

“Skarrelling”

A Socio-Environmental History of Household Waste in South Africa

by
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Abstract

This study excavates a century's worth of the history of household waste in South Africa, from 1890-1996. It shows that waste history is entangled with histories of disease and poor sanitation, advances in technology, the impact of war, environmental concerns and – perhaps above all – shifting socio-economic circumstances. Using a socio-environmental analytical framework, this analysis of waste history unearths empirical archival data and oral testimony, to contextualise themes of gender, race, class and nationalism in order to place rubbish within the wider historical debates in South Africa. This study uses Rubbish Theory and Broken Windows Theory as well as concepts of “Othering” and the “Sanitation Syndrome” to explore the role of waste in the construction of racial identities and perceptions. This thesis shows that Apartheid should not be seen as a watershed within this waste history, but rather as a continuation of colonial ideas of cleanliness that helped to perpetuate racist stereotypes. This study argues that the lack of waste services in “locations” during this time helped to contribute to the perception of the urban African as the unsanitary Other. The state and civic societies fostered gender roles, which (coupled with wartime nationalist propaganda) helped in shaping waste behaviour promoted by the National Anti-Waste Organisation (NAWO) during the Second World War (WWII). In the years after WWII, the threats of wartime shortages and enthusiastic solutions suggested to municipalities to “end the waste problem” were thwarted by the spread of the landfill as an even more convenient disposal method. The implementation of Apartheid, especially the Group Areas Act (No 41 of 1950) and the rise of consumer society, led to increasingly divergent experiences of waste for urban Africans and whites. The thesis uses a case study of the Devon Valley Landfill community outside of Stellenbosch. This ethnographic history explores notions of the “Subaltern” in order to give this history a human face. The diachronic analysis of this community offers a lens into ideas of “ordentlikheid” (decency), “weggooi mense” (throwaway people) and how these waste-pickers experience the environment in which they live.

Opsomming

Hierdie studie grawe 'n eeu se geskiedenis van huishoudelike afval in Suid-Afrika op, van 1890-1996. Dit toon dat die geskiedenis van afval verweef is met geskiedenis van siekte en swak sanitasie, tegnologiese vooruitgang, die impak van oorlog, omgewingskwessies en – dalk bowenal – veranderende sosio-ekonomiese omstandighede. Deur middel van 'n sosio-omgewings-analitiese raamwerk ontgin hierdie analise empiriese argiefdata en mondelingse getuieis om temas van geslag, ras, klas en nasionalisme te kontekstualiseer ten einde afval binne die breër historiese debatte in Suid-Afrika te plaas. Die studie gebruik Afval-teorie en Gebreke Vensters-teorie sowel as begrippe van “Othering” en die “Sanitasie-sindroom” om die rol van afval in die totstandkoming van rasse-identiteite en -persepsies te ondersoek. Die tesis toon dat Apartheid nie as 'n waterskeiding in hierdie afval-geskiedenis gesien moet word nie, maar eerder as 'n voortsetting van koloniale idees oor higiëne wat gehelp het om rasse-stereotipes te perpetueer. Die studie argumenteer dat die gebrek aan afvalverwyderingsdienste in “lokasies” in die tyd bygedra het tot die persepsie van die stedelike Afrikaan as die onhigiëniese Ander. Die staat en burgerlike samelewing het geslagsrolle gekweek, wat (tesame met oorlogtydse nasionalistiese propaganda) gehelp het met die vestiging van afval-gedrag wat bevorder is deur die National Anti-Waste Organisation (NAWO) gedurende die Tweede Wêreldoorlog. In die jare na dié oorlog is die bedreigings van oorlogtydse tekorte en die entoesiastiese oplossings wat vir munisipaliteite aanbeveel is om die “afvalprobleem te beëindig”, gefnuik deur die toenemende gebruik van stortingsterreine as 'n selfs geriefliker afvalverwyderingsmetode. Die implementering van Apartheid, veral die Groepsgebiedewet (No. 41 van 1950) en die opkoms van die verbruikersamelewing, het gelei tot toenemend uiteenlopende ervarings van afval onder stedelike Afrikane en wit mense. Die tesis maak gebruik van 'n gevallestudie van die gemeenskap van die Devonvallei-stortingsterrein buite Stellenbosch. Hierdie etnografiese geskiedenis verken denkbeelde van die “Ondergeskikte” om 'n menslike gesig aan die geskiedenis te gee. Die diakroniese analise van die gemeenskap is 'n venster op idees van “ordentlikheid”, “weggooiemense” en hoe hierdie afvalontginners die omgewing waarin hulle woon, beleef.

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CHAPTER ONE:

A Dirty History of South African Household Waste: Literature Review and Methodology

*“Wrapped in swaddling clothes and badly covered in blood”*¹

In 1909, the body of a newly born girl was found in the rubbish dump in Rugter Street, Cape Town. While off-loading garbage from the cart, a ‘boy’ found the deceased infant discarded along with the household rubbish. Little else is known about this infant except that the detectives were called and her body was swiftly taken to the morgue. Aside from the racial language in this source,² a topic discussed in the chapters that follow, this story brings to the foreground two important aspects of the history of municipal waste. First, the history of waste is not only about what should be thrown away, but also about what should not be thrown away. Items discarded in the bin are not only those that are perceived as valueless, but also those of value. Second, waste history can be obscure and unpleasant. An historian has to be prepared to get their hands dirty.

The murkiness of waste is a difficult thing to navigate both in the archives and on the landfill. This chapter seeks to discuss the vagueness of this waste in an attempt to revive the hidden history of the discarded through investigating the archives, case studies and the intersectionality of waste history with varying other histories. The grim and muddy recess of memory of rubbish is difficult to trace, considering the nature of it is that it is unwanted and forgotten. Although the advances in municipal and managerial progress can be explored, it is more difficult to integrate this with the social experience of rubbish. Garbage history has proved difficult to unearth. This thesis investigates the history of household waste in South Africa from 1890-1996, ending with a case study of the community living at Devon Valley Landfill in Stellenbosch, from 1964-2013.

¹ KAB, 3/CT, 4/2/1/1/76, 345/10, Body Found at Refuse Dump, 22 March 1909.

² The reference to the worker who found this infant as ‘boy’ is a derogatory term often used to refer to African male workers.

Terminology

This thesis uses several terms that refer to municipal solid waste including “waste”, “garbage”, “refuse”, “litter” (refers to waste when it is out of place)³ and “rubbish”. All of these terms are used within the archival sources throughout the time periods being discussed. Although a term such as waste can usually incorporate sewerage and other forms of solid waste, this thesis uses these terms to only refer to household municipal solid waste, unless otherwise specified.

Garbage includes wastes from household preparation, cooking and serving of food; market refuses, handling, storage and sales of produce and meals. Non- biodegradable solid waste or rubbish (paper, carton, cardboard, plastics, clothes, rubber, leather bottles, glass, ceramics, tin cans, etc.) is also generated. Other sources include: ashes, bulky waste, street sweeping, abandoned vehicles, non-hazardous industrial waste, construction and demolition waste.⁴

This thesis sees the terms of garbage, refuse, rubbish and (solid) waste as interchangeable unless otherwise specified. Furthermore, these terms will refer to household and municipal garbage, not including trade, industrial and construction waste. The terminology used to refer to waste is interesting considering it is synonymous with a thing that is ‘worthless or meaningless’ and ‘considered unimportant or valueless’.⁵ As a result, household waste is matter discarded by households and individuals across the nation state. Despite the fact that this waste is discarded, it is not always useless and in many instances emerges from dumpsites to serve individuals, communities and the nation state. “The dump” and “landfill” are areas of disposal for waste; a landfill is explained to a fuller extent in Chapter Four of this thesis. Furthermore, “scavengers” has two meanings in this thesis. In the earlier chapters, “scavengers” is a term that refers to a type of worker within the formal waste management industry. In Chapter Six, a scavenger refers to the self-proclaimed term of informal waste-pickers on the Devon Valley landfill. This thesis also makes reference to the term “*Wastescapes*” in Chapter Two. This term is used to describe areas of land, such as dumps or landfills, in which waste is consigned to the area in question. However, this term within this thesis also uses this word to describe areas in

³ This is discussed later in the chapter on the discussion of Michael Thompson’s Rubbish Theory.

⁴ E. Achankeng, ‘Globalization, Urbanization and Municipal Solid Waste Management in Africa’, African Studies Association of Australasia and the Pacific Conference Proceedings – African on a Global Stage (2003), 12.

⁵ *Oxford Dictionary*, (Oxford: Oxford University Press, 2010), published online at www.oxfordreference.com, (accessed on 23 August 2012).

which there was poor municipal service to the extent that it risks the health of nearby residents and creates an “eyesore”.⁶ “Waste behaviour” is behaviour that individuals portray in their attitudes towards waste and denotes an element of either thrift or wastefulness. Furthermore, the term “location” refers to the area of land to which Africans were relegated, usually on the outskirts of cities and towns. Many of these locations developed into townships later on in the twentieth century.

Methodology

In her book *Starving on a Full Stomach*, Diana Wylie writes about the need to address the ‘silences in the historical record.’⁷ There are few places that silence historical accounts as indefinitely as the landfill or dump. The silences in the historical record are echoed in the lack of archival documentation on the history of waste management in South Africa. Waste history, as a sub discipline of History, is marginalised from the centre and record keeping of the waste management industry has proved poor. For some municipalities (to be discussed at length in the chapters that follow), the documentation is so poor that finding sources often involves digging through dustbin-like records in the Cape Town Archival Repository, Pietermaritzburg Archival Repository and the National Archives in Pretoria. Finds come in the form of single pages torn out of municipal magazines, incomplete municipal records and records limited to specific time periods for a limited number of municipalities. For example, throughout the extensive archival research undertaken for this thesis, there is only one source that provides the information to compare a black and white area’s waste municipal services over an extended period of time. The task then falls upon the historian to piece together littered remnants of rubbish history. It is important to understand the limitations of this study, in that this thesis is limited to the National Archives in Pretoria, the Cape Town Archival Repository and the Pietermaritzburg Archival Repository.⁸ Thus, it has not been possible to reach local archives in which

⁶ Throughout the thesis it is clear from some of the examples on household waste collection in towns and cities that waste is seen as an aesthetically displeasing phenomenon and a nuisance for the middle and upper classes.

⁷ D. Wylie, *Starving on a Full Stomach: Hunger and the Triumph of Cultural Racism in Modern South Africa*, (Charlottesville: University Press of Virginia, 2001), 59.

⁸ It should be noted that the majority of sources come from the National Archives and the Cape Town Archival Repository, as the Pietermaritzburg Archival Repository has limited sources on waste management.

there may sit evidence of waste management systems that should be explored during the time period under discussion, which will be discussed as a future research topic in the conclusion. Furthermore, it should be understood that with the gloominess of waste comes a lack of archiving during particular time periods, especially the 1920s-1950s, with the exception of the Second World War (WWII). Furthermore, the time period from the 1970s onwards contains sparse sources and some records from the 1990s onwards are still closed. Documents that exist are almost always incomplete, where pages from documents are missing, damaged or indecipherable. Furthermore, when sources refer to previous developments (otherwise undocumented) in the waste sector, little detail is given. Few municipalities have records stretching over significant periods of time, limited to the likes of Uitenhage in the Cape Province.

Although there is a danger in jumping from locality to locality, this thesis is restricted by the lack of comprehensive archival documents and national legislation and action in the waste management industry. Thus, piecing together of different municipal areas gives insight into various trends in the waste management sector. As mentioned previously, waste history is further restricted by the lack of colony-wide or national governance of the waste sector. Often, localities tell histories of smaller areas that are not necessarily connected to the larger narrative. However, through analysing the multiplicity of experiences within some towns, this thesis will show that these localities form an interesting narrative for a cohesive historical account about the history of waste in South Africa. This thesis also looks at the history of waste management within the confines of the national borders of present day South Africa. Despite the fact that there is a movement away from histories that are limited to national borders,⁹ waste management is a sector that is run by smaller localities. Furthermore, it would be beyond the remit of this study to address waste management in the wider context of southern Africa, and therefore this thesis is limited to South Africa.

This thesis not only looks at municipal documents to piece together this history, but also images within the archives. Peter Burke argues that ‘the history of material

⁹ J. Carruthers, ‘Environmental history in southern Africa: An overview’, in S. Dovers, R. Edgecombe and B. Guest (eds), *South Africa’s Environmental History: Cases and Comparisons*, (Cape Town: David Philip Publishers, 2002), 12.

culture [] would be virtually impossible without the testimony of images.’¹⁰ Images in this thesis are a useful tool that gives insight into particular time periods. Patrick Ngulube comments that the ability to piece together historical narratives largely depends upon primary sources such as those within the archives.¹¹ This thesis draws heavily on primary sources from the archives, but also makes use of secondary sources where no information is available for gaps in time or particular narratives, and to situate the findings in a broader historiography. This includes parts of the third and fourth chapters. Oral interviews are also used in the final chapter of this thesis in the exploration of the community living on the municipal landfill outside of Stellenbosch, at Devon Valley. Oral history is a useful tool that allows the historian to incorporate history from below. ‘Oral history, in short, tries to give social history a human face.’¹² Oral history, therefore, is a useful tool in an historian’s toolbox in piecing together local and national histories. The reliability of these interviews is always open to challenge. This is a result of the nature of informal waste picking where individuals who locate themselves on the landfill are usually those who have little choice and are separated from support systems. However, the case study drawn from these interviews explores life on the landfill for this community and contributes understanding of the informal waste sector. Thus, the interviews from the landfill at Devon Valley not only give unique insight into this landfill community, but also allow a mephitic discourse of waste to be released directly from the landfill.

Socio-Environmental History

This thesis is situated within the realm of both social and environmental histories. Socio-environmental history offers a strong framework for the analysis of this thesis in how ‘power operates through differences embedded in class, race, gender and generation’.¹³ Waste, as the by-product of the development of the economy and society, has a nuanced placement within socio-environmental history. As the effluence of human societies accumulates it poses a credible threat to both the

¹⁰ P. Burke, *Eyewitnessing: The Uses of Images as Historical Evidence*, (Ithaca: Cornell University Press, 2008), 9.

¹¹ P. Ngulube, ‘Future of the past: access to public archives in southern Africa and challenges to historical research’, *Historia*, 47, 2 (2003), 562.

¹² J. Tosh, *The Pursuit of History*, (London and New York: Longman, 1989), 176.

¹³ S. Swart, *Riding High: Horses, Humans and History in South Africa*, (Johannesburg: Wits University Press, 2010), viii.

environment and the health of individuals. Waste is in the unique position that it is most often unwanted in both the environment and human society; thus, the development of management of waste and waste behaviour is interesting to study over time to garner a deeper understanding of this socio-environmental context in which waste exists. Nancy Jacobs comments that both social and environmental historians write from below:

For social historians of South Africa, the lowest stratum is composed of black workers and peasants. For environmental historians, the land and its ecological communities form the fundamental layer. Both schools of historians have sought to show that the history of those at the bottom has been suppressed, their voices ignored and their agency unrecognized.¹⁴

As a result, intersecting narratives to create socio-environmental histories create a “true” history from below that combines elements of both sub-disciplines. The development of environmental histories that explore the relationship between people and nature are particularly important in teasing out the ‘distinctive features of the South African economy, society, and identity.’¹⁵

Environmental history is still a relatively new sub-discipline in History. As a result, few historians have waded into this ‘distant and foreign’¹⁶ area of study. Historians such as Alfred Crosby are among the pioneers of environmental histories, putting the environment in a central position in analyses of historical accounts. Stephen Dovers argues that,

At root, most environmental history deals with changing institutions – law, custom, governance – but less often is it a central focus. The slowness of institutional change and the fortunes of our past institutional responses to environmental change are good history and a source of good lessons now.¹⁷

This is certainly the case in South African waste history where the study of institutions governing waste management and guiding waste behaviour can provide valuable lessons into waste management and behaviour. Considering that

¹⁴ N.J. Jacobs, *Environment, Power, and Injustice: A South African History*, (Cambridge: Cambridge University Press, 2003), 16.

¹⁵ W. Beinart, *The Rise of Conservation in South Africa: Settlers, Livestock and the Environment 1770-1950*, (Oxford: Oxford University Press, 2003), 27.

¹⁶ Beinart, *The Rise of Conservation in South Africa*, xix.

¹⁷ S. Dovers, ‘Commonalities and contrasts, pasts and presents: An Australian view’, in S. Dovers, R. Edgecombe and B. Guest (eds), *South Africa’s Environmental History: Cases and Comparisons*, (Cape Town: David Philip Publishers, 2002), 237.

environmental history has only recently become ‘a distinct field of historical inquiry,’¹⁸ in South Africa, the exploration of these new environmental histories within the South African context is important in developing the field.

Furthermore, in South Africa, the particular development of race relations as a result of colonialism and Apartheid resulted in dichotomous experiences of environmental and social conditions along lines of race and class. Nancy Jacobs argues that ‘[c]oncepts of colonialism in southern African and environmental history have an awkward fit. Environmental histories of colonialism and imperialism focus on white settlement.’¹⁹ This thesis, however, aims to bridge this gap using waste as a lens into South African society in order to achieve a broader historical narrative. Although William Beinart points out that ‘South African environmental understanding grew from the late eighteenth century within a broader international and imperial context,’²⁰ the interest in including environmental matters into historical accounts came much later. From the 1980s, environmental historians – the likes of William Beinart, Peter Delius, Stanley Trapido and others – emerged with histories of land, farming and the relationship between humans and the environment.²¹ Phia Steyn argues that the class interests that originally had a hold on South African historiography was gradually integrated with histories of racial relations.²² From the 1980s environmental histories were on the rise in South Africa. This trend occurred later than in the Western world where television (only introduced in South Africa during the 1970s) was able to expose the Western populace to environmental catastrophes and the adverse effects of human consumption on the environment.

The 1990s introduced a time in South Africa in which environmental histories were dug from the landfill of the archives (amongst other places). Socio-environmental

¹⁸ Carruthers, ‘Environmental history in southern Africa’, in Dovers, Edgecombe and Guest (eds), *South Africa’s Environmental History*, 3.

¹⁹ Jacobs, *Environment, Power, and Injustice*, 30.

²⁰ Beinart, *The Rise of Conservation in South Africa*, 334.

²¹ See W. Beinart, *The Political Economy of Pondoland, 1860-1930*, (Cambridge: Cambridge University Press, 1982); P. Delius, *The Land Belongs to Us: The Pedi Colony, the Boers and the British in the 19th century Transvaal*, (Johannesburg: Ravan Press, 1983); W. Beinart; P. Delius and S. Trapido (eds), *Putting a Plough to the Ground: Accumulation and Dispossession in Rural South Africa, 1850-1930*, (Johannesburg: Ravan Press, 1986).

²² P. Steyn, ‘The Greening of Our Past? An Assessment of South African Environmental Historiography’, *New Contree*, 4 (1999), available online at: <http://www.h-net.org/~environ/historiography/safrica.htm> (Accessed 14 March 2013).

histories have come in the form of Stephen Dovers, Ruth Edgecombe and Bill Guest's *South Africa's Environmental History: Cases and Comparisons* (2002), Nancy Jacobs' *Environment, Power, and Injustice: A South African History* (2003), Sandra Swart's *Riding High: Horses, Humans and History in South Africa* (2010), Bill Freund's *The African City: A History, New Approaches to African History* (2007), and Kobus du Pisani's socio-environmental work on the evolving nature of environmental management in South Africa and global environmental concerns.²³ In *Environment, Power, and Injustice: A South African History*, Jacobs argues that 'historians of Africa are among the first to have used categories of social history to look at human relations with the environment.'²⁴ Environmental historians 'have been forced by their subject matter to become more adept at interdisciplinary work'.²⁵ Johann Tempelhoff, for example, investigated the mining industry and its effects on the depletion of wood, coupled with socio-economic factors leading to widespread poverty, ensuring that the government would repeal most of its conservation legislation.²⁶ Elize van Eeden, another South African socio-environmental, has contributed to the field with her work on environmental and health histories.²⁷ Socio-environmental perspectives in South Africa, therefore, are of growing importance in the wider discipline and have a framework for understanding with which it is vital to engage.

Socio-environmental histories also come in the form of new urban histories that trace the transition from rural to urban; health, sanitation and disease in cities; urban

²³ See S. Dovers, R. Edgecombe and B. Guest (eds), *South Africa's Environmental History: Cases and Comparisons*, (Cape Town: David Phillip Publishers, 2002); N. Jacobs, *Environment, Power, and Injustice: A South African History*, (Cambridge: Cambridge University Press, 2003); S. Swart, *Riding High*; B. Freund, *The African City: A History, New Approaches to African History*, (New York: Cambridge University Press, 2007); and K. du Pisani, 'What is global environmental history?' Conversation with P. Bevilacqua, G. Castro, R. Chakrabarti, K. du Pisani, J.R. McNeill, D. Worster', Forum edited by G. Corona, *Global Environment, A Journal of History and Natural and Social Sciences*, 2 (2008), 228-249.

²⁴ Jacobs, *Environment, Power, and Injustice*, 29.

²⁵ Carruthers, 'Environmental history in southern Africa', in Dovers, Edgecombe and Guest (eds), *South Africa's Environmental History*, 6.

²⁶ J. Tempelhoff, 'Die ontginning van Noord-Transvaal se houtbronne in die negentiende eeu en vroeë bewaringsmaatreëls' [The exploitation of the Northern Transvaal wood resources in the nineteenth century and early conservation measures], *South African Forestry Journal*, 158, 1 (1991), 67-76.

²⁷ See E.S. van Eeden, M. Liefferink and J. Tempelhoff, 'Environmental ethics and crime in the water affairs of the Wonderfontein Spruit Catchment, Gauteng South Africa', *The Journal for Transdisciplinary research in Southern Africa*, 4, 1 (2008), 31-58; and E. S. van Eeden, 'Weaknesses in environmental action in South Africa: A historical glance on the West Rand (Gauteng Province)', *International Journal of Water Resources Development*, 24, 3 (2008), 463-475.

density; housing and more. Environmental history arose as a framework for analysis within urban studies, as a result of increasing density in urban areas leading to ‘undesired environmental circumstance’.²⁸ Much of this thesis looks at the history of waste within the urban context, as the increasing ‘human load on a finite environment’²⁹ is a major factor that affects change within the nation state. As a result of high urban density, this is seen in urban areas more than anywhere else. Peter Boomgaard and Marjolein ’t Hart, as the editors of *Globalization, Environmental Change and Social History* (2011), contributed an important addition to socio-environmental historical knowledge. Beinart comments that, ‘[t]he insertion of perspectives from environmental history that systematically build in political economy, the history of ideas, as well as ecological change, has hardly begun’.³⁰ This thesis will show that waste history, observed through a socio-environmental framework, offers a historical narrative that cuts across multiple areas of study. These include urban history, the history of health and disease, local and regional histories, the political economy, the history of racial relations and class, gendered accounts of history, war history and more.

Framing International Waste History for the South African context

For most of human time, our predecessors simply dropped items on the ground when they became unwanted. When they began living in permanent settlements, some[]times they threw their discards into old storage pits, dropped them down privies, or even intentionally dug garbage pits to bury them.³¹

Prior to the advent of human settlement, it is accepted that waste caused little issue amongst roaming *Homo sapiens*.³² The work of archaeologists shows us familiar archetypes of waste management across the world for these roamers as well early settled civilisations. There is evidence of waste pits among ancient civilisations such

²⁸ S.P. Hays, *Explorations in Environmental History: Essays*, (Pittsburgh: University of Pittsburgh Press, 1998), 72.

²⁹ Hays, *Explorations in Environmental History*, 98-99.

³⁰ Beinart, *The Rise of Conservation in South Africa*, 389.

³¹ M. Shanks, D. Platt and W.L. Rathje, ‘The perfume of garbage: modernity and archaeological’, *Modernism/Modernity*, 11, 1, Project Muse: John Hopkins’ University Press, (2004), 65.

³² See H. Winsborough, D. Carr and S. Martin, ‘Birth, Death, and the Survival of the Family’, *Centre for Demography and Ecology (CDE) Working Paper 97-06 University of Wisconsin-Madison*, 12.

as that of the Mayans, Native Americans and others..³³ Archaeologists refer to these concentrated pits of waste as middens. Multiple middens have been found along the Southern Cape coast. These come in the form of shell middens found in Die Kelders, Kasteelberg, Tortoise Cave, Diepkloof Cave, Hawston, Nelson Bay Cave, Byneskranskop and Boomplaas Cave at Nelson Bay, and Byneskranskop.³⁴ These middens mainly consist of shells, bones, botanical material, vermin and other natural materials and are sometimes referred to as shell middens. The shell middens functioned as domestic waste sites and archaeologists have studied them for greater insight into the lives of sedentary communities. Conclusions pertaining to the evidence of pottery, the diet and the introduction of metal work have been reached as a result of these middens. Archaeologists use these sites to explain changes in the lives of these societies such as the use of hearths by the fire and the link between cattle stock and the use of pottery.³⁵ Using the medium of waste archaeologists have managed to forge a powerful picture of the lives of roaming Homo Sapiens. Similarly, conclusions can be drawn from looking at the waste of society in the modern world. In modern history, the fast developing nations across the world accumulated waste in ever-increasing amounts, with changing materials in disposal sites, changes in how waste has been dealt with, and more. International waste history in the modern world has followed progresses and setbacks in the (mainly urban) environment that helps to frame South Africa's waste management history as due to Western influence.

Historical narratives of waste, as mentioned earlier, are intersected with multiple other histories. The wider public health debate is one that has gained particular traction within the history of waste. This debate began a slow rise to significance during the Middle Ages and finally took centre stage during the Victorian era. This time period has been widely explored by historians and the initial conversations about sanitation and health were grounded in medical history. Medical history focused on the experience and knowledge of doctors and surgeons, celebrating the medical

³³ See S. T. Evans and D. L. Webster, *Archaeology of Ancient Mexico and Central America: An Encyclopedia*, (New York: Garland Publishing, 2001).

³⁴ Radiocarbon dating places these sites around 2000-1500 BP. See R. G. Klein, 'The Prehistory of Stone Age Herders in the Cape Province of South Africa', *South African Archaeological Society*, 5, (1986), 7.

³⁵ H.J. Deacon, J. Deacon, M. Brooker and M.L. Wilson, 'The Evidence for Herding at Boomplaas Cave in the Southern Cape, South Africa', *The South African Archaeological Bulletin*, 33, 127 (1978), 57.

profession and exalting its employees – making heroes of doctors. However, an understanding of sanitation and health took a new form in historiography in the 1960s with the likes of George Rosen who,

offered a social history in which he tried to demonstrate the social production of health and disease, to place physicians and public health practitioners within their social context, and to show how their changing ideas and practices related to the larger framework of political and economic conditions.³⁶

This new framework of understanding sanitation, disease and health in the Victorian era brought forth multiple works that looked at extensive primary sources in order to reflect upon the human experience of these times, particularly ones that looked at epidemic disease and poor sanitation. The rise of sanitation social history widened the discourse on class and agency, intersecting with literature on growing populations in urban areas. The accumulation of waste and the prevalence of epidemic disease in urban areas necessitated the need for the systematic removal of waste, as a result.

The cycle of progress and regression in waste management over the years developed from the use of waste middens to earth-layered waste pits and the haphazard dumping of waste in streets. As waste historians Michael Shanks, David Platt and William L. Rathje discuss, individuals dealt with waste by using ‘old storage pits, dropped [it] down privies, or even intentionally dug garbage pits to bury [waste]’.³⁷ Through the use of these poor methods (and the lack of any waste management and removal), waste production and disposal eventually culminated in monumental issues that assisted the spread of disease, particularly the Bubonic Plague. The Industrial Revolution from c.1750 to 1850 brought about new challenges in terms of waste and sanitation as a result of spiralling urbanisation and burgeoning industry. The haphazard approach of dumping waste in the streets was still widely used (this was a method employed during the Roman Empire)³⁸ and as a result newly industrialising cities were a mess. The quality of life for those living in the rotting mess in the urban slums of London is a popular theme for social historians and has a strong foothold in

³⁶ E. Lee, ‘Public Health, Past and Present: A Shared Social Vision’, G. Rosen: *A History of Public Health*, (Maryland: Johns Hopkins University Press, 1993), xi.

³⁷ Shanks, Platt and Rathje, ‘The Perfume of garbage’, 65.

³⁸ D.G. Wilson, ‘A Brief History of Solid-Waste Management’, *International Journal of Environmental Sciences*, 9, 2 (1976), 123.

Victorian literature.³⁹ A waste crisis became especially prominent with advancements in textile manufacturing, metallurgy, mining, steam power, chemicals, machine tools, gas lighting, glass making, papermaking and the effects on agriculture. There was a consequent increase in industrial and household waste. This waste was not dealt with in an organised fashion until the nineteenth century, where sanitary reformers took on town planning to deal with the problems that arose from sewerage and solid waste in towns and cities in a systematic fashion. In the meantime, the industrial revolution brought on urbanisation and an unprecedented escalation in population, income, and growth and as a result, filth. '[T]he first phases of the industrial revolution produced a kind of "disorder" rather than an instantaneous new order; the gradual nature of the change distressed and bewildered town and country people alike.'⁴⁰ Rather than a cohesive response to filth and garbage in cities, it took over a century for the roll-out of sanitation schemes to improve upon the health and well-being of those living in newly industrial cities.

However, this process took time. In the interim, it was often up to the impetus of individuals to take care of their own waste disposal, similar to the case of South Africa discussed in Chapter Two. As a result of the influence of Britain's colonial empire, the human settlements cropping up across the world dealt with waste in a similar fashion to Britain and continental Europe. Waste historian Brian Crane writes about municipal waste in Washington D.C., commenting that in the nineteenth century it was left up to private homeowners, and an organised system of municipal waste collection was almost completely absent.⁴¹ Although some residents made the effort to bury their waste in their backyards, others abandoned their waste in the streets. Therefore, there was an increasing need and demand for municipalities and governments to deal with the waste crisis. Continuing with the example of Washington D. C., this point is illustrated by growth over time.

As the city grew from a sparsely populated rural town to a large city, concern with the health implications of such practices caused city officials to pass ever-stricter regulations concerning refuse, and historically rural habits were gradually supplanted by new urban behaviours.⁴²

³⁹ See C. Dickens, *Oliver Twist* (London: Richard Bentley, 1839).

⁴⁰ M.V. Melosi, *Garbage in the Cities: Refuse, Reform and the Environment*, (Pittsburgh: University of Pittsburgh Press, 2005), 6.

⁴¹ B.D. Crane, 'Filth, Garbage, and Rubbish: Refuse Reform, and Nineteenth Disposal, Sanitary Yard in Century Deposits Washington, D. C.', *Society for Historical Archaeology*, 34: 1 (2000), 20.

⁴² Crane, 'Filth, Garbage, and Rubbish', 20.

Thus, urban infrastructure and a sanitation-conscious culture in terms of waste disposal and removal slowly followed the rise of cities as they tackled the issues of living in close proximity.

Michelle Allen, as an historian of the Victorian City and sanitation, writes about the developments in sanitary reform in response to disease and other distasteful results of unsanitary conditions.⁴³ Environmental historians writing about horses such as Joel A. Tarr and Clay McShane's in 'The Horse as an Urban Technology' write about the impending doom of horse manure piling up in cities and the opportunities for profit that this created.⁴⁴ Sanitation historians and historians studying the Victorian city are of use to waste historians, in that the studies of filth in the Age of Sanitation pay particular attention within a socio-environmental framework to how the lives of "ordinary people" were affected. Tina Young Choi writes that in the Victorian city,

Filth, impervious to the traditional distinctions of geography and class, thus forms the "links" in the invisible and inevitable network joining all of London, making an unexpectedly continuous whole.⁴⁵

The Victorian era was introduced with the induction of Queen Victoria to the throne in Britain from 20 June 1837 to 22 January 1901.⁴⁶ Some historians know it as the age of social and sexual restraint, but it is undeniably known as the Age of Sanitation. Sanitary reform during this period came in the form of restoration of the urban poor. Thus, during these years as a result of the dawning realisation of the links between sanitation and health, the redemptive powers of sanitation and cleanliness were widely believed. Discourse on the moral regeneration of the urban poor has arisen as a result of the spread of disease in Victorian London. This ensures that filth and waste narratives are inextricable from proponents of classist paternalism and include rhetoric of moral righteousness.⁴⁷ The Age of Sanitation began approximately three years prior to the reign of Queen Victoria, but it was within her rule that it gained momentum. A prominent church leader proclaimed that this 'movement was

⁴³ M. Allen, 'From Cesspool to Sewer: Sanitary Reform and the rhetoric of resistance 1848-1880', *Victorian Literature and Culture*, 30, 2 (2002), 384.

⁴⁴ J.A. Tarr and C. McShane, 'The Horse as an Urban Technology', *Journal of Urban Technology*, 15, 1 (2008), 13.

⁴⁵ T.Y. Choi, 'Writing the Victorian City: Discourses of Risk, Connection, and Inevitability', *Victorian Studies*, 43, 4 (2001), 569.

⁴⁶ See A. Briggs, *Victorian Cities* (Berkeley and Los Angeles: University of California Press, 1993).

