symbiosis, mistaking picturesque Edens for the complex, embodied interactions that are vital to Delhi’s urban sustainability. Further, the connection among these things is not self-evident, nor is it common sense. If it was, Delhi would not be faced with such mounting problems. This profound perspective is the benefit of an embodied, functional relationship with the city’s green spaces and cannot be summed up by the *jivan* evoking slogans, “Green Delhi” signs, or annual garden shows.

Although conservation propaganda is not aimed at the urban poor, it is evident that they strongly connect proper water allocation with *jivan*, life, or vitality in all its myriad forms. This is not to say, as some might argue, that this ethos was learned through a trickle-down effect—that this ethos is taught by NGOs, conservation campaigns, or time spent in middle-class homes or neighborhoods. The urban poor’s profound awareness of this is something that is cultivated through long-term, complex interactions within the network of urban ecology. The water-poor of Delhi who live in the tenements and the *basti* champion trees and parks in Delhi because they serve critical functions in their lives which sets the foundation for an environmental ethos that drives their everyday interactions and water allocation. Their close, functional relationship with these spaces ground them in a perspective that more accurately represents it.

This chapter establishes that the green spaces of Delhi are an infrastructure that enhances urban vitality in its multiple forms. They are a space that is part of the extended function of the home. They are the lifeblood for the livelihood of the poor as sites of networking and transportation hubs, and as a source of water in an emergency. Relationships with trees represent relationships with other people, and sometimes gods. By making space in the city for trees, space is made for humans. Thus there is a need for a “green” Delhi, and holistic support for it. Implicit in this is the initiative to make space for the urban poor, for their homes and their lives as contributors to the city. It follows that this includes making space and choosing to allocate resources to supporting the infrastructures, like functional green spaces, that allow them to participate to their fullest extent in the

political, economic, and social vitality of the city. The effort to make space for the perspectives of the urban poor will promote a space for the policies and development that will sustain it.

Yet there is even more at stake. Understanding the link between urban vitality and complex functionality of green spaces has implications that go beyond Delhi's environment or urban ecosystem conservation, reaching globally. This also has implications on critical questions at the intersection of human rights, justice, and social theory which will be explored in the next chapter in conjunction with the previous chapter themes of gendered work; class disparity; and resource management and domestic water allocation.

This chapter described the ways in which water is the basis for relationships beyond the home. It establishes urban green spaces as interstitial, ambiguous areas that are neither public nor private, outside nor inside and because of this they serve an important function in enabling flows in the city. It explored the depth of meaning of vitality and described how the water poor support public green spaces through allocation of their domestic water and support for municipal allocation of water. Ultimately, it shows how, as water-stewards, the urban water-poor are active conservationists. This corrects the tendency to view urban environmentalism as a solely middle-class endeavor, and complicates the middle-class greenwashing movement. Instead, it suggests that the lower-classes are multi-purpose users of green spaces, especially because they rely on these spaces both to

absorb some of their domestic and lifestyle needs, and as a means by which they can absorb the city.

Conclusion –
Absorption as a New Paradigm

This dissertation puts forth a new paradigm of absorption as a means toward capturing the anthropology of flow. It has situated the main argument in ethnographic context, first framing it with a historical overview of hierarchical water allocation practices, as well as a discussion on the specific fieldsites, methodologies and the role of the ethnographer. This argument was executed through the systematic exploration of the symbolic role of water in the cultural context of lower-class Delhi. These ethnographic data call for an intervention into the anthropological study of global flow with absorption as a new framework for understanding burgeoning global exchange at the social, economic, and political levels.

Delhi's disparate water access is inextricably associated with broader-scale interrelations of political economy, water governance, and gendered work. Interdependent flows of women, work, water, and money all to form subcultures of affluence and stagnancy not only between Delhi's middle-class and urban poor, but also within the internally stratified communities of the urban poor. Water plays a critical role in the lived development of women in lower-class Delhi, through which other flows become visible which delineate and maintain power relations and stratify the ability to cope with urban marginalization.

