Throwing Development in the Garbage
A Deconstructive Ethic for Waste Sector Development in Nairobi, Kenya

Jason Carkner

Supervisor: Professor Stephen Brown

Thesis for the fulfillment of the
Master of Arts in Globalization and International Development
University of Ottawa
Feb. 1, 2012

Abstract

The WM sector in Nairobi is a failure. Collection rates are deplorable, regulations go unenforced and the municipal landfill is desecrating the environment and killing neighbouring slum dwellers. This paper focuses on the exclusion and marginalization of the slums adjacent to Nairobi's landfill, Korogocho and Dandora, and uses a post-structuralist theoretical framework to conceptualize a just response to these exclusions and theorize an inclusive approach to waste policy in Nairobi. Building on the work of Jacques Derrida, I present a 'deconstructive ethic' for development that is dedicated to mitigating and overcoming the production of alterity, and reintegrating excluded communities and knowledges into the sites of knowledge and policy creation. This ethic is used to formulate a five-part response to the conditions of exclusion experienced in Korogocho and Dandora, and to engage these populations in finding participatory solutions to the city's waste problem.

Table of Contents

List of Tables and Figures

List of Acronyms

CCN	City Council of Nairobi
CBO	Community-Based Organization
ISWMP	Integrated Solid Waste Management Plan
IMF	International Monetary Fund
JICA	Japan International Cooperation Agency
KSUP	Korogocho Slum Upgrading Programme
MLG	Ministry of Local Government
NEMA	National Environment Management Authority
NGO	Non-Government Organization
OECD	Organization for Economic Co-operation and Development
RAP	Resettlement Action Plan
SAP	Structural Adjustment Policy
SLU	Public Cleansing Agency
UNEP	United Nations Environment Programme
WM	WM
WMR	Waste Management Regulations
WWII	World War II

Introduction

<u>Context and Relevance</u>

The waste problem in Nairobi is odious. Dramatic increases in population growth throughout the late 20th century, inept planning and toothless regulation have resulted in a waste sector characterized by inefficiency, corruption and violence. Forty-eight percent of Nairobi's population lack collection services and a startling 70% of the city's daily waste generation is uncollected or disposed of illegally (Kasozi & van Blottnitz 2010: 17). Unfortunately, sector inefficiencies are only the beginning of Nairobi's waste problem. The bane of the sector is the contemptible inundation of Korogocho and Dandora, the two slums adjacent to the city's only official landfill, with a smorgasbord of the city's hazardous, industrial, domestic, organic and biomedical wastes. The landfill sits upon land previously reserved for the construction of a residential estate in Dandora. Conditions of ill health and environmental degradation throughout these areas are produced by the non-enforcement of regulations concerning the generation of hazardous wastes, segregation of waste streams, collection routes, and environmental audits.

People began settling in the regions of Korogocho and Dandora long before an abandoned rock quarry was designated by the Ministry of Local Government as a legal, albeit temporary, dumping site in the late 1970s. Thirty-five years later the non-engineered dump now stretches across thirty acres of land and lacks leachate control, gas management and waste covering, leaving unprotected neighbouring communities and the Nairobi River that snakes along the base of the mountainous trash heap.

The waste sector is currently structured to channel Nairobi's waste into Korogocho and Dandora, home to thousands of people, and the City Council of Nairobi (CCN) lacks the resources required to establish an engineered landfill elsewhere in the city. At the core of Nairobi's waste problem is an inherently political question: *What to do with Korogocho and Dandora?*

Fortunately, the significant illness and environmental degradation surrounding the landfill are not overlooked in the 2010 draft revision of the Japan International Cooperation Agency's (JICA) 1998 waste sector Master Plan. The 2010 revision, the *Integrated Solid Waste Management Plan* (ISWMP), focuses half of its proposed reforms on actions that have a direct and positive impact on Korogocho and Dandora. It proposes an integrated (i.e. participatory) waste sector in which the activities of waste pickers and traders are formalized and institutionalized through the licensing of community-based organizations (CBOs) as legal collection firms. This would enable the CCN to build upon existing informal structures rather than attempting to police and replace them with more formal private sector solutions. It would also provide waste pickers access to secure employment, proper training and safety equipment.

Discussions of an integrated, participatory model of sector development in Nairobi represent movement toward policies that acknowledge and respond to the plight of Korogocho and Dandora. Given that these slums assume a disproportionate share of the city's waste burden, such policies are desperately needed. However, this is not a paper about waste policy in Nairobi. Nor is it concerned with slum development, informal economies or environmental injustice. It is first and foremost a paper about exclusion - its generation and

reproduction, and its embeddedness in meaning, communication and knowledge. In the context of this research the term 'exclusion' is used to refer to a state of isolation that limits one's access to knowledge and restricts their ability to influence processes of knowledge production. In light of the exclusion endured by those living in Korogocho and Dandora, this paper endeavors to answer the following research question: what would constitute just reform of the waste management (WM) sector in Nairobi? Utilizing a post-structuralist theoretical framework, this paper reveals the exclusions inherent in development and explores the question of how to respond to them justly.

This question of justice is framed in the context of Nairobi's waste sector. It is an important case study because WM is one of the biggest challenges facing the urban world (UN-HABITAT 2010a). It is an essential service that significantly impacts public health, the sustainability of the urban environment and the productivity of the urban economy (UNDP 1996). WM is among the most costly urban services, typically absorbing 20-40% of municipal revenues in developing countries, and the majority of cities in the global South are unable to manage rapid increases in waste generation deriving from population growth and economic development (UN-HABITAT 2010a, 2010b).

This paper explores the failures of Nairobi's waste sector, particularly the overt exclusion and marginalization of Korogocho and Dandora. By using a post-structuralist theoretical framework the current work endeavors to a) propose a just response to these exclusions, and b) contribute to development discourse at large by presenting conceptualizations of exclusion and just development that facilitate the formulation of a just development ethic.

Integrated, participatory proposals are welcome contributions to the discourse surrounding WM in Nairobi, but one must be careful not to assume the beneficence of 'participation'. Participatory approaches have been in vogue in development discourse for nearly twenty-five years. They flip the top-down development model on its head and allow actors who were once objects of development to become agents of development, allowing them to participate in the processes of planning, implementation, monitoring and evaluation. Decentralization - the participation of institutional stakeholders from the public, private and non-governmental sectors - transformed dominant approaches to slum upgrading from state-controlled processes in the early 1980s to more participatory activities by the late 1990s, using non-government organizations (NGO) as intermediaries that allow for the inclusion of communities at various project stages (Das & Takahashi 2009). Project-by-project approaches to slum upgrading have since fallen out of favour as the ideals of self-help and participation have become incorporated into policies inclusive of land development, finance, economic development, and social development (Davis 2006; Pugh 1997).

Although the ideals of participatory development have become popular in scholarly literature, Das & Takahashi (2009) argue that scholarship on the relationship between institutional changes and slum upgrading remains largely prescriptive, suggesting how things *ought* to change, and falls short of analyzing how participation affects the crucial objectives of replicability and scaling up. Replicability refers to the determination of sound institutional arrangements usable as a framework for subsequent development projects, whereas scaling up is a concept used to describe the expansion of a project such that it targets multiple

populations (Abbott 2002a; Abbott 2002b). That these should be the driving principles of slum upgrading (UN-HABITAT 2003) is an argument that frames the challenge of slums as an obstacle to be overcome through technical interventions. However, the problem of slums is not only technical but also inherently political. The context of development in Korogocho and Dandora is far too multifarious to know in full. Reducing the 'development' of these slums to a technical programme is misguided since a multitude of unforeseen variables will inevitably factor into the equation and produce unexpected results.

This critical distinction between the technical and political can be observed in various studies and proposals related to the WM sector in Nairobi (Augustine 2009; Henry 2005; Bahri 2005; UNEP 2005). They all propose technical solutions to the city's waste problem such as economic controls (taxing waste production, implementing dumping levies on hazardous materials, subsidization of green production) or state-imposed production and sanitation standards. While such technical interventions may address problems hindering effective collection and safe disposal, they nevertheless build upon incomplete knowledge and fail to address the exploitation and oppression characteristic of the sector and the planning process that created them. Even those studies and proposals that are undertaken collaboratively (von Blottnitz & Ngau 2010; UNDP & Practical Action 2006), bringing together voices from public, private and non-governmental sectors, depoliticize the waste problem by focusing on how to improve the effectiveness and sustainability of the sector without addressing these core exclusions.

There is much scholarship on pro-poor WM solutions that focuses attention on disenfranchised populations, the manner in which they are excluded and the means by which

that exclusion might be addressed (Thieme 2010; Moore 2007; Wilson et al 2006; Medina 2005; Nas & Jaffe 2004; Downs & Medina 2000). These writers tend to celebrate the resilience of the urban poor, highlight the effectiveness of informal waste economies (waste picking and trading), and explicate the need to build on already existing informal structures instead of ignoring or replacing them with private sector solutions. This body of scholarship differs from the literature outlined above by emphasizing the political nature of WM and refusing to conceptualize sector development as a technical programme. It makes clear that slum upgrading, (in)formal WM and sector development are all embedded in the same larger socio-political context. Improved WM systems are regarded not only as means by which to protect human health and the environment, but also opportunities to combat urban poverty through the formalization and institutionalization of informal, unregulated waste economies.

However, this body of scholarship is guilty of romanticizing the resilience of urban waste pickers and glorifying the notion of 'participation'. It argues that the informal "business of waste" provides a "creative and responsive" alternative to ineffective public services and enables "low-income urban youth to reclaim their 'right to the city'" (Thieme 2010: 350); propagates the development of waste picker cooperatives and their engagement with local government (Medina 2005); and proposes the integration of informal and formal waste systems (Wilson et al 2006). All are welcome contributions in that they inform discussions concerning waste and urban poverty. However, these literatures are content to assume the beneficence of the community-state partnership and fail to critique the mechanisms through which 'participation' is supported and the exclusions inevitably produced. Through a post-structuralist theoretical framework this paper contends that a just

response to Nairobi's waste sector must address the exclusions inherent in language, which are foundational to development discourse.

Theoretical Framework

Language is the foundation of all discourse, knowledge and communication, yet linguistics is notably absent from the field of development theory. This paper utilizes a post-structuralist framework in order to return our attention to the complexity of meaning, the creation of exclusion and the critical question of how to act justly. It is the question of justice that makes this post-structuralist approach fundamentally different from what is produced in other literatures pertaining to post-development, livelihoods analysis, participatory development or sustainability. The principal aim of post-structuralism is to destabilize meaning by contesting the logocentric logic that a given sign has an unmediated relationship with the object/subject it signifies. This paper relies heavily on the scholarship of Jacques Derrida (1930-2004), a pioneer in the post-structuralist movement throughout the 1960s, particularly his critique of logocentric epistemology and his conceptualization of deconstruction. Derrida contends that Western epistemology is structured to capture 'being as presence' (1976), or to claim that meaning is 'present' in the unmediated relation between the sign and signified. He maintains that this relationship is an ideological construction made possible by the strictures of grammar that govern the rationality of writing and communication. Meaning does not naturally 'exist' between the sign and signified, but is interpreted through the complex interplay of related but by nature arbitrary signs. Meaning, therefore, is always mediated by signs, and can never be known fully.

In the absence of meaning all discourse and knowledge is exclusionary. Knowledge assumes stable relationships between the sign and signified (i.e. assumes the presence of meaning) and in so doing excludes alternative claims to knowledge. Derrida describes deconstruction as a process which, in response to the 'other' produced through exclusion, reveals the instability of the sign-signified relation. This then enables knowledges, institutions and programmes to be reformed with an eye toward justice.

It is this emphasis on just reform that distinguishes deconstruction's contribution to development theory. Livelihoods analysis, for instance, may focus on disenfranchised populations and the multitude of socio-economic factors shaping their communities, but it overlooks the root cause of their exclusion: logocentric language. Sustainable and participatory development are also guilty of the same oversight. This is not to say that these approaches are without value. It does mean, however, that without acknowledging and accounting for the absence of meaning in our logocentric epistemology they will continue to produce exclusionary conditions.

Through an application of deconstruction this paper seeks to answer the question of what would constitute a just response, on the part of the CCN, to manifest exclusions in Korogocho and Dandora produced by Nairobi's failed waste sector. Drawing from the linguistic theory of Derrida, the question's answer is framed in the logic of a 'deconstructive ethic'. The purpose of this ethic is not to prescribe policy or specific development interventions, but rather reform approaches to development such that its institutions can focus on working toward the just ideal of a world free from exclusion. This paper argues that the CCN needs to utilize its current channels of communication with CBOs and local NGOs

such that the residents of Korogocho and Dandora can contribute to the formulation of the city's waste policy. Chapter 3 presents a five-part plan that can facilitate such communication and mitigate the production of future exclusions.

Methods

Three types of research were conducted in order to illuminate and formulate answers to the question of what constitutes a just response to the exclusion and oppression of Korogocho and Dandora. First, analysis of the scholarly literature on slum development, informal economies, WM, post-structuralism and development ethics framed the general topic. Second, a review of the gray literature pertaining specifically to WM in Nairobi narrowed the scope of analysis. Lastly, primary research explored possible answers to the research question. Two months were spent in Nairobi, Kenya (October - December, 2011) where a total of eighteen interviews were conducted with various stakeholders. Interviewees included two City Councilors, each with constituents in Korogocho or Dandora; five senior government officers at the CCN Department of Environment, National Environment Management Authority (NEMA) and Korogocho Slum Upgrading Programme (KSUP); two private waste collection/recycling firms; three local NGO's; four CBO's and two waste pickers in Korogocho and Dandora. To recruit individuals for participation a list of important informants was generated - local CBOs active in and around the landfill - and snowballing was used to identify senior government officers, NGO project managers and waste collection/recycling firms.

<u>Structure of Paper</u>

The first chapter is organized in two sections. The first section presents a discussion of development theory in historical perspective which charts the evolution of the uses and meanings of the terms 'progress' and 'development'. This historical overview is significant for three reasons. First, it demonstrates that since Aristotle the fundamental question facing development has been the nature of its relationship with 'progress'. Second, it highlights key shifts in development discourse and enables the second section to explicate them through the application of Derridian semiotics. Third, it paves the way for a deconstructive critique of 'progress' and 'development' in Nairobi's waste sector.

The second section introduces three Derridian concepts that, in addition to being foundational to his formulation of deconstruction, serve as the base for a deconstructive development ethic. These three concepts - dissimulative sign play, constitutive omissions and discursive violence - are critical to understanding the complexity of exclusion. Section two also demonstrates the circular relationship between development and exclusion (they each produce the other) and introduces deconstruction as the just response to this paradoxical dilemma.

This theoretical framing leads into a description and analysis of Nairobi's failed waste sector in chapter 2. I contend that by not enforcing NEMA's Waste Management Regulations (WMR) the CCN has unintentionally created a sector that produces illness, violence and unregulated informal economies. The pro-poor elements of the ISWMP are detailed and their potential benefits for the communities of Korogocho and Dandora outlined. The chapter concludes, however, with a discussion of how the deconstructive ethic calls the ISWMP to do

more than implement technical interventions. The plan must also anticipate exclusions and facilitate their return to sites of knowledge creation.

Chapter 3 builds on the earlier discussion by expounding the deconstructive ethic and outlining the manner in which it can be applied in Nairobi. Reference is made to government-community partnerships in the waste sectors of Colombia and Brazil in order to demonstrate the feasibility and value of such integration. I argue that Nairobi already has mechanisms in place that could support CCN-community collaboration. However, institutional reforms are required that adjust these mechanisms to become channels through which the community can influence waste policy. The paper concludes with a five-point discussion of how the deconstructive ethic can be applied using these currently existing mechanisms.

Chapter 1
Introducing a Deconstructive Ethic to Development

It is fitting that structuralism, an influential paradigm focused on the structured relations between social actors and institutions, has its roots firmly set in linguistics, the study of language. Ferdinand de Saussure (1857-1913) introduced the notion that language needed to be analyzed as a fixed set of interconnected components. Claude Lévi-Strauss (1908-2009) brought this emphasis on structured relation to the field of anthropology in the 1930s, popularizing the paradigm and spawning what became a dominant approach to social inquiry. Although language is at the core of all discourse, knowledge and communication, linguistics is surprisingly absent from the field of development. All development initiatives entail interpretations of reality and interpretations of change. The critical questions are whose interpretations, whose understanding of 'change', and why/how they influence the way development is 'done'. Post-structuralism returns to linguistics to offer us a compelling critique of philosophy, discourse and knowledge creation that places into new light what it means to act justly. I have termed this the 'deconstructive ethic' and will endeavor to demonstrate its importance to development in the latter half of this chapter. Post-structuralism emerged in the mid-20th century when a number of young structuralists turned the paradigm inside out and used it to analyze itself. Structural linguistics maintained that the meaning of signs (verbal words, written text, pictures) was determined by their differences from all other signs in a network (Cahoone 2012). Emerging thinkers like Jacques Lacan, Emmanuel Levinas, Gilles Deleuze and Jacques Derrida destabilized this approach by arguing that, like all systems of knowledge, structuralism itself was a network of signs with a complex, violent history. I focus here on Derrida, particularly his deconstructive approach. I

contend that three of his conceptualizations - dissimulative sign play, constitutive omissions and discursive violence - serve not only as the foundation for his formulation of deconstruction but also for the deconstructive ethic of development.