⁴⁷ M. Allen, 'From Cesspool to Sewer: Sanitary Reform and the rhetoric of resistance 1848-1880', *Victorian Literature and Culture*, 30, 2 (2002), 383.

"pregnant with the most important advantages to the human race, in every point of view social, moral, and religious."⁴⁸ The social, moral and religious aspects of this movement lasted for almost a century, and were carried to the colonies giving weight to imperialist attitudes to "indigenous" cultures.⁴⁹

Sir Edwin Chadwick and other reformers led the advancements in sanitation during the nineteenth century in Britain. Through their leadership multiple laws were put into place to ensure the health of individuals in the city including the Nuisances Removal and Diseases Prevention Act and the Public Health Act (1848). As well as this, the Metropolitan and City Sewers Acts for the first time in London's history created a legal framework under which citizens were required to channel domestic waste into the sewers.⁵⁰ Chadwick's approach to change was thought of as 'brilliant but abrasive',⁵¹ and his profound achievements in the advancement of sanitation and health in cities is a tier on which modern cities stand today. Back in the sewers, sewerage known as wet waste, and dry waste underwent similar reforms throughout this time period. Change, however, was often met with fear and suspicion rather than the same enthusiasm with which Chadwick and his counterparts pressed forward. Michelle Allen argues that the appearance of apocalyptic rhetoric was prominent with visions of 'underground "volcanoes of filth" threatening to "transform London into a modern Pompeii."⁵² There was urgency about the need for sanitary reform with disease and filth ravaging the cities of Britain, and progress was facilitated by the spread of disease and increasing health concerns in cities. Similar to the rhetoric produced in South Africa, seen in Chapter Two and parts of Chapter Three of this thesis, this subversive rhetoric is common within the waste industry and in society's response to waste crises.

The rise of the industrialised world brought with it 'the enormity of the unplanned urbanization of the 19th century: roughly 3 million people (slightly over 30%) were urban in 1801 in England and Wales, compared with 28.5 million (almost 80%) in

⁴⁸ Allen, 'From Cesspool to Sewer', 383.

⁴⁹ See P. Brantlinger, 'Victorians and Africans: The Genealogy of the Myth of the Dark Continent', *Critical Inquiry*, 12, 1 (1985), 166-203.

⁵⁰ Allen, 'From Cesspool to Sewer', 386.

⁵¹ J.A. Peterson, 'The Impact of Sanitary Reform upon American Urban Planning, 1840-1890', *Journal of Social History*, 13, 1 (1979), 86.

⁵² Allen, 'From Cesspool to Sewer', 390.

1901.’⁵³ According to Christopher Hamlin and Sally Sheard, two sanitation and waste historians, fear was used as tool to push sanitary reform, encouraging people to take practical steps towards achieving it. Chadwick, a leading sanitary reformer, was a commissioner of both the Metropolitan Commission of Sewers and the General Board of Health, and for a time, was known as the most hated man in England for his work on the new poor law of 1838. Here, he helped to institute the discouragement of relief for those who refused to enter the repressive workhouses, and Chadwick designed these workhouses as uninviting places, the horrors of which are written about in the likes of Charles Dickens’ *Oliver Twist*.⁵⁴ His controversial actions with the new poor law were mirrored when he put his reputation at stake and faced the adverse reactions to change in his work on the sanitation laws. He made way for environmental changes to the city of London including, but not limited to, ‘green spaces, better ventilation, and even better road surfaces.’⁵⁵ In this respect, Chadwick paved the way for the sustainable cities movement in the 21st century, but his limitations within his own time period came down to the will of citizens to accept change. Changing waste behaviour is not an easy task, and the will of both municipal managers and individuals within the nation state can either hinder or help good waste practice.

Chadwick’s Public Health Act of 1848, implemented in England and Wales, was the first approach to waste that was proactive rather than reactive. The time was rife in Britain for the change, as the lack of solid waste removal combined with living in close contact collided to produce major epidemics across the Western World.⁵⁶ ‘Chadwick’s report went further in developing the relationship between disease, mortality, and urban space by foregrounding this conception of sanitary threat, and significantly, by advancing his prose arguments with new statistical methods.’⁵⁷ Chadwick led research in England and Wales in 50 of the largest towns (excluding London as it was so large it was counted as a special case), documenting sanitation. Chadwick’s reputation for harshly enforcing the new poor law facilitated his

⁵³ C. Hamlin and S. Sheard, ‘Education and the Debate: Revolutions in public health 1948, and 1998?’, *British Medical Journal*, 317, 7158 (1998), 587.

⁵⁴ C. Dickens, *Oliver Twist* (London: Richard Bentley, 1839). This novel relates a horror story of repressive workhouses in Britain, with poor hygiene and terrible working conditions.

⁵⁵ Hamlin and Sheard, ‘Education and the Debate’, 589.

⁵⁶ C.L. Redman and N. S. Jones, ‘The Environmental, Social, and Health Dimensions of Urban expansion’, *Population and Environment*, 26, 6 (2005), 513.

⁵⁷ Choi, ‘Writing the Victorian City’, 573.

successful execution of the Public Health Act.⁵⁸ In retrospect, these sanitary laws have gained public admiration and esteem amongst historians considering that, '[n]ow, in an age of devolution and of public participation in health improvement, one is struck by the practical wisdom and revolutionary implications of legislation so riddled with compromise.'⁵⁹ Sanitary reform in Britain enforced standards of health and multiple avenues including legislation, financial threat, and infrastructure that would facilitate self-determination rather than pander to the populace.⁶⁰ It was through the Public Health Act and the various amendments over the half-century that came to pass, that standards for public health and sanitation were set and this knowledge was imparted to Britain's colonies through the colonies' officials and ideas of urban planning passed on through education and training.

Horses and mules persisted in causing waste issues in towns and cities, and the reactive rather than proactive approach to this smelly issue finally came to a head in 1898. Prior to this, horses were used as the primary mode of transportation until the invention and rollout of the automobile. They were also used in most of the Western world to 'tow rotating street sweepers'⁶¹ from around 1870. The calamitous issues with waste in cities, especially as a result of horse manure, meant that in 1898 the first urban planning conference was hosted in New York. This conference included a variety of international stakeholders and was dominated with discussion surrounding the effects of the main mode of transportation.⁶² The result of horse transportation meant that 'American cities were drowning in horse manure as well as other unpleasant by-products of the era's predominant mode of transportation: urine, flies, congestion, carcasses, and traffic accidents.'⁶³ The manure that piled up on the streets meant that there was a major urban planning crisis. As a result, environmental historian Eric Morris writes,

The situation seemed dire. In 1894, the *Times* of London estimated that by 1950 every street in the city would be buried nine feet deep in horse manure. One New York prognosticator of the 1890s concluded that by 1930 the horse droppings would rise to Manhattan's third-story windows.

⁵⁸ Hamlin and Sheard, 'Education and the Debate', 589- 590.

⁵⁹ Hamlin and Sheard, 'Education and the Debate', 590.

⁶⁰ Hamlin and Sheard, 'Education and the Debate', 590.

⁶¹ C. McShane and J.A. Tarr, *The Horse in the City: Living Machines in the Nineteenth Century*, (Baltimore: John Hopkins University Press, 2007). 7.

⁶² E. Morris, 'From Horse to Horsepower', *Access*, 30 (2007), 2.

⁶³ Morris, 'From Horse to Horsepower', 2.

A public health and sanitation crisis of almost unimaginable dimensions loomed.⁶⁴

Again, subversive rhetoric and apocalyptic predictions spurned from the accumulating issues of waste management. Poets William Wordsworth (1770-1850) and Gerard Manley Hopkins (1844-1889) mirror this in the responses to the worrying effects on the environment during the industrial revolution. The cataclysmic results of the lack of garbage management in cities culminated in the dirty pictures of industrialising cities painted by such poets and writers. Preceding the conference the issues of urban horse manure expanded exponentially during the height of the Victorian era as a result of industrialisation encouraging major urbanisation and population growth. American cities expanded by thirty million during the nineteenth century. This is pertinent considering that '[i]n an age of rapid urbanization, horses flourished, and census and city records suggest that horses were urbanizing more rapidly than people in the third quarter of the nineteenth century.'⁶⁵ Lives were exponentially different in facing these waste crises for the different classes. Richer families in cities such as New York built their houses so that structurally, the front stairs would be several feet above the common pavement area to lessen the smell of the urban equine. For the lower classes there was often little choice but to live in the filth. However, with the perfection of the New York sweeping service and the introduction of the modern day motor vehicle, the problems of horse manure became largely irrelevant and new problems were introduced. The 1894 horse manure crisis was solved through better urban planning, '[h]uman ingenuity and technology (enabled by government, which provided infrastructure and regulations) did the job—and at the same time they brought a tremendous concurrent increase in mobility.'⁶⁶

Politicians and reformers were pushed towards change as a result of major waste crises facing Britain, America and the colonies. Unplanned cities buckled under the weight of the waste as a result of spiralling population growth and urbanisation. Singular events such as the Great Stink in 1858, where the houses of parliament considered moving due to the relentless smell of the Thames flushed with sewerage, encouraged change. These events spurned on the hardened attitudes of policy

⁶⁴ Morris, 'From Horse to Horsepower,' 2.

⁶⁵ Tarr and McShane, 'The Horse as an Urban Technology', 5.

⁶⁶ Morris, 'From Horse to Horsepower', 8.

reformers, and reform came in many guises. This included the obligatory roles and duties of Sanitary Inspectors, Medical Officers of Health and Sanitary Engineers. Cities and towns in England and Wales were prime examples for the colonies as sanitation improved health amongst the lowest classes, decreasing the risk of faecal-oral diseases as well as those spread by vermin and other insanitary conditions. It was only in 1875 that the rollout of collection systems, and a move-away from throwing dry waste in sewers, occurred in Britain.⁶⁷ Wet waste was a more urgent concern as the sanitation movement has not yet grappled with dry waste in depth and the environmental movement was far from its rise in urgency. The changing nature of towns and cities is demonstrated in Victorian literature, which document themes of human agency at the advent of these cities, but culminate in what historians know today to be the filth of this era illustrative of the gloomy social conditions.

[...] London in particular, had enjoyed in earlier centuries the reputation of being fraught with unique possibilities for individual action and social interaction. But its representation in early-nineteenth-century texts downplayed its status as a stage for individual action, and emphasized instead its role as a problem and a focus for social concern.⁶⁸

The mismanagement of waste therefore, was a factor that contributed towards individual action for social change.

The reforms implemented spread across continents as newly created empires imparted knowledge alongside their domination of other growing societies. This was certainly the case for South Africa as a British colony. As the advancement of technology combined with innovation necessitated the exploitation of natural resources, the search for these resources became ever more critical to the advancement of nations.⁶⁹ The colonisers gained profit and increasingly complex settlements were created in colonies, ensuring the need for more effective waste systems. However, where much of the sanitary reform in Britain was encouraged through paternalistic classist attitudes and moral righteousness over the lower socio-economic sectors of the population, sanitary reform through town planning in South Africa was eventually

⁶⁷ T. Majewski (ed.), 'Down in the Dumps: Context Statement and Guidance on Historical-Period Waste management and Refuse Deposits', *SHPO Advisory Committee on Historical Archaeology*, [unpublished], 8.

⁶⁸ Choi, 'Writing the Victorian City', 562.

⁶⁹ See W. Beinart and L. Hughes, *Environment and Empire* (Oxford: Oxford University Press, 2009); and J. Iliffe, *Africans: The History of a Continent* (Cambridge: Cambridge University Press, 1995).

motivated by Social Darwinian views of sanitation and racial segregation, discussed in Chapter Two. South African waste history can be traced from the aforementioned shell middens towards the burgeoning colonial cities whose waste management infrastructure was adapted from Britain and continental Europe. Tracing the history of sanitation of urban studies within History is important in order to understand the transference of methods to South African shores, and contextualise similarities in the South African rollout of waste management services.

International Waste Historiography

The literature covering sanitation and urban histories in America and Britain is important to trace in order to recognise trends in international waste history. However, waste histories only arose later. Journalist Vance Packard planted the seeds for interest in waste history, creating the beginning of waste studies in his book *The Waste Makers* (1960). In this bestselling exposé of consumerism, excessive materialism and the waste it produces, Packard predicted, ‘Historians, I suspect, may allude to this as the Throwaway Age’.⁷⁰ Packard’s writings brought to the forefront the need to reevaluate American consumption and its harms for society, the economy, and values of society. His harsh criticism of a government-led drive of economic growth as a virtue within society marks a turning point in how waste and consumption is viewed. The “throwaway spirit” Packard alludes to, where quantity is valued above quality, is a key point in *The Waste Makers*. The writings of other concerned academics followed Packard’s publication including *Our Polluted Planet* (1968) produced by Ambassador College that stated, ‘Only recently have we become acutely aware of the fact that we are exceeding nature’s ability and capacity to reprocess the kinds of quantities of wastes which are being produced.’⁷¹ Further contributions were made to waste literature in the 1990s with John E. Young’s *Discarding the Throwaway Society* (1991). In this publication Young wrote about Packard’s “Throwaway Age” that,

Three decades later, his description of the second half of the twentieth century is still apt for residents of industrial nations. Although municipal waste is neither the largest nor the most dangerous category of waste materials in industrial nations, it is certainly an indicator of overall

⁷⁰ V. Packard, *The Waste Makers*, (New York: IG Publishers, 1960), 23.

⁷¹ Ambassador College, *Our Polluted Planet*, (England: Ambassador College Press, 1968), 8.

profligacy. And producing items that end up as garbage accounts for much of the other waste generated by industrial societies.⁷²

Young's commentary on the waste crisis calls for a reevaluation in how industrial societies deal with both consumerism and waste. Growing interest in waste studies and waste history over the last three decades has resulted in multiple publications, especially as commentaries on the United States and Europe. This includes the likes of Elizabeth Royte's *Garbage Land: On the Secret Trail of Trash* (2005), Greg Kennedy's *An Ontology of Trash: The Disposable and Its Problematic Nature* (2007), Martin V. Melosi's *Garbage In The Cities: Refuse, Reform, And the Environment* (2005) and *The Sanitary City: Environmental Services in Urban America from Colonial Times to Present* (2008).⁷³

Yale's Environmental School has contributed to publications on the topic of municipal solid waste. The management, policy, behaviour and practices relating to solid waste are all topics covered by the likes of Geoffrey Godbey, Reid Lifset, Russell Hardin, Marian Chertow, and Ayman Elshkaki.⁷⁴ Another important publication in waste history is Heath Roger's *Gone Tomorrow: The Hidden Life of Garbage* (2002). Roger's investigation into the United States (as the world's biggest producer of garbage) and the global crisis in waste, traces the issue from the 1800s to present day. This publication also covers controversial topics such as exporting rubbish to the developing world and the effects of waste on the environment.⁷⁵

The diversity of waste publications can be seen in Gillian Whitely's *Junk: Art and the Politics of Trash* (2010). Whitely's book follows the narrative of different forms of rubbish, telling the story of waste through objects. Furthermore, *Junk: Art and the*

⁷² J.E. Young, *Discarding the Throwaway Society*, Worldwatch paper 101, (1991).

⁷³ See E. Royte, *Garbage Land: On the Secret Trail of Trash*, (United States: Little, Brown, 2005); G. Kennedy, *An Ontology of Trash: The Disposable and Its Problematic Nature*, (New York: SUNY Press, 2007); M.V. Melosi, *Garbage In The Cities*; and M.V. Melosi, *The Sanitary City: Environmental Services in Urban America from Colonial Times to Present*, (Pittsburgh: University of Pittsburgh Press, 2008).

⁷⁴ See G. Godbey, R. Lifset and J. Robinson, 'No time to Waste: An Exploration of Time Use, Attitudes towards Time, and the Generation of Municipal Solid Waste', *Social Research*, 65, 1 (1998), 101-140; R. Hardin, 'Garbage Out, Garbage In', *Social Research*, 65, 1 (1998); M.R. Chertow, 'Waste, Industrial Ecology, and Sustainability', *Social Research*, 65, 1 (1998), 31-53; A. Elshkaki, E. van der Voeta, V. Timmermans, and M. Van Holderbeke, 'Dynamic stock modelling: A method for the identification and estimation of future waste streams and emissions based on past production and product stock characteristics', *Energy*, 30, 8 (2005), 1353-1363.

⁷⁵ H. Rogers, *Gone Tomorrow: The Hidden Life of Garbage*, (New York: New Press, 2002).

Politics of Trash describes the culture of disposability as well as the etymology of rubbish.⁷⁶ The lexicon of waste is investigated in *Encyclopedia of Consumption and Waste: The Social Science of Garbage* (2012) written by Carl A. Zimring with famous waste historian William L. Rathje as a consulting editor.⁷⁷ Other social scientists have explored objects as contributions to waste literature, such as Gillian Pye's *Trash Culture: Objects and Obsolescence in Cultural Perspective* (2010).⁷⁸ Simonetta Falasca-Zamponi's *Waste and Consumption: Capitalism, the Environment, and the Life of Things* (2011), argues that waste history has focused too heavily on overproduction while neglecting wasteful consumption.⁷⁹ Particularly within the American literature on waste history, second-hand goods and recycling have been popular topics of exploration. This is seen also in *Second-Hand Cultures* (2003), in which Nicky Gregson and Louise Crew discuss "up cycling" from the waste stream, by repurposing second-hand goods, and exploring second-hand worlds.⁸⁰

Local waste histories and histories focusing on specific time periods have also been produced. Matthew Gandy's book *Recycling and the Politics of Urban Waste* (1994) is an investigation into three major cities: London, Hamburg and New York. This publication investigates the recycling and municipal waste systems of these three cities using a political and economic commentary to better understand waste management.⁸¹ *Down in the Dumps: Place, Modernity, American Depression* (2008), written by Jani Scandura, is another localised waste history. This publication explores waste in a time of scarcity. This ethnographic historical study is an exploration of the Great Depression in the United States, in which Scandura explores dumpsites used during the Great Depression and the use of imagery to investigate waste behaviour and citizenship.⁸² David Pellow's *Garbage Wars: The Struggle for Environmental Justice in Chicago* (2004) explores the history of waste in the city of Chicago from

⁷⁶ G. Whitely, *Junk: Art and the Politics of Trash*, (London: IB Taurus, 2010).

⁷⁷ C.A. Zimring and W.A. Rathje (eds), *Encyclopedia of Consumption and Waste- The Social Science of Garbage*, (London: Sage Publications, 2012).

⁷⁸ G. Pye (ed.), *Trash Culture- Objects and Obsolescence in Cultural Perspective*, (Bern: Peter Lang, 2010).

⁷⁹ S. Falasca-Zamponi, *Waste and Consumption: Capitalism, the Environment, and the Life of Things*, (New York: Routledge, 2011).

⁸⁰ N. Gregson and L. Crew, *Second-Hand Cultures*, (Oxford and New York: Berg, 2003).

⁸¹ M. Gandy, *Recycling and the Politics of Urban Waste*, (London: Earthscan, 1994).

⁸² J. Scandura, *Down in the Dumps: Place, Modernity, American Depression*, (United States: Duke University Press, 2008).

1880-2000 as an exploration of how waste affects vulnerable communities.⁸³ Popular literature on waste has also arisen in the last fifteen years, such as William McDonough and Michael Braungart's *Cradle to Cradle: Remaking the Way We Make Things* (2002), and Julie Hill's *The Secret Life of Stuff: A Manual for a New Material World* (2011).⁸⁴ These works are on material culture, consumption, and how individuals and societies relate to goods and waste. Stewart Barr's *Household Waste in Social Perspective: Values, attitudes, situation and behaviour* (2002), investigates environmental values, geographic characteristics and psychological factors that assist in determining individual waste behaviour.⁸⁵ In *Waste and Want: A Social History of Trash* (1999), Susan Strasser examines the changing waste sector from the end of the nineteenth century in which waste was virtually non-existent to the rise in a culture of disposability in the United States.⁸⁶ William Rathje and Cullen Murphy in *Rubbish!: The Archaeology of Garbage* (2001) argue that much of what is known about human history is excavated from waste middens and pits across the world, and these reveal much about the habits, behaviour and demographics of civilisations. Through this framework, Rathje and Murphy explore modern day disposables, revealing truths and dispelling myths about the waste industry and waste behaviour.⁸⁷ Timothy Cooper's extensive works on waste history in the United Kingdom explore changing patterns within the waste industry, how socio-economic circumstances effect waste behaviour and waste disposal methods.⁸⁸ In *Disposable Cities: Garbage, Governance and Sustainable Development in Urban Africa*, Garth Myers uses in-depth research in Zanzibar, Lusaka and Dar es Salaam to investigate successes and set-backs of environmental municipal governance in the context of challenging political and cultural histories.⁸⁹ These historians and social scientists have added significant and

⁸³ D.N. Pellow, *Garbage Wars: The Struggle for Environmental Justice in Chicago*, (Cambridge: MIT Press, 2004).

⁸⁴ W. McDonough and M. Braungart, *Cradle to Cradle: Remaking the Way We Make Things*, (New York and China: North Print Press, 2002); and J. Hill, *The Secret Life of Stuff: A Manual for a New Material World*, (New York and London: Random House, 2011).

⁸⁵ S. Barr, *Household Waste in Social Perspective*, (Hampshire: Ashgate Publishing Limited, 2002);

⁸⁶ S. Strasser, *Waste and Want: A Social History of Trash*, (New York: Henry Holt and Company, 1999).

⁸⁷ W. Rathje and C. Murphy, *Rubbish! The Archaeology of Garbage*, (Tucson: University of Arizona Press, 2001).

⁸⁸ See T. Cooper, 'Burying the Refuse Revolution: The rise of controlled tipping in Britain, 1920-1960', *Environment and Planning*, 42, (2010), 1033-1048; T. Cooper, 'Challenging the 'Refuse Revolution': War, Waste and the Rediscovery of Recycling, 1900-1950', *Historical Research*, 81, 214 (2008), 710-731; T. Cooper, 'Rages, Bones and Recycling Bins', *History Today*, 2, (2006), 17-18.

⁸⁹ G. Myers, *Disposable Cities: Garbage, Governance, and Sustainable Development in Urban Africa*, (Aldershot: Ashgate Press, 2005).

original texts to the global garbage narrative. These texts include city histories, scavenger histories, studies measuring environmental degradation as a result of pollution over time, and personal accounts of waste.

South African Waste History in Context

Little has been written about South Africa's waste history and nothing comprehensive has been written in this regard. Sociological texts give insight into specific locations and comment on the lack of post-apartheid municipal services in poor areas. This thesis is, however, not an attempt at writing a comprehensive history of garbage in South Africa. The important contributions to waste studies in South Africa have been written by Melanie Samson in *Dumping on Women: Gender and Privatisation of Waste Management* (2003) and *Reclaiming Livelihoods: The role of reclaimers in municipal waste management systems* (2010).⁹⁰ These publications explore the lives and experiences of formal and informal workers in the waste industry and pay particular attention to women in the industry in post-1994 South Africa. Rachele de Kock's *Garbage Picking as a Strategy for Survival* (1986) is an investigation of the informal political economy of waste picking, in which De Kock investigates the lives, work, and perceptions of informal waste pickers.⁹¹ Msokoli Qotole, Mthetho Xali and Franco Barchiesi's *The Commercialisation of Waste Management in South Africa* (2001) explores the privatisation of the waste industry in post-1994 and its effects on communities and workers in the industry.⁹² The limitation of publications on the South African waste industry is testament to the marginalisation of this squalid sub-discipline.

Waste narratives in South Africa have been limited to recent publications pertaining to the privatisation of waste services, and the lack of waste services in communities. These publications are usually enshrined in larger narratives of municipal services

⁹⁰ See M. Samson, *Dumping on Women: Gender and Privatisation of Waste Management*, (South African Municipal Workers Union Municipal Services Project, 2003); and M. Samson, *Reclaiming Livelihoods: The role of reclaimers in municipal waste management systems*, (South Africa: groundWork, 2010).

⁹¹ R. de Kock, *Garbage Picking as a Strategy for Survival*, Sciences working paper 16, (Durban: University of Natal, 1986).

⁹² M. Qotole, M. Xali and F. Barchiesi, *The Commercialisation of Waste Management in South Africa*, Municipal Services Project, Occasional Papers 3 (2001).

such as David McDonald's 'Neither from Above nor from Below: Municipal Bureaucrats and Environmental Policy in Cape Town, South Africa'.⁹³ Similarly, Patrick Bond has written on the privatisation (and lack thereof) of municipal services in impoverished communities.⁹⁴ Charles Simkins has also written about the popular topic in socio-political publications on South Africa: disparities in communities' waste and other municipal services.⁹⁵ David A. McDonald and Laila Smith have also discussed privatisation of waste municipal services as an exploration of municipal service privatisation in Cape Town.⁹⁶ Jonathan Lincoln's article, 'South Africa: Waste Management' discusses the quickly accumulating waste and the inability to deal with the pressing concerns of environmental degradation and waste management. His paper deals with household and municipal waste, but also industrial waste, mining waste, and agricultural waste.⁹⁷ Faranak Miraftab's 'Neoliberalism and Casualization of Public Sector Services: The Case of Waste Collection Services in Cape Town, South Africa' is another publication that deals with the waste management in Cape Town, limited to post-1994 service provision, from 1997 to 2001. Miraftab's article explores gender ideologies, volunteerism, permanent and casual labourers, and the exploitation of workers along lines of race and gender in a capitalist system.⁹⁸ Recent publications on waste in South Africa have also emerged as a result of the growing interest in interdisciplinary sustainability studies, such as Patrick Karani and Stan M. Jewasikewitz's article 'Waste Management and Sustainable Development in South Africa'⁹⁹ and Godwell Nhamo's 'Regulating Plastic Waste, Stakeholder Engagement and Sustainability Challenges in South Africa'.¹⁰⁰ Furthermore, the Centre for Scientific and Industrial Research (CSIR) has produced a number of publications over

⁹³ D.A. McDonald, 'Neither from Above nor from Below: Municipal Bureaucrats and Environmental Policy in Cape Town, South Africa,' *Canadian Journal of African Studies*, 31, 2 (1997), 315-340.

⁹⁴ P. Bond, 'The impact of the privatisation of public services in South Africa', *Municipal Services Project*, (2002).

⁹⁵ C. Simkins, 'South African Disparities', *Journal of Democracy*, 22, 3 (2011), 105-119.

⁹⁶ D.A. McDonald and L. Smith, 'Privatising Cape Town: From Apartheid to Neo-liberalism in the Mother City', *Urban Studies*, 41, 8 (2004), 1461-1484.

⁹⁷ J. Lincoln, 'South Africa: Waste Management', Swiss Business Hub South Africa, www.osec.ch (accessed 20 January 2012).

⁹⁸ F. Miraftab, 'Neoliberalism and Casualization of Public Sector Services: The Case of Waste Collection Services in Cape Town, South Africa', *International Journal of Urban and Regional Research*, 28, 4 (2004), 874-892.

⁹⁹ P. Karani and S.M. Jewasikewitz, 'Waste Management and Sustainable Development in South Africa', *Environment, Development and Sustainability*, 9, (2007), 163-185.

¹⁰⁰ G. Nhamo, 'Regulating Plastic Waste, Stakeholder Engagement and Sustainability Challenges in South Africa', *Urban Forum*, 19, (2008), 83-101.

the last few decades on municipal solid waste management.¹⁰¹ Many of the publications make assumptions about the historical implications of waste management in South Africa, despite the fact that there has been no historical study of waste management services to date. This thesis aims to fill that gap, although recognising the previously discussed limitations of a master's degree.

As mentioned, this history of waste intersects with varying work of historians and other academics. This includes, but is not limited to, the sub-disciplines of public health, disease and sanitation; town planning; war history; urbanisation and urban history; the history of gender roles; economic history; the evolution of racial categorisation and discrimination; the history of transport; Apartheid and colonisation; and the industrial revolution and changing technologies. This history incorporates themes of class, gender, and race and South Africa's history of waste must be seen within the context of this work and these overarching themes. However, these themes cannot be seen in isolation from the bigger debates within social history and history from below, as well as the prominence of theories such as rubbish theory, Filth Theory, Germ Theory and the "Sanitation Syndrome".

Underpinning Theories

There are various theories that underpin this thesis. This includes Filth Theory and Germ Theory, "Sanitation Syndrome", Rubbish Theory, Othering, and Broken Windows Theory.¹⁰² Filth Theory is the theory that filth was the direct cause of disease, during the age of epidemic disease.¹⁰³ For much of the 1800s, this theory was the most prevalent framework underpinning actions within the public health sector.¹⁰⁴

¹⁰¹ See CSIR, *Municipal Solid Waste Management: Good Practices*, (Pretoria: CSIR, 2011); CSIR., 'Chapter Eleven: Solid Waste Management', *Guidelines for Human Settlement Planning and Design*, (Pretoria: CSIR, 2000).

¹⁰² E.H Ackerknecht, 'Anticontagionism between 1821 and 1867', *International Journal of Epidemiology*, 39, (2009), 8; M.W. Swanson, 'The Sanitation Syndrome: Bubonic Plague and Urban Native Policy in the Cape Colony, 1900-1909', *The Journal of African History*, 18, 3 (1977), 387-410; M. Thompson, *Rubbish Theory*, (Oxford: Oxford University Press, 1979); E.W. Said, *Orientalism*, (United Kingdom: Routledge and Kegan Paul, 1978); and G.L. Kelling and J.Q. Wilson, 'Broken Windows: The Police and Neighbourhood Safety', *The Atlantic Monthly*, (March 1982).

¹⁰³ E.H Ackerknecht, 'Anticontagionism between 1821 and 1867', *International Journal of Epidemiology*, 39, (2009), 8.

¹⁰⁴ J.B. Blake, 'The Origins of Public Health in the United States', *American Journal of Public Health*, 38, (1948), 1542.

It was partly as a result of this theory that within Britain and its colonies the ‘aesthetic and pecuniary motives to cleanliness’ were strengthened.¹⁰⁵ The discovery of bacteria in the seventeenth century only came to fruition during the industrial revolution with an understanding of the link between bacteria and disease. Germ Theory arose in the second half of the nineteenth century, credited to Louis Pasteur and Robert Koch. Their independent work synthesised to form commonalities in research and alongside an historical analysis of disease, Germ Theory was created.¹⁰⁶ This theoretical framework for understanding is imperative in Chapter Two of this thesis, where “Sanitation Syndrome” (1900-1909) becomes of importance in the dates, c.1900-1920, discussed. Maynard Swanson’s “Sanitation Syndrome” is developed from his historical writing about the Bubonic Plague at the beginning of the twentieth century in the Cape Colony. The “Sanitation Syndrome” resulted from a suite of racist ideas of uncleanness of the African population, working on the shipping docks in Cape Town, who were quickly infected with this epidemic disease, as a result of rats (carrying the fleas that spread the plague) pouring off of the boats. The high infection rates amongst this population group resulted in the first forced removals in the Cape. These forced removals came about as a result of the perception of “non-whites” (and particularly Africans) being unclean, and therefore the vehicles of disease.¹⁰⁷ Furthermore, these perceptions of sanitation propelled the ideas of urban segregationist promoters towards establishing the beginnings of the “Apartheid City”.

Another important theoretical framework underpinning parts of this thesis is Michael Thompson’s *Rubbish Theory: The Creation and Destruction of Value* (1979).¹⁰⁸ This book was published following the increased interest in waste, production and consumption issues as a result of Vance Packard’s *The Waste Makers*, discussed earlier in this chapter. Thompson’s theory scrutinises the changing patterns of value in what is produced and discarded in society. *Rubbish Theory* follows goods from production to being discarded, commenting that the value of goods relies upon the age, quality (or durability), rarity and usefulness of an object. Thompson proposed that in order to understand value, rubbish must be studied. By studying rubbish, he

¹⁰⁵ W.H. Allen, ‘Sanitation and Social Progress’, *American Journal of Sociology*, 8, 5 (1903), 637.

¹⁰⁶ J. Lederburg, ‘Infectious History’, *Science Magazine*, 288 (2000), 2.

¹⁰⁷ M.W. Swanson, ‘The Sanitation Syndrome: Bubonic Plague and Urban Native Policy in the Cape Colony, 1900-1909’, *The Journal of African History*, 18, 3 (1977), 387-410.

¹⁰⁸ M. Thompson, *Rubbish Theory*, (Oxford: Oxford University Press, 1979).

predicted that evidence uncovered would assist academics in understanding ‘the process whereby value is continually being created and destroyed’.¹⁰⁹ Rubbish Theory defines rubbish as that which is discarded and holds no – or negative – value.¹¹⁰ Thompson, as an anthropologist, was critical of his peers in stating that, ‘Anthropologists interest themselves in what is noticed, treasured, and admired in an exotic society rather than with what is disregarded, discarded, and despised.’¹¹¹ Thompson’s book explores how objects decline in value to become rubbish, and a limited few of these can later be erected from the landfill or dustbin of history as they gain value, becoming historic objects or part of retro culture. Furthermore, Thompson comments that rubbish is largely disregarded and unnoticed by society. Rubbish is only dealt with when the presence of waste becomes apparent as a result of it being out of place in a society.¹¹² Thompson further argues that value creation or destruction is largely due to social, economic and political conditions effecting an area or object.¹¹³ In addition, Rubbish Theory argues that ‘objects have an unrecorded second life when they stop being commodities and enter that kind of limbo in which they are no longer loved or valued, but still hang around on the edges of people’s lives’.¹¹⁴ This thesis not only attempts to record this second life within a socio-environmental framework, but also investigates how these objects may have hung around the edges of some communities, while becoming an integral part of others.