Among the urban poor, the stark contrast between families that are characterized by their affluence and those characterized by their stagnancy is largely determined by their ability to engage in methods to circumvent the wait for water. When the circulation of money, women, and water are under scrutiny, it causes an environment of slower circulation

resulting in greater stagnancy and less upward mobility. In contrast, domestic workers participate in wider circuits of economic exchange and are considered to have wider circuits of hydrological agency. The metaphors of stagnation and affluence operate in the women's descriptions of the choices they make about water circulation in their homes and in their own ability to circulate in their settlements, city, and, ultimately, economy. In this way, their relationship with water also defined their identities. This shows the uneven absorption of people into lower-class neighborhoods and also into the economic life of the city.

Those who are more deeply absorbed into the city's economic circuits are able to circumvent water scarcity. They circumvent community water collection practices through the absorption of water values that are marked by the current rhetoric of corruption. The circulation of a bribery narrative fleshes out not just a new context in which the political movement is produced, but it provides insight into the absorption of the anti-corruption movement into the mundane elements of everyday life. The bribery narrative also establishes that hydrological affluence is self-propelling because of the dialogical relationship between water access, identity formation, and economic participation. Those who receive water on-time can commit to more work, and their financial empowerment gives them access to more reliable water infrastructure, whether through formal government prioritization or through access to informal circuits of exchange.

As working lower-class women are compared to corrupt government officials, it underscores the transformation that takes place as lower-class women are absorbed into the middle-class spaces of the city, and as the urban middle-class values are likewise absorbed by the women. These middle-class values include the deeper absorption of foreign, world-class flows that are central in the globalized context of contemporary transnational, post-economic-liberalization India. Those who cannot absorb these values view themselves as undesirable participants in circulation, whether in micro exchange circuits between individuals and within communities, or with their government and society at large.

Because of the relationship between flows, lower-class in-migrants need either a significant change in water access or to become more deeply absorbed into the world-class city. Many find this through domestic work. Domestic work is a vibrant site for the absorption of lower-class workers into the larger urban economy. As an informal job, it allows workers to ebb in and out of employment in the workforce with few formal requirements. This informal system allows for flows between employers, for easy transition into different positions, and for meeting changing expectations and constraints. These workers are nodes in a network that is in constant fluctuation.

As flows of lower-class in-migrants are absorbed into middle-class spaces, they are at once absorbed into middle-class waterscapes with new values about allocation. These waterscapes require an initial input of water for the transformation of people from non-

working lower-class residents to domestic workers admissible to private, exclusive, middle-class spaces. The processes of grooming their bodies for entry into middle-class homes is an important ritual that marks their absorption into a new domestic space that has different rules about water and cleanliness.

Within the middle-class domestic waterscape, domestic workers must be fluid in their acceptance of new values about water. Crossing the threshold into a home with middle-class “automatic” water technology means a critical change the relationship between a domestic worker and their water which challenges their allocation practices and ethos. Because the amount of water that has to be used to transition objects over the threshold of dirty and clean is not universally accepted, domestic workers must recalibrate their understanding of water as a cleaning agent. Additionally, the threshold of water quality for certain tasks is also a new value that must be learned vis-à-vis the middle-class standards of water use. In this way, it is not just the surface of the domestic worker that must absorb new water values, but also the domestic worker must absorb these values into their minds.

These requirements build on the concept of absorption by demonstrating that it creates ambiguities. Ambiguity emerges from both the physical absorption of middle-class water thresholds for personal comportment in the water-scarce lower-class neighborhood and the mental absorption of affluent water ethoi while embodying two disparate waterscapes. As domestic workers are absorbed into middle-class domestic waterscapes, their

absorption is not entire, rather they become ambiguous in their belonging as water users.