The objective of this chapter is twofold: 1) introduce and elaborate the three conceptualizations mentioned above, thereby laying the foundation for a deconstructive case study of Nairobi's WM sector in the following chapter, and 2) provide an overview of the historical evolution in the uses and meanings of the terms 'progress' and 'development', setting the stage for a deconstructive analysis of 'progress' and 'development' in Nairobi's waste sector. The historical overview is broken down into three chronological sub-sections, culminating in a discussion of the emergence of post-development theory in the 1980s and the post-structuralist ideas it adopted. This helps to situate Derrida within the historical evolution of development theory, a field typically uninterested in his work. I conclude with a discussion of deconstruction - what it is, its political implications and its relevance to development, thus opening the door for an application of the deconstructive ethic to Nairobi's waste sector development in the following chapter.

Development Theory in Historical Perspective

The field of 'development' as we understand it today emerged in the mid-20th century, many identifying President Harry Truman's Inaugural Address (1949) as its unofficial launch (Rist 2008)**.** While Truman's address may be an historic landmark in the Western history of development, it is only one among many. In fact, the roots of development reach across the scope of history, drawing life from Aristotle and Augustine in the ancient world; Fontenelle

and Buffon during the Renaissance; Adam Smith in the Enlightenment; prominent 19th century philosophers Comte and Marx; mid-20th century modernization theorists Rostow and Lipset; post-development writers Escobar, Rahnema and Sachs; and, of course, modern development institutions, multilateral agencies and grassroots movements. These thinkers and stakeholders all represent landmarks in the evolution of development theory. The first section provides of a cursory overview of this evolution, and thereby demonstrates that a single, fundamental issue has been at the core of 'development theory' since the age of the ancients. Namely, the question of 'progress' - what it is, its relation to development and what it means for practical applications.

From Aristotle to Augustine (384 BC - 430)

The Greek word for 'nature', *physis*, comes from the verb *phuo*, which means 'to grow' or 'to develop'. To use the word 'nature' in ancient Greece was to refer to the genesis of growing things, or the immanent part from which their growth proceeds (Rist 2008). Aristotle's conceptualization of development or growth was inherent in his use of the word '*physis*', which was framed by the dominant paradigm of the organismic life-cycle.

Gilbert Rist (2008) outlines four basic features of the development of living organisms and their impact on Aristotle's political philosophy. First, directionality. Growth has direction and follows a set of clearly defined stages. Second, continuity. Organisms grow and change in appearance, but their 'nature' does not alter. They remain the same organism throughout. Third, cumulativeness. Each successive stage depends on the one before it. Blossom, for instance, precedes fruit, which also implies a passage from lower to higher

stages of development, a maturation toward a state of completion. Lastly, irreversibility. The stages cannot be reversed. A tree cannot be turned back into its seed, nor can an adult human be turned back into a child.

Aristotle believed that nature assigned to all things an end state that represented their perfect form and that they developed toward this end. Indeed, he argued that the "city-state is among the things that exist by nature", that the polis was a necessary element of the growth and development humanity's progression toward its end state (*Politics* 1253ᵃ). However, the end state did not represent a permanent condition. It was merely the pinnacle of growth, its apogee, after which the organism slid into decay, withered and died. As well, nature was a dynamic process of development. All that died was replaced by new life. Aristotle applied this cyclical model of organic life to politics, understanding social and political order as a perpetual series of new beginnings, growth and decay. Order in the polis (and the people within it) would develop toward its end state. Then, when faced with challenges its path of development could not overcome (i.e. upon reaching its apogee), it would begin decaying in order to make room for the growth of a new order.

This understanding of nature, development and political order would remain dominant for nearly 600 years. Upheaval in the Roman Empire led many to believe that the world was at the end of a cycle and it was natural for imperial power to be dying (Rist 2008). It was against this backdrop of political instability that Augustine attempted to reconcile dominant Aristotelian philosophies of history with his Christian theology.

Augustine remained faithful to the Aristotelian notion of cyclical development, but he reduced the multitude of successive cycles to a single cycle that parallels the history of

salvation (Rist 2008). The history of salvation was cyclical in as much as it encompassed growth, apogee, decline and death, but that cycle was not repeatable. History was no longer the unfolding of successive cycles but rather a single process with cyclical features familiar to Aristotelian philosophy. Augustine's theology redrafted the dominant interpretation of human history, paving the way for theories of linear progress.

From the Renaissance to the Enlightenment (1300-1800)

The idea of 'progress' as understood today is the philosophical legacy left by the time period spanning the Renaissance and the Enlightenment (Shanin 1997). Notions of cyclicality prevailed until the mid-17th century when they began to crumble beneath questions concerning the nature of knowledge (i.e. its growth and development). Following in the wake of Aristotelian-Augustinian concepts of growth and development much of the Renaissance (1300-1600) had been devoted to reviving the philosophies of Antiquity. Conventional wisdom held that the world and everything therein was destined to decay, which meant it was vital to study the ways of the Ancients who had lived happier lives in simpler times. The Moderns, however, refused to engage in this academic endeavor, instead offering a persuasive conceptualization of linear progress. Bernard Le Bovier de Fontenelle (1657-1757), a leading Modernist, contended that the nature of knowledge was cumulative because the knowledge of current generations was built on the knowledge of generations past (Rist 2008). That irreversible accumulation of knowledge made impossible a decline in the capacities of science, which dismantled the Aristotelian-Augustinian notion that stages of growth were separated by periods of decay.

Rist (2008) explains that at the heart of Western thought was the ideal of a natural human history. The development of societies, knowledge and wealth corresponded to a natural principle with its own source of dynamism, which allowed for the possibility of a meta-narrative. Although sometimes overshadowed by war and oppressive hostilities, this natural principle accommodated a totalizing discourse propounding the notion of uninterrupted progress. Thus the founding text of economics, Adam Smith's *An Inquiry into the Nature and Causes of the Wealth of Nations* (1776), presents the 'progress of opulence' as an order promoted by the 'natural inclinations of man'. It was believed that progress could not be stopped; development was not a choice but a process necessitated by history. Nature, in short, was process. And process necessitated progress.

By the late 18th century human understandings of nature, along with the ability to use and manipulate the natural world, were considered limitless (Cowen & Shenton 1996). The progression of Europe was case and point: Europeans had advanced through several stages of human activity (hunting and fishing, pastoralism and settled agriculture, commerce and manufacturing), progressing from primitiveness to industrialism. History was viewed linearly because knowledge was cumulative and human nature was self-interested, resulting in unceasing advances in human well-being.

> [W]here destruction and decay of human capacity and subsistence was experienced, or where any expected increase in labour productivity and purchasing power could not be observed, then the negative outcome was not a result of the objective process of [self-interested] exchange but was due to subjective failing. Some individuals were deficient in their capacities to make informed decisions, on the basis of the reason to work productively, were lacking the virtues of progress. (Smith in Cowen & Shenton 1996: 16)

Provided the state offered secure conditions for exchange (removing barriers such as feudal taxation and mercantilism), material improvement would necessarily follow acts of self-interested exchange. The initial and most influential criticism of this logic came from Thomas Malthus, who argued that the notion of human progress as a guaranteed, limitless consequence of self-interested exchange ignored several limiting factors.

In his *Essay on the Principle of Population* (1798), Malthus argued that natural tendencies in population growth made unlimited, linear progress impossible. He contended that population growth was controlled only by the discomforts of poverty and the 'moral restraint' that tamed the 'passion between the sexes'. A system built on specialization and self-interest was certainly capable of facilitating industrial growth, but such growth would be only nominal without a commensurate increase in the productivity of the land. Malthus explained that investments in agriculture yielded benefits only slowly, and foreign trade was seldom a solution because shipping and distribution costs made imported goods prohibitively expensive. He questioned "how it is possible to suppose that the increased quantity of commodities, obtained by the increased number of productive labourers should find purchasers, without such a fall in price as would probably sink their value below the cost of production" (Cowen & Shenton 1996: 20). It seemed to Malthus that poverty was an inescapable consequence of growth in industry. Malthus's formulation of the limits of progress opened up the negative dimension of history as the necessary premise for an idea of development (Cowen & Shenton 1996). This is not to say that Malthus was returning to the Aristotelian-Augustinian growth/decay model. Rather, he was suggesting that 'progress', as conceived of by Smith, had an ugly side. As it related to industrialization and the

accumulation of knowledge, progress was still linear, but changes within that progression had the capacity to be violent due to the inevitable conditions of poverty and social disorder.

It was the desire to avoid such violence that inspired a system of positive thought (Cowen & Shenton 1996). Auguste Comte contended that the aim of progress had to be consistent with humanity's most pressing need: social stability and equilibrium. He posited that the world was governed by an objective, intelligible set of natural laws. Progress occurred according to these laws and, consequently, was knowable and governable. However, it was clear to Comte that progress had hitherto lacked the consistency of order and was directed by the movement of disparate events and unforeseen forces of history (Cowen & Shenton 1996). Comte conceptualized 'development' as that which gave order to progress; an extrapolation of Malthus's criticism of Smith.

John Stuart Mill (1806-1873) revamped Comte's concept "development" and turned attention away from natural laws toward the question of liberty. Mill maintained Comte's definition of development - the reconciliation of progress with order – but contended it could not occur without certain preconditions. These conditions referred to a liberated state of being where education, choice and individualism were possible (Cowen & Shenton 1996). 'Education' was used very generally, encompassing issues as far reaching as electoral and land reform, birth control and equality for woman, and the rights of labour. In short, knowledge was the capacity for choice, but choice was more than the capacity to choose; it was the fundamental quality of being human. "Individuality," Mill claimed, was "the same thing as development, and it is only the cultivation of individuality which produces… well-developed human beings" (Cowen & Shenton 1996: 40)

Linear, individualized progress was not solely an academic concept. Teodor Shanin (1997) explains that it seeped into all strata of contemporary society and became entrenched as a popular common sense resistant to change. It answered some fundamental questions of social thought: *What produced diversity? What is social change? What is the the task of social theory? What is the duty of state leaders?* Diversity was produced by the varying speeds at which societies progressed. Social change was conceptualized as the necessary advance through the different social structures that corresponded to the stages of progress. The task of social theory was to understand the natural sequence of the stages, from past to future, and advise leaders on how to accelerate the progression of society. Lastly, the role of state rulers was to implement the scholarly knowledge, accelerate the necessary advance of society and fend off all regressive forces that could slow it down. These conceptualizations of linear progress maintained their dominance throughout much of the 20th century but ultimately gave way to the emergence of two key concepts: 'underdevelopment' and 'modernization'.

From Modern to Postmodern

With the exception of a few temporary deviations, modern conceptualizations of 'progress' held that all societies should be advancing naturally and consistently 'up', away from poverty, barbarism, despotism and superstition toward wealth, civilization, democracy and rationality (Shanin 1997). Cowen & Shenton (1998) contend that 'development', this upward progression away from indigence, has two general forms: immanent development and intentional (or interventionist) development. The former refers to a broad process of

change driven by an array of factors including advances in science, medicine, the arts, communication and governance. The latter is a focused process directed by governments and non-government organizations whereby projects and programmes are implemented to develop the 'under-developed'. Immanent development is as old as the human race, and generally reflects a increased capacity to address human needs via knowledge accumulation. Interventionist development, in contrast, is a new phenomenon. Widely believed to have been born in the period following World War II (WWII), it was first introduced in President Harry S. Truman's 1949 inaugural address which outlined four objectives his presidency would pursue. The fourth point is thought by many to mark the advent of (interventionist) development (Morse 2008).

> "[W]e must embark on a bold new program for making the benefits of our scientific advances and industrial progress available for the improvement and growth of underdeveloped areas. More than half the people of the world are living in conditions approaching misery… The United States is pre-eminent among nations in the development of industrial and scientific techniques. The material resources which we can afford to use for the assistance of other peoples are limited. But our imponderable resources in technical knowledge are constantly growing and inexhaustible… I believe that we should make available to peace-loving people the benefits of our store of technical knowledge in order to help them realize their aspirations for a better life. And, in cooperation with other nations, we should foster capital investment in areas needing development". (President Harry S. Truman, Inaugural Address 1949)

Truman's suggestion that 'inexhaustible' stores of knowledge, advances in industrial and scientific techniques and capital investments in 'underdeveloped' areas could enable the world's poor to 'realize their aspirations' appears little different than the philosophies of Fontenelle, Smith, Comte and Mill. Truman effectively brought their philosophies into the post-WII era and used them to launch the project of interventionist development. Given that

the Bretton Woods institutions - The International Bank for Reconstruction and Development (World Bank) and the International Monetary Fund (IMF) - had already been operational for three years, this vision of modernization hit the ground running.

Technical knowledge and capital investment flowed to the world's 'underdeveloped' areas, but such assistance was not offered unconditionally. The conditions introduced by the IMF and World Bank in the early 1950s focused on liberalizing the macroeconomic policies of the Third World, and were typified by requirements to adopt the economic principles of neoliberalism and reduce barriers to trade. This countered the spread of socialist ideology during the Cold War and enabled companies within the Organization for Economic Co-operation and Development (OECD) nations to access sectors of particular interest. These conditionalities were later formalized as structural adjustment policies (SAPs) following a series of economic crises in the late 1970s and early 1980s, including the oil crisis and Latin American debt crisis. SAPs were intended to overcome the political and economic instability hindering developing countries.

During this era the logic of linear progress had become central to the field of development. Walt Rostow's seminal work *The Stages of Economic Growth: A non-communist manifesto* (1960) suggested that economic growth progressed through five basic stages: traditional society, preconditions for take-off, take-off, drive to maturity and the age of high mass consumption. Much like the earlier Renaissance and Enlightenment thinkers, Rostow contended that development through these stages was linear, but that the duration and conditions experienced at each stage would vary between countries. This linear model of economic growth would expand throughout the 1960s to include political modernization and

nation building. Although modernization theory was heterogenous and multifaceted, it generally identified the end goal of development to be the establishment of a wealthy, bureaucratic society (Cowen & Shenton 1996).

Interventionist development was met with vehement opposition when post-development theory emerged in the 1980s. Building on the post-modern attack on meta-narratives, post-development took aim at the discourse of development, questioned the politics of its creation and suggested that interventionist development was nothing more than a violent imposition of the developed West. Scholars argued that modernist discourse not only identified the objects of development (i.e. poverty, illiteracy, peasantry) but also determined the manner in which they were to be understood and acted upon.

> [The] relations established between institutions, socio-economic processes, forms of knowledge, technological factors, and so on, define the conditions under which objects, concepts, theories and strategies can be incorporated into the discourse. In sum, the system of relationship establishes a discursive practice that sets the rules of the game: who can speak, from what points of view, with what authority, and according to what criteria of expertise; it sets the rules that must be followed for this or that problem, theory or object to emerge and be named, analysed, and eventually transformed into a policy or a plan". (Escobar 1995: 87)

Development discourse was regarded as ideological, as a system of knowledge creation that imposed on the 'underdeveloped' world an expectancy to fit a mould that mirrored the 'developed' West.

Derrida was already a widely read author by the time post-development theory emerged - his first major work was published in 1967 (*Writing and Difference*) - and his influence is felt throughout post-development scholarship. Derrida's central criticism of Western epistemology is its attempt to capture "being as presence" (1976). He contends that

Western philosophy has constructed the illusion that signs possess unmediated relationships with the signified. Derrida discusses how this has been accomplished via the construction of grammar, and that grammar governs the rationality of writing and communication, not *logos* (the principle or order of knowledge). Andrew Koch (2007) explains that this is why Derrida argues signs never reflect the signified 'as it is', but rather a range of possibilities made possible by the grammatical structures that generated them. Western epistemology equates the meaning of the sign with the meaning of the signified, therefore claiming a stable representation of the world. Derrida argues such stability is a lie in that all claims to meaning are mere ideology. This claim to stability is what facilitates the closure of knowledge and the exclusion of 'the other'. "Closure is what has given Western epistemology its totalizing power, its failure to equivocate, its lack of doubt about its own assertions. The ability to assert a stable identity presents the ability to manipulate the world as a collection of stable "objects"" (Koch 2007: 53).

Post-development builds on this analysis by transporting the "being as presence" debate to the field of development theory. Like Derrida's critique of philosophy, logocentrism and the closure of knowledge are at the center of the post-development critique. It contends that 'underdevelopment' is an ideological construction of the Bretton Woods institutions used to justify an attack on the 'otherness' of the Third World. An attack that attempts to make over the economies of the South in the image of the advanced economies of the North.