“Othering” and the invention of the “Other” is another important theoretical concept within this thesis. This concept was popularised by Edward Said in his groundbreaking book, *Orientalism* (1978). Said’s work explores how the Orient has been defined as Other in contrast to the West. He argues that where Europe had been able to be defined as normative, and therefore as the socio-political hegemony of the global world, by using contrasts of the Orient as different or other.¹¹⁵ Essentially, Othering is defining different groups as opposites.¹¹⁶ Africa, with its colonial past, has

¹⁰⁹ M. Thompson, *Rubbish Theory*, (Oxford: Oxford University Press, 1979), 12.

¹¹⁰ L. Parsons, ‘Thompson’s Rubbish Theory: Exploring the practices of Value Creation’, *European Advances in Consumer Research*, 8, (2008), 391.

¹¹¹ Thompson, *Rubbish Theory*, 12.

¹¹² Parsons, ‘Thompson’s Rubbish Theory’, 391.

¹¹³ Thompson, *Rubbish Theory*, 13.

¹¹⁴ J. Moran, ‘History, Memory and the Everyday’, *Rethinking History*, 8, 1 (2004), 64.

¹¹⁵ E.W. Said, *Orientalism*, (United Kingdom: Routledge and Kegan Paul, 1978), 1 and 41.

¹¹⁶ Said, *Orientalism*, 335.

been defined in similar terms.¹¹⁷ The colonised Other, in particular, was a concept that helped to facilitate segregation and inequality within the colonised world.¹¹⁸ The Other can be defined as the political, social or geographic Other. Rubbish history intertwines with concepts of the Other in that in this thesis, the Other will also be explored as the unsanitary Other and the “non-white” Other. Broken Windows Theory is another theory used within this thesis. This is described in detail in Chapter Five.

Theories of disease (Filth Theory and Germ Theory) help to place this thesis within the broader realm of the social sciences. Furthermore, knowledge of these theories is key to understanding the development of perceptions of waste and how waste changed perceptions about individuals and communities over time. These theories allow for the exploration within this thesis of these changing perceptions from the time of the “Sanitation Syndrome” and the unsanitary Other, discussed in Chapter Two, to the cementation of the Other within a racist Apartheid regime and the economic boom of the 1960s, as discussed in Chapters Four and Five. These theories provide this thesis a framework for exploring and conceptualising the role of waste in South African society over time and for understanding how waste effected communities, the individual and altered perceptions.

Conclusion

*A dead baby girl, aged about eight months, has been found dumped in a rubbish bin at Sandvlei, near Muizenberg.*¹¹⁹

In 1998, this female infant’s body was found, wrapped in a plastic shopping bag, the South African ‘national flower’,¹²⁰ and discarded with the rubbish. A member of the South Peninsula Cleaning Department found the naked body on the 18 November and

¹¹⁷ Similar concepts to Othering within the context of Africa have been written about. See especially, F. Fanon, ‘Black Skin, White Masks’ in C. Calhoun, J. Gerteis, J. Moody, S. Pfaff and I. Virk, *Contemporary Sociological Theory*, (United Kingdom: Blackwell Publishing, 2012), 417-425.

¹¹⁸ For work on the Colonial Other, see C. Neslon and L. Grossberg (eds), *Marxism and the Interpretation of Culture*, (London: Macmillan, 1988), 24-25.

¹¹⁹ Staff Reporter, ‘Baby’s body dumped in rubbish bin’, *Cape Argus*, (19 November 1998).

¹²⁰ See C. Olver, ‘SA must act to root out ‘national flower’, *Business Day*, (22 November 2000). By 2000, the Minister of Environmental Affairs and Tourism, Valli Moosa, had termed the plastic bag as South Africa’s ‘national flower’ because of the prevalence of littered plastic bags in the nation.

promptly reported it to the police. Police claimed that the baby appeared to have been washed before being wrapped up in plastic and dumped near Muizenberg. At the station where the body was taken for processing, shock was rife amongst policemen about the death of such a young infant. One policeman commented, “How could someone do something like that to a little baby? [I] don’t understand.”¹²¹ The policeman’s shock is not only about the death of a young infant, but is compounded by the treatment of this child in discarding its body as rubbish. In the years to come, the police would face many more deaths of infants or abandoned bodies, mostly females, left to the mercy of rubbish bins and garbage dumps across the country. In 2007, ‘The body of a nine-old-girl was found in a dirt bin in the backyard of a family in Louisevale Road, Upington, on [a] Sunday.’¹²² Likewise, in 2010, ‘[A] girl’s body was covered with a pile of black refuse bags.’¹²³ These deaths became common in a post-1994 South Africa and the stories increasingly fell away from the front pages of newspapers. Just as violence is – at least in part – an inherited societal dysfunction from South Africa’s colonial past, differing experiences of garbage across the country are inherited through the historical progress of garbage management.¹²⁴ Also, this practice of disposing of children in the garbage not only symbolises perceptions of waste in the country, but also sets the scene for a waste industry that is gloomy, oppressive and corrupted. The lack of regulation in the waste sector until the early 2000s is also evidence of this, in how waste has been left to creep up in and around communities in South Africa for decades, resulting in health and other community implications. The slow adaptive measures of society to deal with the burgeoning waste in the country, especially within urban areas, are traced throughout this thesis as a way to observe waste behaviour and management. Foucault, in *Power/Knowledge: Selected Interviews and Other Writings, 1972-1977* (1980), writes of ‘subjugated knowledge’, that there exists ‘a whole set of knowledges that have been disqualified as inadequate to their task or insufficiently elaborated: naïve knowledges, located low down on the hierarchy, beneath the required level of cognition or scientificity’¹²⁵ Rubbish history is an example of this type of subjugated knowledge. Trying to erect and salvage the remnants of this polluted history from the

¹²¹ Staff Reporter, ‘Baby’s body dumped in rubbish bin’, *Cape Argus*, (19 November 1998).

¹²² S.K. Hoo, ‘Girl’s body found in garbage bin’, *Diamond Fields Advertiser*, (January 2007).

¹²³ S.K. Hoo, ‘Garbage killers caught’, *Diamond Fields Advertiser*, (6 December 2010).

¹²⁴ See Strasser, *Waste and Want*.

¹²⁵ M. Foucault, *Power/Knowledge: Selected Interviews and Other Writings, 1972-1977*, (New York: Pantheon Books, 1980), 82.

landfill of the archives has been a challenging task, as this has not historically been considered as worthy of study in itself. Furthermore, studying effluence, social scientists learn about what society values as Thompson's model suggests, which is useful more broadly for historians of society.

This thesis begins in the period before consumerism and the commercialisation of plastic.¹²⁶ This was a time in which thrift was a necessity for many individuals yet the colonies lacked good practices in the waste management sector. In this time, rubbish was not a large concern for governing colonies until it provided a threat to the health of individuals or created a nuisance as an "eyesore" in the wilderness, towns and cities. This thesis seeks to explore the waste sector in various areas including the development of garbage collection services, labour in the waste sector, perceptions of waste and how waste changed perceptions, and the division of municipal services along lines of race and class. The dimness of the history of waste is further compounded by a lack in national laws governing the waste industry until the formation of the 1996 constitution,¹²⁷ the Integrated Waste Acts, and long-term recycling plans in the early 2000s.¹²⁸ Case studies in this thesis are particularly important in exploring this history, as local waste management is the crux of the waste management system. Thus, in digging through the archives and exploration of case studies, this thesis aims to erect and salvage this contaminated sub-discipline in the South African context from the landfill of history. Waste studies can offer unique insights into societies in looking at how and where waste is disposed of, how much waste is disposed of and what comprises waste. According to Rubbish Theory and as the cases of dead infants illustrates, by studying what is salvaged and discarded (and what should not be discarded), it is possible to understand what South African society values. The prevalence of discarding infants in dustbins is representative of the waste industry and the nature of waste, in that it demonstrates that the dustbin and landfill is

¹²⁶ See J. K. Smith Jr, 'World War II and the Transformation of the American Chemical Industry', *Sociology of the Sciences*, 12, 1 (1998), 307-322; and D. Feldman, 'Polymer History', *Designed Monomers and Polymers*, 11, 1 (2008), 1-15.

¹²⁷ The Republic of South Africa Constitution, 1996.

¹²⁸ See Department of Environmental Affairs and Tourism, National Waste Management Strategy Implementation South Africa: Recycling, Review of Industrial Waste Exchange, 2005; National Environmental Management Waste Act No. 59 of 2008; Regulations Under Section 24 (d) of the Environment Conservation Act (Act No. 73 of 1989) Plastic Carrier Bags and Plastic Flat Bags, 2003; and National Environmental management: Waste Act 2008 (Act No. 59 of 2008) National Domestic Waste Collection Standards, 2011.

the final place where things go, to be forgotten. Therefore, salvaging the history of waste is an arduous process in which, inevitably, the polluted and convoluted content of the subject matter is exhumed to create the narrative of waste.

CHAPTER TWO:**“The dustbin of history”: Understanding South Africa’s Changing Wastespaces, 1890-1930.**

The dustbin of history is a liminal space in the human imagination where the forgotten go. When historians concern themselves with the dustbin – or ‘ash heap’ – of the past, it is a metaphor, not a reality. The notion of ‘the dustbin of history’ arose preceding the 19th century, but was popularised by Leon Trotsky in the triumph of the Bolsheviks over the Mensheviks. His famous words echoed to the Mensheviks their resounding defeat: ‘You are pitiful isolated individuals; you are bankrupts; your role is played out. Go where you belong from now on into the dustbin of history’.¹²⁹ Since, this phrase has been used across the political spectrum from Ronald Reagan predicting the fall of communism¹³⁰ to Muammar Gaddafi prophesising the fall of the West.¹³¹ Considering the popular phrase ‘history is written by the victors’,¹³² the defeated are quickly forgotten and there is no quicker way to be forgotten than to be consigned to the dustbin. This conterminous space in which unwanted people, societies and ideologies are discarded is conceptualised as a dump or landfill in which the rubbish of the past fades away. Consequently, the construction of the archives through the political and social hegemony of those that maintain them ensures that what is not considered significant by victors in history follows the fall of the iron curtain¹³³ into the dustbin of history. As a result, the social and environmental historian is required to dig into the recesses of this metaphorical landfill’s memory.

There is no greater manifestation of Trotsky’s aphorism than in the history of waste itself. Waste is an area of study that is not a prominent feature in the popular imagination, or in the historian’s oeuvre. The search for archival sources revealing

¹²⁹ G. Marcus, *The Dustbin of History*, (Cambridge: Harvard University Press, 1995), 4.

¹³⁰ R.W. Reagan, *Address to the British House of Parliament*, (8 June 1982). Reagan predicted that communism would be left to the ‘ash-heap of history’.

¹³¹ ‘Gaddafi: West will end in ‘dustbin of history’” <http://mg.co.za/article/2011-03-23-gaddafi-west-will-end-in-dustbin-of-history>, (accessed 29 August 2013).

¹³² This saying is popularly attributed to British Prime Minister Winston Churchill during the Second World War (WWII), although this term arose before this.

¹³³ J.M. Schwartz and T. Cook, ‘Archives, Records, and Power: The Making of Modern Memory’, *Archival Science*, 2, (2002), 13-14.

this history follows a dirty trail¹³⁴ through the trenches of the archives, piecing together sparse sources. The traces of waste in history have cast a shadow over human settlements throughout time. The sparse and vague evidence of South Africa's waste sector is littered amongst related industries and occurrences, smaller localities and sparse national documents. This chapter looks at the history of South Africa's waste sector through geographical confines. Although there are limitations to area studies,¹³⁵ the waste sector is structured by municipalities within a national system. Thus, the waste industry carves out an arena in which garbage is not only in itself of interest, but also intersects with a variety of national trends. From 1890, South African localities began their first cohesive attempt at organised refuse removal services. As discussed in Chapter One, throughout human history civilisations have dumped, incinerated and buried refuse in an effort to get rid of it with haste. Historically, garbage disposal has been limited to four options: dumping, burning, recycling and source reduction (sometimes called waste minimization) – simply creating less waste.¹³⁶ These methods have been used in South African waste history at varying times, as this thesis will show. However, both the development of and challenges for human settlements contribute to the progress in removal services and in how waste is disposed of. This chapter is concerned with how increasing distress for sanitation and health may have translated into a waste management sector that engaged race, gender and class in order to curb rampant disease and allow for the progression to a structured system. Furthermore, this chapter investigates the progress in the waste industry between 1890-1930s, and how such progress intersects and contributes to wider national social and political trends. It seems fitting then, that this thesis attempts to revive the history of the South African waste sector from the dustbins and landfills of archives, to take its place in recorded history.

¹³⁴ Refer to Chapter One

¹³⁵ M. Lamont and V. Molnár, 'The Study of Boundaries in the Social Sciences', *Annual Reviews*, 28, (2002), 183-184. Refer to chapter one's discussion about the superficiality in the restriction of borders, and that, however, it must be considered that increasingly in the nineteenth and twentieth centuries waste management is a locally driven process functioning under national governments and thus adheres to national boundaries.

¹³⁶ Rathje and Murphy, *Rubbish!*, 33.

Starting from Scratch: Scavenger Systems and Horse-drawn Carts, 1890- 1900

The first municipal garbage collection system was introduced in 1786 but implemented a scattered approach that lasted for over a century.¹³⁷ This initial system introduced in select areas, involved the collection of waste with animal-drawn carts on several days of the week. The few who could afford such services had access to them if they lived in the developing urban areas, namely: Cape Town, Port Elizabeth, East London, Kimberly, Bloemfontein, Durban, Pietermaritzburg, Richard's Bay, Johannesburg, Pretoria, Nelspruit and Pietersburg.¹³⁸ This early development towards waste collection services meant that urban areas were liberated from the suffocating fumes of burning waste from households and the inconvenience of filling back garden burial sites. Many people used the practice of burying waste in backyards – a practice begun in Britain¹³⁹ following the 1388 ban of waste disposal in public waterways and ditches¹⁴⁰ – and these waste pits can serve as useful resources for archaeologists such as this waste pit pictured below, discovered in Stellenbosch in 1975.



Figure 1: Well or refuse pit uncovered in grounds of Schreuder House, Stellenbosch¹⁴¹

¹³⁷ CSIR, *Guidelines for Human Settlement Planning and Design*, 2.

¹³⁸ CSIR, *Guidelines for Human Settlement Planning and Design*, 2.

¹³⁹ Cooper, 'Burying the Refuse Revolution', 5.

¹⁴⁰ H. Shiao, 'The Waste and the Gift: A Comparative Study Between Recycling Management Models in Helping the Bottom Poor in Taiwan', [unpublished doctorate], Institute of Development Studies of National Cheng Chi University, (2009) 9.

¹⁴¹ Cape Town Archives Repository (KAB), CA1832, 'Well or refuse pit uncovered in grounds of Schreuder House, Stellenbosch', (1975).

This organised approach to garbage disposal was not always used, however. Often individuals of the colony did not deal with their waste at all and waste was left to litter the wilderness.¹⁴² The disposal of resources is the end result of the life cycle of a consumer product. This lifecycle follows a flow from the extraction of resources to the disposal of resources. Although some products are reused and recycled, eventually all products are discarded to some degree into the environment. Figure 2 below illustrates this process.

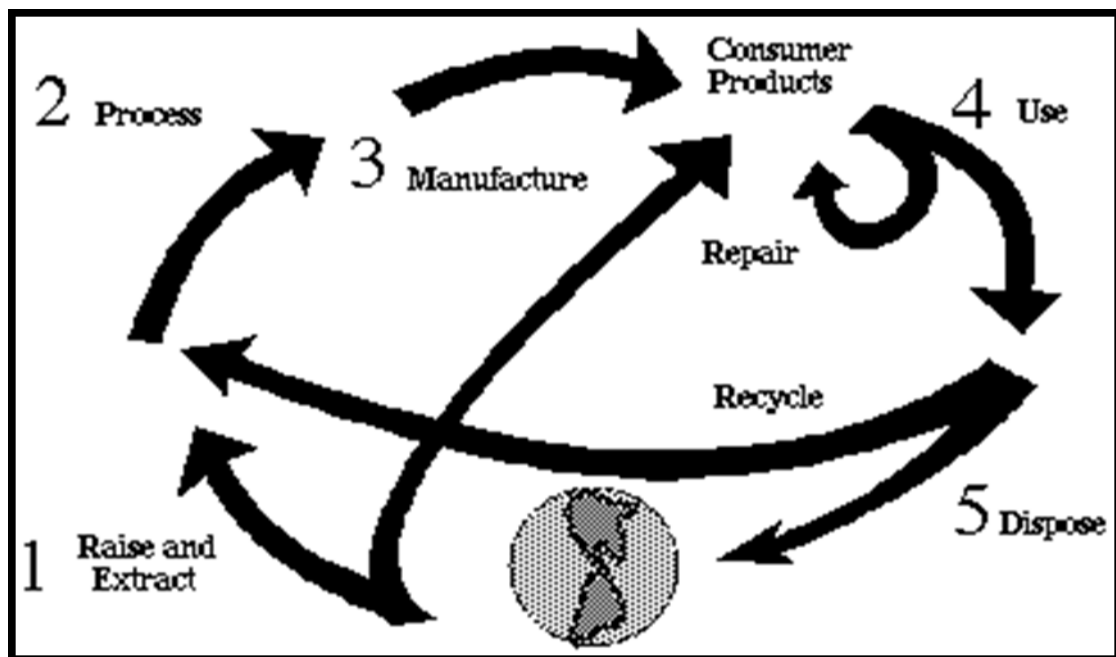


Figure 2. Life Cycle of a Consumer Product¹⁴³

This cycle is important to keep in mind when understanding the flow of goods to waste product and how municipalities dealt with products in the end stage of use. It is these abandoned and rejected products that make up the *wastescape*. According to Thompsons' Rubbish Theory¹⁴⁴ as explained in Chapter One, the nature of rubbish is that in its discarded state it comes to represent something else altogether.¹⁴⁵ Once a

¹⁴² Pietermaritzburg Archives Repository (NAB), CSO, 503, 1875/3, 'Mayor, Durban: Requests Government to take steps to destroy accumulated rubbish washed down to the Umgeni Mouth. Debris Complained of is on the Admiralty Reserve', (1875).

¹⁴³ S. L. Barber and T. R. Halbach, 'Life Cycle of a Consumer Product', <http://www.extension.umn.edu/distribution/naturalresources/dd5569.html> (accessed 28 August 2013).

¹⁴⁴ See Chapter One of this thesis for a more detailed discussion on Rubbish Theory.

¹⁴⁵ Parsons, 'Thompsons' Rubbish Theory,' 391.

product is unwanted and has been discarded its symbolic nature changes: it becomes garbage. As a result of this change, the need for refuse to be managed using societal norms and preferences arises.¹⁴⁶ Thompson argued that rubbish is only noticeable when it is out of place, for ‘something [that] has been discarded, but never threatens to intrude, does not worry us at all.’¹⁴⁷ Rubbish Theory can be used to explain the shift in waste management that occurred in South Africa in the 1890’s: in an attempt to conserve the pristine South African landscape, municipalities began to speedily address the discomfort caused by South African’s dumping of waste out of place – in the wilderness. A more rigid collection system was then put into place.

The lack of archival sources before 1890 is partly a reflection of the problematic selective nature of archiving and that ‘[a]rchives are not merely receptacles of the past; concepts of history themselves are shaped by archives’.¹⁴⁸ Therefore, omissions in the archiving process allow for gaps in history, which in turn has an influence on how this history is reported, due to the access (or lack thereof) to information. This lack of sources compounds the issues encountered when investigating the history of waste – already a difficult history to piece together. Although some municipalities kept strong records of waste management systems during this time period, this was not true of all of the localities. By analysing evidence of municipalities’ waste management systems, this thesis attempts to bridge the gap in order to paint the first cohesive picture of the history of waste management in South Africa. Although smaller localities do not tell the whole story of the South African waste sector, the intersection of stories from the larger localities begins to reveal an overarching narrative. The nature of waste itself can be seen as a part of the cause of the lack of records; waste is viewed as something that can be forgotten, until it causes an adequate nuisance or danger to society. As a result of this, the history of waste is often also discarded and forgotten. Interestingly, the preservation of archival sources relating to municipal garbage preceded by a decade the major outbreak of the Bubonic Plague in the Cape Colony, and in fact was not directly related to sanitation for disease prevention, but rather a result of the need to document tenders.

¹⁴⁶ M. Douglas, *Purity and Danger: an analysis of the concepts of pollution and taboo*, (London: Routledge and Kegan Paul, 1966); and Parsons, ‘Thompsons’ Rubbish Theory’, 391.

¹⁴⁷ Thompson, *Rubbish Theory*, 92.

¹⁴⁸ C. McEwan, ‘Building a Postcolonial Archive? Gender, Collective Memory and Citizenship in Post-apartheid South Africa’, *Journal of South African Studies*, 29, 3 (2003), 742.

Some of the origins of the early garbage collection system in South Africa can be deduced by observing the changes made in later years to previously implemented systems, made apparent in the existing archival sources. Throughout the time period discussed in this thesis – from 1890 to 2013 – the most commonly used method of getting rid of rubbish – dumping – was used in South Africa.¹⁴⁹ A collection system was introduced using horse-drawn carts where scavengers, cart-drivers and foremen employed by those who held the tender – if there was an existing tender to speak of – would go door to door to see who would like their garbage collected that day.¹⁵⁰ Although in some municipalities this was a little more organised, in most cases the end result was that this garbage was then unceremoniously dumped, usually on the peripheries of the town. The picture below demonstrates the disorganised approach to dumping, which allowed the rubbish to rot in the open air for ‘scavengers’ such as rats to prey upon.

¹⁴⁹ Rathje and Murphy, *Rubbish!*, 34.

¹⁵⁰ Note that this term “scavenger” refers to a working role within the 1800s and early 1900s garbage collection system and must be differentiated from the so called “scavengers” of the informal economy that will be examined later on in this thesis, in Chapter Six.



Figure 3: Ravine or donga used as a Rubbish Dump in Cape Town¹⁵¹

Although the picture above is undated, the dumping of wagon wheels indicates that this dumpsite existed around the same time period that is being discussed.

Individuals largely undertook the collection process that ensured the rubbish was delivered to the dump or companies awarded tenders awarded by cities or towns. The first evidence of tenders in the Cape Colony began in the 1890s, but give evidence to previous tenders in the decades before this. The 1890s tenders were awarded for incinerators and waste destructors, quarry removal, the use of railways for waste

¹⁵¹ KAB, E9080, 'Rubbish dump, Cape Town', (date unknown).

removal, sand reclamation, and the use of horse manure for organic fertiliser.¹⁵² By 1894 the Cape Colony had given a tender for municipal refuse to be taken outside of city limits by railway.¹⁵³ It was only later in the 1890s where the archival repositories used for this thesis provide sources regarding tenders for door-to-door waste collection that give evidence that municipal garbage removal provided a competitive business. They also show evidence that at this time adequate sanitation concerns were raised, and areas ‘beyond the Municipal limits’¹⁵⁴ were identified to potentially house the disposed garbage. By 1895 the Cape Colony government had begun street sweeping as a public municipal service, illustrative of the government’s more developed model of garbage management in comparison to the other colonies.¹⁵⁵

North of the Cape Colony, the systematic removal of rubbish happened on a smaller scale. Although very few details of this system exist, it is clear that recipients of the service provided by local government did not pay for it.¹⁵⁶ The end of the 1890s demarcated locations for rubbish dumping for Pretoria West and North East. These two major dumps were formed as early as 1900. Those individuals who did not obey this strict regulation of where garbage could be dumped were threatened with prosecution under Martial law.¹⁵⁷ The locations of the dumps were outside of the defined area of central Pretoria at the time, unsurprisingly. Furthermore, these two areas were relatively unpopulated. Ironically, the erection of the Union buildings a decade later was a very short distance from the North East site.¹⁵⁸ Although sources are sparse, they give evidence to the rise of a collection system at the end of the nineteenth century. Waste, it seems, was dealt with on an as needed basis in the colonies, and it was only with the rise of particular waste issues that refuse removal systems would become more structured. It is no surprise then that the archival sources become richer with the British occupation of Pretoria in 1900 during the South African War.

¹⁵² KAB, AGR, 199, ‘Cape Town Formal Proceedings: Destructor’s Wanted’, (31 August 1893); KAB 3/CT, 4/2/1/1/85, 9/10, Removal of Refuse and Street Sweepings, Belleville, (1909-1910); KAB, 3/CT, 4/2/1/1/23, 518/8, Tipping of Refuse on Reclamation Works, (1906); KAB T29/24 Re Manure from Municipal Stables & Street Sweepings, (19 October 1914).

¹⁵³ KAB, 3/CT, 4/1/1/64, D54/1, Letter from Undersecretary for Agriculture Re Waste Removal, (22 May 1894).

¹⁵⁴ KAB, 3/CT, 4/1/1/64, D54/1, ‘Letter from Undersecretary of Agriculture’, (22 May 1894).

¹⁵⁵ KAB, AGR, 199/7/422, Eerste Rivier to take over Skead Contract, (12 December 1895).

¹⁵⁶ TAB, MGP, 145, 586A/02, Tenders for the removal of rubbish, (1900-1902).

¹⁵⁷ TAB, MGP, 12, 1353/00, Re: Sites where Rubbish may be deposited, (26 July 1900).

¹⁵⁸ A. Duffey, ‘J.H. Pierneef and the Union Buildings’, *de arte*, 82, (2010), 8-23.

Waste in the South African War, 1899-1902

The South African War from 1899-1902 is one that has created ‘fractured and irreconcilable [h]istories’.¹⁵⁹ This War – also known as the Anglo-Boer War or the Second Boer War – was a territorial war over the Orange Free State and the South African Republic (Transvaal) between the British colonial settlers and the Dutch settlers. The South African War was not only a war about control of territory, but also about control over of the rich mineral heritage of these two territorial states, and a struggle for political power. Much has been written on the South African War, including new environmental and social histories that have redefined the parameters of those involved, the causes and effects of the war.¹⁶⁰ There has been a move away from the emphasis on the political economy towards histories that look at ‘commemorations, gender, health, nationalisms, identities, ethics and morality.’¹⁶¹ All of this has been observed in a wartime period of a society already undergoing rapid change.¹⁶² The rise of social and environmental histories of this war is an important trajectory for better understanding societies under stress and for narrowing in on the idiosyncrasies of wartime. The investigation of garbage in the South African War will be limited to three areas of study in this thesis: sanitation in the concentration camps; the changing value of bodies, particularly horses that died in the war; and the communication of resistance through municipal matters. Due to the narrow scope a master’s thesis permits for in depth archival research across municipal archives, the sources on this time period are limited to the National Archives Repository and the Cape Archives. Although the decade preceding the South African War laid out a more structured approach to rubbish removal, war often both accentuates societal behaviours and changes them. Thus, the insight into the concentration camps, the disposal of horses’ bodies, and resistance in municipal

¹⁵⁹ B. Nasson, ‘Battling for History: The Impact of War upon Modern South Africa’, 2nd *Turner Lecture*, South African Military Academy, (2001), 112.

¹⁶⁰ See Swart, *Riding High*; B. Nasson, *Abraham Esau’s War: A Black South African War in the Cape, 1899-1902*, (Cambridge: Cambridge University Press, 1991); P. Warwick, *South African War, 1899-1902*, (Essex: Longman, 1980); E. van Heyningen, *The Concentration Camps of the Anglo-Boer War*, (Cape Town: Jacana, 2013); G. Cuthbertson, A. Grundlingh and M.L. Suttie (eds), *Writing a Wider War: Rethinking Gender, Race and Identity in the South African War, 1899-1902*, (Athens: Ohio University Press, 2002).

¹⁶¹ Cuthbertson, Grundlingh and M.L. Suttie (eds), *Writing a Wider War*, ix.

¹⁶² P. Warwick, *Black People and the South African War, 1899-1902*, (Cambridge: Cambridge University Press, 1983), 6.

matters will help to explicate both changes in waste and in societal behaviour.

Waste becomes of particular importance in war, especially in places of rampant disease and death. However, it is often the case that municipal services are neglected during wartime.¹⁶³ The British instituted the concentration camps in which over 26,000 Boer women and children died. Most of these deaths are attributed to malnutrition and disease. It was not only the Boer women and children that were affected, however, ‘More than 16 000 black people died from enteric fever, measles, pneumonia, malnutrition, poor sanitation and exposure due to a lack of proper housing’.¹⁶⁴ The deaths on account of disease were largely due to over-populous camps suffering under conditions of poor sanitation. Civilian administrators that oversaw the day-to-day management in these camps from 1901 had little knowledge of sanitation standards. Furthermore, superintendents were often not included in communication about the arrival of new inmates, preventing preparation for their stay.¹⁶⁵ Multiple forms were used to convey the distress about the poor sanitation standards in the camps. A poem written by F.W. Reitz conveyed the mocking humour of Afrikaners¹⁶⁶ in the line, ‘In those sweet health-resorts they call “concentration”’.¹⁶⁷ Photographs and reports of the concentration camps show clean streets amongst the tents, but these merely cloaked the unsanitary conditions of their reality.¹⁶⁸ Although Figure 4 below cannot begin to fully elucidate the conditions within the camps, it can be seen that in this sparse reality there is rubbish littering the ground behind this mother and child.

¹⁶³ Melosi, *Garbage in the Cities*, 2. Melosi here explains about the neglect of municipal services during World War One (WWI) in the United States.

¹⁶⁴ M. L. Suttie, ‘Rethinking the South African War, 1899-1902: The Anatomy of a Conference’, *South African Historical Journal*, 39, 1 (1998), 147.

¹⁶⁵ L. Stanley, *Mourning becomes... Post/memory, commemoration and the concentration camps of the South African War*, (Manchester: Manchester University Press, 2006), 6.

¹⁶⁶ S. Swart, ‘The Terrible Laughter of the Afrikaner – Towards a Social History of Humour’, *Journal of Social History* (2008), 893. Swart comments that humour in these instances were used to exhibit some semblance of social control.

¹⁶⁷ J.E.H. Grobler, *The War Reporter: The Anglo-Boer War Through the Eyes of the Burghers*, (Cape Town: Jonathan Ball Publishers, 2004), see ‘Maltreatment of Women and Children’, (1 December 1901).

¹⁶⁸ Stanley, *Mourning becomes*, 191



Figure 4: Mother and Child in Boer Concentration Camp with rubbish littered in the background, South African War¹⁶⁹

As increasing reports of death and disease rolled in, poor hygiene was a cause identified for the high death rates.¹⁷⁰ In some camps, however, there were semi-structured refuse removal systems.

“A large gang of natives under the Camp Sanitary Inspector” was employed to assist people as part of the weekly cleaning and inspection of tents and all public spaces; also “A large gang of natives was also constantly employed for general scavenging duties”.¹⁷¹

Colonial officials had negative misconceptions of the Boers as a result of poor sanitation at the camps. British doctors in particular likened the tents to British slums. According to some, “[l]ike British slum dwellers, the Boer women needed constant surveillance and coercion to ensure that they maintained sanitary habits in their homes and in their persons.”¹⁷² In other camps, particularly prisoner-of-war camps, inmates were tasked with different work, one of which was scavenging.¹⁷³ Here, Boers were

¹⁶⁹ H.J.M. Uys, ‘A Boer Girl’s Memory of the War’,

<http://www.erroluys.com/BoerWarChildsStory.htm> (accessed 3 April 2013).

¹⁷⁰ Grobler, *The War Reporter*, see ‘The Concentration Camps’, (1 March 1902).

¹⁷¹ Stanley, *Mourning becomes*, 183.

¹⁷² E. van Heyningen, *Women and Disease*, in Cuthbertson, Grundlingh and Suttie (eds), *Writing a Wider War*, 195-196, and E. van Heyningen, *The Concentration Camps of the Anglo-Boer War*, (Cape Town: Jacana, 2013).

¹⁷³ Stanley, *Mourning becomes*, 190.

tasked with different duties depending on their physical capability and behaviour.¹⁷⁴ Millicent Garrett Fawcett¹⁷⁵, head of the Ladies Commission¹⁷⁶, on her visits to Mafikeng in August and November of 1901 described poor sanitation conditions and made detailed recommendations in the reports, including suggestions about the provision of refuse removal. She later conveyed dismay regarding the insignificant improvement between these reports; by ignoring the report's suggestions, camp administrators contributed to the poor sanitary conditions, resulting in the outbreak of disease and death.¹⁷⁷

For the British, it was an easy step to impose prejudices upon the Boer population as a result of the unsanitary circumstances in the camps. In recalling the discussion of the Victorian era of cleanliness in Chapter One, and its impact upon views of the *unsanitary* in the creation of 'the Other',¹⁷⁸ British administration of the camps led to the cementation of their own unjust assumptions. As a result of the colonial administrations' inability to ensure decent sanitary standards within the concentration camps, there was a perpetuation of prejudices against Boer women of low moral standards. This can be understood and inferred from the Victorian era society in which 'cleanliness had become so closely associated with the moral worth of women above all.'¹⁷⁹ The reports flowing in about poor sanitation of the Boers within the camps were very similar to the condemnation of slum societies in the Cape during this time.¹⁸⁰ The result was that poor British administration caused alarm at sanitation standards, inviting attention and criticism, and in turn reinforcing British notions of the Boers as the unsanitary Other. It can be understood then, that even advocates for change unwittingly promoted these perceptions, such as in the reports of the likes of

¹⁷⁴ Grobler, *The War Reporter*, see 'News from Prisoner-of-War Camps', (1 December 1901).