This ambiguity creates questions of legitimate allocations, which further affect uneven absorptions. Their ambiguous state as water users is clear because they both show receptivity to new values, in a sense showing their enculturated value of water to be porous, but they also show that some values are engrained enough to persist as social resistance, or that some water limits remain *pukka* thresholds.

Through their resistance, domestic workers demonstrate that the flow of water ethoi is not unidirectional. These ambiguities are significant because they reflect the uneven absorption of middle-class water values, which is a lifestyle that is considered deeply aspirational on an individual, city and national level. Although power hierarchies prevent domestic workers from openly defying their employers' water aesthetics, their clandestine practices of water conservation are nonetheless absorbed by middle-class spaces. As middle-class homes themselves become ambiguous spaces in their absorbance of lower-class elements, it underscores the broader role of spaces as sites of partial absorption.

The affluence of middle-class employer neighborhoods and their homes are not autonomously generated; instead, they are a product of a stratified system that both requires the work of the lower, stagnant working class as well as their complicity. Hence, middle-class homes are ambiguous. The revealed ambiguity of this bastion of cultural imperialism enforces the strong relationship of mutuality in absorption. This ambiguity

leads to the necessary interrogation of what middle-classness means not only within commonly accepted spaces of the middle-class, but also beyond them.

Domestic workers' reflexive agency extends beyond traditionally middle-class spaces as they selectively import middle-class water *ethoi* to new urban spaces into which they are absorbed. As families struggle to remain relevant in hydrological systems that straightforwardly prioritize middle-class water services, they often cope by attempting to express their middle-classness, or citizenship, in terms of the very resources from which they are alienated. This brings middle-class water practices deeper into peoples' lives and homes, despite their conditions of water scarcity.

The aesthetic of water-wealth is largely absorbed as a form of conspicuous consumption. This involves the conspicuous consumption of world-class goods that require water and a commitment to middle-class water practices to underscore the embeddedness of a person's life and lifestyle in the culture of the world-city. The absorption of water *ethoi* beyond middle- and world-class contexts and into tenements and illegal *bastis* closely involves middle-class water aesthetics linked with distancing. The middle-class aesthetic of distancing oneself from contamination by dirt and pollution leads to an intense effort to maintain a distinction between dirty and clean, between proper and improper, and between official and unofficial.

There is an imagined, qualitative transformation that takes place as water crosses thresholds and is absorbed into new spaces. This imagined transformation avoids the creation of ambiguity by assigning purer water to developed spaces, and muddled water to muddled spaces. But in actuality, technologies and infrastructures that exist beyond the widespread distribution of middle-class neighborhoods create ambiguity in the interstitial areas of urban development. The refusal to allocate funds toward the development of adequate piped infrastructure to illegal settlements has enabled the purest water by world-class standards to be delivered to the least cosmopolitan neighborhoods.

Greywater is equally ambiguous in substance and hence is it is absorbed differently into spaces depending on the identity and water ethos of the user. The practice of greywater reuse is discouraged in almost all middle-class homes; often, employers give the reason that the greywater, dirty itself, had lost the ability to clean. In contrast, greywater is routinely reused in the homes of domestic workers which indicates that they do not completely espouse middle-class values at all costs. Rather, it is a constant negotiation.

In their absorption of middle-class water practices and ethoi, domestic workers emphasize that cleaning with water is an urban ritual which is a part of an aesthetic of a conspicuous middle-class lifestyle. Middle-class cleaning objectives that depend on increased water use are put in contrast to the binary relationship between water and cleanliness of the urban poor where the amount of water that is used is irrelevant to water's ability to render something clean. Domestic workers also internalized the idea

that some things simply cannot become clean with water, and extend the permanence of pollution to their own identities as urban citizens.