Derridian Semiotics

Before delving into the nuances of deconstruction it is important to understand two basic elements of Derridia's semiotics. First, Derrida takes issue with philosophy's tendency to equate a sign's meaning with its synchronicity. That is, he refutes the notion that the interplay of signs in the present is sufficient for generating meaning. For example, it is insufficient to say that 'marriage' has meaning only because of its relation to, but distinction from, other related signs like 'husband', 'wife', 'family', 'sex' and 'children'. Derrida historicized the formulation of meaning by introducing the diachrony of the sign, or its history. 'Marriage' has meaning not only because of its differences from other current signs, but also because of its varied uses over time. Therefore, a sign and its meaning are situated both within a temporal series of that sign's use (the 'diachronic line') and a simultaneous pattern of related signs (the 'synchronic line') used in the current language (Cahoone 2012).

Second, Derrida argued that because meaning is always mediated by non-present signs it is always 'absent'. When one speaks of marriage, the term has meaning because of its relationship to and distinction from relevant yet non-present signs (i.e. signs not being used in the conversation). In this way, the meaning of 'marriage' is absent because it refers and is relative to past uses and contexts of use as well as the non-present related signs in the language (Cahoone 2012). The sign's reference to non-present signs is constitutive of its meaning, which makes it inherently unknowable. To pin down the meaning of 'marriage', to establish the relationship between the *logos* and the subject it represents (the very objective of Western philosophy), would be to a) wholly define the word 'marriage', b) wholly define every word used in the definition of marriage, and so on, and c) repeat this process for every

past use of the term and demonstrate concretely how those uses and evolutions of the word give shape to its current use and meaning. Such an undertaking is not possible, demonstrating that meaning is not fixed or knowable, but constantly negotiated and arbitrary.

Derrida's semiotics and its application in his deconstructive works have attracted both supporters and critics. The two-faced nature of Derrida's celebrity is best exemplified in the controversy surrounding the 1992 proposal made at Cambridge University to award him an honorary doctorate. Soon after the proposal was made opposition arose, demanding a vote by the faculty of the university to determine Derrida's worthiness of such an accolade. Supporters and detractors circulated flyers in attempt to recruit signatures of support. James Smith (2005) notes that the flyers passed out by the anti-Derrida camp offered a portrait of his philosophy typical of his critics:

> [D]espite occasional disclaimers, the major preoccupation and effect of his voluminous work has been to deny and dissolve those standards of evidence and argument on which all academic disciplines are based… what determines us to oppose this award is not just the absurdity of [his] doctrines, but their dismaying implications between fact and fiction, observation and imagination, evidence and prejudice, they make complete nonsense of science, technology, and medicine. In politics, they deprive the mind of its defences against dangerously irrational ideologies and regimes. (W.S. Allen et al., quoted in Smith 2005: 5)

On the contrary, Derridian semiotics and his critiques of philosophy are anything but nihilistic. Derrida offers us a powerful analytical tool by which to restructure our institutions with an eye toward more just configurations. His conceptualizations of dissimulative sign play, constitutive omissions and discursive violence build on the above semiotics, and serve as stepping stones in applying deconstruction to the field of development.

<u>Dissimulative Sign Play</u>

In dramatic fashion, Derrida claims that all statements are lies (Cahoone 2012), not because of the speaker's intentional efforts at deception, but because both the speaker and audience must pretend there is not endless complexity behind every spoken word, that their meaning is not absent but present, direct and intelligible, and the speaker is accurately communicating a statement or idea that has one meaning. Meanwhile, because of the inherently complex and arbitrary nature of language, the speaker is downplaying or repressing references to unwanted signs and excluding the possibility of alternative meanings, what Derrida calls dissimulative sign play. In order for a sign to be useable its complexity needs to be masked and the sign presented under a false appearance. It is presented as though it has an unmediated relationship with the object or subject it signifies, disguising the reality that the relationship is always mediated by non-present signs.

Sign play is subject to but simultaneously creates context. Aristotle, for instance, could only make use of the term 'nature' in one place: at the intersection of its diachronic and synchronic lines. However, because the meaning of 'nature' and the meaning of its relationship to other signs is ultimately arbitrary, Aristotle's use of the term also influences the context that confines its use. This is precisely why Augustine's break from the recurring cycle of new beginnings and decay was so revolutionary; it reshaped nature's context. It redefined the boundaries that outlined its acceptable uses. It repressed the Aristotelian notion of cyclical progress in order to present a new knowledge claim. This negation is central to all knowledge, and has profound implications because of what Derrida calls the 'constitutive omission' and the manner in which it is discursively excluded.

<u>Constitutive Omissions</u>

Logocentrism has always been and will continue to be the dominant approach to theorization. Although their philosophies were different, both Aristotle and Augustine privileged the concept of cyclicality above continuity. They believed that only a cycle of growth, which included decay and death, brought about a true 'end state' of development, and that conceptualizations of linear progress and infinite growth led to an incomplete state of being. The 'cycle' was privileged, meaning that it was determined to be the sign with the unmediated relationship with progress, whereas 'continuous' developments could signify progress only when mediated by the cycle. It was not until the Renaissance that thinkers like Fontenelle changed this hierarchical binary by privileging 'growth' over 'decay', thereby separating the two as signs referring to distinct phenomena and dismantling the cyclicality/ continuity relation embedded in the Aristotelian-Augustinian tradition.

Furthermore, the Enlightenment dealt extensively with the 'objective/subjective' binary. Smith maintained that if destruction or decay in the human capacity for subsistence was observed following acts of exchange it was the result of subjective failing and not a consequence of the objective process of exchange. By not having the ability to reason and work productively, Smith said the participants clearly were lacking in the virtues of progress. Here, 'objectivity' is used to label 'progress' a natural process, one that occurs automatically when people are left to serve their own interests. It is privileged over 'subjectivity', which refers to one's (in)ability to reason and comprehend the objective rules that 'naturally' govern the market system.

These hierarchical relationships establish truth claims and generate what Derrida calls 'alterity', a term referring to a state of 'otherness'. It applies not only to an 'other' human being, but also to the 'other' knowledge excluded from and opposed to all truth claims. Derrida contends that these exclusions amount to discursive violence in the struggle to define meaning, and that violence is maximized through the institution of knowledge closures - the establishment of 'truth' and refusal of all competing claims. He argues that justice, ethics and responsibility are defined by an unwavering commitment to the other, a commitment to the path of least violence and the refusal to permit the closure of any knowledge claim. In this way, Derrida provides the basis for a development ethics of alterity that predicates activity on obligation to the other (Parfitt 2012). This commitment to 'the other' does not amount to relativism, nor does it prohibit political action or negate all knowledge and discourse. Rather, Derrida maintains that we need to be aware of our natural inclinations toward the privileging and subordination of signs, identify our tendency to enclose knowledge, and accept our responsibility to choose the path of least violence. This is not a utilitarian argument for minimizing violence and maximizing happiness, but a post-structuralist argument for inclusiveness.

Discursive Violence

Post-developmentalists, of course, do not object to the alleviation of poverty, but encourage a breaking away from the hegemonic power of the North's development agencies. They argue that development discourse is a closed space, allowing only 'development experts', politicians and economists to define its terms of use, tactics, targets and indicators.

In his discussion of the contributions and limitations of post-development, Stephen Morse (2008) notes that "while the instrumentation for achieving these targets can evolve and be flexible… it does not change the fact that at a strategic level intentional development is based on a set of assumptions over which those being 'developed' have no influence. Thus the problem is not so much a lack of success in achieving the target but the target itself" (p. 342).

Such criticism is welcome, but post-developmentalists are often regarded as failing to propose an alternative that is markedly different from the models they critique. Most 'alternatives' are couched in vague rhetoric that espouses the need for local articulations of the meaning of development and control over how it is managed (Ziai 2004). This emphasis on 'thinking local' is not substantially different from the literature on grassroots, sustainable or participatory development post-developmentalists claim to oppose.

Derrida, on the other hand, offers more than a critique. He offers a deconstructive ethic that responds to 'the other'. "[D]econstruction is, in itself, a positive response to an alterity which necessarily calls, summons or motivates it. Deconstruction is therefore vocation - a response to a call" (Derrida quoted in Smith 2005: 12). Alterity refers to a condition of 'otherness'. More than just referring to 'other people', Derrida uses 'the other' to identify that which is 'other-than-language' or 'other-than-knowledge'. Logocentrism's privileging of presence and its use of signs as 'stand-ins' for objects/subjects in the world means that meaning can only be established via exclusion. Language, in essence, is exclusionary, which causes Derrida to conceptualize justice, ethics and responsibility as being beyond, or 'other than', language. However, this is not cause for despair, and there is no sense in attempting to abolish the grammatical strictures of language in order to undo

logocentric epistemology. Indeed, "we have no language - no syntax and no lexicon - which is foreign to this [logocentric] history" (Derrida 1978: 280). Rather than mounting such an attack we must respond to the alterity it produces by undermining its claim to meaning.

This is done by revealing that privileged signs (i.e. the signs supposed to have an unmediated relationship with the signified) are in fact meaningless without mediation by subordinate signs. The inversion of these semiotic relationships is Derrida's deconstructive response to 'the other'. By demonstrating that excluded knowledge is central to meaning, deconstruction reintroduces 'the other' to sites of knowledge creation. "Deconstruction is a deeply affirmative mode of critique attentive to the way in which texts, structures and institutions marginalize and exclude 'the other', with a view to reconstructing and reconstituting institutions and practices to be more just (i.e. respond to the call of the other)" (Smith 2005:12), accomplished through a commitment to the ideal of justice. This is more than an 'academic' or 'philosophical' commitment, since it comprises a deconstructionist ethic for development that has real world implications.

The Deconstructive Development Ethic

The advent of intentional development was built on a modernist paradigm that drew on scholarship dating back to the 17th century. Deconstruction undermines dominant conceptions of progress, demonstrates the unjustness of their truth claims and takes account of 'the other' in a way that encourages a truly just reconfiguration of our development institutions and programs.

The accusation commonly leveled against Derrida is that his formulation of deconstruction is nihilistic. On the contrary, "deconstruction is *not* license to say just anything… it requires respect for context and the communities which constitute the conditions of context" (Smith 2005: 62). At the foundation of Derrida's conceptualization of justice and ethical responsibility are tensions concerning context. Contexts are always transforming and therefore unknowable fully, yet without context communication is impossible. Hence Derrida's famous assertion "there is nothing outside the text" (1967: 158), simply meaning that "there is nothing outside of context" (Cahoone 2012). Derrida does not oppose the determination of context, but rather the assumption that no determination has taken place; that contexts are generated naturally (Smith 2005). Derrida uses the institution of academia as an example, noting that it is defined by a given *telos*, certain procedures, and a minimal consensus about how the institution is to be governed. Without this rigor academia truly would be a space where everyone had license to say and do 'just anything'. However, Derrida reminds us that context is an arbitrary human construction required to facilitate communication. Its arbitrariness derives from the dissimulative sign play, exclusions and knowledge closures inherent in language that secure the non-presence of meaning. Although the rules and parameters of academia are intended to make the institution workable, they are finite (based on limited knowledge and an incomplete understanding of context) and fail to live up to the ultimate call of justice. "Indeed, Derrida remains convinced that we are visited with the most crushing injustice when rulers, institutions, and their agents forget the finitude of law - forget that our given institutions always already fail to measure up to the call of justice" (Smith 2005: 66).

In *Force of Law* (2002), Derrida discusses the double-bind of justice. He observes that although justice is unconditional, incalculable and irreducible to any rule or program, it must be exercised through law, a human construction that is conditional, calculated, regulated and coded. Despite being absolutely heterogenous, justice and law are entirely indissociable (Choat 2010). Justice must be upheld by rules and regulations built on finite knowledge and incomplete context. The result is that justice is never presently or perfectly attainable. In Derrida's language, it always remains 'to come'. This central paradox of justice has profound implications for the meaning of 'responsibility'. Derrida unpacks this relationship between justice and responsibility in terms of three paradoxical conditions.

1) "[F]or a decision to be just and responsible, it must… be both regulated and without regulation: it must conserve the law and destroy it or suspend it enough to have to reinvent it in each case" (Derrida 2002: 23). If a decision is made in order to be consistent with a given law or normative code, it is not a 'decision' but the mere application of a rule. However, in order for a decision to be recognized as just, it must refer to some rule or standard of justice.

2) The condition for justice and responsibility is the obligation to decide despite not knowing what should be done (Smith 2005). This condition of undecidability is not the oscillation between two options, it is the experience in which one is called to make a decision where no calculable rule or programable law is applicable (Derrida 2002: 24).

3) "A just decision is always required immediately, "right away"" (Derrida 2002: 26). The moment of decision is finite. There is no time to accumulate the knowledge required to reduce the decision to a calculation (Smith 2005).

These three paradoxical conditions of justice - the double-bind of regulation, undecidability and urgency - are all conditions of development. Every situation is unique, meaning that every call to development is singular. Nairobi's waste sector is a unique context. Although it may be similar to the contexts of other East African cities such as Dar es Salaam or Kampala, it is not the same. No regulation or program currently exists that can determine the policy and course of action that best suits Nairobi's unique context. Yet, despite this lack of existing regulation and despite the inability to accumulate the knowledge required to reduce the decision to calculation, the City Council of Nairobi (CCN) Ministry of Local Government (MLG) together with donor agencies must decide. They must proceed from this position of undecidability, and they must proceed now.

Derrida's objective is not to debase the configurations and functioning of today's institutions or destroy them. His interest is in calling them to more just configurations. "Deconstruction *is* justice because it remembers the future, remembers that justice has not yet arrived… [that] the institutions and laws we have created fail to measure up, in all kinds of ways, to the vision of an institutional order 'to come'" (Smith 2005: 68).

We now begin to see that to apply Derridian post-structuralism to development is to adopt his conceptualization of justice *as* development. Like justice, development has no precondition (one cannot establish preconditions to development without being said to be 'doing development'), cannot be wholly quantified or measured and cannot be reduced to a single rule or programme. Yet, despite defying definition in theory, development demands programmable applications in practice just as justice demands law. It requires objectives, indicators and responsibilities - it requires the determination of context. Derrida reminds us

that this determination is not 'natural' but an arbitrary, human construction limited by the strictures of language. The determination of context is a struggle for power and a struggle to define meaning. This is the struggle facing the CCN. In addition to defining and reinforcing the context of its institutional configuration (i.e. its roles and responsibilities regarding waste and its affect on the people of Nairobi) the CCN is called to define the context of waste in the city. It must ascertain what waste 'means' for Nairobi, particularly what it 'means' for the thousands of slum dwellers in Korogocho and Dandora who live in and around the city's municipal landfill site.

In *Specters of Marx* (1994), Derrida elaborates his conceptualization of 'a call' to justice, or a justice 'to come'. To the extent that knowledge is a function of power, all discourse reflects the interest of those who hold power within a given context, thereby excluding the interests of others (Parfitt 2012). Such exclusions are necessary for the formation of knowledge, but they return to 'haunt' the constituted knowledge. Justice, because of its non-presence, "*haunts* the law and its institutions, comes back (from its future) to… [remind] us that the law has some answering to do *to* justice, that it answers *to* justice for its *in*justices" (Smith 2005: 67). Derrida contends that this 'ghost' of justice haunts us with an invitation to see reality in other ways, to assume our responsibility to the excluded 'other'. "Like the 'spectre' of Communism that Marx and Engels claimed was haunting Europe - calling Europe to different configurations, to be an *other* Europe - so deconstruction is a witness to the hauntings of justice" (Smith 2005: 67). Development must be a 'witness to the hauntings of justice'. It must also emphasize the non-presence of justice, articulate the urgency to move from our positions of undecidability and work toward the just ideal of a

world free from exclusions of all kinds. This is accomplished through a consistent openness to excluded knowledge. Development needs to be more than the static concept of project management, it needs to be shaped by interactions, feedback learning and adaptation over time (Berkes 2010). The deconstructive ethic dictates that this 'adaptation over time' must take the form of a continual response to 'the other'. Policy and development 'on the ground' will always be exclusionary in one manner or another, as the logocentric epistemology that guides development discourse guarantees. The challenge, therefore, is ensuring that all development is undertaken in a manner that encourages and facilitates the return of excluded knowledges to the sites of knowledge creation. In the case of Nairobi's WM sector, development must be planned and organized in a way that identifies its exclusions and consciously reincorporates them into processes of policy development. In Chapter 2, I introduce the waste problem in Nairobi, particularly as it pertains to the putrid standard of living endured by waste pickers and slum dwellers residing within close proximity to the city's municipal landfill, and discuss how Derrida's deconstructive ethic can be best applied[1].

---

[1] The objective of this application is not to promote an anarchistic politics that is faithful to Derridian ethics. Rather, chapters 2 and 3 endeavor to demonstrate the applicability of Derrida's conceptualizations of justice, discursive violence and alterity to the formulation of a development ethic that responds to the excluded 'other'.