¹⁷⁵ Stanley, *Mourning becomes*, 93.

¹⁷⁶ Grobler, *The War Reporter*, see 'The Concentration Camp', (1 March 1902). The British Women's Commission on concentration camps in South Africa report that was published in London in February of 1902 declared the camps as an inhumane system and particularly criticised the administration of the camps.

¹⁷⁷ Stanley, *Mourning becomes*, 138

¹⁷⁸ Refer to Chapter One.

¹⁷⁹ Van Heyningen, *Women and Disease*, in Cuthbertson, Grundlingh and Suttie (eds), *Writing a Wider War*, 204 and E. van Heyningen, *The Concentration Camps of the Anglo-Boer War*, (Cape Town: Jacana, 2013).

¹⁸⁰ Van Heyningen, *Women and Disease*, in Cuthbertson, Grundlingh and Suttie (eds), *Writing a Wider War*, 195, and E. van Heyningen, *The Concentration Camps of the Anglo-Boer War*, (Cape Town: Jacana, 2013).

Emily Hobhouse in her open criticism of the British management of these camps.¹⁸¹

The disposal of bodies is another chief factor during the wartime period that illuminates what waste consists of. War is a time of scarcity and thus the usual effect is that it limits disposable items.¹⁸² However, war is also a time in which there is an accumulation in the understanding of what comprises waste. In times of peace, human bodies and the bodies of ‘domesticated’ animals are handled with respect upon death through ceremony. During war, however, bodies become disposable. Unlike human bodies, animal bodies can more readily be seen as a part of the garbage, disposed of as unwanted items without the rites and rituals of burial. Particularly during wartime the body of the animal becomes an inanimate object rather than something that was once living. In particular, during the South African War horse carcasses were treated as disposable items – or waste – that warranted special treatment only when the level of nuisance rose. Horses were an integral part of the South African War, both on the side of the British and the side of the Afrikaners.

On the British side, 326,073 horses and 51,399 mules died between October 1899 and May 1902, at the rate of 66.88 per cent and 35.37 per cent of the total head count respectively. This is widely regarded as proportionally the most devastating waste of horseflesh in military history up until that time; the slaughter was contemptuously described as a ‘holocaust’ by an eye-witness, Frederick Smith.¹⁸³

Consequently, municipalities faced issues of managing the removal of the deceased equine. According to Swart, little is known about the disposal of South African horses during this period. Through researching waste concerns, however, it can be seen that answers are offered in the dispersed and grim archival records usually not central to many researcher’s interests. The disposal of horses by burial with the municipal garbage in the Transvaal was commonplace.¹⁸⁴ However, the mass build up of the deceased equine – where approximately 50-60 horses would build up over a short time – would create new difficulties for municipal workers. Dead horses rotted in the sun while waiting to be covered in soil and buried along with the rest of the rubbish. The putrid smell this produced caused the irritation needed to ensure that the Medical

¹⁸¹ Grobler, *The War Reporter*, see ‘Miss Emily Hobhouse on Concentration Camps’, (1 June 1901).

¹⁸² See Chapter Three on the discussion of the Second World War.

¹⁸³ Swart, *Riding High*, 104-105.

¹⁸⁴ National Archives Bureau (TAB), Public Records of former Transvaal Provinces, MGP, 9, 1054/00 Rubbish Heaps and Dead Animals, (1900).

Officer of Health ordered these bodies to be burnt instead. However, the municipal workers only managed to burn three to four horses per day. According to Swart, horse owners, who occasionally kept the skin of an especially beloved beast, took responsibility for the animals and usually buried the horses.¹⁸⁵ It seems, however, that in the *en masse* destruction of the equine during the South African War, horses were burnt and buried in bulk and treated as disposable municipal waste. Thus, waste studies itself offers invaluable insight into other areas of study and also reflects the changing patterns of value and behaviour towards death during wartime.

Finally, viewing resistance through the lens of municipal matters (particularly waste collection services) gives insight into the relationships between the Boers and the British during the war. ‘By intervening so drastically in economy and society, the imperial army ensured worsening relations between itself, colonists and local district administration.’¹⁸⁶ It is widely known that the poor relations between the Boers and the British in fallen localities caused strife in these newly acquired British territories. Archival sources revealed the poor relationship between colonial officials and the Boers in the Transvaal tender documents. The archival records reflect that in the area north of the Vaal River, the first evidence of tenders servicing larger communities begin in 1902.¹⁸⁷ However, the existence of some form of garbage removal servicing a small selection of government officials and military personal is murkily laid out in sources preceding this date.¹⁸⁸ The first tenders though were called for in 1901 for the municipality of Pretoria, which had been under British rule for the previous two years. An urgent letter was drafted to the Acting Burgomaster from the town council a week before the current tender was due to expire in January of 1902. In this letter, British officials expressed a lack of understanding, dismay and distress at how the Boers ran the government and municipal matters beforehand. It seems that many of these issues were dealt with based on relationships in the Transvaal colony, rather than through formal tender contracts.¹⁸⁹ It was speculated that it was a result of residents’ unwillingness to participate with the new colonial take-over that the governing municipality received only one response to this tender, one that was ‘written to

¹⁸⁵ Swart, *Riding High*, 113.

¹⁸⁶ Nasson, *Abraham Esau’s War*, 29.

¹⁸⁷ TAB, MGP, 145, 586A/02, ‘Tenders for the Removal of Rubbish’, (7 January 1902).

¹⁸⁸ TAB, SS, 534, R1877/81, Colonel Gildea Re Removing Rubbish War Brandmaster’s House, (20 June 1881).

¹⁸⁹ TAB, MGP, 145, 586A/02, ‘Tenders for the Removal of Rubbish’, (7 January 1902).

offend'.¹⁹⁰ The letter, in which this proposal was referred to as offensive, exposed the British officials as being confounded and insulted. This 'provoking' proposal shocked the officials, and was perhaps a play upon British propriety. Defiant humour proved a useful tool to provoke and defy the British enemy,¹⁹¹ and this was possibly extended to the waste industry. According to Swart, "'ethnic humor" in particular offers ethnographic insights into self-representation and the representation of the Other.'¹⁹² Thus, internal resistance in the form of humour gives insight not only into 'Afrikaner Humour' but also into opportunities for resistance. In this case, the colonial administrators were eventually forced to extend the previous contract after expressing frustration and a lack of understanding of how the previous government had run things. By April of 1902, the Military Governor's Office fixed the rate of household refuse collection taxes and fees, something that had been done in the Cape years earlier.¹⁹³ Such a decision had never been made in the Transvaal, and although there is a lack of sources in the archives on this topic following this decision, it can only be imagined the type of resistance that met this move.

Rats on the *Wastescape*, 1900-1910

Although the garbage collection system was expanded under British rule both in the 1820s and in the British take-over of the Boer colonies, both the methods of burning on site and burying were still widely used. This occurred even into, although with decreasing validity, Swanson's era of the 'Sanitation Syndrome'. Herein, clampdown of 'unsanitary' habits in the colonies came as a reaction to disease in the late 1800s. The Bubonic Plague epidemic from 1900-1910 led to the introduction of stricter control over garbage collection and disposal. Grim warnings and paranoia individuals littered the Cape resulting in a rise in *whistle blowing*. The watchful eyes of residents holding collectors to meticulous sanitary standards proved of particular danger to refuse removal services that operated during a time of high alert residents. Archival sources from this time are populated with concerns and complaints from the general public. Each of these individual reports contributes to a collective story of *rationalised paranoia* amongst individuals. For example, in 1901, A.M. Fisher's

¹⁹⁰ TAB, MGP, 145, 586A/02, Tenders for the removal of rubbish, (1900-1902).

¹⁹¹ Swart, "'The Terrible Laughter of the Afrikaner'", 894.

¹⁹² Swart, "'The Terrible Laughter of the Afrikaner'", 892.

¹⁹³ TAB, LD, 66, AG2336/A/02, Removal of Rubbish Imposed on Householders, (25 April 1902).

refuse cart was left in the open, attracting rats. Concerned residents and officials hastily addressed this matter: Fisher was forced to abide by new rules regarding the exposure of the refuse to open air after receiving a stern warning.¹⁹⁴ The Government House was even found to have had rats during this time.¹⁹⁵ As a result of the major infestation of rats, in the same year a document was drafted which laid out an agreement for the removal and disposal of refuse,¹⁹⁶ thus supporting Rubbish Theory that only once rubbish becomes a nuisance is it addressed.¹⁹⁷ Complaints of unsanitary conditions were rife at this time and the Plague Special Committee dealt with these promptly. The Committee tackled issues ranging from open refuse trucks, requesting contractors to ensure the trucks were covered when not dumping or collecting as well as addressing the concerns of anxious residents.¹⁹⁸ This resulted in actions being taken that enforced refuse trucks to cover the garbage they carried and dictated particular waste behaviour to private residents.

The previously mentioned Sanitary Committees were characteristic of this time, and aptly named.¹⁹⁹ These managed all business related to garbage within each colony, alongside the Public Works Committee. Included within their job description was that the Cape Colony's Sanitary Committee re-evaluated the tenders for Cape Town's waste. During the 1890s the Eerste Rivier Rubbish Siding received much of Cape Town's garbage, however, Mr Heywood from the Cape Flats contested the tender for the city's' garbage.²⁰⁰ This rubbish was sought after in 1893 to arrest the spread of drift sands onto the farms in the area. After some back and forth about the logistics of the delivery to the Cape Flats via the railways and the territorial debate over the garbage itself, the Cape Flats was awarded garbage for this purpose prior to the onset of a major outbreak of the Bubonic Plague in the late 1800s and early 1900s. The unfortunate timing of this, of course, must be understood through the relation between rats and solid waste.

¹⁹⁴ KAB, PWD, 1/2/410, B533, 'Bubonic Plague: AM Fisher's patent Refust Cart and Receptacle', (1901).

¹⁹⁵ KAB, PWD, 2/2/217, A13/4, 'Bubonic Plague: Government House discovery of rats', (1901).

¹⁹⁶ KAB, 3/CT, 4/1/1/81, D198/1, 'Refuse Disposal Memorandum and Draft Agreements in Re: Removal of', (1901).

¹⁹⁷ Thompson, *Rubbish Theory*, 92.

¹⁹⁸ KAB, CGR, 2/1/325, 8425, 'Plague Special Committee: Open Refuse Trucks', (4 March 1901).

¹⁹⁹ KAB, AGR, 199/1363, Parts 1-2, Cape Town refuse deposit of: Cape Flats to arrest the spread drift sands, (31 August 1893).

²⁰⁰ KAB, AGR, 199/1363, Parts 1-2, Cape Town refuse deposit of: Cape Flats to arrest the spread drift sands, (1893-1894).

By December 1900, rats were seen dying in great numbers at the docks[.] Early in February 1901 the first human cases of plague appeared in the city among Cape Coloured and African dockworkers. [A]s Cape Town's mayor put it, 'the dreaded Bubonic Plague [is] in our midst'. His tone expressed the thrill of fear, which galvanized the city.²⁰¹

This message fuelled sanitation fears in living in close quarters with the 'Natives'. Fear of the 'unsanitary native' was compounded by the outbreak of the Bubonic Plague amongst the lower classes, mainly consisting of coloured and African workers in urban areas. As mentioned earlier, the categorisation of the Other as unsanitary in the Cape slum societies is intricately linked with the waste sector. Due to the lack of will to provide these areas with adequate council housing or adequate municipal services, disease spread easily.²⁰² The result was the evictions of Africans from Cape Town, who were moved to locations outside of town.²⁰³ Despite low numbers of urban blacks, '[i]n 1904 the total urban African population of South Africa was officially estimated to be about 337,000,'²⁰⁴ the emergence of racial segregation of these urban Africans was partly a reactive measure to sanitation, particularly in Cape Town.²⁰⁵ However, in other towns and cities in South Africa the reasons for this segregation differed, and the primary proponents of segregation were characterised by their need to control urban blacks and Indians, as was the case in Durban, and their need to control the labour force, such as in the mining towns of Johannesburg and Kimberly.²⁰⁶ As fears mounted over the plague, measures were taken to limit the spread of the disease, and garbage became a major focus in these efforts. Some residents of the colonies, however, benefitted more than others from these measures.

Residents were increasingly aware of the danger of unsanitary conditions, and this awareness extended to that of how waste was dealt with by removal companies. In 1904, one instance was that fish offal²⁰⁷ was being included in the waste sent to a transit station on its way to Durban Road, Cape Town for disposal. A scurry of letters

²⁰¹ Swanson, 'The Sanitation Syndrome', 392.

²⁰² C. Saunders, 'The creation of Ndabeni: urban segregation and African resistance in Cape Town', *Studies in the History of Cape Town*, 1 (1979), 165-93; and S. Parnell, 'Sanitation, segregation and the Natives (Urban Areas) Act: African exclusion from Johannesburg's Malay Location, 1897-1925', *Journal of Historical Geography*, 17, 3 (1991), 273.

²⁰³ Saunders, 'The creation of Ndabeni', 165-93.

²⁰⁴ P. Maylam, 'The rise and decline of the Urban Apartheid in South Africa', *African Affairs*, 89, 354 (1990), 58.

²⁰⁵ Swanson, 'The Sanitation Syndrome', 408-410.

²⁰⁶ Maylam, 'The rise and decline of the Urban Apartheid in South Africa', 58- 64.

²⁰⁷ KAB, 3/CT, 4/1/1/64, D54C, Volume 2, Refuse Disposal Fish Offal Correspondence, (1904).

was sent back and forth between the City Engineer, the Railway Traffic Manager and the Town Clerk. It was evident that the imposing menace of this wet, stinking mess amongst the usual waste was a perceived danger to the workers especially considering, 'The Doctor informs [the Traffic manager] that we must do something immediately to abate the nuisance.'²⁰⁸ In addition, the wooden railway carts were at risk of rotting as a result of the fishy mess. This one problem resulted in the railway company insisting that the refuse carts be cleaned and disinfected after each discharge of waste. The city engineer wrote to the town clerk about finding a solution for the disposal of the fish offal, suggesting, "Cart it off the Maitland, where I have made arrangements to have it buried. This course will, if adopted, prove very expensive."²⁰⁹ As chapter three will further explore, the placement of disposal areas for waste, most especially that waste that caused a particular nuisance, was concentrated in areas outside of white suburbs' concern. The town clerk's laid-back letter to the Under Secretary for Agriculture, expressing that the fish offal be "carted to the suburbs for disposal"²¹⁰ hardly expresses the consideration that should have been given for residents living in this predominantly coloured area, nor the trepidation that should be felt during a plague epidemic. Interestingly, the concern expressed for the workers, although present, was not as evident as the concern expressed for the Cape Railways Company property. The implementation of regular waste removal and sanitary reform was slow in this time period, and all the while the history of waste in South Africa was dogged by the fetid nature of garbage itself.

Badly monitored refuse dumps in locations caused a particular nuisance, as they attracted rats and increased the danger of the spread of the plague, such as in the Uitvlugt Native Location, where it was noted that poor sanitary conditions in latrines and refuse pails contributed to the danger.²¹¹ Meanwhile, fears of the plague were expressed by the separation of blacks, Indians and coloureds from 1870s onwards, especially in the Transvaal and Natal.²¹² However, during the epidemic, fears led to

²⁰⁸ KAB, 3/CT, 4/1/1/64, Volume 2, Refuse Disposal Fish Offal Correspondence, (letter dated 14 April 1904).

²⁰⁹ KAB, 3/CT, 4/1/1/64, Volume 2, Refuse Disposal Fish Offal Correspondence, (letter dated 29 April 1904).

²¹⁰ KAB, 3/CT, 4/1/1/64, Volume 2, Refuse Disposal Fish Offal Correspondence, (letter dated 3 May 1904).

²¹¹ KAB, PWD, 2/1/29, A9/27, 'Cape, Bubonic Plague, Uitvlugt Native Location. Sanitary Service: Latrine and refuse pails', (1901).

²¹² Swanson, 'The Sanitation Syndrome', 390.

more drastic action in terms of sanitation and waste disposal. It was not only the fear of the Bubonic Plague that scourged the colonies' towns in the early 1900s, but also fears of the epidemics of cholera and smallpox from the previous mid-century. The time period 1900-1910 shows in an era of advancement for municipal garbage disposal that concerns itself with new technologies as well as reactionary measures. Destructors at various points within cities' limits became important in the garbage disposal system.²¹³ This was believed to be of particular importance for the sake of destroying waste from hospitals and medical camps in order to curb the spread of disease such as fever and the bubonic plague.²¹⁴ When analysing behavioural changes and their juxtaposition with race during the outbreak of the Bubonic Plague in South Africa, it is important to note Swanson's reference to Louis Chevalier's thesis, which stated: 'Epidemics do not create abnormal situations' but rather sharpen existing behaviour patterns which 'betray deeply rooted and continuing social imbalances.'²¹⁵ This chapter seeks to expand upon this view that disease exaggerates existing social inequalities, even where the responses to these situations – both social and political – can be deemed exceptional due to hasty reactions to crisis, in particular concerning solid waste removal.

British colonial custom laws that aimed at colonising the mind and matter, not only the landscapes of indigenous peoples, often guided reactions to crisis and sanitation. The British enforced system of indirect rule allowed the sanitation dilemma to be relegated onto the native, not only through imperial and racist overtones which influenced both standards of service provision and perceptions of the unclean Other, but also through the commitment to push the local authorities to adopt British ways. The implementation of administrative rules regarding sanitation enforced a unique form of colonial rather than European or African rule because of the rules' use of traditional roles of kinship and chieftainship in the codification of Customary law, and its application.

[C]olonial authorities added elements of Christian doctrine, common law and administration rules regulating sanitation [...] and control of disease. Customary law thus legislated morality, criminalized custom and

²¹³ KAB, AGR, 199/199, 'Cape Town Formal Proceedings: Destructor's Wanted', (31 August 1893).

²¹⁴ TAB, MGP, 113, 10254A/01, 'Re: The Destructor erected for No 2 General Hospital', (20 August 1901); TAB, MGP, 57, 8278/00, 'Re: Erection of Destructor about 4 Miles West of the town for the purpose of destroying all fever excreta from the Palace of Justice Hospital', (4 July 1900).

²¹⁵ Swanson, 'The Sanitation Syndrome', 389.

legalized administrative rules, transforming chiefs into a single executive, legislative and judicial authority.²¹⁶

These first administration rules were amplified later on by incorporating the understanding of the role of sanitation in health during the Victorian era (1837-1901). It was during this era that Filth theory – that is, encouraging thinking that unsanitary conditions were the cause of disease rather than bacteria – were imparted upon the colonies, and what Maynard Swanson entitles the “Sanitation Syndrome” occurred. This syndrome was the result of ‘urban race relations [coming] to be widely conceived and dealt with in the imagery of infection and epidemic disease.’²¹⁷ Sanitation concerns collided, unfortunately, with the racist overtones of imperialist and Social Darwinian standpoints.²¹⁸ The crude scientific racism this introduced into the discourse of the colonies subjected the ‘indigenous’ populations to harsh scrutiny that placed them on a second tier of humanity.²¹⁹ This social theory was embodied within the need to change existing ‘indigenous’ customs to further the sanitation cause, thereby protecting the white population.

The development of South African legislation and action was driven by the need to address sanitation and health; reactive measures were taken in response to disease and death. Garbage disposal became a necessity as a result of the categorisation of solid waste as unsanitary and therefore an evil and a nuisance within society that itself caused the spread of disease. According to Swanson, the ‘urban public health administration was of considerable importance in accounting for the ‘racial ecology’ of South Africa.’²²⁰ This concentration on sanitation through the public health administration overflowed into public works and sanitation committees dedicated to the prevention of disease through cleanliness and the increasingly ordered and controlled methods of waste removal. By the placement of garbage in locations it increased Africans’ exposure to plague-carrying rats, thus creating a certain irony in

²¹⁶ T. Spear, ‘Neo-Traditionalism and the Limits of Invention in British Colonial Africa’, *The Journal of African History*, 44, 1 (2003), 14.

²¹⁷ Swanson, ‘The Sanitation Syndrome’, 387.

²¹⁸ S. Parnell, ‘Creating Racial Privilege: The Origins of South African Public Health and Town Planning Legislation’, *Journal of Southern African Studies*, 19, 3 (1993), 474. Parnell discusses how the rise of eugenics and Social Darwinism followed ‘the First World War and with the rise of [the] manufacturing industry.’

²¹⁹ S. Dubow, ‘Afrikaner Nationalism, Apartheid and the Conceptualization of ‘Race’’, *The Journal of African History*, 33, 2 (1992), 209 and 220.

²²⁰ Swanson, ‘The Sanitation Syndrome’, 387.

white fear over the disease caused from their own garbage. Rubbish in these areas further characterised ‘natives as unsanitary’ and it is not uncommon to come across sources citing the ‘natives’ inability to organise the municipal garbage in the area, such as the case in Cradock in 1907.²²¹ The reality was that the locations received poor, if any, municipal garbage service and were the prime spot for dumping the cities’ garbage, exacerbating existing health concerns within what were often impoverished areas. As a result, rubbish can be seen as an actor in the cementation of the thought that urban Africans were unsanitary and thus propelled the colonies towards segregation.

In the meantime, reform was slow, even when the officials in charge made hasty decisions in reaction to the sanitation issues and the spread of the Bubonic Plague. The Corporation of the City of Cape Town pitted itself against the steadfast rat and bought 5000 galvanised iron bins in 1903 in an attempt to separate rats from their livelihood within the city’s garbage. These bins were being sold across Great Britain and had riveted joints rather than the old soldered joints, ensuring that the lids would close securely.²²² These bins would be stamped with the address of the homeowners, and Cape Town city dwellers would be encouraged through a variety of means to buy the bins, including through press releases, by supplying the bins at cost price and through warnings to various home and business owners whose receptacles for their garbage was not suitable for loading onto the municipal equine-drawn carts. It was then told to all business owners, shopkeepers, café owners and boarding house keepers that they were required to purchase new bins that would meet the requirements of the Corporation.²²³ This ingenious and idealistic plan was nothing if not a failure. It spoke to an apathetic population, which was wholly unconcerned with the discarded and forgotten remnants of their businesses and homes. Despite the widespread attention given to the Plague at the time, the garbage that enticed the rats to their doors was of no concern once it had been thrown away. The plans of the Acting City Engineer, the Town Planner, the Medical Officer of Health (MOH) and the Streets and Depot Committee fell on the closed ears of the population. South Africa’s attempt to follow Britain’s changing dustbin technologies was a struggle, and

²²¹ KAB, MOH, 156, L23C, Insanitary Condition of Municipal Location, Cradock, (1907).

²²² KAB, 3/CT, 4/2/1/1/1357, 569/5, Refuse Bins for households, 1903-1908; KAB, 3/CT, 4/1/1/55, C11/1, Collection of refuse bins for households, (1902-1903).

²²³ KAB, 3/CT, 4/1/1/55, C11/1 In re- Dustbins, (8 October 1903).

in 1903-1907, very few members of the public purchased the dustbins that were offered by the government. The Cape Town central municipality then attempted to pawn off the remaining dustbins on other municipalities in 1906. Mowbray and Woodstock Municipalities rejected them outright, while Simon's Town and Muizenberg fobbed the matter off to consultation processes. It was only Green Point and Seapoint Municipality that in the end ordered 20 refuse bins, still leaving the Cape Town Municipality with 3500 unsold bins by 1907.²²⁴ Chappells and Shove are two waste historians that analyse the importance of the changing shape of dustbins over time, outlined as a 'public-sector responsibility', and their work 'explores the social and cultural meanings embedded in a range of familiar domestic technologies.'²²⁵ The changing shape and use of the dustbin, they argue, followed the introduction of technologies such as electric heating or gas heating and the decline of the use of wood fires as the common form of waste disposal, and the introduction of the refrigerator and freezer bringing different products into households, and declining garden size where civilians would bury or burn their rubbish.²²⁶ Across the world and in South Africa, these first bins were not conducive to the collection of waste as many of these took the form of wire bins. This made it difficult for refuse collectors to empty bins, illustrated by a complaint filed to the Cape Town municipality in 1905.²²⁷ Some bins were unsuitable in terms of the danger they posed: the common use of paraffin receptacles²²⁸ for garbage disposal caused obvious dangers of burning. Many of these unsuitable dustbins were only replaced in the 1930s.

The years from 1900 to 1910 saw various advances in the waste management industry. This included the improvement in street sweeping as a result of tarred roads slowly winding through the country.²²⁹ These advances also included the rollout of riveted bins, and the fixing of wire baskets to poles in 1909.²³⁰ It is notable that changes in waste management technologies and processes were often unnoticed or

²²⁴ KAB, 3/CT, 4/2/1/1/45, 1040/9, Explosives Found in Refuse, (letter dated 10 December 1907).

²²⁵ H. Chappells and E. Shove, 'The dustbin: A study of domestic waste, household practices and utility services,' *International Planning Studies*, 4, 2 (1999), 267-268.

²²⁶ Chappells and Shove, 'The dustbin', 267-268 and 271.

²²⁷ KAB, 3/CT, 4/2/1/1/13, 1491/7, Unsatisfactory Way of Emptying Refuse Bins, 31 Kensington Crescent, (1905).

²²⁸ KAB, 3/CT, 4/1/1/55, C11/1, In Re: Dustbins, (letter dated 10 December 1907).

²²⁹ KAB, 3/KWT, 4/1/214, T29/10, Tarring of Streets, (1909).

²³⁰ KAB, 3/CT, 4/2/1/1/85, 9/10, Removal of Refuse and Street Sweepings, Belleville, (letter dated 29 October 1909).

unimportant to residents, and the pressing concern to deal with waste – even during times of epidemic disease and death – was seriously lacking in cooperative action. By the time of the formation of the Union in 1910, this first phase in garbage history came to a close and ensured the advancement of the garbage industry as a result of epidemic disease and death. This era in garbage history was marked with progress, although its success was limited as a result of an uncooperative citizenship and a slow pace of change. The formation of the Union and consolidation of a national government of South Africa ensured that uncooperative civilian attitudes were not to last long, and the second phase of garbage history began with reactions to disease, population growth and World War One (WW1).

National Trends affecting the Waste Sector, 1900-1930

It is important to keep in mind the wider context of these micro histories. From 1900-1930, the larger social trends in South Africa had a significant effect on the development of the waste industry. Disease, increased wealth and population growth collectively had a decisive impact on the waste management sector. Persistent societal attitudes and attitudes towards waste itself were demonstrated in a number of areas including profits from organic fertiliser, sanitation in urban areas, changing dustbin technologies, and the evolution of the transport system.

Letters from residents to local authorities are a key resource in determining the details of the waste collection system that was put in place. One such private citizen, Mr M MacPhail, expressed his aggravation about the collection system. He addressed this legitimate concern to the Chief Sanitary Inspector in 1911 after the worst of the Bubonic Plague epidemic. When the dustcarts (refuse carts) came to collect the waste, the process was problematic. Homeowners were alerted about the arrival of the cart by a scavenger calling out at each door and sometimes ringing a handheld bell. However, short notice was given and it was easy to miss the refuse cart, resulting in household waste not being collected. Furthermore, he raised a second concern, saying that he could not simply leave his tin outside. This was not framed within a sanitation aspect but rather a fear and annoyance at the second type of scavengers: ‘Coloured children (as well as adults), to say nothing of dogs and cats’ that would rummage

through his garbage as a result.²³¹ However, the unrelenting attitudes about waste and urban coloureds and Africans had far worse effects than the denial of salvaging to the poverty stricken. In King William's Town, sources indicate that concerns were not expressed by civilians but waste and sanitation concerns were expressed by the Borough Engineer. The Borough engineer managed to introduce the use of autocars into the waste collection system, following in the footsteps of Europe. By reducing the wages of the black workers to cover the cost of the petrol, he proudly boasted that he managed to do this at no extra cost. In his 1911 report, he comments, 'I have not found any difficulty, excepting the natural difficulty to teach a *Kaffir*²³² to use a new thing'.²³³ Cleanliness was further introduced in the streets through an increase in street sweeping, and in particular ensuring that streets were swept after the morning traffic to clean up the horse manure. These sweepings were later taken to the stables, where the horse manure could be sold and used as organic fertiliser. The Works Committee took on the task of selling sweepings after Sgd. George Cain suggested it, mentioning that his father as a city engineer in England made a fairly large income from this as a result.²³⁴ The scattered references to European waste removal services, and particularly those in England, is common amongst these archival documents. Many of these references resulted in changes in behaviour or processes in the waste industry in the Union. In this case, both the street sweepings and organic garden waste were taken to the municipal stables from this point onwards, resulting in a small profit for the municipality.²³⁵

While creating dichotomous work opportunities for whites and urban Africans, the waste sector also had its own influence upon arguably the most harmful of segregationist developments in the country. Charles Porter, the first MOH of Johannesburg, argued during the previous decade for the design implementation of sprawling cities that later would become known as the apartheid city. Initially these cities were not strictly racially segregated, as Porter's argument was based on public

²³¹ KAB, 3/CT, 4/2/1/1/95, 75/11, Removal of Refuse, Adderley Street, (1911).

²³² The term "*Kaffir*" comes from the Arabic for 'unbeliever' or "infidel". This word was taken with particular enthusiasm in South Africa as a derogatory term for black South Africans.

²³³ KAB, 3/KWT, 4/1/214, T29/16, Sanitary conditions of streets, (6 March 1911).

²³⁴ KAB, 3/KWT, 4/1/214, T29/24, Re: Manure from Municipal Stables and Street Sweepings, (19 October 1914).

²³⁵ KAB, 3/KWT, 4/1/214, T29/24, Re: Manure from Municipal Stables and Street Sweepings, (19 October 1914).

health concerns and urban spatial planning.²³⁶ This design introduced the initial separation of communities based on race, and as a result guaranteed that with the eventual racial segregation that was to take place, the common practice of placing dumpsites on the peripheries of cities ensured a particular mentality associated with waste according to race groups in South Africa.

Meanwhile, across South Africa, just as panic from the Bubonic Plague died down, other sanitation panics arose. Tuberculosis became a major concern in cities, especially for Africans in densely populated urban areas. Tuberculosis is not spread through poor sanitation in communities, although poor sanitation can lead to compromised immune systems. However, the perceptions surrounding this particular disease were that the spread of the disease was assisted amongst this population group in particular as a result of black locations and medical camps being located 'generally not far from the town sanitary tip, the refuse dump, and slaughter poles.'²³⁷ It was not only Tuberculosis but also the arrival of the Spanish Influenza on South African shores that reinforced sanitation fears. Soldiers returning from the First World War (WWI) brought the virus back with them. It spread quickly through urban areas and densely populated rural areas across the Union of South Africa. 'From October to November 1918, Spanish Influenza ravaged the Transkei and Ciskei in the rural eastern Cape, where the virus was called *umbathalala*, the "disaster" in Xhosa language.'²³⁸ This virus was the opportunistic infection to spread through the Union after the mass urbanisation of the war. Sanitation woes were still strongly linked to disease and death, and as a result municipalities expanded upon existing waste collection systems. For example, East London expanded upon its rubbish removal system during this time.²³⁹ Furthermore, public spaces were focused on as areas in dire need of protection. There was a clampdown of refuse deposited in public areas such as public roads,²⁴⁰ on rotten fruit leftover from street vendors,²⁴¹ and litter in the

²³⁶ Parnell, 'Creating Racial Privilege', 488, 476-477.

²³⁷ T.R.H. Davenport, 'The beginnings of urban segregation in South Africa: the Natives (Urban Areas) Act of 1923 and its background', Grahamstown, Institute of Social and Economic Research Occasional Paper, (1971), 7.

²³⁸ B. Carton, 'The Forgotten Compass of Death: Apocalypse Then and Now in the Social History of South Africa', *Journal of Social History*, 37, 1 (2003), 204.

²³⁹ KAB, 3/ELN, 176, 132, Rubbish Removal and General Cartage Contract, (1909-1912).

²⁴⁰ KAB, PAS, 2/394, L99B, Tarkastad Divisional Council: Rubbish Depositing in Public Roads, (1914).

streets was addressed through the introduction of receptacles and wire bins.²⁴² A wider rollout of garbage collection was necessitated by a surge in the densities of cities due to urbanisation as a result of the 1913 Land Act and the First World War. However, some local authorities cut costs by not supplying locations with municipal services, or by supplying them with poor municipal services; by identifying areas on the peripheries of towns usually in or near locations to dump municipal garbage; and sometimes by reducing the wages of African workers in order to manage new technologies. All of this helped lead to increased risk for the urban African population to epidemics such as Tuberculosis and the Spanish Influenza, and also furthered their classification and cemented the particular classification as the unsanitary Other.