With water use and cleanliness as a measure for mutual absorption—the internalized modernization and integration in Delhi as a world-city—the urban landscape is revealed as a patchwork of ambiguous spaces and people through which ambiguous substances flow. These flows do not just reflect standard conspicuous consumption patterns of world-class goods as many common measures for flow do. Instead, by viewing flows as uneven absorption, it reflects the changed relationship to water necessary to a deeper commitment to the aesthetic. This exemplifies general ideas about how modern domestic management is absorbed beyond middle-class families and neighborhoods and into the ambiguous neighborhoods of urban development.

The question of space and absorption is further pursued in a discussion of the wider implications for the absorption of middle-class water values for the city at large. These practices of absorption shape the domestic sphere but also have ramifications far beyond it. The degree to which middle-class domestic water ethoi and allocations are absorbed beyond the middle-class affect far more than individual households; the absorption of middle-class water ethoi into the broader spaces of urban ambiguity will be indicative of the prognosis of Delhi's water future.

Delhi's lower-classes indeed have a large impact on making the city, even the city's vital green spaces. However, because the urban poor are riddled by difficulties in acquiring minimum standards for water security and are sidelined in impacting municipal infrastructures and policies, their lack of inclusion in conservation discourse is naturalized. However, complex interactions among domestic workers and among the larger communities of the urban poor directly indicate that they actively support the maintenance Delhi's green spaces because of their crucial contributions to urban vitality.

Support for urban infrastructures, like functional green spaces, allows indiscriminant participation in the political, economic, and social vitality of the city. Delhi's green spaces are central to its vitality, and following, water allocation to them does not engender only a green aesthetic, but overall urban vitality. The parks and green conduits provide a means through which the urban poor can absorb human, physical, and natural capital, which propel them forward economically and socially. This environmental infrastructure allows workers to have more of the city at their disposal, and, reflexively, the city can absorb their participation and contributions.

Mutual absorption occurs with the lower-classes and the city through green spaces, and also there is mutual absorption between culture and nature through the intermeshing of development and green infrastructures. Urban spaces are absorbed into nature and nature is absorbed into urban spaces through the dialogic relationship between urban and natural flows in the production of vitality. This vitality is created through the agency of people.

Urban green spaces are interstitial, ambiguous areas that are neither public nor private, outside nor inside. They resist bifurcations into categories. Because they transcend dichotomies, they attract people seeking spaces of community extension in a restrictive society.

This relationship is in contrast to the relationship of the middle-class to Delhi's green infrastructure. The middle-class relationship to the urban ecosystem renders green spaces as lifeless veneers. This leads to the cultivation of the city as a global, world-class city, which is not just a consumer of global commodities, but a city which can produce itself. This manifests itself in an urban green aesthetic which is cultivated by the middle-class. This symbolizes the power to raise the world-class out of its own earth and is expressed in the cultivation of the exotic. Delhi's green spaces absorb the world class aesthetic in plant variety, in landscape aesthetics, or simply in the mirroring of global green standards in private green spaces and the removal of lower-class elements—including people—from parks. The middle-class relationship to parks only allows visual absorption and seeks to maintain purity of classifications.

The relationship of the urban poor to the city's green spaces demonstrates mutuality in co-absorption, including direct acknowledgement of trees and plants as human relatives or divine interlocutors. In this way, the green spaces are also human spaces and transcendental spaces, making them ambiguous sites for co-absorption. The urban poor's profound awareness of this relationship is something that is cultivated through long-term,

complex interactions within the network of urban ecology. They champion the trees and parks in Delhi because these serve critical functions in their lives and this sets the foundation for an environmental ethos that drives their everyday interactions and water allocation. The relationship of co-absorption between people and their water shapes their broader relationship to cities and the world.

These ethnographic data support the necessary intervention of the new paradigm of absorption to the anthropological study of flow. The application of this model to the cultural context of Delhi has revealed multi-scalar absorptions that recognize the agency of people and the relevance of place. Uneven absorption is explained as both a product and producer of ambiguous states, which elucidates the hyper-connected nodes and polarized exclusion of global flow theory. This contributes to anthropological theory by creating a new framework for understanding burgeoning global exchange at the social, economic, and political levels.