Chapter 2
The Waste Problem

Introduction

The WM sector in Nairobi is a marked failure. Collection rates are shockingly low, regulations are not enforced and the municipal landfill is killing neighbouring slum dwellers and polluting the environment. This chapter provides a detailed description of the sector, beginning with a discussion of its administrative structure that outlines the roles and capacities of the CCN, NEMA, private firms, NGOs and CBOs. This is followed by an analysis of NEMA's 2006 WMR. I refer to James Ferguson's post-structuralist analysis of the 'development apparatus' in *The Anti-Politics Machine* (2005), particularly his application of Michel Foucault's concept of decentralized power, to suggest that the non-enforcement of the WMR has unwittingly created a sector that produces illness, violence and unregulated informal economies. With respect to these three results, I focus my attention on the slum areas of Korogocho and Dandora, two slums adjacent to the municipal landfill, and I suggest that their communities should occupy a central position in discussions concerning the landfill, sector reform and equitable service provision. Current mechanisms that facilitate communication between these communities and the CCN are outlined and followed by a discussion of the pro-poor elements of the proposed ISWMP. I conclude by celebrating the proposed reforms and outlining their direct and positive contributions to the lives of the waste pickers and urban poor living in Korogocho and Dandora. However, the ISWMP is anything but a guaranteed success. I contend that the deconstructive ethic makes clear the need for an 'open' plan that considers possible exclusions and creates avenues through which those excluded populations will be granted continuing access to sites of knowledge creation.

If the ISWMP is merely structured to meet its long-term targets and produce a mechanistic sector that methodically manages the city's waste, the excluded communities of Korogocho and Dandora will remain eager to rip open its control panel and rewire the internal mechanisms that unjustly pushes them to the periphery.

Structure of the Waste Management Sector

<u>Contracts and Private Waste Collection</u>

Until the early 1970s the CCN provided effective WM services to its population of 510,000, collecting more than 90% of the 452 tons of waste generated daily (Muniafu 2010). The next two decades saw Nairobi's population swell to 1.3 million and its daily waste production more than double. Nairobi lacked a feasible plan that could cope with these dramatic spikes in population and waste generation, leaving its public waste sector overburdened. In 1986 the CCN began relying on private firms for waste collection. A legal framework was devised to regulate private participation in the sector, although its restrictions were minimal. As a result, two types of WM companies were born: those contracted by the CCN and those operated independently. Both must go through a multi-step licensing process involving the CCN and NEMA before they can legally operate their business.

Wilson Maritim, a Compliance and Enforcement Officer with NEMA, explains that prospective waste collection firms must first obtain a "single business permit" from the CCN which grants permission to provide waste collection services in one of Nairobi's five regional zones. After the permit has been obtained the company must apply for a collection license and an authority letter from NEMA. The letter outlines the laws that regulate the formal WM

sector and the license grants the firm permission to operate a collection service in accordance with these laws. In addition to obtaining these required permits and licenses, waste collection companies can bid for contracts with the CCN. Bidding entails submitting a budget proposal to the CCN which outlines operational costs and capacity (i.e. amount to be collected each month). The firm deemed most capable by the CCN will receive a one year contract outlining terms of payment. The CCN will pay the firm fixed installments every month, or issue weight-based payments determined by the amount of waste collected. This payment structure requires that the contractor's truck(s) be weighed at the CCN operated weigh station at the Dandora landfill. Both payment structures are intended to subsidize the operational costs of the company and lower their collection fees. In contrast, independent private owners are subject to the same licensing requirements, but rely exclusively on their service fees to generate revenue and therefore offer a more costly service.

Beyond these mandatory licenses and permits, there are no regulations guiding private sector involvement. Two private firms entered the market in 1986, 60 were active by the end of the 1990s, and by 2009 115 private collection companies were operating in Nairobi "in open competition with each other on a purely 'willing-buyer-willing-seller' basis" (Kasozi and Blottnitz 2010). Aloo Muga (Interview Nov. 10, 2011), the Chief Account for BINS Ltd., the oldest and largest waste collection company in Nairobi, explained that these 'companies' are merely individuals or small groups of people who have bought a truck and applied for a waste collection license. Although licensed, they have no organizational structure, their truck operators are untrained - no WM training is required/offered by the CCN - and they frequently dump waste indiscriminately in order to speed up rates of

collection. This illegal dumping is a well known occurrence, but Muga explains that the CCN continues to award contracts to small independents because officials can earn money through a system of bribes. Deals are structured such that a percentage of the independents' revenues are paid to CCN officers awarding the contracts, a claim confirmed by Dickson Nyaranyi (Interview Dec. 9, 2011), Councillor of Dandora Ward 4, home of the municipal landfill.

BINS was unable to compete with these small scale collectors and turned instead to the commercial sector. Local and small business owners are not interested in being serviced by contractors or independent companies (even though they are considerably cheaper than BINS) because they can be fined if it is ascertained that their waste is being managed illegally. BINS, on the other hand, deposits its collected waste exclusively at the Dandora landfill, the only legal dumping ground in the city.

Although NEMA's WMR stipulate that the local authority is to assign private companies to specific regional zones, no such zoning occurs in Nairobi. Collection companies determine for themselves which zone(s) they will operate in, decide upon their own collection routes and establish their own arbitrary collection fees (Kasozi and Blottnitz 2010). This not only ensures inefficient collection across the city, but unequal service provision as well. More than 80% of the serviced households are located in middle-to-upper income regions of the city, while the 60% of the population living in low-income regions and slums remain unserviced (UNEP/CCN, 2005). Service provision for the city's poor falls under the purview of the CCN, but its insufficient operating budget has resulted in 70% of its trucks being out of commission at any one time (CCN 2011), drastically limiting capacities.

The CCN has responded by prioritizing waste collection in the Central Business District where it is the sole collector.

Despite the proliferation of private collection companies, overall rates of collection have failed to keep pace with the city's needs. Kenya's largest commercial, industrial and administrative centre, Nairobi's population has increased eight-fold since private companies entered the sector in 1986, waste production has skyrocketed to 3120 tons/day, and total collection rates are just 50%, as illustrated by Fig. 1. However, of the 1510 tons/day that are collected, 150 tons are recycled and 830 tons/day are disposed of at the city's municipal landfill, which leaves 580 tons/day of collected waste unaccounted for. This means that a total of 2140 tons/day, or just under 70% of total waste generated each day, is uncollected and/or inappropriately disposed of, presumably ending up in the city's estimated 60 illegal dump sites (Kasozi and Blottnitz 2010). This leads to the conclusion that although "collection rates" are reported at 50%, only 30% of all waste is both collected and legally disposed of.

The landfill in Dandora is the city's only legal landfill. It is a non-engineered, open dump located in the densely populated slum of Dandora and adjacent to one of the largest slums in Nairobi, Korogocho. The landfill is officially 'managed' by the CCN, but no waste covering, leachate control or gas management is undertaken (CCN 2011). It appears that the CCN's activity at the landfill is limited to operating the weigh bridge and providing security for garbage trucks at a cost of KSh 2,000 per truck (Muga, Interview Nov. 10, 2011). Such security is required because the dumpsite is unofficially managed by cartels of waste traders who demand bribes from drivers as they enter the site. If the bribe is not paid the cartels will

have local youth attack the truck and rob the drivers. The Brotherhood and Peace Initiative, a CBO based in Korogocho, said these attacks occur because the cartels are of the opinion that "we are the people living in this area. If you do work here without involving us, then you need to [pay]" (Interview Dec. 8, 2011).

Figure 1 - Rates of Waste Production and Collection (Kasozi & von Blottnitz 2010: 25)
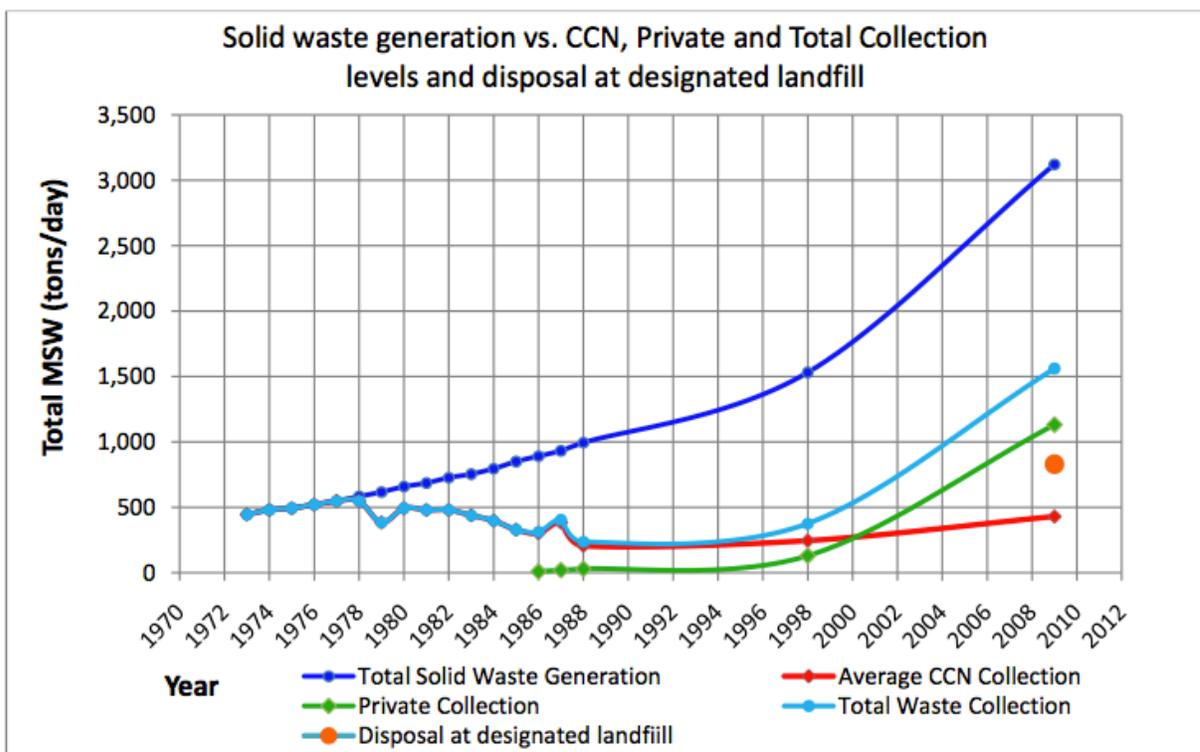
In addition to exacting bribes the cartels secure sorted valuables (glass, sheet metal, plastics, wood) by patrolling the site and ward off thieves. If someone is caught stealing valuables the cartels waste no time in killing them. In fact, Councillor Nyaranyi commented that dead bodies routinely show up in the dumpsite. The cartels are typically comprised of men who were once waste pickers themselves. Over time they managed to obtain more

power through the acquisition of weapons (primarily guns and knives) and associating with known gangsters.

The cartel operated dumpsite was formally declared 'at capacity' in 2001, but has continued to operate as the city's only legal dumping ground. No sorting is performed pre- or post-collection, making Dandora a smorgasbord of the city's waste. In 2007 the region was named by the Blacksmith Institute as one of the 30 most polluted places on the planet (UN-HABITAT 2010b).

The land currently occupied by the landfill was previously designated for Phase 6, a residential estate in Dandora. In fact, people had begun establishing themselves in the regions of Korogocho and Dandora well before the landfill was established. It was only after the phase was partially developed in the late 1970s - outfitted with paved roads, street lamps and electricity - that an abandoned rock quarry in the estate was designated by the CCN as a legal dumping site. Councillor Nyaranyi recalled that the plan was to decommission the site once the quarry was 'full', but that classification was not made until 2001, long after the mountainous trash heap had outgrew the quarry and smothered the land reserved for Phase 6. It was only as Nairobi's population continued to swell, and thousands of urban poor were pushed into Korogocho and Dandora, that the burgeoning trash heap became a source of livelihood for many.

Good Legislation, Bad Enforcement

The chaotic, inefficient and inequitable service delivery derives not from bad legislation, but from its poor enforcement. The WMR is comprehensive legislation that, if

enforced and supported by a sufficient operating budget, would at least ensure adequate services for those who can afford private collection fees. The WMR details the restrictions and guidelines imposed on collection companies; the proper management of pesticides and industrial, hazardous, biomedical, radioactive and toxic wastes; and explicates the legal obligations of owner/operators of landfills and processing plants. Unfortunately, many sections of the WMR simply are not enforced. In some cases, they assume an infrastructure that does not even exist.

Proper enforcement of these regulations over the past 30 years would not have guaranteed service provision to Nairobi's slums or low-income regions. However, it would have prevented Korogocho and Dandora, home to thousands of people, from becoming a basin for Nairobi's excrement. Table 1 presents six unenforced sections (paraphrased for brevity) of the WMR. Together they relieve upper-income regions of their share of the waste burden and dump it on the poor, particularly the slums of Korogocho and Dandora.

These six shortcomings have major impacts for the environment and health of those living in Korogocho and Dandora. A 2006 study by the United Nations Environment Programme (UNEP) on the environmental and health implications of the landfill make these impacts clear. Soil samples revealed lead concentrations of 13,500 parts per million (ppm), far exceeding the United States Environment Protection Agency's "suggested safe level" of 400ppm. Mercury concentrations in the landfill were 46.7ppm and samples taken from the banks of the Nairobi River registered a value of 18.6, both well above the World Health Organization's acceptable exposure level of 2ppm. Finally, cadmium concentrations were found to be eight times higher than acceptable levels, weighing in at 5ppm.

Table 1 - Examples of Unenforced Waste Management Regulations

Sec.	Regulation	Non-Enforcement
4.2	Anyone who generates waste must segregate and dispose of it in a manner consistent with the WMR	No infrastructure for waste separation at source exists. Households do not have designated bins for segregated wastes, waste collection trucks do not have segregated waste cavities, and there are no treatment facilities for segregated waste streams.
5.1	Hazardous waste must be separated from non-hazardous waste and disposed of in a manner consistent with the WMR	No infrastructure for waste separation at source exists.
6.1	Companies must minimize waste production by 1) eliminating use of toxic materials, 2) reducing toxic emissions and waste, 3) enabling recovery and re-use of manufactured products, 4) incorporating environmental concern in product design, manufacturing and disposal	The government offers no incentives to achieve these goals, and issues no penalties for failing to comply. UNEP (2005) has proposed economic instruments to fill this void, particularly as it relates to the production and use of plastic bags.
8.1	Collection and transportation must not cause scattering, escaping and/or flowing out of waste	Roads outside the landfill are buried beneath trash that has been spilling out of and compacted by collection trucks for decades (Muniafu 2010).
15.1	Every licensed owner or operator of waste disposal site shall carry out an annual environmental audit	The Dandora landfill has been officially "at capacity" for over a decade; studies have documented its gruesome affects on the environment and health of local people (UNEP 2006).
38.1	Whoever generates biomedical waste must segregate it and dispose of it in a manner consistent with Seventh Schedule	No infrastructure for waste separation at source exists. Biomedical waste is dumped at the landfill (UNEP 2006).

The study examined 328 children, aged 2-18. Researchers found that more than 50% had blood levels exceeding the internationally accepted toxic level of 10μg/dl. Of those studied, 50% were also found to have low haemoglobin levels, and 30% had iron deficiency anemia, a condition that results from heavy metal poisoning. Skin disorders were found to affect 14.5%, and just under 47% were found to be suffering from respiratory diseases. Councillor Nyaranyi stated that 80% of his constituents have health complications deriving directly from the landfill.

The mismanagement of Nairobi's waste sector, particularly the weak enforcement of its legal framework, has had the unintended consequence of inundating Korogocho and Dandora with hazardous materials, threatening the health of thousands of people, polluting the Nairobi River and contaminating soils. Even worse is that the CCN does not operate sorting stations or composting plants where commercial waste recovery or recycling could be undertaken. This leaves the city's domestic recycling sector (recycling of consumer products) entirely dependent on informal waste pickers. Approximately 2,000 waste pickers, wearing no protective equipment, rummage through the Dandora landfill that sprawls across 30 acres of land and contains industrial, domestic, organic and biomedical waste. These pickers then sell the collected plastics, glass and metals to 'middlemen' who in turn sell them to private recycling firms (Bloomberg, 2010; Kasozi and von Blottnitz, 2010).

This informal waste economy is illegal. None of the collectors, transporters or traders are licensed waste handlers, yet another breach of the sector's legal framework that is not enforced or prosecuted. Not only is it not prosecuted, the government readily admits its need for the informal waste economy. Catherine Thiathi (Interview Dec. 13, 2011), Environment

Officer with NEMA, succinctly noted that if it were not for informal waste pickers the city's domestic recycling industry would collapse. Consequently, Nairobi continues to rely on CBOs to actively support informal waste collection and trading (Kariuki, Interview Nov. 30, 2011). It is hoped that such support will be offered through training, provision of protective equipment wherever possible, education about the income generating potential of managing wastes and education about the importance of preserving the environment.