The 1920s –1945 marks a period of rapid progress for garbage management, and increasingly different experiences of the subject matter by blacks and whites in the Union. The 1920s saw a period where towns and cities followed quickly the example of Cape Town and King William’s Town, switching from horse drawn refuse carts to motorised vehicles able to transport waste to dumping sites.²⁴³ In Pietermaritzburg, for example, the shift to motor vehicles for waste transportation only came later; in 1928, the municipality still used rubbish carts with horses or mules.²⁴⁴ These carts caused problems across the Union, and multiple complaints were filed as a result of the driving of rubbish carts that caused accidents and made a mess. By the 1930s, all residents of the Union were being taxed for garbage removal.²⁴⁵ These funds helped to facilitate improvements in the waste collection and dumping process, such as the transition to motor vehicles. These taxes paid for the transportation of waste in trucks, such as that illustrated in the photograph below. It is interesting to note in this picture that one African man does the work of clearing the rubbish from the tipping vehicle onto the dumpsite, while three white foremen either observe or oversee the process.

²⁴¹ KAB, 3/KWT, 4/1/214, T29/30, Town Clerk to Officer Commanding of South African Police, King William’s Town, Throwing Fruit Peels and Rubbish on the pavements and in the streets, (21 April 1923).

²⁴² KAB, 3/CT, 4/1/3/7, A54/3, ‘Receptacles for Rubbish, Salt River Market’, (1917).

²⁴³ KAB, 3/CT, 4/2/1/1/85, 9/10, Removal of Refuse and Street Sweepings, Belleville, (letter dated 1 December 1909), gives evidence that ‘trucks’ were used in municipal refuse collection. Cape Town, however, was ahead of the times and was followed in later years by other towns and cities.

²⁴⁴ NAB, 3/PMB, 4/3/18, 878/1928, S. Browne, Complaint Re Driver of Rubbish Cart, (1928).

²⁴⁵ National Archives Repository (SAB), URU, 1541, 2557, Exemption of the Diplomatic Agent of the Netherlands in the Union from the Payment of Special Rates Levied by the City Council of Pretoria for Sewerage and Rubbish Removal, (1935).



Figure 5: City Council Tip-Truck No. 11 tipping refuse at Three Anchor Bay²⁴⁶

Throughout the time period being discussed in this chapter there are already indications of the demarcation of land according to skin colour and the racial segregation of the labour force. The picture above illustrates not only the reality of the opportunities available to urban Africans in the 1930s, but also the division of responsibilities according to race within industries.

Cleanliness remained of optimal importance during this time period, and health scares concerning tuberculosis, the bubonic plague and the Spanish influenza continued. Although the Public Health Act of 1919 allowed for new mechanisms to be put in place to protect the Union's residents, this, however, did not concern itself with rubbish removal and dumping. The fears amongst residents played out in the categorization of garbage as dangerous, filthy and unwanted. In 1923, a housewife wrote into the Plague Special Committee to enquire about the 'suspicious death of a

²⁴⁶ KAB, AG Collection, AC17247, City Council Tip-Truck No. 11 tipping refuse at Three Anchor Bay, (1934).

rat' in her home.²⁴⁷ Her urgent orders, in response, were to burn it in paraffin, or to bag the rat, if it was not yet decomposing, and send it in for testing, while immediately making sure to wash herself adequately. Waste was regarded as a matter of high importance in the protection of the Union's residents from disease due to poor sanitation. There was a strict enforcement of laws regarding sanitation, such as the Cape Town Municipal Ordinance (No.12 of 1912). Fines were increased for perpetrators that dumped 'fish offal, refuse and waste material of any description from the quay side or the jetty or from any fishing or other craft into the Waters of the Fishing Harbour formed by the Government.²⁴⁸ The payment could equal some £20. In 1928 in Pietermaritzburg, Mr Browne complained to the town clerk about an "insolent Indian" who in doing his job as a municipal refuse collector refused to help Mrs S. Browne in carrying her dustbin. Her husband's outcry at this incident was that his wife, needing help, had asked and the Indian had declined. He emphasised that not being in a financial position to hire a servant, this duty fell upon his wife. The implication within this was that such work at the time was not men's household work, as he would never have considered doing it himself.²⁴⁹ The town clerk, in his shock, wrote back informing Mr Browne that the female rubbish contractor, who was to apologise to Mrs S. Browne, was up to date with the matter and would leave it to the Brownes to determine whether the Indian should be dismissed.

Conclusion

Out of the dustbin of history emerges a story of the beginnings of a structured waste removal system in the colonies and later the Union of South Africa. This neglected history coincides with important moments of South Africa's past. From 1890-1930s a waste management collection system was slowly cemented within South African society. With relatively few hitches during this process of implementation, waste managed to provide a competitive industry for willing entrepreneurs, or *tenderpreneurs*. As this collection-based system gained traction, South African

²⁴⁷ KAB, 3/KWT, 4/1/203, S15/9, Bubonic Plague: Death of rat under suspicious circumstances, (1923).

²⁴⁸ KAB, PAS, 2/1009. L19/A/101, Cape Town Municipality, Regulations Prohibiting the Dumping of Refuse in Fishing Waters, (1928).

²⁴⁹ NAB, 3/PMB, 4/3/18, 878/1928, Description: S Browne, complaint Re Driver of Rubbish cart, (1928).

society faced upheaval in the form of the South African War. War, however, has given historians the opportunity to study behaviour change within society as a result of the enhancement of particular societal norms and behaviours. As a result, the unsanitary conditions of the concentration camps, the disposal of horse carcasses as municipal refuse, and the quiet disobedience in the form of resistance humour in municipal matters in Pretoria gives unique insights. These include the view of the unsanitary Other, the re-valuing of municipal garbage items (increasing their importance) but the devaluation of the body, and the use of municipal waste matters for resistance. At the same time, and with the same societal enhancement effect as war, disease fuelled sanitation concerns and resulted in a vigilant (and yet apathetic) population, and new policies and progress. The role of waste in disease had the additional effect of cementing the idea of the unsanitary Other and in doing so, making its very own contribution to the beginnings of the apartheid city. Thus, the waste industry functioned as a microcosm of the growing segregation in the Union as seen throughout the wartime and disease-ridden periods.

By February 1930, disease outbreaks were critically – although not accurately – linked to sanitation. Thus, when there was so much as a ‘probable outbreak of influenza epidemic’ in Bellville, the municipal Board sent out anxious instructions to ensure the area was kept as ‘clean’ as possible.²⁵⁰ Misunderstandings about the difference between cleanliness and sanitary conditions ensured that streets being cleaned (and carting off of disposables to neighbouring African locations) created dichotomous waste worlds in which the job sector, communities, municipal waste collection services, sanitary conditions and more were treated exceptionally differently for whites as opposed to for African, Indian and coloured people. The time period from 1890-1930s was a time of progress in the waste sector that highlighted many trends within the wider South African society. Particularly though, the history of waste during this time underscores unchanging societal norms and standards in regards to attitudes about both waste itself and the unsanitary Other.

²⁵⁰ KAB, 3/BEL, 4/1/21, RA/17, Refuse and Slopwater Removals, (21 February 1930).

CHAPTER THREE:

“Laden dustbin – wasteful wife. Empty dustbin – careful wife!”²⁵¹: Creating Frugal Wives, and Anti-Waste in the Union of South Africa, c.1930s – 1945.

The habits of families are hard to change, but it has been said[] “the greatest asset of any country is the common sense of the common people.”
 – *Wealth From Waste Handbook*, National Anti-Waste Organisation, 1942.²⁵²

The beginnings of a waste removal service in South Africa from 1890-1920s occurred largely in reaction to outbreaks of disease. The previous chapter laid out the early development of a dichotomous world in which whites and Africans lived, partially as a result of the provision, or lack thereof, respectively, of waste removal services. Municipalities during this time implemented various infrastructure in communities (most especially white communities) as attempts to change waste (and wasteful) behaviour. Behaviour towards waste is a difficult thing to change, especially as the nature of waste is something that ensures that it is forgotten almost as soon as it leaves one’s sight.²⁵³ In the 1930s, however, widespread poverty as a result of drought and the worldwide Economic Depression forced some people and communities to change their behaviour. The roles of women as wives and housewives in the Union at this time created a place where thrift was addressed as a “necessity” in surviving the Depression. Although the South African economy began to recover by the late 1930s, the onset of war ensured that this thriftiness was still a much-needed asset to the state. This chapter will argue that the setting up of the National Anti-Waste Organisation (NAWO) in 1940 was a response to the wartime shortages and need for households to maintain this behaviour during (and post-dating) the war. This chapter will further argue that NAWO’s successes, failures, challenges and shortcomings were partly connected to its view of women’s roles in the Union, of perceptions of race, and of NAWO’s ability to translate this into a nationalist propaganda scheme. This chapter will explore the possibility that the most important factor influencing NAWO’s work

²⁵¹ KAB, 3/CBG, 4/1/1, C2/1/5, *Wealth from Waste Handbook*, (1942).

²⁵² KAB, 3/CBG, 4/1/1, C2/1/5, *Wealth from Waste Handbook*, (1942).

²⁵³ See Chapter Two for the discussion of Thompson’s Rubbish Theory. Here it is discussed that waste only becomes an issue when it threatens to intrude.

was its ability to change the behaviour of ‘the common people’.²⁵⁴ This would be the first endeavour undertaken in South African history to directly and substantially address waste behaviour, as well as attitudes towards waste.

Housewives, Women and Poverty

The Economic Depression in the 1930s was coupled with droughts in South Africa that ensured major shortages and as a result, the restoration of thrift was necessitated in many households across the Union.²⁵⁵ Frugality and thrift were thought to be flattering values for every woman at this time. This was not only a result of the worldwide economic depression and the poor white problems faced by the Union, but also as a result of the promotion of specific gendered behavioural characteristics for women. The worldwide economic depression exacerbated concerns about poor whites in South African politics.²⁵⁶ The Carnegie Commission was conducted from 1929-1932 on the poor white problem in South Africa. Questionnaires were sent out to schools across the country and principals were asked to estimate the number of children that came from “very poor” households.²⁵⁷ Although the feasibility of this study’s accuracy should be called into question considering subjective and discursive accounts of poverty is not necessarily an accurate measure of poverty itself, the Commission’s findings are nonetheless of significance. The Commission’s report in 1932 revealed a prevalence of poor whites in the country.²⁵⁸ Seekings argues that this in fact provided material for measures to be put in place in reaction to the report, when the government had before the Report in 1932 already taken steps to alleviate conditions for whites living in poverty.²⁵⁹ In his exploration of white identity in South

²⁵⁴ KAB, 3/CBG, 4/1/1, C2/1/5, *Wealth from Waste Handbook*, (1942). See quote from the beginning of this chapter.

²⁵⁵ J. Fourie, ‘The South African poor White problem in the early twentieth century: Lessons for poverty today’, *Management Decision*, 45, (2007), 1279.

²⁵⁶ P. Rich, ‘Race, Science, and the Legitimization of White Supremacy in South Africa, 1902-1940’, *The International Journal of African Historical Studies*, 23, 4 (1990), 680.

²⁵⁷ J.F.W. Grosskopf, R.W. Wilcocks, E.G. Malherbe, W.A. Murray, J.R. Albertyn and M.E. Rothmann, *The Poor White Problem in South Africa: Report of the Carnegie Commission*, Volumes I-V, (Stellenbosch: Pro Ecclesia-Drukkery, 1932). Also see, J. Fourie, ‘The South African poor White problem in the early twentieth century: Lessons for poverty today’, *Management Decision*, 45, (2007), 1272.

²⁵⁸ Fourie, ‘The South African poor White problem in the early twentieth century’, 1272.

²⁵⁹ J. Seekings, ‘“Not a Single White Person Should Be Allowed to Go Under”: Swartgevaar and the Origins of South Africa’s Welfare State, 1924-1929’, *The Journal of African History*, 48, 3 (2007), 377.

Africa, Harrison explains the detrimental psychological effect of poverty, quoting the Carnegie Commission,

Poverty itself exerts a demoralising influence. It often causes loss of self-respect and a feeling of inferiority. It easily has a detrimental effect on honesty, trustworthiness and morality. If it is long continued the poor white often comes to accept it as inevitable and to bear it with dull and passive resignation. This attitude is further contributed to by the feeling of inferiority that poor whites have.²⁶⁰

Thus, poverty was seen as a demoralising affliction upon whites in the country and it became increasingly important to address the poor white problem. As a reaction to the Carnegie Commission and the government's increased desire to curb the poor white problem, the beginnings of a welfare state was put in place by the beginning of the Second World War (WWII) in 1939.²⁶¹ Additionally, by the late 1930s, the economy had begun to recover. During the time of economic scarcity, however, the virtues of frugality were heightened.

The housewife was central to the process of ensuring thrift in homes. The Housewives League of South Africa was established around this time to address consumer prices.²⁶² Possibly influenced by the National Housewives League in the United States, the South African organisation largely focused on food prices and ensuring that the price of commodities from eggs to bread. The National Housewives League founder and president Julian Heath, made a statement in 1913,

This newly awakened class-consciousness of the housewife has changed the entire viewpoint of women toward housekeeping and of the public toward the housewife. Housewives are at last recognizing that they are a great factor in the economic life and have taken their right position.²⁶³

Heath wrote passionately about the power of the housewife as the spender of family income and the economic power she possessed as a result. The National Housewives

²⁶⁰ R.W. Wilcocks, 'Volume II: Psychological Report: The Poor White', in J.F.W. Grosskopf, R.W. Wilcocks, E.G. Malherbe, W.A. Murray, J.R. Albertyn and M.E. Rothmann, *The Poor White Problem in South Africa: Report of the Carnegie Commission*, (Stellenbosch: Pro Ecclesia-Drukkery, 1932), xvii-xviii.

²⁶¹ J. Seekings, 'The Carnegie Commission and the Backlash against welfare state-building in South Africa, 1931-1937', Social Policy Series, Centre for Social Science Research (CSSR) Working Paper 159, (2006), 2.

²⁶² Unfortunately, the exact date of establishment of this organisation cannot be found and there is little evidence of them in the archives, with the exception of the minutes of the National Anti-Waste Organisation (NAWO).

²⁶³ J. Heath, 'Work of the Housewives League', *Annals of the American Academy of Political and Social Science*, 48, (1913), 126.

League fiercely took on consumer distributors as well as government in the pricing of goods. One Buffalo, New York politician even declared, 'I'd rather see the [Devil himself] coming after me than the Housewives League!'²⁶⁴ The National Housewives League in the United States and the Canada's Housewives' Consumer Association (HCA) became a prominent concern for retailers when setting prices and in the quality of goods that were sourced.²⁶⁵ Particularly in the 1930s depression years, housewives played a crucial role in ensuring prices were kept down.²⁶⁶ Furthermore, thrift was of optimum importance to housewives in the 1930s and many of them were not only frugal consumers but had thrifty housekeeping skills.²⁶⁷

Similarly, the Housewives League of South Africa (HLSA) was largely concerned with the price of consumer good and the quality of goods on the market. HLSA, however, was also concerned with the duties of a housewife and how women could improve upon their skills in the home. HLSA published cookery books, including two cookery books in which the favourite recipes of South African housewives were compiled for publication.²⁶⁸ Furthermore, the HLSA produced publications such as *Handbook for the Housewives League of South Africa* and *Hints for the Home*, in which there are tips for housewives and hints on saving.²⁶⁹ The HLSA provided a platform of middle class Union women that could be readily mobilised to combat food prices and other consumer injustices.²⁷⁰ It was as a result of this that the HLSA was able to provide strong support for NAWO in its anti-waste salvaging and saving campaigns. The HLSA was not the only organisation promoting the importance of

²⁶⁴ M. Mironesco, 'Disconnection: advertising and editorial content in the Housewives League Magazine (1913-1916)', *Atenea*, 31, (2011), 147.

²⁶⁵ See J. Guard, 'A Mighty Power against the Cost of Living: Canadian Housewives Organize in the 1930s', *International Labor and Working-Class History*, 77, 2010, 28; Mironesco, 'Disconnection: advertising and editorial content in the Housewives League Magazine (1913-1916)', 145-156.

²⁶⁶ Guard, 'A Mighty Power against the Cost of Living', 28.

²⁶⁷ T.H. Witkowski, 'World War II Poster Campaigns: Preaching Frugality to American Consumers', *Journal of Advertising*, 32, 1 (2003), 73. For more information on the content dealt with by the Housewives League see The Housewives League, *Housewives League Magazine*, Volume 7, New York, (1916).

²⁶⁸ Some of these publications are sold online as relics of the HLSA, these copies are not readily available.

²⁶⁹ *Hints for the Home* and *Handbook of the Housewives League of South Africa*, Housewives League of South Africa.

²⁷⁰ SAB, HEN, 1815, 403/24, Conferences, Congresses Etcetera (South Africa): Housewives League of South Africa, (1936-1959).

women in the home.²⁷¹ The government had for decades promoted housewife classes to poor whites and Africans in order to police lower class women, ‘improv[ing] the servants of the rich and the wives of the poor’.²⁷² Vocational training for ill-educated African girls and poor white women was a viable alternative to poverty. In Johannesburg, housewifery became a part of the formal and extracurricular education for many young black women in order to supply the city’s affluent community with domestic help.²⁷³ In the Cape in the late 1930s, advanced state-run housewife classes were so successful for poor white and coloured young girls that yet another school needed to be opened in Paarl. Women under the age of 18 who were sentenced to facilities for juvenile punishment and safekeeping were sent to these classes in Paarl, Standerton and Tempe.²⁷⁴ The implementation of housewife classes reveals the idealised conceptualisation of women as trained housewives and servants, with a mastery of home economics. Partly as a result of this training in housewifery skills, by the 1930s, women were playing an increasing if still limited role in the workforce in the Union. Fifteen per cent of white women worked outside the home by the mid-1920s.²⁷⁵ Despite this, housework remained women’s work and women’s organisations such as the HLSA were able to capitalise on these stereotypical sex roles for their own causes – such as targeting women to support initiatives promoting thrift in the home and being the watchdogs for food pricing. The Depression years necessitated the need for housewives to act frugally in both their consumption of goods and thrift was a way of life. The 1930s in North America and some parts of Europe was the ‘watershed of consumer activism.’²⁷⁶ A war was waged by (mostly) women’s organisations across the world on the price of goods. The thrift that was revitalised during this time of economic depression would become of optimal importance to governments in the Western world during WWII. In this context, thrift is a social behaviour that reinforces the concept of conserving, reusing, and using less,

²⁷¹ Unfortunately, due to patchy archival records, there is little information available about the HLSA, including how the HLSA was funded.

²⁷² D. Gaitskell, ‘Housewives, Maids or Mothers: Some Contradictions of Domesticity for Christian Women in Johannesburg, 1903-39’, *The Journal of African History*, 24, 2 (1983), 243.

²⁷³ Gaitskell, ‘Housewives, Maids or Mothers’, 247.

²⁷⁴ SAB, UOD, 96, E5/17, Policy in regard to Concentration of Advanced Housewives Classes’, (1930-1937).

²⁷⁵ L. Vincent, ‘Bread and Honour: White Working Class Women and Afrikaner Nationalism in the 1930s’, [unpublished paper], Department of Political Studies, Rhodes University, 2.

²⁷⁶ Guard, ‘A Mighty Power against the Cost of Living’, 9.

resulting in less waste and wasteful behaviour. This supported the political call to contribute to the war effort through sacrifice.

Make the Union Proud: The National Anti-Waste Organisation, 1939-1947

The Union of South Africa became entangled in the war that broke out in September 1939 in Europe as a result of its close relationship with Britain.²⁷⁷ Both the support for Great Britain amongst Union citizens as well as a following for Hitler's Nazism was embroiled in the web of South African citizenry and politics. The political landscape was divided between those denouncing the Union's involvement in the war effort and others' promoting the need to protect the Union's borders. Furthermore, the war represented a decisive split amongst whites in South Africa, with Afrikaners generally opposed to combatant involvement. The call to finally go to war on the side of the Allies (Britain, France and the U.S.S.R) was a close one.²⁷⁸ White citizens of the Union were still divided about the decision and this caused a considerable issue for a government in need of a unified citizenry. This obstacle was compounded by widespread poverty and further constraints of wartime shortages. The Union government exerted energy to bring together citizens for the war effort. Despite acrimonious attitudes towards the Union's involvement in war, almost one fifth of white men volunteered. Some did so in defence of freedom and democracy, while others merely enlisted as an attempt to escape pervasive poverty.²⁷⁹ The Union's economic situation ensured a perceived need for thrift and the involvement in the war meant that the citizens would be required to make certain sacrifices as a result of shortages. Thus the previous decade's emphasis on a frugal lifestyle was highly valued. One way in which this was encouraged was in the establishment of the National Anti-Waste Organisation (NAWO) in 1940.

²⁷⁷ F. L. Monama, 'The Second World War and South African Society', in T. Potgieter and I. Liebenberg (eds), *Reflections on War: Preparedness and Consequences*, (Stellenbosch: Sun Media, 2012), 47-56.

²⁷⁸ Potgieter and Liebenberg (eds), *Reflections on War*, 289.

²⁷⁹ D. Killingray, *Fighting for Britain: African Soldiers in the Second World War*, (Suffolk: Boydell and Brewer, 2010), 74.

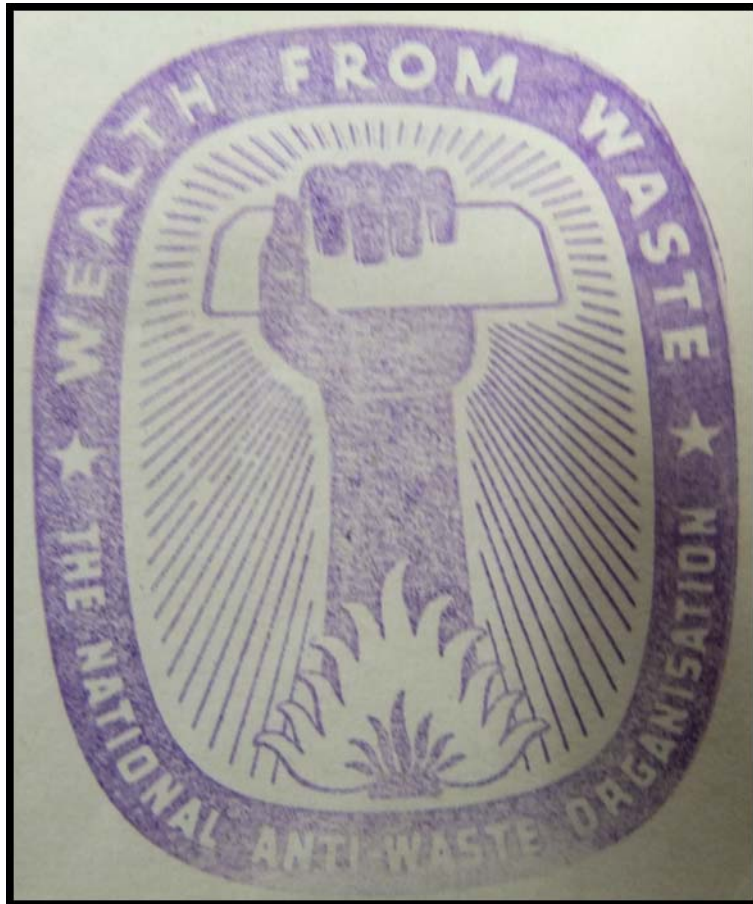


Figure 6: The National Anti-Waste Organisation logo. The logo appears here as a stamp used on official documents²⁸⁰

War is a time of social change, and one that requires an inordinate amount of discipline sacrifice from the citizens of a nation. In order for this social discipline to materialise, a government needs to ensure a concurrent reduction in social inequalities.²⁸¹ It is perhaps due to the Union government's increase in social welfare to address the concerns detailed by the Carnegie Commission, that the discipline needed to facilitate the success of an organization such as the National Anti-Waste Organisation (NAWO) was a possibility.²⁸² NAWO was established in July 1940 as an independently run institution mandated by the Union of South Africa's

²⁸⁰ SAB, URU, 2468, 2974, Declaring the National Anti-Waste and Conservation Organisation, (8 September 1947).

²⁸¹ J. Welshman, 'Evacuation, Hygiene, and Social Policy: The Our Towns Report of 1943', *The Historical Journal*, 42, (2000), 782.

²⁸² There is extensive research on the welfare for Union citizens, especially for whites, in the years preceding the Second World War, for some sources see D. Duncan, 'The Origins of the "Welfare State" in Pre-Apartheid South Africa' (unpublished seminar paper, 1993), 106-119; Seekings, 'The Carnegie Commission and the Backlash', 1-38; Parnell, 'Creating Racial Privilege', 472; and Fourie, 'The South African poor White problem in the early twentieth century', 1270-1296.

government.²⁸³ With offices at the Department of Education,²⁸⁴ NAWO embarked on a journey to achieve its two main aims: the salvage and reclamation of waste materials, and the elimination of waste in the domestic sphere.²⁸⁵ Anti-waste began as a war effort to save funds for the Union and reduce major shortages typical of wartime. However, as the organisation grew and its achievements were recognised, high hopes arose for NAWO to be instituted as a permanent organisation, rather than a temporary war effort, in the post-war period.²⁸⁶ As a result of the Second World War (WWII) patriotic propaganda, and the work of NAWO, an ideology of nationalistic fervour was introduced to the Union's waste sector. Nationalist propaganda was widespread in order to encourage thrift and anti-waste behaviour. Targeting local politicians, volunteer organisations and housewives, NAWO set out to establish local committees in cities and towns across the Union. In July of 1942, there were already 100 committees that had been launched, committed to the encouragement of thrift and the salvaging of materials.²⁸⁷ By the end of that year, NAWO had established over 200 local committees all dedicated to Anti-Waste work.²⁸⁸

A similar movement to NAWO existed in Britain, which employed propaganda tactics, although government directly led Britain's anti-waste behaviour.²⁸⁹ This came about as a result of the First World War (WWI), when views of municipal waste changed considerably.²⁹⁰ A silent war had been waged upon rubbish in Europe due to the dissemination of filth theory and its link between rats, waste and disease, discussed in Chapters One and Two. However, waste was finally seen to be of considerable use during WWI as sources for materials and goods.²⁹¹ The reclamation of waste became of significant importance in the retrieval of essential raw materials.²⁹² For the first time in a long time, salvaging became a more favourable

²⁸³ KAB, 3/CBG, 4/1/1, C2/1/5, Anti-Waste Campaign: *Wealth from Waste Handbook*, (1942).

²⁸⁴ SAB, PWD, 847, 2/2243, Johannesburg Education Department, Accommodation for Anti Waste (1942-1946).

²⁸⁵ KAB, 3/CBG, 4/1/1, C2/1/5, *Wealth from Waste Handbook*, (1942), 5.

²⁸⁶ SAB, CSO, 1, S01A/G, National Anti-Waste organisation, (October 1944).

²⁸⁷ KAB, 3/CBG, 4/1/1, C2/1/5, *Wealth from Waste Handbook*, (1942), 5.

²⁸⁸ SAB, SEC, 95, SEC73/4, Resolutions National Anti-Waste Organisations, (9 December 1942).

²⁸⁹ Cooper, 'Challenging the "Refuse Revolution"', 721-723.

²⁹⁰ Cooper, 'Rages, Bones and Recycling Bins', 18.

²⁹¹ See Chapter Two on the cycle of a consumer product and how garbage emerges from the dustbins and landfills to claim its place in society once more, as something of worth.

²⁹² Cooper, 'Rages, Bones and Recycling Bins', 18.

alternative to incineration.²⁹³ During WWII, both Britain and the United States encouraged salvaging on the home front.²⁹⁴ Furthermore, the British government appealed to municipalities to partake in salvaging on local dumps and encourage collection from households. Items that were particularly sought after were waste paper, metal, bones and organic waste from households.²⁹⁵ Although the enthusiasm that accompanied these salvaging efforts served a nationalist agenda, in England these reclaimed materials were stockpiled and left in large warehouses as the effort to sort, clean and process was too great.²⁹⁶ Similarly, in the United States successful salvaging drives ensured self-identifying patriotic citizens piled goods at public collection points, such as fire stations, police stations and courthouses. In the Aluminium Drives of 1945, however, complaints rushed in when pots and pans were still stacked outside these points for over a month.²⁹⁷ This was not the case in South Africa where widespread poverty ensured employees and materials shortages necessitated salvaging efforts. The Carnegie Commission found that 17.5 percent of the European population in the Union could be described as “very poor”, putting the number of poor whites at approximately 300 000 in a total population of 1 800 000 whites.²⁹⁸ Of these, 39 021 white individuals were described as “abjectly poor”.²⁹⁹ Furthermore, NAWO local committees were encouraged to turn salvaging into a profitable exercise.

NAWO’s work, also instituted with government support (the Union’s Department of Education), was far larger and far more organised than the British model. NAWO had a wide mandate including the saving of petrol; household, medical and industrial waste; daylight savings; soil and water conservation and more. Although there were over 200 Anti-Waste Committees established to address waste issues on a ground level, the local committees and national body were largely focused on the Union’s

²⁹³ Cooper, ‘Burying the ‘refuse revolution’, 1034.

²⁹⁴ Rathje and Murphy, *Rubbish!*, 195

²⁹⁵ Cooper, ‘Rages, Bones and Recycling Bins’, 18.

²⁹⁶ Rathje and Murphy, *Rubbish!*, 195.

²⁹⁷ Strasser, *Waste and Want*, 235.

²⁹⁸ J.F.W. Grosskopf, R.W. Wilcocks, E.G. Malherbe, W.A. Murray, J.R. Albertyn and M.E. Rothmann, *The Poor White Problem in South Africa: Report of the Carnegie Commission*, Volumes I-V, (Stellenbosch: Pro Ecclesia-Drukkery, 1932), vii.

²⁹⁹ J.F.W. Grosskopf, ‘Volume I: Economic Report: Rural Impoverishment and Rural Exodus’, in J.F.W. Grosskopf, R.W. Wilcocks, E.G. Malherbe, W.A. Murray, J.R. Albertyn and M.E. Rothmann, *The Poor White Problem in South Africa: Report of the Carnegie Commission*, Volumes I-V, (Stellenbosch: Pro Ecclesia-Drukkery, 1932), 22.

white communities.³⁰⁰ While some attempts to involve Africans in anti-waste were made, these efforts ultimately had shortcomings that will be discussed further on in this chapter. Similar to the British model, the organisation drew upon women's organisations as sources of support.³⁰¹ In South Africa this was realised through organisations such as the Housewives League of South Africa (HLSA). Closely following the inception of NAWO as a nationwide organisation, the Housewives League made enquiries about salvaging to NAWO's organising committee. In September of 1940, the Housewives League wrote to NAWO indicating it would be willing to encourage the collection of rags, bones, metals, and cardboard by local committees of HLSA from housewives across the Union.³⁰²

Partly as a result of the Housewives League, NAWO local committees began to see the importance and use of the housewife to achieving its aims. In both Britain and the United States, in fact, 'Propaganda urged women to take up even more work,'³⁰³ namely saving and salvaging on the home front. The British government directly targeted housewives in an attempt to encourage thriftiness, recognising their control over common sense in the household³⁰⁴ and its importance for the common good. Housewives were seen as having influence over their families' behaviour, affecting their 'common sense'.³⁰⁵ NAWO's decision to focus on women and their duties as housewives and mothers became a large factor in the organisation's successes. As a result, NAWO was able to ensure a steady supporting force for itself amongst citizens. By 1942, the National Anti-Waste Organisation announced that its propaganda campaigns and widespread work had ensured that it was already a part of the vocabulary of the general public, and the need for anti-waste living was a part of the public conscience.³⁰⁶ This organisation's successes were largely due to local committees that relied on the might of 'housewives, maids and mothers'.³⁰⁷

³⁰⁰ KAB, 3/SMT, 4/1/103, S19/4/1, Anti Waste Campaign and Paper Saving, (1942-1945).

³⁰¹ Cooper, 'Rages, Bones and Recycling Bins', 18.

³⁰² SAB, DEA, 190, A9/24x, Anti-Waste Materials Other than Ephemeral Records, (2 September 1942).

³⁰³ Strasser, *Waste and Want*, 252.

³⁰⁴ Cooper, 'Rages, Bones and Recycling Bins', 18.

³⁰⁵ See quote from KAB, 3/CBG, 4/1/1, C2/1/5, *Wealth from Waste Handbook*, 1942 at the beginning of this chapter.

³⁰⁶ SAB, CSO, 1, S01A/G, National Anti-Waste Organisation, (1944).

³⁰⁷ SAB, CSO, 1, S01A/G, National Anti-Waste organisation, (1944); and the quote is in reference to, Gaitskell, 'Housewives, Maids or Mothers'.