Broader Implications

This dissertation asserts that water-poverty does not dictate the ways in which urban domestic workers attempt to integrate middle-class water values into their lives and homes as a means to signal upward mobility and class identity. The adoption of new water allocation patterns is not universal—there is both resistance to and unevenness in the adoption of middle-class urban water practices, which underscores the interpretive role of domestic workers in applying these practices. The significance of the interpretive

work domestic workers do in producing middle-class waterscapes beyond middle-class spaces directly counters the tendency to understand the urban water-poor as a passive, homogenous unit concerned solely with the functional value of water and sheds light on the agency with which this population shapes the urban waterscape.

Anthropology and Globalization

Many globalization theorists argue that in an unprecedented way global flows are driving the production of the local in processes of spatial, identity, and cultural formation, rendering their production “deterritorialized” (Appadurai 1996; Gupta and Ferguson 1992). This research explores the flows of water, women, and urbanization in India, showing that while the pace of flows may have increased, these flows have persisted historically and are enmeshed in geographic spaces and cultures. Contemporary metaphors of flow in the anthropology of globalization minimize the importance of local, spatially grounded cultures while emphasizing instead broad, sweeping movements as the engine behind increased interconnectivity and social change. This undermines the acknowledgement of the significance of local instances where globalization is carried out by people who are the agents who drive the small encounters which become cumulative, broad flows (Rockefeller 2011; Escobar 2001). This research, like Tsing’s, refutes Rockefeller’s ontological differentiation of flows of water from flows that are made of multiple objects or abstractions (Tsing 2002). By examining multiple types of flows through the metaphor of absorption, the absorbers and absorbed become central to the

movement, bringing the content of the flow back into relation with the movements and stasis of the flow.

Like Cooper and Ferguson, this research confirms that unevenness in global flows creates places with “patchy” political, economic, social and infrastructural relations (Cooper 2005; Ferguson 2006). Unevenness can be explained as “awkward connections” (Inda and Rosaldo 2002) but it can also be explained by uneven absorption at the individual, cultural, or spatial level, as both a cause and result of ambiguity. Ambiguity of objects, people and places represent a site of partial flows that enrich the bipolar categories described by Trouillot (2001). This research proposes that these interstitial spaces are key to mediate between views that privilege local realities and those of global cultural imperialism.

Anthropology of Work, Anthropology of the Home

This research confirms the sustaining importance of Douglas’s ideas of symbolic boundary maintenance, especially in reference to ambiguous categories (Douglas 1996). The research also observes the continued relevance of the historical study of domestic cleaning in the Indian context by Walsh, whose emphasis on the modernization processes of domestic life during colonialism remains pertinent today (Walsh 2004). This research expands on Dickey’s observation of the fraught nature of domestic workers’ transitions into Bengali homes, and builds upon Ray and Qayum’s extensive study of modern domestic work in India from the perspectives of employers by investigating domestic

work from the employee's perspective (Dickey 2000; Ray and Qayum 2009). This study contributes new data on the transition into and production of domestic spaces in Delhi and underscores the active role of domestic workers as reflexive agents of middle-class domestic production.

Anthropology of Gender

As domestic work is one of the primary points of entry for lower-class, illiterate immigrants, by tracing water cultures, this study concurrently traced the step-by-step integration of women into the workforce and how this impacted their relationships with their families, communities, and domestic resources. The study establishes a fresh cultural context that resonates with the established theories of Gamburd (2002), who fleshes out the change in relationship of female workers with others, and Sassen (2002), who acknowledges the ability for female workers to be both socially marginalized, yet functionally integrated. While the study provided a lot of rich material about women's second shift and the difficulty of managing two theoretically distinct classes of families and households, the next step will be to developing what will be the main contribution to this literature, which centers on the profound transformation in some domestic workers into recognition of their role as producers of the middle-class.