The mismanagement of the waste sector, particularly its unenforced legal framework, has unwittingly geared the sector to systematically harm, oppress and exclude the people of Korogocho and Dandora. Despite flooding their communities with a lethal assortment of hazardous wastes and relying on local people to prop up the domestic recycling industry with unsafe labour, the CCN is yet to implement a policy or amend the WMR to be inclusive of their interests.

James Ferguson (2005) applies Michel Foucault's conceptualization of 'decentralized power' - a concept that focuses attention on the unplanned outcomes of various interventions that nevertheless contribute to constellations of power - to his anthropological study of the 'development apparatus' in Lesotho. Foucault's "genealogy" of the prison, an illustration of this concept, is helpful in understanding the exclusion produced by Nairobi's waste sector. The prison was created to serve as a "correctional" institution. Its purpose was, and remains, to rehabilitate criminals into law-abiding citizens who can return to a "normal" place in society. However, upon analysis, it is clear that prisons do not "reform" criminals but make nearly impossible a return to "normality". Instead of eliminating criminality they on the contrary produce and intensify it within a given strata of "delinquents" (Ferguson 2005).

> For the observation that prison fails to eliminate crime, one should perhaps substitute the hypothesis that prison has succeeded extremely well in producing delinquency, a specific type, a politically or economically less dangerous - and, on occasion, usable - form of illegality; in producing delinquents, in an apparently marginal, but in fact centrally supervised milieu; in producing the delinquent as a pathologized subject... So successful has the prison been that, after a century and a half of 'failures', the prison still exists, producing the same results, and there is the greatest reluctance to dispense with it. (Foucault 1979: 276-277)

Ferguson's illustration demonstrates that the most important political effects of a planned intervention sometimes occur accidentally, against the will or out of sight of the policy makers who appear to be 'running the show'. Although the prison's production of 'delinquency' was unintentional, it was nevertheless a 'positive' effect that enabled the institution to wield its power in an unexpected way. The effect in Nairobi has been the opposite. In their attempt to construct and regulate a semi-privatized WM sector the CCN, NEMA and MLG unknowingly developed a scheme that methodically swamped the people of Korogocho and Dandora and created a reliance on the informal waste trade. The WMR emphasizes the importance of separation at source, disposing of segregated wastes at specialized treatment facilities, conducting annual environmental audits of landfills and securing waste collection and transportation such that 'accidental' spillage en route is prevented. All which assume a capital intensive infrastructure that Nairobi cannot afford - segregated collection at source is currently not possible, specialized waste treatment facilities do not exist, the non-engineered Dandora landfill would never measure up to the scrutiny of an environmental audit (nor are there the resources or political will to 'upgrade' it), and both the CCN and private collection firms cannot afford effective maintenance of their truck fleets. The CCN adopted a sound legal framework, but underestimated the expense and

difficulty of its effective implementation and enforcement, leading to a dysfunctional sector unintentionally designed to produce illness, violence and unregulated informal economies.

The people of Korogocho and Dandora have been placed squarely in the basin of the city's waste stream and pushed into the centre of debates concerning the landfill, material recovery, public health and CBO and NGO engagement in the sector. Despite their central position in the city's waste problem the CCN continues to neglect issues, unable to commit to and implement a policy framework that is open to the heterogenous interests, concerns, abilities and visions for their communities.

Mechanisms of Inclusion

Both Korogocho and Dandora have mechanisms in place to ensure that the community has its voice heard by the CCN and MLG. Councillor Nyaranyi communicates with his constituency by making in-person visits and relaying information through the Dandora Catholic Church, schools, NGOs and CBOs. These organizations have respected leaders the people trust, who are able to educate the community and relay their interests and concerns back to the Ward Councillor. Councillor Nyaranyi is then able to communicate these concerns to the City Council, which in turn communicates with the MLG.

The Korogocho Slum Upgrading Programme (KSUP), a joint venture of the Kenyan and Italian Governments, divided the ward into 8 'villages' each represented by a six person Resident Committee elected by the villagers. Each committee is required to have one tenant, a woman, a 'youth' (someone aged 18-35), a village elder and two structure owners. Individuals interested in serving on the committee nominate themselves, and the election is

conducted by having the villagers form lines in front of the nominees. The nominee with the longest line of supporters wins a seat on the committee.

These committees are the link between the planners at KSUP and the people living in Korogocho. Meetings between KSUP and the Korogocho Resident Committees are held to discuss the objectives of the projects within the upgrading plan. The Resident Committee is also responsible for disseminating information throughout their villages and relaying the views of their communities back to the KSUP planners.

However, this line of communication between the people of Korogocho and the MLG does not provide an opportunity for the people to participate in discussions concerning the waste sector. The KSUP has two fundamental objectives. First, re-plan the settlement. Second, empower youth in the community socially and economically (Nyaseda, Interview Nov. 28, 2011). The "re-planning" of the settlement refers to its re-structuring - the relocating of shacks and dwellings - in order to make areas more accessible by road and create space for local markets. To date, this re-planning has facilitated the development of a road infrastructure; created valuable space for small vendors and local businesses like barber shops and furniture retailers; and increased the city's ability to enforce its riparian reserve regulations which prohibit the construction of housing structures within 15 meters of the Nairobi River.

In short, KSUP is not intended to deal with the problem of waste (Nyaseda, Interview Nov. 28, 2011). In fact, KSUP's Project Manager, Kenneth Nyaseda, when asked about the ISWMP responded that he had never heard of it, and that it "must be from a long time ago". Indeed, the plan was originally conceived in 1998, but the process of redrafting it began in

2009 and its official launch was announced in 2010. It is telling that the Project Manager for the development program of one of Nairobi's largest slums, adjacent to the Dandora landfill, had never heard of the ISWMP. Whatever contributions KSUP has to WM in Korogocho will be incidental, and they will need to be explored and encouraged by the CCN in MLG. For instance, the CCN could take advantage of improved roads and accessibility by establishing several transfer points where waste could be deposited by local residents and collected by private firms. The transfer stations would allow area youth who are already collecting waste to dispose of it safely, rather than dumping items wherever they can find open space. In the meantime, however, there remains no formal mechanism by which to collect and dispose of the waste in Korogocho (or Dandora), whether generated internally or externally.

Perhaps the most direct channel of community-government communication concerning the landfill and WM in Nairobi is the Exodus Kutoka Network. It is an organization of Catholic churches spearheading a "Stop Dumping Death On Us" campaign that calls for the decommissioning and relocation of the landfill. A representative of the campaign, as well as the Brotherhood and Peace Initiative and NEMA officers, contend that the network has been a key factor in reigniting discussions about the ISWMP. Despite the fact that the campaign coordinator works out of Korogocho and is well known both by the community and CCN/NEMA officers involved in the ISWMP, the people of Korogocho and Dandora are still unaware of the city's plans, particularly as they pertain to timelines, the "decommissioning" and/or "relocation", what those processes entail and how they will affect their lives (Brotherhood and Peace Initiative, Interview Dec. 8, 2011).

It is important to note that the campaign represents only one set of interests in the region (i.e. the decommissioning of the landfill) and leaves untold the stories of those who desperately hope the landfill remains in Dandora and continues to support their livelihoods. Pamoja Trust, a Kenyan NGO, is currently trying to build a "critical mass" that represents the interests of informal waste pickers residing in slums. Toward this end the organization hosts Taka ni Pato (Trash is Cash) seminars on an intermittent basis, typically attended by approximately 60 Resident Committee members, that provide information about emerging policies and opportunities for income generation in WM. Pamoja is encouraging slum dwellers to recognize that making their interests known in the Taka ni Pato fora and their active involvement in community-based WM initiatives gives them a chance to engage with the local government and influence its policy framework. The NGO is particularly interested in empowering youth through the formalization of their WM initiatives (i.e. developing cooperatives and integrating their activities with existing CBO programs) and making them replicable across the city's slums and low-income communities. Without this institutionalization Pamoja Trust believes it will be difficult to increase their ability to influence the development of a pro-poor WM sector.

Unfortunately, corruption in the CCN may override the progress being made. Pamoja Trust contends that the "City Fathers" are sharing in the revenues of small private contractors that ultimately steal work from the poor. Rather than using the already existing informal structures, and thereby giving the urban poor reliable jobs that provide the necessary training and safety equipment, the CCN colludes with private contractors in order to line their own pockets. This is partially why Councillor Nyaranyi believes that the MLG and CCN are

dragging their feet with respect to the decommissioning of Dandora and the opening of a new site in Ruai, a region proposed by the ISWMP. The proposed Ruai site is approximately 30km from the city centre, more than four times the distance to Dandora, which reduces the number of trips private collectors can make and consequently shrinks the pie to be shared between collectors and corrupt officials. While this is a legitimate concern, it assumes that private collectors will actually dump at Ruai. Experience has shown that 20% of all collected materials are dumped indiscriminately in order to expedite the collection process and increase revenues from collection fees. A relocation to Ruai will surely encourage more of the same.

Surprisingly, the representative interviewed from Pamoja Trust was also unaware of the ISWMP. The representative noted that this was indicative of the "old mindset" whereby the formulation of policy and initiation of development projects were accessible only by high-level "technocrats". Umande Trust, a local NGO based in Kibera slum, is another organization working on community-based WM initiatives that was unaware of the ISWMP. Similar to Pamoja, Umande asserted that the CCN makes policy "upstairs", out of touch with the people they are supposed to benefit. It referenced the Kenya Slum Upgrading Programme as case in point. Although it has provided many slum dwellers with improved housing structures, most residents opt to rent them out and remain in their shanties. This merely has the effect of making low-income regions and slums even more congested. Umande explained that unless the people have a sense of pride and ownership about their new dwellings they will not consider them 'home'. If the people are not included in the planning, not included in project implementation, not included in the maintenance or continued improvement of their

communities, they have no sense of ownership and, in fact, what the NCC or Government of Kenya has done it has done for itself, not for the poor (Umande Trust, Interview Nov. 9, 2011).

It is only with the ushering in of a new constitution that the reduction of the urban poor to 'objects of development' is beginning to wane and more inclusive approaches to development are being taken. More and more the local people are being granted the ability to participate in the politics and development of their communities, evidenced by the growth of resident committees. However, despite being freely accessible online information about the ISWMP is spreading only slowly, which obstructs the ability of CBOs and local NGOs to influence policy discussions on behalf of the urban poor.

The Integrated Solid Waste Management Plan

Government officers and city officials currently identify three fundamental challenges facing the city's waste sector. First, Nairobi's 'throwaway culture' (Interviews Maritim Nov. 22, 2011, Kariuki Nov. 30 2011). The government is frustrated by people, particularly the urban poor, continuing to believe that proper WM amounts to merely removing waste from one's living space and dumping it wherever is convenient. Second, no infrastructure is in place to support waste separation at source. There are currently no funds to provide households with multiple bins or to outfit the city's public spaces with compartmentalized trash receptacles, no trucks with multiple storage compartments, no composting sites and no formal collection of domestic recyclables. Thirdly, the WMR go largely unenforced, resulting in an utterly chaotic waste sector. Finding and implementing

solutions to these problems will be a lengthy and difficult process. In the meantime, the city's waste production continues to increase (see Fig. 2), reaching a projected 4,398 tons/day by 2015 and 5,386 by 2020, and Nairobi will continue to rely on the informal waste trade to fuel its domestic recycling (Thiathi, Interview Dec. 13, 2011).

Figure 2 - Daily Solid Waste Generation in Nairobi (Kasozi & von Blottnitz 2010: 28)
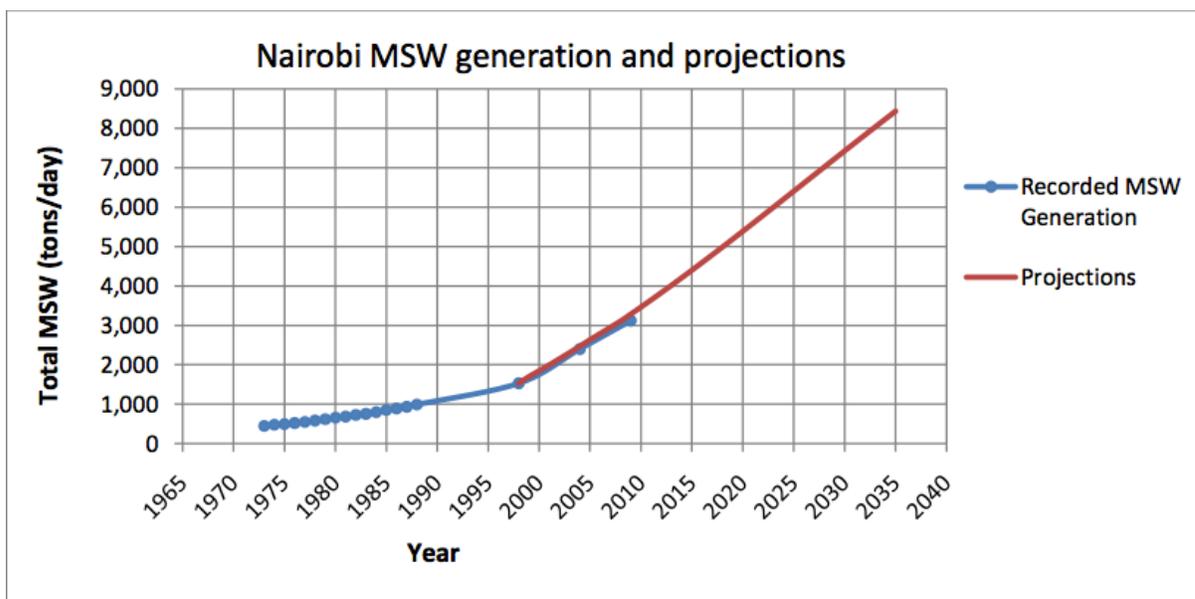
The issues outlined above, and others, were addressed in the JICA's 1998 Master Plan for the ISWMP which was never implemented due to a lack of funding. More than 10 years lapsed before the ISWMP was redrafted to better address current challenges in Nairobi. The updated plan was developed by Harro von Blottnitz, University of Cape Town, and Peter Ngau, University of Nairobi, under the auspices of the United Nations Environment Programme (UNEP). Once again, the draft plan has stalled in the absence of funding (Kariuki, Interview Nov. 30, 2011). However, its recommendations to the CCN, NEMA and

MLG are welcome departures from current practice, particularly the emphasis on low-income regions and opportunities to integrate the informal waste trade into the sector's formal framework.

Waste composition in Nairobi is estimated to be 51% organic, 38% recyclable (paper, plastic, glass and metal) and 11% residual (Kasozi & von Blottnitz 2010). This translates to an estimated 89% of the city's waste stream being comprised of recoverable materials, yet only 1% of organics and 10% of recyclable materials are recovered. The ISWMP emphasizes the need for a stronger recycling sector, and highlights the opportunity to integrate the sizeable community of waste pickers into this process. The city's recycling sector currently manages 200 tons/day, 25% of which is recovered by the 2,000 informal labourers picking from the Dandora landfill. Given their already substantial share of the recycling industry and the enormous impact the waste sector has on their livelihoods, the ISWMP makes the informal sector a central focus. It proposes 14 actions that, assuming funding is available, would take steps toward solving the waste problem in Nairobi. Impressively, 7 of them are explicitly geared toward improving the lot of the urban poor.

First, in addition to emphasizing the importance of stricter registration requirements and improved regulatory oversight of private collection companies, the ISWMP explicates the need to "recognize, formalize and streamline the operation of CBOs in waste collection so they have the same legal and operational status as private collectors" (von Blottnitz & Ngau 2010: 13). CBOs participation in WM began in 1994 in response to the lack of service provision in low-income regions. Today, 135 CBOs are in involved in informal waste recovery, trading and recycling activities in lower-income areas. The UNEP's (2010) analysis

of Nairobi's WM sector, a document accompanying the ISWMP, regards this activity as having the potential to create new forms of employment in the city and contribute to its wider economic growth. Unfortunately, the informal waste trade is blocked from effective participation in Nairobi's WM sector because of legal and political isolation as well the weak infrastructure that offers little support for its activities (Kasozi and Blottnitz 2010). Affording CBOs the legal status of collection companies would enable the CCN to begin regulating the activity of waste pickers and formalizing the material supply chains feeding the recycling sector, thereby minimizing the exploitation faced by informal dealers. Waste pickers currently sell recyclables for approximately KSh 20 per kilogram, while industrial and commercial suppliers typically sell for KSh 200 per kilogram (Nyaranyi, Interview Dec. 9, 2011).