In the town of Potchefstroom in Transvaal Province, for example, the local anti-waste committee made particular use of women both in its propaganda campaigns and also in specific salvaging efforts. Potchefstroom's Sub-Committee for the Collection of Waste Material issued a pamphlet about bone collection to locals in December of 1940 declaring,

In Great Britain, the collection of household ("green") bones is carried out on an ever-increasing scale. It has been found that, where the *housewife* [own emphasis] and local authorities get together and put their backs into the job, it is possible to collect over thirteen hundred pounds of green bones per thousand of the population annually.³⁰⁸

Admiration for Great Britain's salvaging efforts is littered amongst the archival sources of NAWO and its local committees. Many of its methods and propaganda ideas were loosely based on information disseminated from the United States and Britain. However, in Potchefstroom, admiration for the whole of Europe's salvaging and recycling is evident. Strangely, this is also expressed during this wartime period by evidence of the success of using children for salvaging in Germany.³⁰⁹ The emphasis on housewives in the rhetoric of the local anti-waste committees is evidence of NAWO's main target audience. Women and particularly housewives were still the primary caretakers of the household during this time. It was not only national propaganda that focused on women but also many local committees focused on women and children for salvaging efforts. In Potchefstroom, a special auxiliary anti-waste committee was founded, a women's sub-group. This group was established in 1941 had a special focus on suitable food scraps that would be given to the local pig farmers.³¹⁰ The practice of feeding raw garbage (or leftover food) to pigs and other domesticated animals is called "slopping". Once exceedingly popular in the United States, even after the advent of the modern landfill, rubbish was gotten rid of by using the method of slopping.³¹¹ In South Africa during WWII, however, the purpose of slopping was primarily for more economical fodder for pigs in a time of major shortages. Housewives in Potchefstroom collected and organised their household waste, dividing the organic waste to be given to local pig farmers. Unbeknownst to

³⁰⁸ TAB, MPO, 2/1/364, 3065, Potchefstroom, Anti Waste Campaign Minutes of Meetings and General, (December 1940).

³⁰⁹ TAB, MPO, 2/1/364, 3065, Potchefstroom, Anti Waste Campaign Minutes of Meetings and General, (December 1940).

³¹⁰ TAB, MPO, 2/1/364, 3065, Potchefstroom, Anti Waste Campaign Minutes of Meetings and General, (16 July 1941).

³¹¹ Rathje and Murphy, *Rubbish!*, 35.

these housewives, however, the feeding of raw garbage to pigs is major cause of both trichinosis and vesicular exanthema.³¹² While there is no data from this time period regarding the effect of slopping in South Africa, the spread of vesicular exanthema led to the slaughter of 400,000 pigs in the United States in the mid-1950s, resulting in the passing of regulations that prohibited raw kitchen waste being used as feed for pigs and poultry.³¹³ As late as 2000, South Africa had an outbreak of vesicular exanthema (indistinguishable from Foot and Mouth Disease) as a result of feeding pigs the infected waste from a ship.³¹⁴ Farmers in Potchefstroom were not the only beneficiaries of anti-waste, however. The local anti-waste committee ensured it was run on a profit and the proceeds of £54:5:1 was donated to the local hospital.³¹⁵ NAWO was heavily male-dominated in its central committee, women served in high numbers on the local committees. The diversification of the economy during wartime meant that NAWO opened opportunities for white women.³¹⁶ This shift in gender roles is common during wartime, since the absence of men to the frontlines often leaves women to assume roles traditionally performed by men. In addition to their ascendance to local leadership roles in NAWO, many women also served on the committees of the Anti-Waste Weeks, to be discussed later in this chapter.

The local committees took on the brunt of organizational tasks, including the organising of local recycling and the distribution of profits. In Klerksdorp, for example, the profits from recycling raised by the local Anti-Waste Committee were donated to the war effort.³¹⁷ Each local organising committee ran itself independently of NAWO but was accountable to the executive team and had to uphold its aims and standards. The national body requested of each local committee to run its own campaign in promoting anti-waste.³¹⁸ Local committees were encouraged to function as permanent and sustainable committees, and encourage the spread of Anti-Waste

³¹² Rathje and Murphy, *Rubbish!*, 35-37.

³¹³ Gandy, *Recycling and the Politics of Urban Waste*, 74.

³¹⁴ A. Bryce, 'Feeding of Food Waste To Pigs', Ministry of Agriculture and Forestry (MAF) Discussion Paper, 01, 26 (2001), 7.

³¹⁵ TAB, MPO, 2/1/364, 3065, Potchefstroom, Anti Waste Campaign Minutes of Meetings and General, (16 July 1941).

³¹⁶ See J.M. Tinley, *South African Food and Agriculture in World War II*, (Stanford: Stanford University Press, 1954), 3; K. Sharma, *Women of Africa: Their Role and Positions in Society*, (New Delhi: K.M. Mittal, 1989); E. Mutari and D.M. Figart (eds), *Women and the Economy: A Reader*, (United States of America: M. E. Sharpe, 2003), 262.

³¹⁷ TAB, MKD, 2/3/10, A5, Klerksdorp, Anti-Waste Organisation, (1944)

³¹⁸ KAB, 3/CBG, 4/1/1, C2/1/5, Anti Waste Campaign: *Wealth from Waste Handbook*, (1942), 8-9.

committees to other areas.³¹⁹ While some local committees received independent funding, others ran on a profit. There were also organisations such as the local organising committee in Germiston that was funded by the Germiston Municipality.³²⁰ The efforts of NAWO and its local committees were extensive. NAWO worked closely with government departments, and all provincial administrations had appointed anti-waste committees by 1942. With the 200 local committees established across the Union, national and provincial government was putting pressure on municipalities to establish municipal committees that would work alongside the already established ones.³²¹ NAWO's local committees also encouraged the collection of goods by private citizens. These included most forms of metal, all forms of paper and cardboard, glass (as well as broken glass), old gramophone records, locks and keys, handles for rubber stamps, car batteries, textile waste, feathers, tires and tubes from automobiles, and more.³²² During WWII in the United States, women were rarely called upon to salvage in scrap drives as a result of their constrained time (long and unpaid work hours) and scrapping being seen as inappropriate work for women.³²³ Similarly, South African anti-waste propaganda specifically focused on women and children as collectors of waste. However, children were encouraged to salvage scrap metals, and women's work remained in ensuring thriftiness and salvaging in the home.

As the war progressed and the shortage of other materials became apparent, NAWO adapted its requests for materials accordingly. By 1943, the Union was facing a soil fertiliser crisis that would extend far into the 1950s.³²⁴ The organisation commissioned studies and engaged with research in order to combat these shortages and find the best solutions for the Union.³²⁵ NAWO quickly took it upon itself to encourage the collection of garden refuse and other organic waste. Additionally, it even began investigation into the use of night soil for fertiliser. Particular efforts were also made during the war and post-war period to salvage any forms of waste paper.

³¹⁹ KAB, 3/CBG, 4/1/1, C2/1/5, Anti Waste Campaign: Wealth from Waste Handbook, (1942), 11-12.

³²⁰ TAB, GTS, 7, A5, Anti-Waste, (1942-1945).

³²¹ SAB, SEC, 95, SEC73/4, Resolutions National Anti-Waste Organisations, 9 December 1942.

³²² SAB, CSO, 1, S01A/G, National Anti-Waste Organisation, (1944).

³²³ Strasser, *Waste and Want*, 253.

³²⁴ SAB, SEC, 95, SEC73/4, Resolutions National Anti-Waste Organisations, Report of Executive Committee (1 May to 31 May 1943).

³²⁵ TAB, MPO, 2/1/364, 3065, Potchefstroom, Anti Waste Campaign Minutes of Meetings and General, (1941-1955).

The dire shortage of waste paper in the Union lasted until the end of the 1950s, and ardent efforts were made to engage Union citizens to salvage and save paper as a result.³²⁶ This was not the case in Britain where the successful salvaging of paper by charitable organisations resulted in the saturation of the market and a consequent reduction in the price of waste paper, to the extent that the cost of salvaging had exceeded the price the waste paper could be sold.³²⁷ The support of long-standing charitable organisations in Britain ensured the success of its salvaging efforts, and although the sophisticated NAWO model had its successes, it certainly never managed such a feat. In fact, concurrently, there was a severe shortage of waste paper resulting in considerations to supply three bins for every twenty houses across the Union for the purposes of separation for recycling of waste paper, old bones and ordinary garbage.³²⁸ Furthermore, a report was issued in the *Cape Argus* stating, ‘The public have no idea how acute and serious is the paper shortage in the Union. [T]he country must face it and tackle the question immediately and in a spirit of the fullest co-operation.’³²⁹ As a result, NAWO embarked upon its biggest propaganda effort to this date. Mr T. B. Smit was appointed as a Travelling Organiser to visit over 200 towns in the Union ‘for the purpose of stimulating interest in Anti-Waste’.³³⁰

The successes previously reported about NAWO are primarily NAWO’s self-described successes. This organisation, however, did receive wider attention. NAWO received praise during the wartime period for its successful anti-waste methods. J. H. Hofmeyr, a close advisor to Smuts and holder of several ministerial posts, who believed in bridging the divide between Britain and South Africa,³³¹ made a speech as early as 1942 declaring that the National Anti-Waste organisation should be made a permanent rather than a temporary organisation.³³² The great success of South African salvaging and recycling was even recognised internationally, when the town administration of Tauranga, New Zealand, inquired about the methods used in the

³²⁶ TAB, BEN, 801, W2/1, War Measures and Control: Additional Taxes, Waste Paper, (1951-1961); TAB, MPO, 2/1/364, 3065, Potchefstroom, Anti Waste Campaign Minutes of Meetings and General, (7 September 1951); TAB, GTS, 7, A5, Anti-Waste, 1942-1945; and KAB, 3/KIM, 4/1/205, P107, Paper, Conservation of: Waste Paper and Salvageable Material, (1951-1967).

³²⁷ Rathje and Murphy, *Rubbish!*, 195.

³²⁸ KAB, 3/SMT, 4/1/103, S19/4/1, Anti Waste Campaign and Paper Saving, (1942-1943).

³²⁹ *Cape Argus*, Waste Paper Regulations Explained, (11 January 1943).

³³⁰ KAB, 3/SMT, 4/1/103, S19/4/1, Anti Waste Campaign and Paper Saving, (6 January 1943).

³³¹ A. Paton, *Hofmeyr*, (Cape Town: Oxford University Press, 1964), 200.

³³² SAB, CSO, 1, S01A/G, National Anti-Waste organisation, (1944).

Union to limit town waste and the conversation of it to compost or fertilizer.³³³³³⁴ In 1942, the *South African Municipal Magazine* reported on the success of the Union's wartime efforts at salvaging and recycling. The table below details the materials, tons sold and value (in pounds) of salvaged and recycled material from November 1939 to February 1942.

Results of Local Authorities' Salvage Schemes, c. November 1939- February 1942: South Africa, England, Wales and Scotland		
Materials	Tons Sold	Value £
Waste Paper	639,139	2,629,105
Ferrous Metals	527,300	1,133,191
Non-Ferrous Metals	20,455	369,053
Textiles	35,319	249,705
Bottles, jars and cullet	62,519	162,133
Fuel	179,106	63,630
Screened dust:		
Agricultural purposes	86,239	5,938
Other purposes	62,907	3,493
Manure and pulverised refuse	235,634	49,054
Meat Meal and dried food	9,643	48,573
Organic fertilisers	56,577	48,133
Bones and bone meal	18,655	61,872
Kitchen Waste	270,908	494,225
Waste Fish and fish meal	10,322	23,381
Fats	2,790	33,024
Miscellaneous	46,943	43,108
Total of direct salvage:	2,264,714	£5,418,105

Table 1: *South African Municipal Magazine*, table of tons of salvageable materials sold by local authorities in South Africa, England, Wales and Scotland and the value (£) from November 1939- February 1942.³³⁵

Again, the blurriness of waste is shown in the minimal archival of waste documents; this source is a single page torn out of a municipal magazine found buried in the landfill of the archive. The results herein are a sum of Britain and South Africa's waste salvaging output in tons and the consequent resale value in pounds. The highest profits made were from the salvaging of waste paper and metals, two areas of concentration for NAWO. Unfortunately for historians, the record keeping at this time of municipalities and NAWO focused on qualitative rather than quantitative data. Despite this inadequate statistical record, it is important to recognise that the drive to

³³³ KAB, 3/PEZ, 4/2/1/1/620, 27/6, Production of compost and Anti-Waste entitled Miscellaneous Matters, (1942-1950).

³³⁴ SAB, BNS, 1/4/4, K666, Request from New Zealand (Tawrangā) for Information regarding the sewerage and town waste, (19 October 1944).

³³⁵ C.J. Davies and M.I. Mech, 'Making Full Use of Waste Products: An Analysis of What Local Authorities Can Do', *South African Municipal Magazine*, (October 1942).

salvage, recycle and promote thrift was certainly significant for municipalities and national governments in Britain and South Africa. In twenty months, the local authorities were able to make almost £5.5 million in profit from salvaging and recycling. NAWO's work in over 200 towns and cities in the Union assisted these local authorities in achieving such a goal. The success of NAWO's work during WWII resulted in the organisation being commended with the 'South African Medal for War Services framed under Clause 5 of the Royal Warrant signed by His Majesty the King and countersigned and sealed by the Right Honourable the Prime Minister',³³⁶

Prudent Patriots? Propaganda in the National Anti-Waste Organisation

The work of local committees in salvaging and encouraging thrift in their communities was complemented by the dissemination of information by NAWO. In August of 1942 a Propaganda Committee was established and by September of 1942 NAWO had even appointed a fulltime publicity officer.³³⁷ In the encouragement of anti-waste behaviour, NAWO considered three mediums to be of primary importance, namely, education, publicity and propaganda.³³⁸ The education of Union citizens in Anti-Waste was tackled in two key ways. Through the work of Mr T. B. Smit as the Travelling Organiser, as well as the local Anti-Waste Weeks held in the Union from 1944-1945. This education will be discussed later in this chapter. Publicity was a recurrent exercise for NAWO and the public were addressed through radio, film and print. For an in depth look into the propaganda of the organisation, there will be a discursive analysis on the *Wealth from Waste Handbook* in the next section. During WWII in the United States, propaganda conveying the need for frugality was amongst the top five messages to its citizens.³³⁹ In South Africa, although the quantitative measure of these messages is an opportunity for future research, there was widespread propaganda circulating the Union that promoted thrift and anti-waste behaviour.

³³⁶ SAB, URU, 2468, 2974, Declaring the National Anti-Waste and Conservation Organisation, (8 September 1947).

³³⁷ SAB, CSO, 1, S01A/G, National Anti-Waste Organisation, (1944).

³³⁸ SAB, CSO, 1, S01A/G, National Anti-Waste organisation, (1944).

³³⁹ T.H. Witowski, 'World War II Poster Campaigns: Preaching Frugality to American Consumers', *The Journal of Advertising*, (Spring 2003), 72.

The Travelling Organiser, Mr T. B. Smit, and two ‘lady demonstrators’ were appointed in order to keep NAWO’s work alive and address immediate needs for saving and salvaging in the Union.³⁴⁰ Smit was the chief orchestrator of the education medium. As the Travelling Organiser he visited approximately 200 towns in the Union in order to spread the word of Anti-Waste in 1943 and the year that followed.³⁴¹ In his work, he made a special effort to attract children to his shows; many of these were held in school halls.³⁴² Concurrently, in the United States sweeping declarations were made about the involvement of children in salvaging during the war such as, ‘Every school in the land will become a salvage depot’.³⁴³ In the United States, school children banded together in groups to salvage as their part of the war effort.³⁴⁴ Not only was it reported that these children enjoyed this type of work, but that they were also good at it.³⁴⁵ The collection of materials as an extracurricular activity became popular amongst children, and they willingly took on this unpaid work.³⁴⁶ These patriotic American children littered the streets, eager to make their contribution to the war effort.³⁴⁷ Children across the Union (and even in South West Africa) were engaged similarly through propaganda and Smit visiting schools (with the cooperation of the Education Department) in order to encourage them to not only collect scraps and recyclables themselves but also to have an influence over their parents. School children were drawn in using various incentives. These included school competitions,³⁴⁸ merit badges for success and participation,³⁴⁹ educational tours to school children to popularise anti-waste work,³⁵⁰ and boy scouts and girl guides were targeted to help with specific salvaging events.³⁵¹ The competitions maintained a strict standard of race relations where the categories for winning were divided up into European, Non-European and African.³⁵² As further

³⁴⁰ SAB, SEC, 95, SEC73/4, Resolutions National Anti-Waste Organisations, 9 December 1942.

³⁴¹ KAB, 3/SMT, 4/1/103, S19/4/1, Anti Waste Campaign and Paper Saving, 6 January 1943.

³⁴² SAB, CSO, 1, S01A/G, National Anti-Waste organisation, 1944

³⁴³ Strasser, *Waste and Want*, 256

³⁴⁴ Witkowski, ‘World War II Poster Campaigns’, 75.

³⁴⁵ Strasser, *Waste and Want*, 255.

³⁴⁶ Strasser, *Waste and Want*, 255.

³⁴⁷ Strasser, *Waste and Want*, 256

³⁴⁸ SAB, SEC, 95, SEC73/4, Resolutions National Anti-Waste Organisations, (5 May 1944).

³⁴⁹ SAB, SEC, 95, SEC73/4, Resolutions National Anti-Waste Organisations: Minutes of the Executive Committee (12 February 1943).

³⁵⁰ SAB, SEC, 95, SEC73/4, Resolutions National Anti-Waste Organisations, (1942-1945).

³⁵¹ SAB, SEC, 95, SEC73/4, Resolutions National Anti-Waste Organisations: Minutes of the Conference of Local Anti-Waste Committees held in the Large Committee Room, City Hall, Johannesburg on (29-30 March 1943).

³⁵² SAB, SEC, 95, SEC73/4, Resolutions National Anti-Waste Organisations, (5 May 1944).

encouragement to the children and teachers were three national contest series organised for the children based on objects they made from recycled material. These exhibitions were held between August and October 1944 and curated mainly for white children, but also allowed the limited participation of ‘non-white children’ and ‘native children’.³⁵³ The underlying principle of attracting children to anti-waste was that, “If the principles were instilled in the children, thrift would follow”.³⁵⁴

NAWO’s work towards the end of WWII culminated in weeklong anti-waste extravaganza. Local organising committees clinging to the final straws of wartime patriotism hosted these weeks across the country. The first of these weeks was held in Kroonstad. Initiated by the local anti-waste committee and the ‘entrepreneurial spirit’³⁵⁵ of the Kroonstad mayor, the week was held on the 11- 16 September 1944. Speeches, performances, demonstrations, exhibitions took place and films about health, physical education, first aid, soil erosion, land services, making compost, anti-waste on the farm, cookery, and other health and anti-waste activities were offered during the week.³⁵⁶ NAWO was called upon to assist with propaganda for this first Health and Anti-Waste Week in Kroonstad.³⁵⁷ This success and innovation of this initial week was greatly admired and as a result, this event was replicated in multiple weeks followed, including those of Brakpan and Johannesburg³⁵⁸ The Cape Town local committee, inspired by Kroonstad’s initiative, hosted its own Health, Anti-Waste and Welfare Week in 1945. The following photograph is of Cape Town’s local organising committee for the week. It is interesting to note that both the president and the chairperson of this committee are men, and it is also notable that both Afrikaans and English surnames indicate that there was intercultural cooperation for this self-proclaimed patriotic cause.

³⁵³ SAB, CSO, 1, S01A/G, National Anti-Waste organisation, (1944).

³⁵⁴ SAB, SEC, 95, SEC73/4, Resolutions National Anti-Waste Organisations, Minutes of the Conference of Local Anti-Waste Committees held in the Large Committee Room, City Hall, Johannesburg, (29-30 March 1943).

³⁵⁵ SAB, CSO, 1, S01A/G, National Anti-Waste Organisation, (1944).

³⁵⁶ SAB, CSO, 1, S01A/G, National Anti-Waste Organisation, (1944).

³⁵⁷ SAB, CSO, 1, S01A/G, National Anti-Waste Organisation, (1944).

³⁵⁸ SAB, SEC, 95, SEC73/4, Resolutions National Anti-Waste Organisations: Minutes, (1 September 1944); SAB, CSO, 1, S01A/G, National Anti-Waste Organisation, (1944).



Figure 7: The Organising Committee for the Cape Town 'Health, Anti-Waste and Welfare Week,' 1945.

Sitting: T.B. Smit, S.M. Wale (Chairperson), Agbare Burgemeester (President), Dr T. Shadick-Higgins, Brig. H.J. Lenton

Middle row: B. McGaw, J. Sayward, H. Southern-Holt, E.S. Fort, Miller

Back row: Edgar Lipsett, Bernard Hill, Capt. Ronald Miller, G. Ruger, N.T. Goodhew.³⁵⁹

This weeklong festival recognised the importance of women in the creation of a frugal nation. The week targeted these women using home economics demonstrations, cooking in a non-wasteful manner as well as “We Want Your Waste” campaigns in which waste salvaging and collecting took place.³⁶⁰ In cooperation with the Departments of Public Health and Social Welfare, the week was held from the 11-14 May 1945. Smit joined the festivities in Cape Town to further promote the NAWO

³⁵⁹ SAB, SEC, 95, SEC73/4, Resolutions National Anti-Waste Organisations: Health, Anti-Waste and Welfare Awareness Week- Cape Town, (11-14 May 1945).

³⁶⁰ SAB, CSO, 1, S01A/G, National Anti-Waste organisation, (1944).

travelling exhibition and with it he brought along his wide-range of entertainment for children. As a precursor to the event, NAWO declared, “This is the most ambitious effort that has yet been made to direct public attention to the need for better health, greater social welfare and a more anti-wasteful spirit.”³⁶¹ This week left the Union in high-spirits as a result of its positive messages and large coverage. The Union’s women were called upon during the week to ‘behave appropriately’, as concerned wives and mothers by salvaging and saving.

Waste Propaganda: The Wealth from Waste Handbook

NAWO’s work in propaganda can be understood through a discursive analysis of the *Wealth from Waste Handbook*. Citizens were exposed to fiscal prudence propaganda that emphasised “*There’s wealth in waste, don’t throw away wealth in the dustbin!*”³⁶² The propaganda campaigns of NAWO focused on various elements of the Union’s population. Key groups were thought to be children, women and a separate strategy was created to address Africans. The focus on women and children is evident in the handbook. This section will deconstruct the most explicit example of wartime anti-waste propaganda publication by NAWO during this wartime period, *The Wealth From Waste Handbook*. The seventeen chapter long document begins in an obstinate tone, denouncing the need to so much as explain why anti-waste measures are needed. By juxtaposing the “perfect” no-waste system of “nature” with wasteful humankind, the handbook sets the precedent that people are out of touch with how goods should be used. It goes on to explain that the shortage of resources ensured ‘that everything possible should be done both to exercise economy in the use of goods, and to make available, for the re-use elsewhere, goods which have served their original purpose.’³⁶³ Boasting that within the first eighteen months since the inception of NAWO and its anti-waste campaign, the Union had managed to salvage £73 000 worth of scrap iron and steel.³⁶⁴ This gives an indication of the amount of salvaging that was taking place in the Union in comparison to the total taking place between Britain and the Union, totalling £5,418,105.

³⁶¹ SAB, CSO, 1, S01A/G, National Anti-Waste organisation, (4 May 1944).

³⁶² KAB, 3/CBG, 4/1/1, C2/1/5, ‘Wealth from Waste Handbook’, (1942).

³⁶³ KAB, 1/ MDB, 6/1/59, 17/25/2 Part 6, Economy and the Anti-Waste Campaign, (13 July 1942).

³⁶⁴ KAB, 3/CBG, 4/1/1, C2/1/5, Anti Waste Campaign: *Wealth from Waste Handbook*, (1942), 3.

Littered throughout this self-styled patriotic document, the handbook suggests tips for citizens (especially housewives) to address the waste crisis. For example, citizens should request of chemists to have containers for the collection of old toothpaste and other lead tubes.³⁶⁵ In 1942, this handbook was created to give (mainly) whites a detailed account of how to live frugally and save through salvaging. The booklet is promoted behavioural stereotypes, including such claims as ‘*Laden dustbin – wasteful wife! Light dustbin – careful wife!*’³⁶⁶ The handbook played on gender stereotypes of the perfect housewife, providing the booklet to housewives for their use within their homes. Housewives were conceptualised as the foundation of anti-waste in the home, and a woman’s worth was directly related to how frugal she was. This was emphasised through, statements such as “A real housewife understands the value of rubbish, and encourages thrift”³⁶⁷

Children were also a focus in this booklet and little rhymes and songs were used to get their attention such as the song below,

*“Pick up the bottles,
The tubes and the sacks,
Sort out the papers
And pile ‘em in stacks.
Save all the gadgets,
Old bolts and screws,
Clothes and the stockings
Too old to use*

*Salvage and sweeping
Save money- so think!
Don’t throw good materials
In the dustbin or sink!”³⁶⁸*

The *Wealth from Waste Handbook*, in its enthusiasm to convert citizens to garbage collecting, focused on parents of children. Indeed, it suggested salvaging as an alternative form of play. It appealed to parents, “*Get the children to help Anti-Waste.*

³⁶⁵ KAB, 3/CBG, 4/1/1, C2/1/5, Anti Waste Campaign: *Wealth from Waste Handbook*, (1942), 4.

³⁶⁶ KAB, 3/CBG, 4/1/1, C2/1/5, Anti Waste Campaign: *Wealth from Waste Handbook*, (1942), 56.

³⁶⁷ KAB, 3/CBG, 4/1/1, C2/1/5, Anti Waste Campaign: *Wealth from Waste Handbook*, (1942).

³⁶⁸ KAB, 3/CBG, 4/1/1, C2/1/5, Anti Waste Campaign: *Wealth form Waste handbook*, (1942), 44. This particular quotation is a song provided in the handbook to teach to children, encouraging them to pick up waste and recycle it.

They will enjoy acting as “junk” collectors in their spare time.”³⁶⁹ In the United States, during WWII, *Parent Magazine* made a similar comment, declaring that children are ‘great little scavengers’.³⁷⁰ The *Municipal Journal and Local Government Administrator* reported in 1942, that in England youth organisations such as the Boy Scouts helped the elderly and infirm to take refuse to the collection stations.³⁷¹ Although it is unclear if the propaganda was an adaptation of a British or American publication, what is evident is that there is similar nationalist rhetoric towards women and children. The handbook was also used as a source of information to convey NAWO’s work. For example, the publication details that workshops were held across the country. The focus of these workshops was largely on children, and the handbook emphasises, “Children are the best collectors and the finest field of propaganda.”³⁷² As discussed previously, across Britain and in the United States children were used as scrap collectors. In South Africa, although NAWO had a major emphasis on children as collectors of scrap metal, the publication also focussed on varying different types of waste including compost, paper, bones, metals, textiles and glass. The collection of ordinary tins was discouraged, as South Africa at this time did not have a de-tinning plant.³⁷³ Broken glass was discouraged in most of the country with the exception of Pretoria in the Orange Free State and Dundee in Natal. This was because there were companies in these areas that were able to recycle broken glass.³⁷⁴ Johannesburg, Orange Free State also was home to the only company able to extract silver from photographic materials.³⁷⁵ Importantly, the long-term views of the organisation meant that there was an insistence that the work of the organisation would not be for only one or two years, but should be of benefit in South Africa’s future. This handbook and other circulars were sent to all town clerks, secretaries of divisional councils, village management boards, local boards, school boards and hospital boards in the Union.³⁷⁶

³⁶⁹ KAB, 3/CBG, 4/1/1, C2/1/5, Anti Waste Campaign: *Wealth from Waste Handbook*, (1942), 21.

³⁷⁰ Strasser, *Waste and Want*, 258.

³⁷¹ J.H.M. Richards, ‘Novel Hornsey System of Salvage Collection’, *Municipal Journal and Local Development*, (21 August 1942), 1041.

³⁷² KAB, 3/SMT, 4/1/103, S19/4/1, ‘Anti Waste Campaign and Paper Saving’, (12 May 1943).

³⁷³ KAB, 3/CBG, 4/1/1, C2/1/5, Anti Waste Campaign: *Wealth from Waste Handbook*, (1942), 45.

³⁷⁴ KAB, 3/CBG, 4/1/1, C2/1/5, Anti Waste Campaign: *Wealth from Waste Handbook*, (1942), 45-47.

³⁷⁵ KAB, 3/CBG, 4/1/1, C2/1/5, Anti Waste Campaign: *Wealth from Waste Handbook*, (1942), 47.

³⁷⁶ KAB, 3/CBG, 4/1/1, C2/1/5, Anti Waste Campaign Circular, (1942).

Thrifty “Natives” and the National Anti-Waste Organisation

Initially, NAWO did not make a concerted effort to involve black South Africans in this anti-waste war effort. However, in March of 1943, the Johannesburg Local Anti-Waste Committee decided that a Sub-Committee for Propaganda to Natives on Anti-Waste would be set up. This decision was made as a result of the committee recognising the importance of Africans in the larger cause, believing it ‘important that the native should be encouraged to become “anti-waste minded” and thrifty.’³⁷⁷ This decision was made at the Conference of Local Anti-Waste Committees held in Johannesburg on the 13 and 14 March 1943. Local committees were encouraged to assist in the setting up of Native Anti-Waste Committees in places such as Primville and Orlando, located in Soweto outside of Johannesburg.³⁷⁸ However, NAWO insisted that this work should not infringe upon the important work being done focusing on white communities. Although there is a lack of evidence detailing why these committees failed, due to the murky nature of the landfill of the archives, perhaps it was a result of the lack of effort that the establishment of the Native Anti-Waste Committees was not successful. This was even in spite of the fact that the Institute for Race Relations assisted local committees in this task.³⁷⁹

The anti-waste campaign that was developed for Africans focused on film, print media, talks and failed attempts to establish anti-waste committees. Publications such as the *African Mirror* printed photographs and news stories about anti-waste work.³⁸⁰ Furthermore, ‘native press’ was used to publish useful tips about how certain waste material could be used in the home.³⁸¹ Advertisements before films were used as well as three-minute anti-waste films were made.³⁸² African Films Ltd showed a series of films aimed at anti-waste for black citizens of the Union. These were aired at festivals and in film theatres. Many of these were made in the United States and perhaps were

³⁷⁷ SAB, SEC, 95, SEC73/4, Resolutions National Anti-Waste Organisations: Minutes of the Conference of Local Anti-Waste Committees held in the Large Committee Room, City Hall, Johannesburg, (29-30 March 1943).

³⁷⁸ SAB, SEC, 95, SEC73/4, Resolutions National Anti-Waste Organisations: Minutes of Meeting of the Executive Committee in Howard House, Johannesburg, (5 March 1943).

³⁷⁹ SAB, SEC, 95, SEC73/4, Resolutions National Anti-Waste Organisations: Minutes of Meeting of the Executive Committee in Howard House, Johannesburg, (29 January 1943).

³⁸⁰ SAB, CSO, 1, S01A/G, National Anti-Waste Organisation, (1944)

³⁸¹ SAB, CSO, 1, S01A/G, National Anti-Waste Organisation, (1944).

³⁸² SAB, CSO, 1, S01A/G, National Anti-Waste Organisation, (1944).

not culturally, linguistically or relevant to a South African audience at the time.³⁸³ A series of radiobroadcasts were also aired on ‘native’ radio stations in townships and locations.³⁸⁴ Efforts that were made in regards to this new campaign were, however, done too late into the war and missed the nationalist anti-waste furore that NAWO was able to create elsewhere. For example, the placement of salvaging storage areas in locations for Africans to collect waste was done ‘too late’. Smit’s visit to townships such as Orlando and Primville took place only after the tour of over 200 towns in the Union.³⁸⁵ Furthermore, NAWO did a brief investigation and discovered that there was little point in the campaign for Africans because, “natives” in their own homes had little or nothing, and nothing was wasted that might seem useful.’³⁸⁶ Despite this finding, NAWO’s reports state that work should still be done with Africans, especially those living in urban areas, because they had, ‘lost touch with their predecessors.’³⁸⁷ It seems, rather, that NAWO had lost touch with its own findings and hardly had managed to make an impact upon Africans.

Conclusion

Anti-Waste drives in WWII achieved some level of success as a result of the “common sense”³⁸⁸ of housewives. Women in South Africa had faced particular hardship in both the 1920s and especially the early 1930s as a result of widespread poverty and South Africa’s flailing economy. Many women, trained as housewives or subject to societal behavioural gender stereotypes, were experts in the field of frugality. At the onset of WWII, the establishment of a government mandated organisation, the National Anti-Waste Organisation (NAWO), facilitated the national shift towards an enhancement of thrifty behaviour as well as major salvaging efforts. The use of propaganda that focused on women as housewives and children as collectors of salvageable goods was a prominent part of NAWO’s activities. Furthermore, the release of the most prominent publication, *The Wealth from Waste*

³⁸³ SAB, CSO, 1, S01A/G, National Anti-Waste Organisation, (1944).

³⁸⁴ SAB, SEC, 95, SEC73/4, Resolutions National Anti-Waste Organisations, (1942-1945).

³⁸⁵ SAB, SEC, 95, SEC73/4, Resolutions National Anti-Waste Organisations, (1942-1945).

³⁸⁶ SAB, CSO, 1, S01A/G, National Anti-Waste organisation, (1944).

³⁸⁷ SAB, CSO, 1, S01A/G, National Anti-Waste organisation, (1944).

³⁸⁸ KAB, 3/CBG, 4/1/1, C2/1/5, *Wealth from Waste Handbook*, (1942). See quote at the beginning of this chapter.