Urban Anthropology

This study builds upon Jacobs and her ideas about vitality and the often overlooked infrastructures that enable it. It confirms the relationship between class-differentiated

water collection to larger issues of technology's ability to facilitate flows, which resonates with Massey (1994) and Harvey's (2006) work in a new configuration (since their focus is not what Rockefeller would consider content-focused flows). The study also pushes forward the application of Latour's constructed relationship of modernization processes in relationship to cities and urban boundary transgressions (1996). This work expands upon excellent foundational work of scholars like Gandy (2008), Ghertner (2011), Davis (2006), and Duflo and Bannerjee (2007) who focus on the causes and effects of urban poverty. Yet, their depictions of the urban poor are not as nuanced as they should ideally be. For this reason, this study focused on conveying the breadth of variety observed in the data. My contribution to urban anthropology is that I have closely traced the production of one strand of urbanization rhetoric (that of water allocations) as it is experienced, interpreted, and enacted by reflexive urban in-migrants. My data provide a new context—both spatially integrated and populated by agents of urbanization—for understanding urbanization. I hope to be able to refine these ideas to enrich the concept of urbanization, as Escobar suggests, with my data not read as a derivative of global urbanism, but rather as new data to reform our understanding of cities (Escobar 2001). Formulating a more inclusive concept of urbanism will be extremely important, especially with extremely prolific urbanization in the global south.

Water Studies/Anthropology and Environment

This study drew from water studies and anthropology and the environment for its conceptual basis of water as inherently and dialogically social. Contemporary social

science scholars like Linton established water as “hydrosocial” and its ability to generate social identities, infrastructures, and relationships was most richly developed in Strang’s conception of “living-water” (Linton 2010; Strang 2004). Kaika’s investigation of water in urban Athens also suggests the importance of a historical relationship between nature and cities, which is developed in this study’s initial chapters (Kaika 2005). More broadly, while Barlow and Clark provided essential insight into the way global water advocacy groups could ameliorate the marginalization of stakeholders caught in hegemonic water structures, this research highlighted the relevance and applicability of local conflicts, as explored by Joy (Barlow and Clark 2002; Joy 2010). In this collection, Ghosh asserts that the intrusion of global narratives and agents undermines the local community’s best interest because transnational discourse insufficiently understands, and thus insufficiently represents, marginalized people’s subjectivity, hence further compounding the marginality of these groups (Ghosh 2010). Using Ghosh’s observation as a model, my study reinforced the prominence of local understanding of resource disparity and while it draws in larger urban, national, and global narratives, it does so only in the capacity they are introduced by informants. Therefore, my contribution is a study that attempts to rectify this imbalance while concurrently producing previously underrepresented knowledge on water and human-nature relationships from an integral perspective.

Future Research

To fully explore the literatures and broader implications of each of these branches of inquiry are beyond the scope of this dissertation. This research raises powerful questions and suggests potential branches for future theoretical analysis and research in the above categories. My first extension of this project will be a deeper theoretical analysis of exploring the gender and class of water. This will draw heavily from literature from anthropology and gender, a theme which was not apparent until data analysis and will require more data collection to formulate a grounded argument.

Further, this research forms the foundation for a second project, the future transdisciplinary research which lies at the confluence of anthropology and two specific areas of disciplinary expertise: ecohydrology and water resource engineering; and water and human health. A large number of government programs in Delhi follow a neo-colonial model of hegemonic culture-modification programs that target the urban poor for undesirable sanitation practices, although a thorough community-level hydrological assessment of informal slums has never been undertaken. This second project would return to the same fieldsites as undertaken in dissertation research and will trace the distinctive ways wastewater flows through the informal sewage infrastructures within and out of the communities, including correlating the incidence of waterborne disease with locally embedded methods of water and sanitation management. The research will build upon interdisciplinary and trans-institutional collaborations developed during dissertation research and will result in innovative models that represent a systems-oriented response that has broader implications both within and beyond the local context of Delhi.

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