Second, the ISWMP proposes landfill levies on problematic waste materials - wastes that cannot currently be recycled or properly handled such as broken glass, plastic bags, laminated beverage containers and construction and demolition waste. Funds raised from such levies would be used to finance the development of an improved recycling infrastructure and treatment facilities for problem materials. Additionally, there is no legal framework regarding the disposal of e-waste, nor is there the capacity to recycle it. Funds raised from the levies could also be used to finance this infrastructure and remove e-waste from the residual waste stream. Taking these actions would represent significant steps toward eliminating harmful materials from the residual waste stream, thereby protecting the environment and health of those living near the landfill.

Third, implementation of waste separation at source is called for in order to a) facilitate downstream recovery of reusable materials, b) reduce the amount of waste channeled toward Dandora, and c) avoid the capital intensive mechanical separation systems used in many advanced economies. Source separation can be encouraged through media campaigns and incentivized by offering reduced collection fees for sorted recyclables and organics.

Fourth, the ISWMP recommends the streamlining of collection fees through a weight-based fee system. The collection of arbitrary service charges by private collectors, as is the case under the current system of open, unregulated competition, means that services are delivered strictly on a "willingness to pay" basis. This system omits the city's slums and lower-income regions that are unable to pay collection fees. The official streamlining of collection fees, together with the formalization of CBOs as private collectors, can increase service provision and ensure reasonable collection fees. The ISWMP suggests that fees be weight-based, which minimizes fees for low-income regions as they produce less waste.

Fifth, enforceable zoning of waste collection areas for private and CBO collectors would ensure that transport costs are minimized by making routes more efficient and guaranteeing that small-scale CBO collectors have access to the waste collection market. This action will become ever more important as the city's road infrastructure, particularly in slums and low-income regions, continues to improve and waste collectors gain the ability to expand their client base (see Fig. 3 for a breakdown of waste disposal costs per division). Additionally, collection fees are going to become even more critical if/when the CCN closes the Dandora landfill and opens its new site in Ruai. "[F]ollowing the decision to move the

official disposal site from Dandora which is 7.5m east of the CBD to a new engineered landfill at Ruai 30km east of the CBD, there is going to be an inevitable increase in the general cost of waste disposal. This, along with the typically heavy traffic congestion on the city's roads, has significant implications for the ability of Nairobi's mostly low-income waste generators to actually pay for the [collection] service..." (Kasozi & von Blottnitz 2010: 22).

Figure 3 - Waste Disposal Costs by Division (Kasozi & von Blottnitz 2010: 30)

Zone	Cost/ton to Dandora (KShs)	Estimated Rate/ton to Ruai (KShs)
CBD	1144	4576
Kamukunji	943	3772
Starehe	990	3960
Embakasi	852	3408
Dagoretti	1210	4840
Westlands	1155	4620
Langata	1144	4576
Makadara	849	3396
Kasarani	891	3564

Sixth, despite being more than half the city's generated waste, less than 1% of the daily organic waste production is composted. Given that source separation is not currently implemented, the only possible recovery point is the Dandora landfill. The waste arriving at Dandora is heavily depleted of the organic component, with much of it rotting en route due to delayed or selective collection. CBO engagement in the rapid movement of fresh organic waste from restaurants, markets and households to livestock farmers is recommended. It would present income earning opportunities for the urban poor and extract value from materials that would otherwise go unused.

Lastly, the ISWMP calls for the closure of the Dandora landfill. Not only is the site causing harm to those living in Dandora and Korogocho, it fails to meet NEMA's minimum standards of environmental protection - it was established in the late 1970s, a time when no legal framework was in place to guide its operations - and is heavily polluting the Nairobi River. That decommissioning, however, will not entail the physical relocation of the waste currently in Dandora. Instead, the ISWMP suggests that the waste be 'stabilized' through the process of controlled tipping, and that material recovery facilities and transfer stations be developed in the area. 'Tipping' refers to a process whereby waste is deposited in layers approximately one meter thick and promptly compacted by heavy machinery. Several layers are compacted on top of each other to form what is called a 'refuse cell'. At the end of each day the compacted cells are covered with compacted soil to reduce odor and prevent windblown debris. Once the landfill is decommissioned, it is capped with a layer of clay or a synthetic liner to prevent water from entering, and covered further with a layer of topsoil. The land could then be used for various public projects. Not only would this protect the people of Dandora and Korogocho from the poisonous fumes emanating from the trash, it would provide the space necessary to 'rehabilitate' the area.

A WM plan should be celebrated that not only lays the groundwork for effective contracts, continual data collection, increased public awareness, education curricula and technical plans for disposal and treatment facilities, but also focuses half of its objectives on actions that have immediate positive impacts on the urban poor. It represents a much needed departure from a system that, in addition to being astonishingly ineffective, has victimized the city's poor for decades. However, the plan is not a guaranteed success. JICA's 1998

proposals never gained traction because the requisite funding was not available, and NEMA's WMR, although sound on paper, were mismanaged in practice. The updated ISWMP needs to be implemented with an eye toward the future. That is, with a concern for its unplanned consequences and inevitable exclusions. In the language of Jacques Derrida, the ISWMP needs to be implemented with an eye toward justice.

Chapter 3
The Deconstructive Ethic

Introduction

It is not enough for the CCN to merely respond to the waste problem in Nairobi. Updating the WMR, finalizing and implementing the ISWMP and decommissioning and rehabilitating the Dandora landfill are required interventions. However, they are not, in and of themselves, just. Indeed, Derrida reminds us that nothing ever is. Rather than sulking in defeat, the deconstructive ethic takes the non-presence of justice as its incentive to action. It not only responds to conditions of injustice 'out there' in the world, but also strives to uncover more equitable and inclusive methods of development planning and implementation.

This chapter examines what these methods might look like in Nairobi. First, it introduces the various interests of CBOs, NGOs, CCN and ISWMP with respect to the rehabilitation of Korogocho and Dandora as well as the 'integration' of CBOs and waste pickers into the formal sector. These interests are significant because this research revealed that City Councillors and CCN officers do not consider community engagement or participation at the centre of solutions to the city's waste problem. Instead, they depict the urban poor as being cuffed by an 'attitude problem' that obstructs responsible WM in their communities. The interests discussed, therefore, represent a possible range of interventions upon a community that has had little or no input into their planning.

This discussion is followed by a return to Foucault's concept of decentralized power. Ferguson's application of this concept in *The Anti-Politics Machine* (1990) demonstrates that technical interventions are always operating within, and affected by, a multiplicity of structures that cannot be accounted for and controlled. This highlights in the importance of

collaborating with the community, thereby allowing local citizens to influence the 'intervention' that will impact their lives. Examples of successful government-community partnerships in the waste sectors of Colombian and Brazilian cities are outlined in order to demonstrate the feasibility and value of such partnerships. I contend that Nairobi already has the mechanisms in place to support a WM sector that includes the community through CBOs. The task at hand is to adjust these mechanisms such that they become media through which the community can influence waste policy. The chapter concludes with a concrete discussion of how the deconstructive ethic might be applied in Nairobi by making five key 'determinations': the populations most affected by the city's waste sector, the varied interests among the affected populations, how those varied interests can be consolidated, how the majority interests can be realized, and how the excluded interests will not be 'closed out'.

Visions for Dandora and Korogocho Post-Decommission

The term "integrated" is used in the name of the ISWMP to refer to the joining together of public and private spheres, and to reflect a consideration of its social implications (Kainga 2011). To this end, the CCN has been developing a Resettlement Action Plan (RAP) to be implemented in Korogocho and Dandora following the formal decommissioning of the landfill. According to Mario Kainga, Assistant Director of Environment, Solid WM, the plan is intended to "compensate" those people who have depended on the landfill for their livelihood. The voluminous document, still in draft format, was currently being circulated internally at the time of this research and Kainga elected not to discuss any of its particulars.

There are a number of actors that could be influencing the RAP. Kutoka Network's *Stop Dumping Death On Us* campaign not only advocates the decommissioning of the Dandora landfill, but also its rehabilitation. It has a multi-faceted vision for WM in the slums of Korogocho and Dandora that includes a city-wide integrated system whereby source separation channels residual waste to Ruai and recyclables and organic matter to Dandora. The development of recycling, treatment and composting facilities in the region would generate jobs for the poor and process the city's reusable materials, and CBO and NGO operated training centres would educate people about woodworking, craft production, jewelry making and other activities that enable people to create sellable goods from the city's waste.

Councillor Nyaranyi, on the other hand, is eager to bring his vision of Uhuru Park to Dandora, beautifying the space with football pitches, swimming pools, tree plantings and public parks. He looks forward to the era when the City hires youth in his constituency to maintain the grounds and work in Dandora's recreational facilities, thus providing them with opportunities to earn money and learn. Such a situation would provide youth with a positive and healthy outlet for their time and energy and enable them to rebuild a culture that is currently characterized by idleness, violence and substance abuse.

The visions of the Kutoka Network and Councillor Nyaranyi are two among many, indicating that agreement about the optimal way to implement the ISWMP and RAP is a long way away. Korogocho Ward Councillor James Okouthe believes that rehabilitation of Dandora and the surrounding area should be accomplished through the construction of primary schools and residential estates for his constituents. Wilson Maritim, NEMA

Compliance and Enforcement Officer, spoke of waste-to-energy conversion facilities being established in Dandora. The ISWMP proposal is more synchronized with the Kutoka Network's vision, arguing for controlled tipping in order to create open space for waste treatment facilities. However, the logistics of compacting 30 acres of garbage are onerous, and it is unclear how much this project would cost, who would fund it or how it would be implemented. The objectives of the RAP are still unknown, as is the extent to which these varying interests and/or the opinions waste pickers in Korogocho and Dandora will be reflected and included in its implementation.

These multifarious interests are important to note because a) they represent a possible range of interventions in Korogocho and Dandora, and b) despite the ISWMP's proposals for CCN-community collaboration, respondents from the CCN and NEMA did not speak of such engagement when asked about possible solutions to the problems of waste in slums and/or the city in general. In fact, there is an interesting perspective among City Councillors and NEMA officers that suggests the urban poor have an "attitude" problem that makes WM in low-income areas nearly impossible (Kariuki, Interview Nov. 30, 2011). Councillor Okouthe, for instance, is frustrated by his constituents who continue to fear decommissioning because of the possibility that their livelihoods will be jeopardized. He claims to visit his ward on a "semi-frequent" basis and that when he talks to constituents about the benefits of the decommissioning or the importance of obtaining an education they often "run away from me". Councillor Okouthe's statement, when taken together with other similar accounts of the urban poor simply not caring about managing waste responsibly (Kariuki 2011, Maritim 2011), presents the people of Korogocho and Dandora as needing a technical intervention.

Briefly stated, the waste problem needs to be solved *for* them. However, in the same breath these informants also espouse the important contributions of waste pickers and the need to expand upon and include their activities in the implementation of ISWMP. It appears that the CCN and NEMA are being careful to acknowledge the informal sector's contributions but nevertheless maintain that its activities are illegal and shortsighted, justifying their position that upon implementation of the ISWMP they will no longer be tolerated (Kainga 2011). The informal sector is at once celebrated and villainized, making unclear the CCN's interests with respect to 'integrating' it into the waste sector, or the extent to which it considers the community's visions for Korogocho and Dandora in the drafting of the RAP.

To be sure, the informal waste trade represents a 'problem' in Nairobi. It is characterized, in part, by disease, violence, exploitative child labour, environmental degradation and, not unimportantly, lost tax revenue. However, these conditions do not derive from an 'attitude problem'. Youth in Korogocho, who collect human waste from pit latrines and households, dump in the Nairobi River not because they are lazy, but because they do not have easy access to a sewerage line (Brotherhood and Peace Initiative 2011). People dump solid waste along the river banks not because they are ignorant, but because the landfill, although looming large on the other side of the river, is difficult to access with a cart full of waste. As well, the dump encroaches upon the river at multiple points, making it difficult to justify the added time and expense.

The people in Korogocho and Dandora understand the importance of managing waste responsibly, and they know that there is money to be made from the collection, sorting and recycling of wastes (Brotherhood and Peace Initiative 2011). Informal dumps can be seen

throughout both of these slums, demonstrating not only that there is an informal system of collection and disposal operating in those areas, but that the people are aware of the importance of clean living spaces. However, it also indicates that the informal waste collectors do not have ready access to the Dandora landfill and instead opt to pile the trash in a more convenient location. The attitudes of the people are not the root cause the waste issue in Korogocho and Dandora, the problem is the area's inaccessibility from the city centre and the infrequency of collection. "If you asked someone in Korogocho how long it has been since they last saw a dump truck, they would tell you it has been a long time" (Brotherhood and Peace Initiative 2011).

It is worth noting that, despite claiming to visit his constituents on a 'semi-frequent' basis, a representative of the Brotherhood and Peace Initiative flatly stated that the Councillor has "never set foot in Korogocho". If he were to visit perhaps he would gain a better understanding of his constituents and their obvious need to focus on problems with short term solutions. Health, hunger and insufficient income all present immediate challenges that are encountered daily. Pamoja Trust explains that it is difficult to speak to local residents about environmental protection when the consequences of mismanaging waste (i.e. not dumping at the landfill) are not felt for months, if not longer. People often focus on removing trash from their lodging, even if that means moving it just 20 feet away. Of course, small piles of trash eventually become big mountains of trash, and it's only then that the problem requires immediate attention.

Despite not wanting to discuss specifics of the RAP, Kainga did provide some hints by outlining four significant actions the CCN believes are required to improve the

management of waste in slum settings. First, increased collaboration between the CCN and CBOs. Meetings between the CCN and CBOs are needed on a regular basis in order to determine their respective roles and responsibilities concerning environmental education programs, community clean ups and organized waste collection. Second, significant improvements in road infrastructure must be undertaken. Third, the CCN needs a large number of regularly maintained trucks in order to service these areas, or alternatively, contract private firms to deliver the service. Lastly, CCN waste collection needs to be co-ordinated with community clean ups and waste collection timelines to insure that trucks arrive after, not before, local youth have deposited their collected materials at designated transfer points.

While the above actions would certainly improve the state of WM in Korogocho and Dandora, they hardly reflect the 'formalization' and 'integration' of CBOs and waste pickers proposed in the ISWMP. In reality they do not change what informal collectors have been doing for decades. The only difference is that informal dumps would be relocated and given the name 'designated transfer station'. Instead of collaboration, perhaps thought too difficult because of the 'troublesome attitudes' of slum dwellers, Kainga and the CCN are suggesting the deployment of a technical programme that promotes four primary areas of development. In fact, any such programme is/will be affected by a multiplicity of factors the Kainga and the CCN are unable to account for.

James Ferguson explores the impact of such factors in his book *The Anti-Politics Machine* (1990). He demonstrates that the 'development apparatus' - the agencies and technical mechanisms used to 'administer' development - is designed to operate like a

surgeon; as if it stands *outside* the context it intends to 'develop'. His analysis, very much consistent with Derrida's assertion that "there is nothing outside the text" (i.e. nothing outside of context), explores the manner in which the explicit, technical plans of the Canadian International Development Agency's livestock and fodder production project in Lesotho collided with the unseen structures that shape Basotho livelihoods to produce unexpected outcomes. In doing so Ferguson demonstrates that the 'development apparatus' was actually embedded within the socio-economic structures that shaped the Thaba-Tseka region. He is then led to conclude that the 'machinery of development', or the 'whole mechanism' of development, is more than just the visible plans of the organizing agencies:

> The whole mechanism is, as Deleuze (1988: 38) puts it, a "mushy mixture" of the discursive and the non-discursive, of the intentional plans and the unacknowledged social world with which they are engaged. While the instrumental aims embodied in plans are highly visible, and pretend to embody the logic of a process of structural production, the actual process proceeds silently and often invisibly, masked or rendered even less visible by its contrast with the intentional plans, which appear bathed in the shining light of day. The plans, then, as the visible part of a larger mechanism, can neither be dismissed nor can they be taken at their word. If the process through which structural production takes place can be thought of as a machine, it must be said that the planners' conceptions are not the blueprint for the machine; they are *parts* of the machine (p. 276).

In Nairobi the CCN, MLG and NEMA find themselves trapped by the paradoxes of justice: the double-bind of regulation, undecidability and urgency. In short, it is not possible to accumulate adequate information to reduce the development and implementation of the ISWMP to mere calculation. In Derrida's language, the context is unknowable in full. This is precisely why Ferguson speaks of the 'mushy mixture' comprised of the 'development apparatus' and the unknown structures comprising the context it intends to change.

Not only does this mixing of the known and unknown produce unplanned results (both good and bad), it also generates conditions of exclusion. Claims to meaning and the closure of knowledge (i.e. discursive violence) are what enable the formulation and implementation of all development projects. Derrida would contend that justice is always calling development to *other projects*; projects that, because of the non-presence of justice, proceed from their positions of undecidability and pursue the path of least violence.