Handbook gives in depth insight into both the work of NAWO and how waste behaviour can be manipulated and how attitudes towards waste could be shifted. As Cooper emphasises about the British recycling efforts and campaigns during WWI, ‘that without the impulse of imminent catastrophe recycling held only a weak appeal in the public imagination.’³⁸⁹ In South Africa, although the heightened awareness of anti-waste was realised amongst whites, the success in salvaging was limited. NAWO’s efforts to include Africans fell short. Furthermore, NAWO was able to achieve its outputs and psychosocial changes through an immense anti-waste nationalist propaganda effort, which was able to influence people in part due to the previous decades of economic scarcity that necessitated thrift.

³⁸⁹ Cooper, ‘Rages, Bones and Recycling Bins’, 18.

CHAPTER FOUR:

Household Waste in South Africa: Post-War Shortages, Urbanisation and Race Relations, 1937-c.1960

This chapter will look at the town of Uitenhage in the Cape as a case study from 1937 to the beginning of the 1950s. These sources give insight into the development of perceptions about race and class for this town's waste sector. In exploring this case study, this chapter seeks to tease out the larger themes of class and race that are intersected with Uitenhage's waste narrative. Furthermore, this case study must be seen in the larger context of a post-war South Africa in which war shortages, the landfill and urbanisation emerge as important factors in waste management and disposal. In post-World War Two (WWII) South Africa, the Union was facing major shortages. The waste sector was in the optimum position to provide for some of these deficiencies, especially considering the major drive with the National Anti-Waste Organisation (NAWO) during WWII. One particular concern was the dire lack of organic fertiliser within an economy experiencing an agricultural boom. Although other municipal waste was also used to alleviate problems, this was with dwindling participation from municipalities across the country in the years following the disbanding of NAWO.

During this time, perhaps because of the successes of wartime waste salvaging and waste reduction efforts, a literature began to emerge about optimistically declaring the possibilities of the end of garbage issues. Opportunistic entrepreneurs began spouting solutions to make this a reality. However, these entrepreneurs knew little of the effect of the advent of the landfill during WWII as well as the tremendous effects of the urbanisation during the wartime and in the post-war time period on the waste sector. Concurrently, landfills located on the peripheries of cities aligned with the beginnings of the Apartheid system in 1948. Furthermore, 'the Second World War stimulated internal industrial growth in an economy that was already diversifying rapidly.'³⁹⁰ Thus, rapid urbanisation meant that South African towns and cities were expanding, exacerbating garbage woes. Thus, in the post-war era in South Africa it can be seen

³⁹⁰ W. Beinart, *Twentieth-Century South Africa*, (Oxford: Oxford University Press, 2001), 129.

that the waste sector in South Africa was under tremendous pressure, and this would have an effect upon race and class relations within the Union.

Uitenhage: Race and Class in Waste Collection Services, 1937-1948



Figure 8: Map of Uitenhage³⁹¹

In the small town of Uitenhage in the Cape Province, Mrs M. C. E. Harvey emerges out of the archives as an outlier: a singular female in the waste sector. This source proves rare not only as a result of being the only female refuse contractor in the archives, but also due to the thorough archival documentation of the waste sector in this small town. As discussed in Chapter One, the archival of waste-related documents has proved poor and the emergence of the strong documentation of Uitenhage's waste sector from the figurative dustbin of history gives invaluable insight into the waste sector in South Africa.³⁹² Furthermore, Harvey's correspondence with the town council reveals clear indications of the dynamics of race and class in Uitenhage at the time. Mrs Harvey was the garbage contractor in

³⁹¹ <http://w0.fast-meteo.com/locationmaps/Uitenhage.8.gif>, accessed 25 July 2013.

³⁹² See Chapters One and Two for 'the dustbin of history.'

Uitenhage in the Cape Province (now the Eastern Cape) for over fifteen years.³⁹³ Harvey is one of the few garbage contractors whose concern for her coloured employees is recorded. In 1937, her overt concern is expressed when Mrs Minty's dog viciously attacked one of her coloured workers, tearing his trousers. Harvey ensured through a complaint to the town clerk that Minty remunerated the worker for the trousers to be repaired.³⁹⁴ Harvey not only protected her workers above customers, but also defended them before the town council. In 1938, Mr R. Birkie issued a complaint to the town clerk about dogs destroying bins by overturning them during the night. The town clerk, Mr S.B. Featherstone wrote back implying that the destruction of bins was not due to the dogs overturning the bins in the night, but rather Harvey's workers. In this case, Harvey explained directly to the town council that the workers were not responsible for this damage and undercut Featherstone's accusation.³⁹⁵

Harvey's garbage narrative, however, cannot be separated from the clear lines she draws in regards to race and class in her duties as the garbage contractor. In 1937, Harvey pointed out to the council that there were three houses of 'European' families- Bezuidenhout, Basson and Landman- that were receiving no garbage collection as the houses that they occupied were built as location model houses for 'non-Europeans'.³⁹⁶ Much concern was raised, as these white individuals did not have access to good municipal services as a result. Upon investigation, it was discovered that these European racially classified families could not afford to pay the rates and fees for the garbage collection. Harvey herself subsequently decided that the garbage collection in the location (a system of skips instead of door-to-door collection) would suffice.³⁹⁷ This incidence gives early evidence of the use of skips in the locations as opposed to the 'European' waste removal of door-to-door collection. This occurrence also raises insights into the dynamics of class and race, showing that class sometimes superseded

³⁹³ KAB, 3/UIT, 4/1/271,119, Refuse Removal Service: Minutes from a Town Council Meeting where Mrs Harvey is present, (17 April 1944). This source states that at this stage she had been the contractor for Uitenhage for fifteen years, and her contract was renewed shortly after this.

³⁹⁴ KAB, 3/UIT, 4/1/271,119, Refuse Removal Service: letter to Mrs Minty from the Town Clerk, (2 October 1937).

³⁹⁵ KAB, 3/UIT, 4/1/271, 119, Refuse Removal Service, (3 November 1937).

³⁹⁶ KAB, 3/UIT, 4/1/271,119, Refuse Removal Service: Extract from the Town Clerk's report, (10 September 1937).

³⁹⁷ KAB, 3/UIT, 4/1/271,119, Refuse Removal Service: Extract from the Town Clerk's report, (20 September 1937).

race in decisions in the waste sector. It was with the onset of the Second World War, however, that the interlinking issues of race and class surfaced in Harvey's garbage narrative. In 1944, a report to the town council shows Harvey complained that all of her best workers were recruited for the war effort, and as a result, '[o]f late her difficulties had increased as her best employees had been recruited locally for the army and she was subsequently left with an unreliable type of Coloured person who require[s] constant watching.'³⁹⁸ Four years later in 1948, Harvey again complained about the quality of coloured worker she has to work with, reporting to the town engineer,

Of interest to the Committee and to illustrate the type of labour we are obliged to use, I have to report that on Saturday 26th Jan Doeks, one of the labourers murdered his son Klaas Doeks, also a labourer in our employ, at the sanitary site. Jan Doeks is at present awaiting trial.³⁹⁹

Considering Harvey's concern over the 'type of labour' she was 'obliged' to work with, it was not his race that she was concerned about but rather his background. Although race may be the defining characteristic, it is often class that drew the lines of similarity and dissent in the garbage narrative of the time. In the above quotation, it can be seen that although she is referring to having to use coloured workers, Harvey is concerned about the morality of the worker, a sentiment that is often connected with classist paternalism. It can be seen through this source, that the emphasis from Harvey about the importance of class divides between the races is increasingly prominent not only within her narrative but also in the narrative of a larger garbage history after WWII and at the onset of Apartheid in 1948.

By 1944, Harvey had held her tender for waste services for the town of Uitenhage for fifteen years. Her dealings with the town council, to those she was providing services to and her workers is well documented and, it seems she was highly respected for her work. In an interview about her role as the town's Municipal Refuse Removal Contractor, Harvey's successes in her role were keenly noted. It was said that she always supervised the removals, no matter the weather, to ensure that the 'scavengers

³⁹⁸ KAB, 3/UIT, 4/1/271,119, Refuse Removal Service: Report from the Health and Markets Committee: Interview with Mrs. M.C.E. Harvey, Municipal Refuse Removal Contractor, (17 April 1944).

³⁹⁹ KAB, 3/UIT, 4/1/271,119, Refuse Removal Service: Report of Town Engineer to Works Committee- Sanitary Service, (5 July 1948).

were not dilatory in effecting removals'.⁴⁰⁰ Harvey's knowledge and expertise in the waste sector was taken with utmost respect during her contract with the municipality. When a local townsman had written to the town newspaper to ask for the exchange of the metal bins for wicker baskets, she objected strongly saying that these baskets would be useless considering that the metal bins needed to be bashed against the side of the lorry in order to loosen the wet ash stuck at the bottom of the bins.⁴⁰¹ Not only would the wicker baskets not allow for this, but also they would be completely impractical as receptacles for rubbish due to leakage and rot.⁴⁰² Her advice was taken and the town council chose not to pursue wicker baskets made by the local blind society in favour of the practicality for the waste sector argued for by Harvey. Throughout Harvey's experience in the waste management sector, some key lessons can be learnt about waste management in South Africa. Aside from the lessons about the types of collection systems according to race and class, and bin technology, the Uitenhage documents also give evidence about the payment system for garbage workers. In the late 1930s and 1940s in Uitenhage, little was different from the Cape Town payment system of the 1920s, discussed in Chapter Two. In 1944, European supervisors were working on a monthly salary amounting to £24, broken down to £6 per week. "Native boys", however, were paid £1 per week and the "Native driver" was paid £2.10 per week⁴⁰³ Furthermore, Harvey's work clearly demarcates roles, responsibilities and services according to class and race lines. In her discussions about her workers, Harvey refers to 'boys', 'natives' and 'scavengers' throughout reports. Uitenhage's strong attention to class is important in understanding the waste sector in the 1930s and 1940s, especially when investigating the construction of waste behaviour. The provision of waste amenities according to not only race, but also class lines is important in appreciating the intricacies of the formation of waste behaviour amongst individuals. However, Harvey's dealings with the waste sector in Uitenhage were not the only factor influencing waste behaviour.

⁴⁰⁰ KAB, 3/UIT, 4/1/271,119, Refuse Removal Service: Report of Town Engineer to Works Committee- Sanitary Service, (17 April 1944).

⁴⁰¹ It is important to note that the common refuse bags for easy garbage removal did not come into use until the proliferation of plastic in the 1960s, making for both easier removal and increased waste. See Chapter Five for the changing composition of waste during this time period.

⁴⁰² KAB, 3/UIT, 4/1/271,119, Refuse Removal Service: Report of Town Engineer to Works Committee- Sanitary Service, (20 March 1944).

⁴⁰³ KAB, 3/UIT, 4/1/271,119, Refuse Removal Service: Report of Town Engineer to Works Committee- Sanitary Service, (27 October 1944).

Uitenhage: Municipal By-Laws and Ordinances in Changing Waste Behaviour

Multiple methods were used to improve waste behaviour in Uitenhage during the time period under discussion in this chapter. Municipal by-laws was one tool that was used with much enthusiasm in Uitenhage considering that even with Mrs Harvey's organised waste collection system, the town faced various waste challenges. In 1944, the closure of a rubbish tip below the Groendal service reservoir had been implemented several years before and a new rubbish tip had been created on the upper reaches of a donga towards Doornhoek Location. The placement of rubbish dumps near or in (mainly) African townships was becoming increasingly more common in towns and cities across the Union at this time. The placement of these rubbish dumps and landfills will be discussed further on in this chapter in the section about landfills and African urbanisation. However, the practice of the reclamation of waste dumps in white areas to be transformed into public amenities and green spaces only becomes normative in the 1960s, discussed in Chapter Five. This reclamation was pursued mostly after the advent of the landfill, a more convenient form of waste disposal, discussed later in this chapter.⁴⁰⁴ The issue being dealt with in this example is in reference to the fact that the old tip was still being used despite the fact that it had been partly covered with soil. At this time, although there was adequate waste collection services some businesses and individuals still disposed of goods themselves. Thus, there was a need for a focus on changing behaviour in the waste sector.⁴⁰⁵ The municipality of Uitenhage addressed the illegal dumping at the closed dump below Groendal service reservoir by covering the entire old tip with a layer of soil and policing the area. There were multiple other problems dogging the town's waste industry, however.

Another issue the municipality had to face was the illegal dumping of rubbish on the outskirts of the town. The municipality were struggling to assign blame for these incidents. When 'culprits' were caught, they usually blamed the employer. When

⁴⁰⁴ The reasons for this will be discussed further in this chapter and Chapter Five, but this was not only a result of the racial politics of the time, but also perhaps due to the widespread use of motorised transport resulting in the convenience of close-by rubbish tips no longer being necessary. This allowed for the replacement of rubbish tips near locations and away from largely white suburbs.

⁴⁰⁵ KAB, 3/UIT, 4/1/271, 119, Refuse Removal Service: Rubbish Tip, (1944).

employers were interviewed, the ‘servants’ were blamed.⁴⁰⁶ The municipality, in response, issued a penalty for those dumping illegally of a fine of £2/6 that would go to both the employer and employee. Furthermore, the employer would be prosecuted for being responsible for the actions of their worker.⁴⁰⁷ An additional issue with illegal dumping was that the rubbish was often dumped in nature conservation areas, causing potential fires and ruining the pristine landscape. The Town Ranger who was primarily concerned with this had little success in changing behaviour when he issued a circular letter to residents explaining the dangers of this dumping. Furthermore, the Town Ranger found that the establishment of guilt in these cases was difficult and quite expensive. Therefore, he identified the cause of the issue- that the municipality did not collect garbage refuse. Upon request, the municipality began to collect garden refuse as a part of its mandate in household waste collection. As a result, there was a significant decrease in the illegal dumping of rubbish in nature conservation areas.⁴⁰⁸

Throughout all the concern given to higher socio-economic white areas and nature conservation areas, this concern was not present in the dealings with Uitenhage’s location. Kabah location residents had long complained of the poor municipal services in relation to waste in the area. In 1945, when the municipality finally decided to inspect these complaints, the Medical Officer Of Health (MOH) found large quantities of refuse littering the ground throughout Kabah. This was particularly evident around the communal refuse receptacles. The location was not supplied with door-to-door collection that the rest of the town experienced, but rather were given large skips for the communal dumping of refuse. The Location Superintendent reported to the MOH that the refuse contractors (Mrs Harvey’s employees) refused to collect any refuse that was not contained within the receptacles. As a result, the MOH reported that individual dumping sites were cropping up around the area of the receptacles resulting in donkeys, dogs and (sometimes even children) rummaging. The lack of etiquette in dumping around the refuse receptacles was said to be a result of ‘location residents being too indolent’ and ‘more and more refuse [was] added by

⁴⁰⁶ KAB, 3/UIT, 4/1/271, 119, Refuse Removal Service: Dumping of Rubbish on Outskirts of the Town, (13 March 1944).

⁴⁰⁷ KAB, 3/UIT, 4/1/271, 119, Refuse Removal Service: Unlawful Refuse Dumping in Town Area, (24 March 1944).

⁴⁰⁸ KAB, 3/UIT, 4/1/271, 119, Refuse Removal Service: Unlawful Refuse Dumping, (11 March 1944).

indolent children'.⁴⁰⁹ As a result, it was recommended by the MOH that the town council instruct the Municipal Refuse Removals Contractor, Harvey, to either employ an extra scavenger to do this work or else to remove it using her own staff.

Uitenhage is a prime example of how refuse was dealt with differently according to race and class at particular areas, and in providing different qualities of public amenities such as bins. Furthermore, the municipality together with Harvey worked together not only to ensure an adequate waste removal system in the town, but also to change waste behaviour. These efforts also went a long way in ensuring reliable services to (mainly) white individuals in Uitenhage. Furthermore, the class and race dynamics that emerge from Uitenhage's waste history between 1937-1945 should be understood in the context of the years preceding the post-WWII waste concerns and the implementation of Apartheid in 1948.

Post-World War Two: The Organic Fertiliser Shortage and Waste Sector Solutions

Zooming out from the town of Uitenhage to a macro-level, it is important to understand the larger context of the waste industry during this time period. The end of the WWII was accompanied by changes in the waste sector that would compound issues of race and class discussed in the case study of Uitenhage. In post-WWII South Africa, the Union was facing major shortages. Paper was one of the major shortages that Union municipalities, paper mills and paper salvaging companies were attempting to deal with by salvaging and saving.⁴¹⁰ However, it did not carry the same urgency as the shortage of organic fertiliser in the Union at the time.⁴¹¹ Simultaneously, post-WWII farmers were benefitting from an agricultural boom.⁴¹² Following two years of crop failures and drought in 1945 and 1946,⁴¹³ this agricultural boom was in part encouraged by increased mechanisation, state subsidies

⁴⁰⁹ KAB, 3/UIT, 4/1/271, 119, Refuse Removal Service: Refuse Removal in the Kabah Location, (10 November 1945).

⁴¹⁰ TAB, BEN, 801, W2/1, War Measures and Control: Additional Taxes, Waste Paper, (1951-1961).

⁴¹¹ KAB, 3/PEZ, 4/2/1/1/620, 27/6, Production of compost and Anti-Waste entitled Miscellaneous Matters, 1942-1950; and KAB, 3/ELN, 798, 50/2009, Utilisation of Municipal Wastes, (1951-1953).

⁴¹² Beinart, *Twentieth-Century South Africa*, 72.

⁴¹³ Wylie, *Starving on a Full Stomach*, 78-79.

post-dating the war and the expansion of agriculture.⁴¹⁴ From 1938-1950 the amount South African farmers spent on fertilisers more than doubled to £6,000,000. As a result, there was a major drive to collect organic materials suitable for composting. Consequently, rhetoric emerged that called for municipalities to compost in order to boost and ‘save’ the farming sector of South Africa.⁴¹⁵ Historically, the migration from Europe to the South African shores ensured that farmers ‘accustomed to a humid and equable climate [to] semiarid landscapes where their farming habits helped accelerate soil erosion.’⁴¹⁶ European farmers did little to adapt farming methods to African soils, rather concentrating on ‘European success stories, even though they bore no necessary relation to Africa’s social or agronomic conditions’.⁴¹⁷ Furthermore, post-WWII brought with it a time of intensive farming accelerated by population growth in the Union. Soil conservation became a major factor in the Union and multiple options were looked at to alleviate the shortage that would otherwise put a stop to the economic successes of white farmers at the time. The fertiliser crisis was particularly dire in the 1950s but persisted as late as the 1970s.⁴¹⁸

Wylie writes that, although the European agricultural and industrial revolutions were slow spanning more than 500 years, in South Africa this was accelerated and took place in under a century.⁴¹⁹ It is easy to understand then, why the Union faced such tremendous issues with soil degradation at this time. As a result, the Soil Conservation Board appointed the Committee for the Utilisation of Municipal Wastes in 1952 to investigate the probability of salvaging and composting in municipalities across the Union. The appointment of this committee was prompted by two main themes. Namely, ‘the lack of and shortage of organic fertilisers in a generally impoverished soil in South Africa’ and the investigation into ‘municipal refuse, sewage sludge and night soil as potential sources of compost coupled with the

⁴¹⁴ S.T. Phillips, ‘Lessons From the Dust Bowl: Dryland Agriculture and Soil Erosion in the United States and South Africa, 1900-1950’, *Environmental History*, 4, 2 (1999), 245 and 261.

⁴¹⁵ KAB, 3/PEZ, 4/2/1/1/620, 27/6, Production of compost and Anti-Waste entitled Miscellaneous Matters, (July 1950).

⁴¹⁶ J.R. McNeill and V. Winiwarter, ‘Breaking the sod: humankind, history, and soil,’ *Science* 304, 5677 (2004), 1-2.

⁴¹⁷ Wylie, *Starving on a Full Stomach*, 37.

⁴¹⁸ P. Steyn, ‘Popular Environmental Struggles in South Africa: 1972-1992’, *Historia*, 47 1 (2002), 125.

⁴¹⁹ Wylie, *Starving on a Full Stomach*, 32.

recovery of usable material from garbage.’⁴²⁰ In 1953, the Secretary for the Committee for the Utilisation of Municipal Wastes, Mr P. R. Krige, wrote to the every town clerk in the Union in an appeal to municipalities to change the way they dealt with waste. The Committee estimated that approximately one million tons of dry refuse was disposed of per annum in the Union.⁴²¹ The disposal of this waste was largely accomplished through burying, dumping and incineration at this time. The management of this process was costly, and at the same time there was a problem of the increasing magnitude of waste in the Union.⁴²² The Committee was largely concerned with the wastage of a considerable portion of the three million tons of foodstuff consumed in the urban centres of the Union each year.⁴²³ Salvaging material from municipal dumps as a result of the Anti-Waste Campaign of WWII, discussed in Chapter Three, was still ongoing amongst some municipalities. According to the findings of the Committee for the Utilisation of Municipal Wastes, salvaging and composting had the potential to address the enormous issue of the shortage of organic fertiliser. In his communication with town clerks in the Union, Krige gave the example of Germiston City Council whose salvaging endeavours not only generated a profit for the municipality but also demonstrated the prospect of using municipal waste to alleviate the organic fertiliser shortage. The table below shows the type of goods collected in Germiston, the amount collected and the value of those goods:

Germiston Municipality: Salvaging during the year July 1951 to June 1952		
Commodity:	Weight:	Value:
Craft Paper	102,588 lbs	£303.9.3
Mixed paper	162,934 lbs	£245.8.2
Cement pockets	1,260 lbs	£4.14.6
Brown Paper	1,406 lbs	£6.13.6
Waste paper	24,005 lbs	£37.5.4
Wood and wool	8,304 lbs	£12.11.1
Rags and Bags	110.709 lbs	£261.8.6
Tin and iron sheets	184,380 lbs	£92.3.10
Bones	20,455 lbs	£74.4.0
Cullet	15, 000 lbs	£1.7.6
Assorted bottles in bags	471 bags	£57.8.9
Baling fees collected	-	£136.6.9
Compound Swill	813 drums	£284.11.0
Compound, vegetable tops	80 drums	£12.1.6
Total collected for year:		£1.529.13.8

⁴²⁰ KAB, 3/ELN, 798, 50/2009, Utilisation of Municipal Wastes, (27 March 1953).

⁴²¹ KAB, 3/ELN, 798, 50/2009, Utilisation of Municipal Wastes, (27 March 1953).

⁴²² KAB, 3/ELN, 798, 50/2009, Utilisation of Municipal Wastes, (27 March 1953).

⁴²³ KAB, 3/ELN, 798, 50/2009, Utilisation of Municipal Wastes, (27 March 1953).

Table 2: Germiston Municipality Salvageable Materials: Amount and Values⁴²⁴

The Committee was keen to impress upon town clerks across the Union, the benefits of salvaging. Considering the total of over one and a half million pounds in revenue generated for the town of Germiston in a single year, the results clearly showed the enormous potential of these efforts. Krige emphasised that besides the inestimable value of these waste products both as directly saleable items and to the agricultural sector, the profits from such efforts also provided the potential for large monetary contributions towards research for soil conservation and rehabilitation. Krige's belief in Germiston's methods being used across the Union were stressed through his encouragement to Union Municipal Offices,

[...] In fact, the onus *morally* [own emphasis] rests upon every city- and town-dweller to demand that henceforth all organic waste materials shall be utilised to the fullest extent, be they in the form of recoverable materials or potential compost.⁴²⁵

From the onset of the Second World War, propaganda resulted in both officials and conservationists declaring a war upon soil degradation, another 'fierce enemy'⁴²⁶ that needed to be faced at the time.

Furthermore, municipalities across the country were also called to contribute funds to invest in the research about and production of organic fertiliser in the Union. The table below details the contribution of various municipalities and organisations' contribution to research about composting and salvaging to eradicate the dire issue faced by farmers between 1951 and 1954.

The Union of South Africa's Municipalities: Contribution of Municipal Funds, 1951-1954		
Place	Amount	Number of Years
Transvaal		
Alberton	£25	3 years
Barberton	£25	3 years
Bedford View	£25	3 years
Bethel	£25	3 years
Boksburg	£75	2 years
Brakpan	£25	3 years
Ermelo	£25	3 years
Germiston	£100	3 years
Heidelberg	£10	3 years
Hendrina	£25	3 years
Institute of Sewage Purification	£5.5.0	1 year

⁴²⁴ KAB, 3/ELN, 798, 50/2009, Utilisation of Municipal Wastes, (27 March 1953).

⁴²⁵ KAB, 3/ELN, 798, 50/2009, Utilisation of Municipal Wastes, (27 March 1953).

⁴²⁶ Phillips, 'Lessons From the Dust Bowl', 260.

Johannesburg		
Johannesburg	£200	3 years
Krugersdorp	£25	3 years
Pretoria- £200- 3 years	£200	3 years
Cape Province		
East London	£100	3 years
Orange Free State		
Bloemfontein	£100	3 years
Natal		
Durban	£200	3 years

Table 3: The Union of South Africa's Municipalities contributions to the war for soil conservation.⁴²⁷

Despite the fact that these municipalities and other entities contributed funds to the cause, there were many that did not. Another 42 municipalities and institutions were asked to contribute, to no avail. However, researchers were commissioned to investigate the possibilities of waste salvaging and composting overseas in order to alleviate the soil crisis.⁴²⁸ The Union's farming sector, although experiencing a boom, was facing a major crisis that needed the collaboration of various stakeholders in the Union to solve.

In response to the fertiliser crisis, willing entrepreneurs sprouted in the Union. Here, the interests of soil conservationists and anti-waste activists aligned. Optimistic sentiments declaring the end of garbage problems were spurned to officials, advertising methods of waste disposal. Many of these entrepreneurs centred their pitches on the fertiliser shortage and the mounting burden of waste.⁴²⁹ Organic Waste Products Limited, a company based in Sydney in Australia, boasted its ability to convert wastes back to soil. Where this usually took between eighteen months and two years, the company claimed to be able to do so in a mere 25 hours.⁴³⁰ However, despite these claims municipalities showed little to no interest in the solutions being proposed. Remnants of nationalist propaganda seeped from the advertisements of waste entrepreneurs declaring, 'In the national interest [...] to stop the destruction of garbage'⁴³¹ Perhaps partly as a result of NAWO's influence during WWII, waste was

⁴²⁷ KAB, 3/STD, 4/1/62, W/14, Utilisation of Municipal Waste, (15 November 1954).

⁴²⁸ TAB, MPA, 3/4/1446, 102, Composting of Municipal Refuse (Waste), (20 October 1955).

⁴²⁹ KAB, 3/PEZ, 4/2/1/1/620, 27/6, Production of compost and Anti-Waste entitled Miscellaneous Matters, (1942-1950).

⁴³⁰ KAB, 3/PEZ, 4/2/1/1/620, 27/6, Production of compost and Anti-Waste entitled Miscellaneous Matters, (24 December 1948).

⁴³¹ KAB, 3/PEZ, 4/2/1/1/620, 27/6, Production of compost and Anti-Waste entitled Miscellaneous Matters, (1942-1950).

seen not only as a civic responsibility and civic value, but also as having potential to address particular issues within the Union.⁴³² Despite the perception of waste as something of use, this did little to affect the behaviour and decisions of individuals and municipal organisers.

In 1957, the company Waste King advocated for the implementation of garbage sink disposers, branded as 'Magic Ring Pulverisers'. Despite the enormous contribution this would have to the alleviation of waste issues there were three primary concerns that prevented this system being implemented as it had been done in the United States. The first was that it would cause an overload in the sewage works that did not have the capacity deal with the extra waste. As a result, garbage disposal through kitchen sinks would have to only happen in 'off peak' times. Secondly, organic wastes obviously held the potential to contribute to the shortage in fertiliser in the Union and as such this disposal would destroy possible solutions for the soil crisis. Thirdly, it was emphasised that the United States had experienced problems in regards to the additional water used for this form of disposal. Considering South Africa is a semi-arid country, if the Union's town clerks had made this decision to move towards kitchen sink garbage disposers, water crises would have been far worse in the country.⁴³³ The company pitched this idea as a total solution to garbage, illustrated by the picture below.

⁴³² Refer to Chapter Three.

⁴³³ TAB, MSP, 2/2/1/101, S15/11C, Springs Town Engineer, Sewerage, Municipal Waste and Composting, (25 January 1957).



Figure 9: Waste King “Magic Ring Pulverisers” Pamphlet, “Dad- what was Garbage?”⁴³⁴

The false assertion in this picture, that when waste is out of sight it no longer is an issue that needs to be considered, was popular rhetoric amongst these companies at the time. Furthermore, the booklet for “Magic Ring Pulverisers” brings to mind the same principles used in NAWO’s “Wealth From Waste Handbook.” Waste King’s booklet used advertising that focused upon women’s roles in the household, as well as

⁴³⁴ M.M. Cohn (ed.), ‘A Drop in the Bucket’, *Sewage Works Engineering*, New York, (1957).

incorporating humour such as an irritable man chasing away a scavenging dog from his troublesome dustbin.⁴³⁵

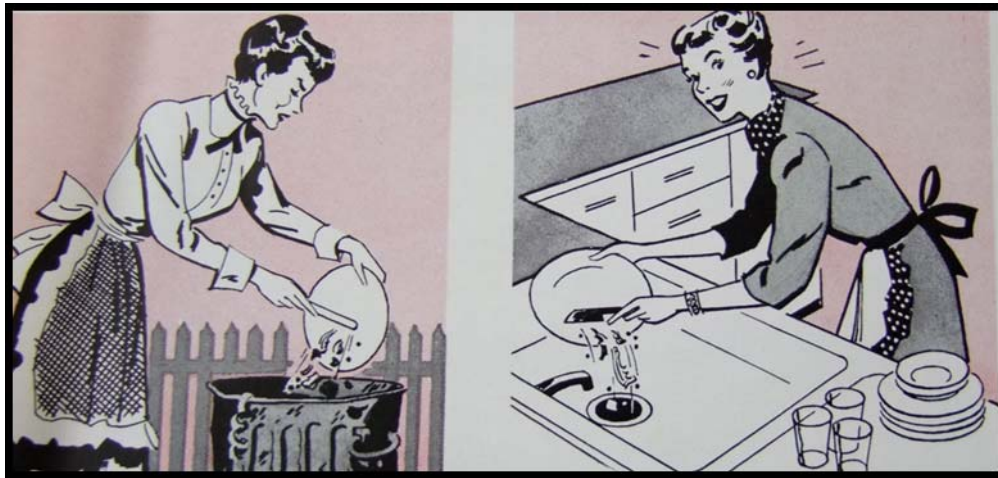
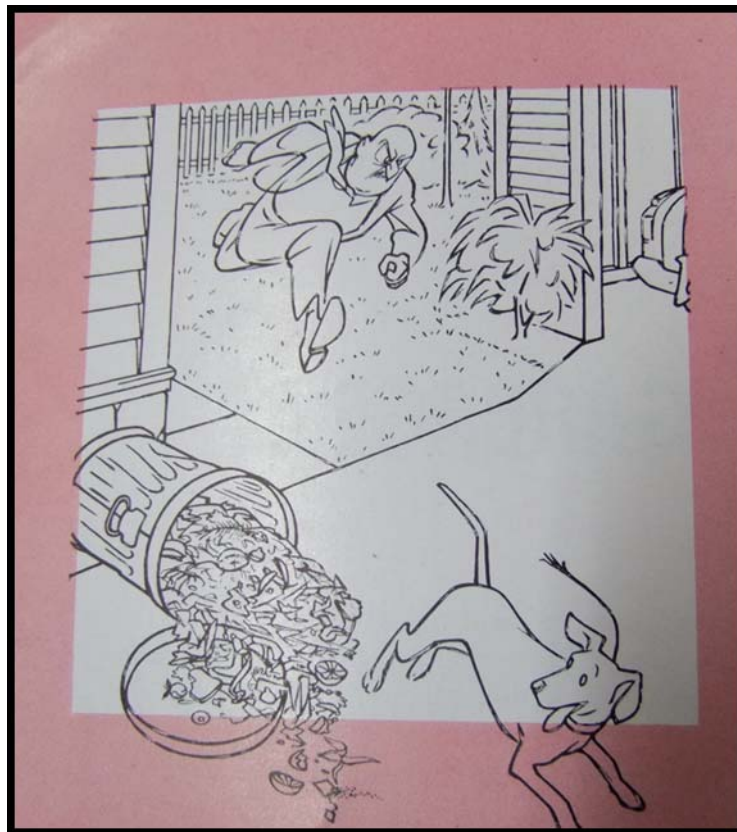


Figure 10: Waste King “Magic Ring Pulverisers”: Advertising aimed at waste as women’s work⁴³⁶



⁴³⁵ TAB, MSP, 2/2/1/101, S15/11C, Springs Town Engineer, Sewerage, Municipal Waste and Composting, (4 June 1959).

⁴³⁶ M.M. Cohn (ed.), ‘A Drop in the Bucket’, *Sewage Works Engineering*, New York, (1957).

Figure 11: Waste King “Magic Ring Pulverisers”: Man Chasing a scavenging dog to illustrate the downsides of throwing away waste in the dustbin for homeowners⁴³⁷

These pictures advertising the hassles of throwing away waste in the dustbin and the benefits of the “Magic Ring” are similar to those in NAWO’s “Wealth From Waste Handbook” discussed in Chapter Three. Other companies also proposed methods of waste disposal including composting in large metal drums and the breakdown of organic waste using worms.⁴³⁸ These proposals, though enthusiastically offering “total” solutions to municipalities across the Union, were no match for the advent of the most convenient form of disposal that materialised after WWII.