The remainder of the chapter is dedicated to a discussion of how the deconstructive ethic might be applied in Nairobi. I begin with a discussion of two examples of integrated WM models in Third World cities. The purpose of this discussion is not to detail a framework that would be replicated in Nairobi, but to demonstrate the benefits of a pro-poor, inclusive approach. I conclude with a discussion of how Nairobi already has the mechanisms in place to support an open, flexible sector. I contend that these mechanisms merely need to be tweaked such that they can reveal the path(s) of least violence by making the following five determinations:

1) The population(s) most harmed by the city's formal waste sector.

2) The varied interests of the affected population(s).

3) How the varied interests may be unified or consolidated.

4) How the interests may be included the plan.

5) How excluded interests, both known and unknown, will be granted continual

access to sites of knowledge creation.

<u>Examples of Informal/Formal Integration from Colombia and Brazil</u>

Fundación Social, an NGO in Colombia, has been helping waste pickers form cooperatives since 1986. Small groups of waste pickers come together to form a larger community capable of collecting *and* transporting, thereby cutting out the need for middlemen and traders who typically exploit their labour. The *Fundación Social* provides cooperatives with loans, and legal, administrative and business assistance as well as consultation services. In 1991 the foundation launched its National Recycling Program, which now includes more than 100 waste picker cooperatives across the country (Medina 2005b). The program has an organizational structure comprised of national, regional and local associations of coops which educate workers about the social, economic and environmental benefits of recycling, and strive to improve the working and living conditions of waste pickers. Martin Medina (2005) explains that these coops are diverse: some use pushcarts to transport materials, others use horse carts or pickup trucks. Some, such as the *Cooperativa Reciclar*, in Cartagena, work out of local dumps where members salvage reusable materials. Others follow designated city routes retrieving materials from waste bins or picking up litter in public spaces. Still others collect recyclables from households and commercial establishments, sometimes under formal contracts with the local government. Despite these differences, they also work together to sell recyclables in greater volumes to large recycling firms. This enables them to demand higher prices than if selling individually, and is accomplished through the formation of Regional Marketing Associations.

Waste pickers in Brazil have been integrated into the formal sector in a similar manner. In the city of Belo Horizonte, the Public Cleansing Agency (SLU) is responsible for

delivering WM services. In 1993 the SLU consulted with the NGO Pastoral de Rua and its association of waste pickers called ASMARE. Together they mapped out the framework for an integrated plan that included upgrades at the city landfill, new recycling programs for construction waste, composting programs, environmental education and the integration of waste pickers into the formal sector. An agreement was made that if ASMARE managed the recycling warehouses, sorted recyclables and provided the City with data about the processing of recyclables, the City would provide: 1) a monthly subsidy for administrative expenses via the Municipal Secretariat of Social Development; 2) infrastructure such as recycling containers and warehouses where the workers could sort materials; 3) trucks to collect recyclables; and 4) education programs for the association's workers covering topics of traffic safety, recycling and the environment, cooperative management and literacy (Dias 2011).

For the past fourteen years coops have been forming that collect recyclables and/or produce crafts from waste materials. The Waste and Citizenship Forum, created in 2003, includes representatives from coops, local government and NGOs. The forum enables these stakeholders to discuss guidelines for the sector, requests for public funding and formal integration of newly formed coops.

These cases are examples of how informal waste pickers have organized in other countries and how they have been integrated into their city's formal mechanisms. The purpose of presenting such cases is not to present a framework that ought to be replicated in Nairobi. It is only to point out the various engagements, and the methods used to facilitate this communication. Nairobi already has in place several mechanisms that enable

communication between the CCN, CBOs, NGOs and waste pickers. The task at hand is to adjust these mechanisms such that they become tools in the development, implementation and maintenance of the ISWMP. It is this emphasis on collaborative maintenance that differentiates the deconstructive ethic from mere project management or other theoretical approaches that trumpet 'participatory development'.

Development, Not Project Management

'Participatory' models, too, can be exclusionary. The 'mushy mixture' of visible and invisible parts within the development 'machinery' produce unintended results. Even if, in the 1970s, the CCN had consulted with the residents of Korogocho and Dandora regarding the landfill, and proceeded with their permission and support, the end result would have been the same. Unforeseen pressures still would have prevented the timely decommissioning of the site and the dump would have continued to grow wildly out of control. The difference, then, between the deconstructive ethic and participatory development is the former's concern for possible exclusions, both in the present and future, and the manner in which excluded knowledges will be supported in their attempt to (re)integrate themselves into policy discussions. In effect, it denotes a fundamental difference between 'development' and 'project management'. If the 'development' of Nairobi's waste sector is reduced to charting a 25-year plan, meeting milestone targets and establishing a self-sustaining system, it cannot be rightfully called 'development'; it is merely a project.

There are two elements of the project-oriented approach to development that are odds with the deconstructive ethic. First is the assumed beneficence of 'sustainability' which is a

catch-all word on the lips of the CCN, proposed ISWMP and other proposals such as the UNEP's *Selection, Design and Implementation of Economic Instruments in the Solid Waste Management Sector in Kenya* (2005). In fact, sustainability is a troubling word. Rob van Hattum's acclaimed documentary *Waste=Food* (2006) features Michael Braungart, a German chemist, and William McDonough, an American architect, the masterminds behind the Cradle to Cradle initiative that endeavor to create products - everything from t-shirts to production factories - that only produce waste which is *good* for the environment. Braungart gives the example of an ice cream package they designed that contains zero toxins and real tree seeds. After a few hours at room temperature the package turns to a liquid state and can be used in one's garden. "We developed a packaging which is not *just* biodegradable; biodegradable is just the minimum. I am biodegradable, you are biodegradable. So what? It is just the minimum, like 'sustainable'" (Braungart in *Waste=Food*, 2006). He explains that sustainability, a condition of tolerability or maintenance, should not be an end goal but rather a starting point. Instead of focusing strictly on maintenance, we ought to be looking at ways to offer something positive to the environment and each other; something that makes us glad *the other* is there, and vice versa. A sustainable system is not good if it is built on exclusion.

The second element at odds with the deconstructive ethic is the notion of a 'complete' project. Declaring a project 'finished' is synonymous with instituting closure; it denies *the other* the right to return to the sights of knowledge creation and demand that things be justly done over. A deconstructive approach to development is one that not only re-conceptualizes 'sustainability', it also avoids the closure of knowledge and consequently devises 'projects' which have no 'end'. Of course, there comes a time when funding ceases and the

development apparatus 'pulls out', but it is dangerous to equate that moment with 'the end'. A just project establishes mechanisms of communication that persist long after 'completion', enabling affected communities, even those previously excluded, and development agencies to collaboratively recreate the project to positively affect the context within which they live. 'Development', like 'justice', has no end.

The proposed ISWMP is built around attaining the following four goals: 1) Improve resource recovery and develop the city's recycling sector. 2) Build the broad awareness and the capacity required for effective source separation of waste. 3) Restructure and extend equitable collection services. 4) Build the infrastructure required for safe disposal of residual waste, and replace and rehabilitate the Dandora landfill (von Blottnitz & Ngau 2010). These goals should not be conceptualized as 'targets', but rather as 'areas of focus' that will form the mandate of a ongoing community-CCN collaboration.

Berkes (2010) explores the challenges facing environment and natural resource governance and offers the concept of co-management, "the sharing of power and responsibility between the government and local resource users" (p. 492), as a viable approach. Although this paper is not interested in exploring the management of waste as a 'natural resource' (see Twyman & Slater 2005), Berkes' discussion of co-management is nevertheless relevant to the application of the deconstructive ethic in Korogcoho and Dandora. He argues that effective co-management (i.e. collaboration and power sharing between local government and a given community of resource users) depends on communicative action that creates mutual understanding between stakeholders, strategic action that builds the relationships and organizations necessary for feedback/participatory

learning, and instrumental action that reforms and/or creates new institutions in accordance with the stakeholders' shared vision. Feedback learning is essential in closing the gap between theory and practice (i.e. limiting the number of unplanned results produced by various initiatives) by advancing through cycles that begin with the observation and identification of problems/opportunities, and leads into a process of action-reflection that informs subsequent decisions (Berkes 2010).

Feedback learning, when focused on the production and appropriate response to exclusion, is central to the deconstructive ethic. As previously mentioned, mechanisms currently exist that could support such feedback loops between the community and the CCN. Institutional reforms that enable these mechanisms to become avenues through which Korogocho and Dandora can influence waste policy is what would enable the communicative and strategic action explored by Berkes (2010). However, it is beyond the scope of this research to prescribe institutional or policy reforms, or to speculate about the relationships or organizations that would facilitate participatory feedback learning between community and government stakeholders. Instead, the remainder of this chapter offers a discussion of how currently existing mechanisms can facilitate the CCN in making five key determinations that, being foundational to the deconstructive ethic, will enable it to begin reforming the waste sector with an eye toward justice.

Determination of the Population(s) Most Harmed

'Harm' is not something that can be quantified, measured and ranked from 'least' to 'most'. The purpose of making a determination is not to compare the 'harm' faced by various

populations, but to examine the exclusions currently built into the waste sector and how they might be resolved. Chapter 2 has described the failings of the sector and shows that the communities of Korogocho and Dandora are squarely positioned at the end of the city's waste stream. Their citizens are subject to illness, coerced into violence and pushed into an exploitative informal economy in order to eke out a living. These slums need to be a central focus of the revised ISWMP, and they have to be included in any policy discussions that will ultimately impact their futures.

There are other populations that are negatively impacted by the waste sector and must be considered. Indeed, 60% of the population live without collection services and many other slums face challenges concerning WM. Saying that Korogocho and Dandora are the 'most affected' populations does not exclude other populations from the CCN's purview. It simply acknowledges that the dysfunctional waste sector played a central role in defining their communities and attempts to give them a voice in discussions concerning future development. The determination of other exclusions would undoubtedly be part of a holistic response to waste in Nairobi, but this response must begin with the people of Korogocho and Dandora.

Determination of the Affected Populations' Varied Interests

As discussed in Chapter 2, mechanisms already exist that facilitate communication between the people of Korogocho and Dandora and the CCN. The challenge is adapting these mechanisms into useful tools in the design and implementation of an ISWMP geared toward community-government partnership and feedback learning. The KSUP Resident

Committees, Pamoja Trust Taka ni Pato seminars, Exodus Kutoka Network and CBO engagement with Ward Councillors all represent avenues through which the CCN could bring the people of Korogocho and Dandora into conversations concerning the ISWMP.

<u>Determination of how Varied Interests may be Consolidated</u>

It is clear that neither Korogocho or Dandora are characterized by homogenous interests. There is both support for and resistance to the Kutoka Network's campaign. Supporters look forward to a day when the landfill is rehabilitated into a WM complex with recycling, waste treatment and composting facilities that can provide them work. Detractors doubt that such a rehabilitation will ever occur, and are afraid that decommissioning Dandora will simply deny them the meager incomes they have worked so hard to secure.

If a WM complex is to be developed in Dandora, massive improvements in road infrastructure will be necessary to allow construction companies and machinery access to building sites. This infrastructure will require the relocation of many families and shops, and they need to be included in conversations about the best course of action.

The varied interests concerning these and other aspects of the decommissioning and rehabilitation can be relayed through the mechanisms outlined above. Additionally, NGOs, CBOs and prominent community leaders, such as the *Stop Dumping Death On Us* campaign coordinators, can conduct verbal surveys to determine the opinions of the community. General trends can be reported back to the community through Koch FM, a local radio station, or delivered through interactive community presentations. Ceremonies, events and presentations are not unusual in Korogocho. Whether an opening ceremony for a new road,

the annual Miss Koch competition, the KSUP footbridge unveiling, resident committee elections or training workshops, the people are familiar with the use of community-wide gatherings as a method of communication. Additionally, fora such as the Taka ni Pato seminars could be established by NGOs and CBOs that inform community members about emerging policy issues and debates concerning the decommissioning, rehabilitation and legal framework under the ISWMP. All these mechanisms could be used to effectively determine the variety of interests within the community. They can also facilitate the flow of information from government to community, enabling conversations at the community-level that allow majority interests to emerge.

Determination of how Majority Interests Can be Met

After the above mechanisms have been used to determine the majority interests in Korogocho and Dandora, and they have been communicated to the CCN and MLG, the next task is for the CCN to determine how they can be best integrated into the ISWMP. This is best accomplished through open dialogue with community leaders and CBOs that represent the majority interests of Korogocho and Dandora. Whether it be a network of waste picker cooperatives as in Colombia and Brazil; the contracting of private firms to operate in conjunction with informal collectors in slum settings; the development of a WM complex in Dandora that employs waste pickers; the contracting of CBOs to service low-income communities; or other means of community participation, the people need to be included in policy discussions.

Determination of how Excluded Interests will not be Closed Out

With its pro-poor action items, proposed collaboration with CBOs and accompanying Resettlement Action Plan, the ISWMP is structured with the informal sector in mind. However, Derrida's critique of logocentrism, as well as Ferguson's case study of Lesotho, remind us that context is never fully understood. Meaning is never established concretely and the multiplicity of socio-economic structures that affect development planning are never counted and controlled for. Consequently, fora for continued collaboration are necessary. They need to be flexible enough to accommodate excluded or emerging knowledges, yet strong enough to implement change.

The deconstructive ethic acknowledges that exclusion is inevitable. The logocentric use of language assures it. Justice nevertheless demands that we, to borrow a phrase from Ferguson (2005), 'bathe it in the shining light of day' and make it the impetus for more just configurations. This is where development transcends project management and becomes an unwavering commitment to the *other*.

Conclusion

Contributions to Development Discourse

Through a case study of Nairobi's waste sector, particularly the exclusions and failures manifest in the slums of Korogocho and Dandora, this paper has sought to answer the question of what constitutes just development. By using a post-structuralist development ethic predicated on a commitment to the excluded *other*, this paper has argued that just development in Nairobi's waste sector must include the five determinations discussed in chapter 3. In order for these determinations to be made, the CCN needs to reform its channels of communication with the community such that they inform the development of the ISWMP in a participatory manner. Without a commitment to mitigating and overcoming the production of alterity, waste sector solutions in Nairobi will continue to exclude and marginalize the communities of Korogocho and Dandora.

This argument builds on a post-structuralist theoretical framework that refocuses attention on the linguistic roots of knowledge, discourse and communication. By relocating linguistics to the foundation of development theory, and using the case of Nairobi's waste sector as an illustration, I have contested the taken-for-granted meanings of 'exclusion' and 'inclusion', and argued that development must be conceptualized as a response to alterity. This approach to development builds on the post-structuralist linguistic theory of Jacques Derrida, who argues that philosophy depends on the epistemological assumption of 'being as presence', or that meaning is 'present' in the relationship between linguistic signs and the objects/subjects they signify. Derrida calls this assumption 'logocentrism', and contends it is a faulty, though necessary, logic that stabilizes the relationships between signs to produce

understandings of the world. The logic is flawed because it treats signs as though they have an inherent meaning when, in fact, the meanings of signs are arbitrary ideological constructions made possible by the strictures of grammar. This is at the root of Derrida's contention that language is exclusionary because it makes claims to stability and certainty when neither can exist, thereby denying alternative interpretations and depictions of reality.

Derrida's assertion that exclusion is engrained in language and at the foundation of all discourse and communication has profound implications for development theory. The impact of this argument can be felt in post-development literature where scholars contend that development discourse functions as a type of meta-narrative that dictates the manner in which the contexts and conditions of 'underdevelopment' can be understood and 'corrected'. The discursive stabilization of the conditions of underdevelopment excludes alternative knowledges and, rather than empowering local people to grow and prosper in their own communities, imposes development on the poor. However, as discussed in chapter 1, any alternatives offered by post-development typically focus on the need for increased community participation in the design and implementation of development projects (Ziai 2004). In other words, post-development makes no contributions to policy discussions that have not already been explored in the literatures on grassroots, sustainable or participatory development models that it claims to oppose.

The implication of Derridian semiotics is that development is inherently exclusionary. Logocentrism, a logic for which there is no alternative, results in development interventions predicated on false, exclusionary understandings of the conditions and contexts of 'underdevelopment'. Therefore, an emphasis on 'inclusive' development policy alone cannot

ward off exclusion. In fact, given that the knowledge and discourse which frames interpretations and implementations of 'inclusive' policy are logocentric, ideological constructions, 'inclusion' is merely an expression of 'exclusion'.

Derrida argues that deconstruction is the answer to this logocentric problem. Deconstruction is a response to alterity which undermines logocentric claims to meaning. This is accomplished by revealing that linguistic signs are not inherently meaningful (i.e. there is no 'natural' relationship between them and the object/subject they signify) and that excluded knowledge is foundational to meaning. Deconstruction discloses the arbitrariness of meaning and thereby reintegrates the excluded *other* (people, knowledges, approaches) into processes of knowledge construction. In so doing, it challenges development to work toward justice *through* the inevitable exclusions produced by its logocentric framework. Whether these exclusions be obstructions that prevent communities from participating in the planning and implementation of development, or conditions of oppression or marginalization endured as a result of various projects' unintended outcomes, development needs to be structured such that it mitigates its production of exclusion and overcomes the barriers to the (re) integration and participation of excluded communities. Therefore, inclusive development is typified by a commitment to the *other* and a response to the call of alterity.

Nairobi's Waste Problem and Proposed Solutions

The purpose of chapter 1 is twofold. First, it situates Derrida's emergence as a prominent post-structuralist in an era where modernist conceptions of development prevailed; the culmination of a movement toward linear formulations of 'progress' that began

with Augustine's revision of Aristotelian development 1600 years earlier. Second, it presents a discussion of how Derridia's semiotics and his conception of deconstruction provide an analytical framework through which 'progress' and 'development', and their relationships to justice, can be questioned.

Chapter 2 frames this question of just development in the context of Nairobi's waste sector. Mismanagement and non-enforcement of the WMR have resulted in an inefficient, corrupt and violent sector. Additionally, the CCN lacks the financial resources to adequately respond to the sector's biggest failure: the daily inundation of Korogocho and Dandora with an assortment of Nairobi's hazardous, industrial, domestic, organic and biomedical waste. This paper has tried to answer the question of what would constitute a just response, on the part of the CCN, to the exclusion and oppression experienced by these slum communities.

The draft ISWMP represents a step in the right direction. Half of its proposed reforms reflect pro-poor policies that, if enforced, would have a direct and positive effect on the slums adjacent the landfill. Most notably, the plan includes a proposal to integrate CBOs into the formal sector by licensing them as legal waste collectors and ensuring their access to markets (i.e. restricting competition from private firms within their designated collection zones). As evidenced by the experience of waste picker cooperatives in Colombia and Brazil, this proposal has the potential to produce an institutional arrangement that integrates Korogocho and Dandora into processes of policy development.

However, a model that facilitates the participation of these communities is still victim to the logocentric exclusions discussed by Derrida. By drawing on deconstruction, as well as Foucault's notion of decentralized power, chapter 3 explores how the ISWMP can address

these exclusions. The concept of decentralized power, building on Ferguson's application in *The Anti-Politics Machine* (2005), is used to explain how interventions are influenced by a multiplicity of unforeseen factors that cause development programmes to produce unexpected outcomes. When the CCN began to restructure the waste sector in the late 1980s it likely had a much different vision for its future than what can be observed today. The inevitability of unexpected outcomes, whether contributing positively or negatively to the intended outcome of the programme, means that community participation in policy development and planning is crucial. Without it, responses to these outcomes cannot be produced in a collaborative effort that reflects the needs of affected communities.

Expanding on this, I have applied Derrida's concept of deconstruction to formulate a just response the CCN to conditions of exclusion in Korogocho and Dandora. Chapter 3 outlines five determinations that will contribute to formulating an inclusive waste sector: the determinations of 1) the population(s) most harmed by the sector, 2) the varied interests of the affected population(s), 3) how the various interests may be unified or consolidated, 4) how the interests may be included in the ISWMP, and 5) how excluded interests will be granted continual access to the sites of knowledge and policy creation. A plan that builds upon these five determinations is not deemed 'inclusive' because it lacks exclusion, but rather because it reflexively analyzes the exclusion it produces and unceasingly atempts to accommodate the *other*. It is proposed that the interests of Korogocho and Dandora be pursued through a collaborative community-CCN partnership that anticipates exclusions and utilizes a policy framework that facilitates the reintegration of excluded knowledges.

The waste sector in Nairobi is currently characterized by chaos, corruption, disease and both discursive and gang-related physical violence. The reforms proposed by the draft ISWMP are desperately needed, but the CCN's paucity of funds currently makes them impossible to implement. Nonetheless, the ISWMP represents movement toward an integrated, participatory sector. Its emphasis on the need for a waste policy that is pro-poor is noteworthy, demonstrating that the CCN is interested in responding to the exclusions produced in the sector. An assessment of the five determinations outlined in chapter 3 will help ensure that the response pursued by the CCN will not perpetuate the very exclusions the ISWMP is attempting to address. The channels of communication already existing between the CCN, NGOs, CBOs and the communities of Korogocho and Dandora have the capacity to make these determinations. Although the rehabilitation of Dandora and the opening of an engineered landfill elsewhere in the city are stalled by a lack of financial resources, through a collaboration with community leaders the CCN can still take preliminary steps toward a waste sector built on a commitment to address the wants and interests of the excluded *other*.

Suggestions for Future Research

Deconstruction cannot be instrumentalized or implemented in a step-by-step approach. Indeed, Derrida (1976) asserts that deconstruction is not something that is done, but rather something that happens. According to Smith (2005), "[d]econstruction is not the effect of a master interpreter who comes and does something *to* a text. Rather, deconstruction happens *within* texts, from inside, out of their own resources. There is a sense, then, in which

we the interpreters are only witnesses… to a text's deconstruction of itself" (Pp. 9-10). This is not to suggest that Nairobi's waste sector should proceed unguided through a process of self-correction. Rather, it indicates that the deconstructive ethic cannot be reduced to a formulaic programme. Deconstruction is not a style of critique or a method of analysis but a concept that refers to the breaking down of false meanings and the revelation of the excluded *other*. Therefore, the deconstructive ethic presented in this paper is an approach to development committed to revealing and correcting development's produced exclusions.

This paper has outlined the channels of communication between the CCN and Korogocho and Dandora that could contribute to this end. However, more research is needed in two areas: 1) how these mechanisms need to be reformed, or what new institutional arrangements might be required, in order to support collaboration between the CCN and CBOs, and 2) how to structure the process of feedback learning such that it mitigates the production and closure of exclusion. For instance, which division(s) of the CCN is capable of overseeing the assessment of the five determinations outlined in chapter 3? What specific current lines of communication between the community and CCN need to be reformed to support open dialogue about waste-related concerns, and what partnerships are required to make this possible? Which actors and organizations can maintain dialogue such that it mitigates the production of exclusion in the sector? The answers to such questions are the building blocks of a successful community-CCN collaboration. The objective is not to be 'inclusive' (it is not possible to incorporate every stakeholder's interests into policy discussions), but rather as inclusive as *possible*. In reality, 'inclusive' approaches to WM in Nairobi will always be exclusionary. The task, then, is to formulate an approach to sector

development that takes account of and responds to exclusions in a just manner. This paper considered the deconstructive ethic and applied it to Nairobi not only to illuminate opportunities for just change in the city's waste sector, but also to present a broader approach to development that especially responds to alterity. The five determinations discussed in chapter 3 are meant to serve as a spring board for such development, whatever the context, but more research is necessary to understand what makes community-government partnerships successful in different settings. Such an understanding would enhance the deconstructive approach by making known the various arrangements and partnerships that support collaborative development, thereby enabling participatory approaches to development that reintegrate the excluded *other* into processes of knowledge and policy creation.

Works Cited

Abbott, John. 2002a. "A Method-Based Planning Framework for Informal Settlement Upgrading." *Habitat International* 26(3): 317-333

Abbott, John. 2002b. "An Analysis of Informal Settlement Upgrading and Critique of Existing Methodological Approaches." *Habitat International* 26(3): 303-315

Augustine, Afullo and Frank Odhiambo. 2009. "The Primary Solid Waste Storage Gaps Experienced by Nairobi Households." *Ethiopian Journal of Environmental Studies and Management* 2(3): 34-43

Bahri, Girum. 2005. "Sustainable Management of Plastic Bag Waste: The Case of Nairobi, Kenya". Master's thesis, International Institute for Industrial Environmental Economics, Lund University, 2005

Berkes, Fikret. 2010. "Devolution of Environment and Resources Governance: Trends and Future." *Environmental Conservation* 37(4): 489-500

Bloomberg Businessweek. 2005. "Wal-Mart, Waste, and the Developing World." Retrieved 3 April 2011 (http://www.businessweek.com/globalbiz/content/aug2009g2b009085_67 8115.html)

Brotherhood and Peace Initiative. 2011. Interview Dec. 8. Nairobi, Kenya

Cahoone, Lawrence E. (2012). "Derrida's Deconstruction of Philosophy". Lecture 30 in Course No. 4790. College of the Holy Cross. Retrieved September 5, 2012 (http://www.thegreatcourses.com/tgc/courses/course_detail.aspx?cid=4790)

CCN, 2011. *Integrated Solid Waste Management in the City of Nairobi, Republic of Kenya: Construction of Sanitary Landfill in Ruai - Environment and Impact Assessment Study Report.* City Council of Nairobi. Nairobi, Kenya

Cowen, Michael and Robert Shenton. 1996. *Doctrines of Development*. London: Routledge

Cowen, Michael and Robert Shenton. 1998. "Agrarian Doctrines of Development: Part 1." *Journal of Peasant Studies* 25(2): 49-76

Choat, Simon. 2010. *Marx Through Post-Structuralism: Lyotard, Derrida, Foucault, Deleuze*. London: Continuum

Das, Ashok K. and Lois M. Takahashi. 2009. "Institutional Arrangements, Scaling Up, and Sustainability: Emerging Issues in Participatory Slum Upgrading in Ahmedabad, India. *Journal of Planning Education and Research* 29(2): 213-232

Davis, Mike. 2006. *Planet of Slums*. New York: Verso

Deleuze, Gilles. 2006. *Foucault*. London: Continuum

Derrida, Jacques. 1976. *Of Grammatology*. Baltimore: Johns Hopkins University Press

Derrida, Jacques. 1978. *Writing and Difference*. Translated by Alan Bass. London: Routledge & Kegan Paul

Derrida, Jacques. 1994. *Specters of Marx: The State of the Debt, the Work of Mourning and the New International*. Translated by Peggy Kamuf. London: Routledge

Dias, Sonia. 2011. "Integrating Informal Workers into Selective Waste Collection: The Case of Belo Horizonte, Brazil." Urban Policies Briefing Note No. 6. Women in Informal Employment: Globalizing and Organizing

Downs, Mary and Martin Medina. "A Brief History of Scavenging". *Comparative Civilizations Review* 42(3): 23-45

Exodus Kutoka Network. 2011. Interview Nov. 18. Nairobi, Kenya

Ferguson, James. 2005. *The Anti-Politics Machine: "Development," Depoliticization, and Bureaucratic Power in Lesotho*. Minneapolis: University of Minnesota Press

Foucault, Michel. 1979. *Discipline and Punish: The Birth of the Prison*. New York: Vintage Books

Henry, Rotich K. et al. 2006. "Municipal Solid Waste Management Challenges in Developing Countries: Kenyan case study." *Waste Management* 26(1): 92-100

Kainga, Mario. 2011. Assistant Director of Environment, Solid WM. Interview, Dec. 1. Nairobi, Kenya

Kariuki, Margaret. 2011. Chief Environmental Officer, Community Development Office, City Council of Nairobi. Interview, Nov. 30. Nairobi, Kenya

Kasozi, Allison and Harro von Blottnitz. 2010. *Solid Waste Management in Nairobi: A Situation Analysis*. United Nations Environment Programme

Koch, Andrew M. 2007. *Post-Structuralism and the Politics of Method*. Plymouth: Lexington Books

MacDonald, Eleanor. 1999. "Deconstruction's Promise: Derrida's Rethinking of Marxism." *Science & Society* 63(2): 145-172

Malthus, Thomas. 1798. *An Essay on the Principle of Population*. London: JM Dent

Maritim, Wilson. 2011. Compliance and Enforcement Officer, National Environment Management Authority. Interview, Nov. 22. Nairobi, Kenya

Marx, Karl. 1888. "Theses on Feuerbach." Pp.98-101 in *Karl Marx: Selected Readings,* edited by Lawrence H. Simon. Indianapolis: Hacket Publishing Company Inc

Medina, Martin. 2005. "Serving the Unserved: Informal Refuse Collection in Mexico." *Waste Management & Research* 23(5): 390-397

Medina, Martin. 2005b. "Waste Picker Cooperatives in Developing Countries." Working Paper No. 14. eSocialSciences. Retrieved 1 November 2012 (http://ideas.repec.org/p/esswpaper/id14.html)

Moore, Sarah A. 2008. "The Politics of Garbage in Oaxaca, Mexico." *Society and Natural Resources* 21(7): 597-610

Muga, Aloo. 2011. Chief Accountant, BINS Ltd. Interview, Nov. 10. Nairobi, Kenya

Muniafu, Max and Everlyne Otiato. 2010. "Solid Waste Management in Nairobi, Kenya: A Case for Emerging Economies." *The Journal of Language, Technology & Entrepreneurship in Africa* 2(1): 342-350

Nas, Peter J.M. and Rivke Jaffe. 2004. "Informal WM: Shifting the Focus from Problem to Potential." *Environment, Development and Sustainability* 6(3): 337-353

NEMA. 2006. *Waste Management Regulations*. Kenya Gazette Supplement No. 69, Legislative Supplement No. 37

Nyaranyi, Dickson. 2011. Dandora Ward Councilor, City Council of Nairobi. Interview Dec. 9. Nairobi, Kenya

Nyaseda, Kenneth. 2011. Program Director, Korogocho Slum Upgrading Programme. Interview Nov. 28. Nairobi, Kenya

Ochieng, Henry. 2011. Programs Manager, Kenya Alliance of Residence Associations. Interview, Nov. 4. Nairobi, Kenya

Okouthe, James. 2011. Korogocho Ward Councillor. Interview, Dec. 8. Nairobi, Kenya

Pamoja Trust. 2011. Interview Nov. 21. Nairobi, Kenya

Parfitt, Trevor. 2010. "A Post-Structuralist Agenda for Development?" *Third World Quarterly* 31(5): 675-692

Pieterse, Jan Nederveen. 2010. *Development Theory.* 2nd ed. London: Sage

Pugh, Cedric. 1997. "The Changing Roles of Self-Help in Housing and Urban Policies, 1950-1996: Experience in Development Countries." *Third World Planning Review* 19 (1): 91-109

Rist, Gilbert. 2008. *The History of Development: From Western Origins to Global Faith*. 3rd ed. New York City: Zed Books

Rostow, Walt W. 1960. *The Stages of Economic Growth: A Non-communist Manifesto.* 3rd ed. New York: Cambridge University Press

Shanin, Teodor. 1997. "The Idea of Progress." Pp. 65-72 in *The Post-Development Reader*, edited by Majid Rahnema and Victoria Bawtree. London: Zed Books

Smith, James. 2005. *Jacques Derrida: Live Theory*. London: Continuum

Thiathi, Catherine. 2011. Environment Officer, Kasarani District, National Environment Management Authority. Interview, Dec. 13. Nairobi, Kenya

Thieme, Tatiana. 2010. "Youth, Waste and Work in Mathare: Whose Business and Whose Politics?" Environment & Urbanization 22(2): 333-352

Truman, Harry S. 1949. "Inaugural Address of the President of the United States." Bartleby.com. Retrieved September 25, 2012 (http://www.bartleby.com/124/pres53.html

Twyman, Chasca and Rachel Slater. 2005. "Hidden Livelihoods? Natural Resource-Dependent Livelihoods and Urban Development Policy". *Progress in Development Studies* 5(1): 1-15

Umande Trust. 2011. Interview Nov. 9. Nairobi, Kenya

UNDP & Practical Action. 2006. "UNDP Report - June 2006". UNDP.org. Retrieved March 5, 2011 http://mirror.undp.org/kenya/PracticalActionITDG.pdf

UNEP. 2005. *Selection, Design, Implementation of Economic Instruments in the Kenyan Solid Waste Management Sector: The Case of Plastic Bags.* Nairobi, Kenya: United Nations Environment Programme and Government of Kenya

UNEP. 2006. *Environmental Pollution and Impacts on Public Health: Implications of the Dandora Municipal Dumping Site in Nairobi, Kenya.* Nairobi, Kenya: United Nations Environment Programme

UNEP. 2008. *Waste Quantification and Characterization Survey*. Nairobi, Kenya: United Nations Environment Programme

UN-HABITAT. 2003. *The Challenge of Slums: Global Report on Human Settlements 2003*. United Nations Human Settlements Programme. London: Earthscan Publications

UN-HABITAT. 2010a. *Solid Waste Management in the World's Cities: Water and Sanitation in the World's Cities.* Washington, DC: United Nations Human Settlement Programme

UN-HABITAT. 2010b. *Collection of Municipal Solid Waste in Developing Countries*. United Nations Human Settlement Programme. Malta: Gutenberg Press

van Huttum, R. *Waste=Food*. 2007. Retrieved 29 October 2012 (http://topdocumentaryfilms.com/waste-food/)

von Blottnitz, Harro and Peter Ngau. 2010b. *Integrated Solid Waste Management Plan for Nairobi, Kenya*. United Nations Environment Programme

Wilson, David et al. 2006. "Role of Informal Sector Recycling in Waste Management in Developing Countries." *Habitat International* 30(4): 797-808

Ziai, Aram. 2004. "The Ambivalence of Post-Development: Between Reactionary Populism and Radical Democracy." *Third World Quarterly* 25(6): 1045-1060