Post-War Effects: African Urbanisation and the Landfill

A new method of waste disposal spread throughout the Union after WWII. The first composting of municipal waste was as a result of WWII knowledge imparted from India.⁴³⁹ This was the beginning of the early stages of the implementation of the landfill, a form of waste disposal that is employed across South Africa today as the main form of waste disposal. Shanks, Platt and Rathje have dubbed the landfill as ‘modernity’s ruins’⁴⁴⁰ as a result of the inestimable salvaging potential of these sites. Although the evolution of the waste industry through the instigation of sanitary landfills occurred in the United States in the 1930s, for many countries the spread of this practice only occurred during WWII.⁴⁴¹ Sanitary landfills were developed for several reasons, including the economic use of space, to limit exposure to the vectors of disease such as rats, and to limit the contamination of natural and wild spaces.⁴⁴² The location of landfills in cities across the world have historically been placed ‘out of the way of all but the poorest citizens.’⁴⁴³ This is a result of landfills being

⁴³⁷ M.M. Cohn (ed.), ‘A Drop in the Bucket’, *Sewage Works Engineering*, New York, (1957).

⁴³⁸ TAB, MSP, 2/2/1/101, S15/11C, Springs Town Engineer, Sewerage, Municipal Waste and Composting, (4 June 1959).

⁴³⁹ C.G. Golueke and H.B. Gotaas, ‘Public Health Aspects of Waste Disposal by Composting’, *American Journal of Public Health*, 44, (1954), 340.

⁴⁴⁰ Shanks, Platt and Rathje, ‘The Perfume of Garbage’, 67.

⁴⁴¹ N.S. Shifrin, ‘Pollution Management in the Twentieth Century’, *Journal of Environmental Engineering*, (May 2005), 685.

⁴⁴² Shifrin, ‘Pollution Management in the Twentieth Century’, 685.

⁴⁴³ Strasser, *Waste and Want*, 7.

[...]commonly considered a form of nuisance. They are places of activity involving trucking, dumping, filling, sorting, spraying, operation of heavy equipment, and noise. In their search for sites for housing, families tend to equate landfill proximity with diminished environmental quality or quality of life.⁴⁴⁴

As a result, many landfills in the Union were placed in townships on the outskirts of cities. However, this was not the case for all landfills. Some townships developed around dumps that were later converted into landfills. Housing for Africans that had developed from the 1930s, such as that of Sophiatown and Alexandra on the outskirts of Johannesburg, were initially situated next to garbage dumps. These developments, not coincidentally placed near the dumps that devalued the land, were ‘unable to attract white residents’.⁴⁴⁵ However, over time the landfill sites were increasingly placed in poorer areas (rather than poorer areas developing around them), as a solution to the need for public amenities and green spaces in white areas, discussed further in Chapter Five.⁴⁴⁶

Importantly, the sanitary landfill differed from an ordinary dump in that it was covered with soil daily.⁴⁴⁷ Although covering dumps with soil was a practice that existed in the closing of dumps,⁴⁴⁸ the covering of rubbish with soil was not done daily before the popularisation of the landfill.⁴⁴⁹ However, in the meantime this early form of landfill has negative health impacts as waste was composted alongside night soil, especially in the areas of the growing townships. Furthermore, after WWII many of these interim waste sites were abandoned as a result of health hazards and other nuisances due to the poor treatment of night soil in these operations.⁴⁵⁰ Thus, in the post-war years, the ‘modern “landfill site” []emerged in response to [the] recognition of the environmental impact of uncontrolled waste disposal.’⁴⁵¹ It was only later in the 1960s that the changing consumption of materials in South Africa began to have an effect on dumping, discussed in Chapter Five. Landfills have spread to become the

⁴⁴⁴ A.C. Nelson, J. Genereux and M. Genereux, ‘Price Effects of Landfills on House Values’, *Land Economics*, 68, 4 (1992), 359.

⁴⁴⁵ Freund, *The African City*, 110.

⁴⁴⁶ See Chapter Five for the discussion on closing dumps in white areas and moving them to poorer areas. This mainly occurred during the 1960s.

⁴⁴⁷ Strasser, *Waste and Want*, 271.

⁴⁴⁸ Refer to earlier in this chapter with the closing of the dump in Uitenhage.

⁴⁴⁹ KAB, 3/UIT, 4/1/271, 119, Refuse Removal Service: Rubbish Tip, (1944).

⁴⁵⁰ Golueke and Gotaas, ‘Public Health Aspects of Waste Disposal by Composting’, 347.

⁴⁵¹ Gandy, *Recycling and the Politics of Urban Waste*, 7.

preferred method of disposal for most cities in the twentieth century.⁴⁵² The use of implementation of landfills was primarily as a convenient form of waste disposal allowing waste to be sent out of sight, and therefore out of mind. The breakdown of materials in landfills is poor, as archaeologists of American disposal sites found in 1965 through the discovery of still legible receipts from the 1920s: paper barely disintegrates in the dump.⁴⁵³ Landfills have many negative consequences including the lack of disintegration as a result of the limited exposure to air and water breakdown, the production of leachate capable of polluting groundwater, highly flammable materials often causing destructive fires, health hazards for those living on or nearby landfill sites,⁴⁵⁴ and the release and burning of methane gas produced on landfills that contributes to climate change.⁴⁵⁵ The consequences of landfill disposal were not known at the proliferation of this easy form of disposal, and little research went into investigating possible ills in the wake of the convenience of this ‘solution’.

In the post-war era, the advent of the landfill needs to be understood in context with the post-war urbanisation that was crippling that ability for municipalities to provide services. Despite fierce warnings of the crisis and multiple solutions being offered to municipalities, waste was not high on the priority list. Towns and cities were not focused upon the issues of rural farmers and played only small parts in an attempt to alleviate fertiliser shortages. Urban centres in particular were buckling under the pressure to deal with the urbanisation of Africans during WWII.⁴⁵⁶ Rapid urbanisation took place within the war and post-dating WWII, undermining any existing forms of colonial control over Africans in cities. For many Africans housing came in the form of illegal settlements on the peripheries of urban areas, capable of absorbing large numbers of people. In spite of the urban segregation imposed at this time, the government was struggling to keep Africans out of the cities.⁴⁵⁷ For most Africans a lack of basic services was a reality in both urban and rural areas.⁴⁵⁸ Waste issues in cities, however, were far more problematic as a result of large numbers of people

⁴⁵² Strasser, *Waste and Want*, 15.

⁴⁵³ Strasser, *Waste and Want*, 272.

⁴⁵⁴ Nelson, Genereux and Genereux, ‘Price Effects of Landfills on House Values’, 359.

⁴⁵⁵ Gandy, *Recycling and the Politics of Urban Waste*, 7-8.

⁴⁵⁶ P.E. Louw, *The Rise, Fall, and Legacy of Apartheid*, (Westport: Praeger Publishers, 2004), 25.

⁴⁵⁷ Beinhart, *Twentieth-Century South Africa*, 127.

⁴⁵⁸ F. Khan, ‘Environmentalism in South Africa: A Sociopolitical Perspective’, *Macalester International*, 9, (2000), 161-162.

crowded together in urban areas, exacerbating epidemic disease. By 1942, the Smit Committee was appointed to investigate the 'Social Health and Economic Conditions of Urban Natives.' The Committee found that conditions in illegal settlements harsh with large numbers of people living in single dwellings 'overrun with vermin'.⁴⁵⁹ The committee found that the primary cause of epidemic disease such as tuberculosis was a result of overcrowding. Issues of overcrowding were consequently compounded the lack of sanitation. In particular, the deficiency of toilets, washing facilities and refuse removal services were found to be prominent reasons for the spread of disease.⁴⁶⁰ Thus, the migration of Africans to urban areas resulted in problematic issues for municipalities and a much larger demand on services. This urban migration left the 'local authorities wholly impotent in the face of what they perceived to be a seething urban mass, thrust the "bulk" problems of population to the forefront of the political agenda'.⁴⁶¹ These issues were particularly pertinent considering that at the beginning of WWII, whites outnumbered Africans in cities, but after the war, this had reversed.⁴⁶² Considering that, '[d]uring the war the cost of living in Johannesburg escalated faster and higher than wages. The cost of living index rose from 100 (1938) to 104 (1941) to 161.1 (1949)',⁴⁶³ thrift was a necessity rather than a civic responsibility or civic value for Africans in cities.

South African cities struggled under the pressure of urbanisation in these post-war years. Cooper comments that public amenities were reconsidered in Britain in the time that followed the Second World War, where a significant proportion of dumpsite land was being reclaimed.

Rather, amenity politics in their popular form contained hopes for the preservation of 'natural' or 'wild' spaces as these were defined and understood by local communities. In this changing cultural context controlled tips were attacked for their detrimental effects on access to 'natural' (as opposed to derelict) spaces. The 'waste' land which controlled tipping originally sought to reclaim, underwent a significant reevaluation after the Second World War by local populations that increasingly viewed such areas as important communal 'amenities'.⁴⁶⁴

⁴⁵⁹ Duncan, 'The Origins of the "Welfare State"', 109.

⁴⁶⁰ Duncan, 'The Origins of the "Welfare State"', 109.

⁴⁶¹ D. Posel, 'The Case for a Welfare State: Poverty and the Politics of the Urban African Family in the 1930s and the 1940s', in S. Dubow and A. Jeeves, *South Africa's 1940s: Worlds of Possibilities*, (Cape Town: Double Storey Books, 2005), 80.

⁴⁶² Louw, *The Rise, Fall, and Legacy of Apartheid*, 25.

⁴⁶³ Wylie, *Starving on a Full Stomach*, 114.

⁴⁶⁴ Cooper, 'Burying the 'refuse revolution'', 1043.

In South Africa, this occurred later on in the 1960s, discussed in Chapter Five. However, it was with development of townships and the advent of the landfill that the growing interest in public amenities and green spaces would be able to come to fruition in the 1960s. In the meanwhile, cities such as Port Elizabeth and others were buckling under the pressure to provide housing and municipal services to the large migration of black workers during and after WWII. As a result, most municipalities were unable to maintain an effective collection system.⁴⁶⁵ According to Bonner, '[t]he Second World War transformed the face of South Africa like no other era since the reconstruction period following the Anglo-Boer War'.⁴⁶⁶ This was certainly true for waste management services in South Africa up until this point.

Repressive control laws were introduced with the introduction of Apartheid in 1948, ensuring urban planning would form strong colonial boundaries.⁴⁶⁷ The Apartheid government implemented a system in which Africans settling in cities were looked at as a short or medium term reality, necessary for labour. This resulted in local governments providing little if any municipal services to the densely populated African townships and slums.⁴⁶⁸ Apartheid further introduced the cementation of starkly different urban realities for whites and Africans as a result of how municipalities were funded. The funding of municipalities by the revenue of locally based businesses ensured that most white municipalities received ample funding and black townships suffered in the wake of poor national subsidisation and a lack of significant economic activity.⁴⁶⁹ This was only to get worse with the economic boom and the rise of the rich Afrikaner in the 1960s, discussed in Chapter Five. Furthermore, in the 1950s, as a result of the spiralling urbanisation from WWII, 'larger and larger numbers of Africans were born in, and came to know, only the urban environment'.⁴⁷⁰ The reality of this was Africans were barred from access to and exposure to adequate municipal waste collection services. In many areas, the poor services led to townships brimming with waste: both the remnants of a largely thrifty

⁴⁶⁵ A.J. Christopher, 'Apartheid Planning in South Africa: The Case of Port Elizabeth', *The Geographical Journal*, 153, 2 (1987), 200.

⁴⁶⁶ P. Bonner, 'Eluding Capture: African Grass-roots Struggles in 1940s Benoni', in S. Dubow and A. Jeeves, *South Africa's 1940s: Worlds of Possibilities*, (Cape Town: Double Storey Books, 2005), 170.

⁴⁶⁷ Freund, *The African City*, 73.

⁴⁶⁸ Freund, *The African City*, 127.

⁴⁶⁹ Qotole, Xali and Barchiesi, *The Commercialisation of Waste Management*, 24.

⁴⁷⁰ Freund, *The African City*, 128.

lifestyle, and the household waste of whites increasingly sent to the peripheries of cities. Thus, the after-effects of WWII exacerbated the white citizens' perception of Africans as environmentally destructive.⁴⁷¹

Conclusion

The case study of Uitenhage from 1937 – 1948 gives perspective about the dynamics of the waste industry in this town. Through interrogating the dynamics of race and class in the town of Uitenhage in the provision of municipal services, the payment of and treatment towards waste collection workers, the politics of race relations and class dimensions show intersections and hierarchies in Uitenhage's waste system. These insights, however, should be seen in the larger context of the Union at the time. Race and class were important in the development (or lack thereof) of the waste sector in the post-war years. Rapid urbanisation by Africans led to a lack of municipal services, which facilitated the spread of disease. Although this has been discussed in previous chapters and certainly was not a result of merely the post-war symptoms and the implementation of Apartheid, these changes did have a significant impact upon the waste sector. The advent of the landfill in the Union following WWII and the steady spread of this practice across the Union and into developing townships was an important development. This adversely changed the relationship between waste and Africans in urban areas. The spread of the landfill, in spite of the dire organic fertiliser shortages and proposed solutions for composting to 'save' the agricultural sector, persisted above other options mainly as a result of its convenience. The proposed solutions offered highly intensive work and new infrastructure, whereas the landfill offered a convenient and relatively simple alternative. This form of disposal would exacerbate false notions of waste being sent "away".⁴⁷² In Chapter One, the discussion of Thompson's Rubbish Theory detailed that waste is only noticed when it is out of place and therefore in sight, rather than out of sight. Thus, a more convenient form of disposal would offer an "out of sight, out of mind" solution at a time where environmental concerns and health rights of Africans were not widely considered. Urban centres such as Uitenhage would soon experience the spread of this landfill and

⁴⁷¹ Khan, 'Environmentalism in South Africa', 158.

⁴⁷² Refer to Chapter One for Thompson's Rubbish Theory.

the already troublesome race and class dynamics would widen in the waste sector with the proximity to landfills and differing waste services.

CHAPTER FIVE:**“Wealth from Waste” to “Waste from Wealth”: changing socio-economic patterns in South Africa, 1960-1996**

*Man is the most extravagant accelerator of waste the world has ever endured. His withering blight has fallen upon every living thing within his reach, himself not excepted; and his besom [broom] of destruction in the uncontrolled hands of a generation has swept into the sea soil fertility which only centuries of life could accumulate, and yet this fertility is the substratum of all that is living.*⁴⁷³

In the previous chapter, it was argued that legal and political changes made by the Apartheid system and implemented in 1948 did not have an immediate effect on the waste sector in South Africa. Furthermore, the decline of thrift and post-war recycling initiatives ensured that anti-waste behaviour was no longer front-of-mind. As a result, the time period from 1960 onwards reveals a sharp turn in waste behaviour. This chapter will investigate the changing patterns of consumption in white communities and the ever-restrictive boundaries and lack of services for Africans in urban areas, which led to the formation of substantially different experiences of waste for a racially separated South Africa. The entrenchment of the apartheid city⁴⁷⁴ alongside the rise of Afrikaner wealth precipitated new dynamics in relation to race, and to waste. Thus, in this chapter municipal waste management in various geographic locations will be explored in order to establish to what extent new dynamics of socio-economic and political influences changed society's waste behaviour, illustrated by an in-depth comparative case study of a white municipality and an African municipality in Brakpan, Transvaal from 1962-1968.⁴⁷⁵ This chapter seeks to explore the extent to which the 1960s economic upturn led to uneven affluence and contributed to differing experiences of waste and waste behaviours along the lines of the strictly enforced racial segregation. Furthermore, the archival sources reveal a narrative in which analysis of records from particular locations can be used to piece together the larger national story of race, place, and waste in relation to socio-economic conditions. Although there is a dearth of national waste management histories during this time,

⁴⁷³ C. Totman, 'Master of the Universe, Wrecker of the Biosphere?', *Environmental History*, 10, (4 October 2005), 749.

⁴⁷⁴ A.J. Christopher, 'Apartheid Planning in South Africa: The case of Port Elizabeth', *The Geographical Journal*, 153, 2 (1987), 195.

⁴⁷⁵ The Transvaal was renamed Gauteng in post-Apartheid South Africa.

the national narrative can be determined by looking at local narratives because the archival sources unearth similar experiences of the waste removal system across localities. The specific localities, which this chapter will analyse as examples, are Randburg in Transvaal and Philippi in the Cape. In these areas, health concerns that persistently plague the waste management system arose in conscious objections to Apartheid. Therefore, this chapter describes the transition from an era of “wealth from waste” to one of “waste from wealth” by focusing on the socio-environmental effect of changing consumption patterns.

“Waste from Wealth” in South Africa, 1960s

In 1955, *Life* magazine heralded the advent of the “throwaway society”⁴⁷⁶ in the Western world, where ever-increasing consumption led to vast amounts of waste being easily discarded. There have been multiple arguments explaining this increase in waste including consumerism, sudden economic prosperity and poor value systems. However,

Essayist Wendell Berry argues that misplaced values are not at the root of our waste problem: “Our economy is such that we ‘cannot afford’ to take care of things: Labor is expensive, time is expensive, money is expensive, but materials- the stuff of creation- are so cheap that we cannot afford to take care of them”⁴⁷⁷

In the West, to which white South Africa aspired,⁴⁷⁸ consumerism took hold and waste was being produced in ever increasing quantities.⁴⁷⁹ Waste was easily disposed of as a result of the advent of the landfill and its popularisation during the Second World War, as discussed in Chapter Four. However, by the end of the 1960s in the United States where there was the rise of vintage trends, garage sales, reusing and recycling, possibly a result of the economic crash in 1969.⁴⁸⁰ Yet in white South Africa the vintage counterculture that eventually became an integral part of the American economic and cultural base was virtually non-existent. Berry’s assertion

⁴⁷⁶ Rathje and Murphy, *Rubbish!*, 41.

⁴⁷⁷ Young, *Discarding the Throwaway Society*, 30.

⁴⁷⁸ See P. Sadler, *Sustainable Growth in a Post-scarcity World: Consumption, Demand, and the Poverty Penalty*, (Farnham: Garner Publishing Limited, 2010); and S. Kumar, ‘Plastics, Rubbers, and Textiles in Municipal Solid Waste in the United States’, *Polymer-Plastics Technology and Engineering*, 38, 3 (1999).

⁴⁷⁹ CSIR report, No. 211 of 1964; this will be discussed in this chapter.

⁴⁸⁰ Strasser, *Waste and Want*, 280.

rings true of South Africa from the late 1950s, where the input costs of recycling schemes would eventually become more expensive than simply buying something new. Moreover, the proverbial scales are weighed down further by the effort exerted from non-wasteful behaviour, in other words: recycling is an effort. The divergence from thrifty practices for whites also occurred in connection with the increase in white wealth particularly amongst the white Afrikaners in South Africa.⁴⁸¹ Afrikaners were urbanising, and by the 1960s less than ten percent adhered to the traditional *volk* lifestyle of living on a farm.⁴⁸² The National Party (NP) government actively pursued a policy of financial protection for whites, and the Afrikaner in particular benefitted from this. '[S]hielded from competition and furnished with preferential access to state markets, as well as being subsidised and financed'⁴⁸³ the Afrikaner had an easier time making money in the 1960s than before. 'According to the president of the Handelsinstituut, the gross national product of South Africa trebled between 1950 and 1965, but over the same period of time the 11 biggest Afrikaner enterprises had become 17 times larger'.⁴⁸⁴ The purposeful parsimony of the Great Depression and World War Two eras began to subside as this increase in wealth meant that reusing and recycling was no longer a necessity.

In the 1960s, South Africa's economy faced a rapid upturn. The country saw 'an astonishing economic performance with growth rates averaging some 6 percent per annum.'⁴⁸⁵ As a result of the crude racial categories affecting preference in economic endeavours,⁴⁸⁶ the affluence generated in the 1960s was uneven. Furthermore, the state's control of the economy and its citizens during the 1960s and 1970s provided for this preferential treatment.⁴⁸⁷ The economic upturn resulted in a culture of consumerism amongst whites, and particularly white Afrikaners, in South Africa. This

⁴⁸¹ A. Grundlingh, "'Are we Afrikaners Getting too Rich?'" Cornucopia and Change in Afrikanerdom in the 1960s', *Journal of Historical Sociology*, 21, 2 (2008), 143.

⁴⁸² K. du Pisani, 'Puritanism Transformed: Afrikaner Masculinities in the Apartheid and Post-Apartheid Period', in R. Morrell, *Changing Men in Southern Africa*, (Pietermaritzburg: University of Natal Press, 2001), 161.

⁴⁸³ M. MacDonald and W. James, 'The hand on the Tiller: The Politics of State and Class in South Africa', *The Journal of Modern African Studies*, 31, 3 (1993), 393.

⁴⁸⁴ D. Welsh, 'Urbanisation and the Solidarity of Afrikaner Nationalism', *The Journal of Modern African Studies*, 7, 2 (1969), 270.

⁴⁸⁵ J. E. Spence, 'Southern Africa in the Cold War', *History Today*, (February 1999), 44.

⁴⁸⁶ B. Freund, 'Class, Race and Inequality in South Africa', *The Journal of African History*, 50, 1 (2009), 130.

⁴⁸⁷ Maylam, 'The Rise and Decline of Urban Apartheid in South Africa', 66.

new Afrikaner materialism⁴⁸⁸ that emerged resulted in a parallel increase in waste. As the physical impact of excessive garbage disposal starting to bleed through into official circles, municipalities across the country received suggestions and cautionary tales about how to address waste. In particular, in 1964, the Centre for Scientific and Industrial Research (CSIR) Research Report No. 211 was sent to the Town Clerks of every local authority in the Union.⁴⁸⁹ Significantly, this report cautioned municipalities that the wealth of waste that was being produced – probably as a result of ‘its [the Union’s] unprecedented economic prosperity’⁴⁹⁰ – was in danger of being ignored completely. The report, based on detailed and in-depth results of several years of research, found strong evidence of the benefits of municipalities investing in the composting of municipal garbage. The benefits discussed were primarily the profits from salvaging and composting. Ensuring that valuable land would not be used for dumping further encouraged municipality investment.⁴⁹¹ The degradation of the importance of thrift became evident: municipalities largely ignored the report. The town clerk of Pretoria dispelled these purported benefits of composting and salvaging by claiming that in fact the repurposing of land by the municipality and indeed government across the country meant that ‘much derelict land ha[d] been reclaimed’ and, importantly, ‘no valuable land ha[d] so far been allocated for the dumping of refuse’.⁴⁹² The lands allocated to the dumping of rubbish, townships on the outskirts of Pretoria were therefore demonstrated to be of no value to the municipality.

Within these townships, many “non-white” residents were struggling for day-to-day survival. Apartheid limited the roles individuals could play in the work force, and refuse removal jobs were often left to black South Africans. The Population Registration Act (No. 30 of 1950) and Group Areas Act (No. 41 of 1950) further limited peoples’ ability for legitimate business practices, as people could not own a business or use the land for any commercial use outside of their designated racial area.⁴⁹³ Thus, any opportunity provided by overflowing waste in townships that was

⁴⁸⁸ A. Grundlingh, ‘Social History and Afrikaner Historiography in a Changing South Africa: Problems and Potential’, [unpublished paper], (1993), 2.

⁴⁸⁹ TAB, MPA, 3/4/1446, 102, Composting of Municipal Refuse (Waste): Letter from CSIR addressed to the Director of the National Institute of Waster Research, (19 June 1964).

⁴⁹⁰ CSIR report, No. 211 of 1964.

⁴⁹¹ TAB, MPA, 3/4/1446, 102, City Engineer’s response to CSIR. Report No. 211, (14 August 1964), and a letter from the Director, National Institute for Water Research, (19 June 1964).

⁴⁹² TAB, MPA, 3/4/1446, 102, City Engineer’s response to CSIR Report No. 211, (14 August 1964).

⁴⁹³ Christopher, ‘Apartheid Planning in South Africa, 200.

available to its residents was limited. This limitation of agency in career choices for black citizens was worsened with the passing of the Bantu Homelands Citizenship Act No. 26 of 1970, consequently ensuring that all Africans working in South Africa outside of the homelands would be considered migrant workers. In his discussion over career guidance, Watts argued in 1980: ‘The concept of ‘choice’ is not one that the authorities are likely to encourage in any serious sense, and even if they did, it is not likely to be credible or even meaningful to many blacks.’⁴⁹⁴ As a result, ‘a migrant who is classified as a domestic worker, a cleaner, or a garbage collector, is likely to have to stay in that work for the rest of his life.’⁴⁹⁵ Furthermore, under the Apartheid system workers were susceptible to abuse, specifically those workers within the privatised realm such as those in domestic work.⁴⁹⁶ Despite reports that labour practices and pay were unjust – as Cock reports, one woman earned R7 per month in 1979⁴⁹⁷ – and there was little that workers could do about this. It can be seen that life was marginally easier for male workers and those that were not subject to private household labour power relations, as in the case of a paper-salvaging organisation in Kimberly: in 1965 coloured residents were hired by a civil society organisation to sift through the municipal dump to salvage paper.⁴⁹⁸ Not only was this one of the only forms of recycling and reuse left in the Republic, but also it was indicative of the limited agency in the workforce and for wages. When a coloured man, Mr G. de Bruin, wrote to the Kimberly municipality for individual permission to salvage waste paper on the municipal dumps, the municipality granted him the right and for ‘this privilege he [had] offered to pay a sum of R15 per month.’⁴⁹⁹ Although Mr G. de Bruin was granted the permission to work on the municipal dump, over the next few decades this would become increasingly more rare; waste scavengers would flee from

⁴⁹⁴ A.G. Watts, ‘Careers guidance under apartheid,’ *National Institute for Careers Educaiton and Counselling*, (United Kingdom: Martinus Nijhoff Publishers, 1980), 15.

⁴⁹⁵ Watts, ‘Careers guidance under apartheid,’ 13. Watts comments that the Labour Bureau classified migrant workers into 17 different categories, and that once classified, it is very difficult to be reclassified into another sector. He also comments that there were severe restrictions places on the choice of work within white areas, often where the most opportunities for work were located. Although Watts is largely commenting on black workers in the Apartheid state, this also applies to the coloured population in the Western Cape.

⁴⁹⁶ J. Cock, ‘Disposable Nannies: Domestic Servants in the Political Economy in South Africa’, *Review of African Political Economy*, 21, (1981), 63.

⁴⁹⁷ Cock, ‘Disposable Nannies’, 72.

⁴⁹⁸ KAB, 3/KIM, 4/1/205, P107, Paper, Conservation of: Waste Paper and Salvageable Material letter from the town clerk in Kimberly, (23 August 1965).

⁴⁹⁹ KAB, 3/KIM, 4/1/205, P107, Paper, Conservation of: Waste Paper and Salvageable Material: Waste Paper Recovery page 107 from the Minutes and Agenda of Ordinary Council Meeting Executive All the Committee, (25 September 1967).

any formal economy activity as this working role was seen as a “nuisance” in the years to come. This ideology further limited options available to individuals to work within the formal structures. Although for many decades access to landfills was restricted as waste pickers were deemed a nuisance,⁵⁰⁰, informal waste pickers became an increasingly popular sight in townships as individuals scavenged for food and necessities to survive.

The 1960s saw the rapid increase in wealth amongst whites (particularly Afrikaners) and increasingly restrictive roles available to black and coloured South Africans. As a result, the economic upturn in the 1960s ensured that race and class increasingly defined roles of waste producer and waste collector. This change in roles led to a change in perceptions of value and worth, especially amongst Africans in townships. This behaviour change can be analysed through the lens of Broken Window Theory,⁵⁰¹ expanded upon later in this chapter.

Municipal Waste Management: Township Realities

The two very different realities faced by white and black municipalities are a reflection of the vast socio-economic divides created by the Apartheid system. Where,

[u]nder apartheid, white municipalities were largely funded through revenue raised in locally-based business and industrial activities, while black townships [and coloured areas], in the absence of any significant economic activity, relied on service fees and municipal housing rents, with limited transfers from the national government. No cross-subsidisation existed between the two urban realities.⁵⁰²

White municipalities increasingly separated themselves from the refuse they produced. The means of dealing with waste went through multiple changes, allowing for more ostentatious methods of disposing waste and increasing distances between the affluent white population and its effluence. However, the rise in white wealth in the country did not lead to a consequent rise in urban black wealth, as the Apartheid laws kept restrictive tabs on the black population’s economic and social mobility. Consequently, white peoples’ effluence in the form of garbage became a necessary

⁵⁰⁰ This will be discussed further in Chapter Six.

⁵⁰¹ G.L. Kelling and J.Q. Wilson, ‘Broken Windows: The Police and Neighbourhood Safety’, *The Atlantic Monthly*, (March 1982).

⁵⁰² Qotole, Xali and Barchiesi, *The Commercialisation of Waste Management in South Africa*, 24.

survival material for many black South Africans, and thrift gained importance in their day-to-day survival. Furthermore, garbage became a permanent feature in their immediate vicinities. Landfills rose up around townships, stacked to the brim with previously used material either waiting to be sifted through, or else left to rot.⁵⁰³ There was a dire lack of municipal services in the townships and poor infrastructure (such as tarred roads wide enough to be accessed by municipal vehicles) to support services such as garbage removal, resulting in poor sanitation and spiralling health effects for residents of many communities.⁵⁰⁴ On the peripheries of towns and cities the townships were given very little in the way of municipal services, and rubbish littering the streets was not an uncommon sight for residents.⁵⁰⁵

While the economic difference explains part of the divide, the political sphere crudely shaped the ability for municipalities to govern and provide. While Prime Minister Verwoerd, by the 1960s, had argued that urban Africans were being given increasing power to determine their own lives,⁵⁰⁶ what resulted was that there was an increased power for 'the central state and its agencies, further weakening municipal autonomy.'⁵⁰⁷ This resulted in deepening poor circumstances for black municipalities that were susceptible to the bias of provincial government in the allocation of funds and the prioritisation of spending. Although black autonomy had hardly existed (in colonial South Africa) beforehand, the Promotion of Bantu Self Government Act No. 46 of 1959 vastly undermined what autonomy was left. Thompson argues that 'the chiefs and councillors are strictly subordinated to the central government of the Union, which may veto their appointments, override their decisions, and dismiss them at any time.'⁵⁰⁸

⁵⁰³ J. Cock, 'Connecting the red, brown and green: The environmental justice movement in South Africa', *Globalisation, Marginalisation and New Social Movements in post-Apartheid South Africa*, <http://www.ukzn.ac.za/ccs/>, (2004), 11.

⁵⁰⁴ Samson: *Dumping on women*, 46.

⁵⁰⁵ R. Lammas, 'Townscapes, Townshapes, Townships: Investigating Experiences of Urban South Africa through Black Art', *GeoJournal*, 301, 1 (1993), 47-48. Lammas explains that the representation of a 'litter-strewn yard' was a typical scene for domestic life in townships and paintings typically created for white audiences during the 1970s illustrate donkey carts with their rustic appeal collecting garbage in townships.

⁵⁰⁶ Dubow, 'Afrikaner Nationalism, Apartheid and the Conceptualization of "Race"', 230. This comment was made saying that blacks were receiving more power similar to their northern African counterparts.

⁵⁰⁷ Maylam, 'The Rise and Decline of Urban Apartheid', 67-68.

⁵⁰⁸ L. Thompson, 'Afrikaner Nationalist Historiography and the Policy of Apartheid', *The Journal of African History*, 3, 1 (1962), 139.

These issues occurred across South Africa, especially in urban black townships. The lack of urgency surrounding these issues is illustrated in the sources: some black municipalities waited years for a response in relation to waste and sanitation concerns. Yet small issues in white municipalities – in the form of private complaints – were dealt with almost immediately. The poor conditions faced by black municipalities are illustrated by a few examples such as that of Nyanga West, Langa, and Mdantsane. The coloured and black areas surrounding the City of Cape Town faced many of these issues, and today Cape Town is still known as the most unequal South African city.⁵⁰⁹ In 1958, a new township was built in Nyanga West outside of Cape Town central city. From the outset, new arrivals at this township were promised a long wait for sanitation infrastructure and services. In 1958 the municipality promised that sewerage infrastructure would be built within two years and that 40-gallon drums would be placed throughout the township for the purpose of refuse collection for removal.⁵¹⁰ By 1962, however, there was still no sign of sewerage infrastructure and the R30 000 made available from the local governance for refuse removal went solely to municipal refuse collector wages; no money was left over for transport or other related costs. In addition, the City of Cape Town reduced this amount to R15 000 in 1963.⁵¹¹ When the Bantu Affairs Committee of Nyanga West, by now renamed Guguletu, enquired as to the change in finances and the lack of infrastructure, they were told to encourage the bucket method for sewerage and government ignored their inquiry into the finances for refuse collection. Concerns about refuse removal, it seems, did not necessitate a reply for this area. Guguletu was one of many black townships in South Africa that was provided with little or no sanitation services.

Elsewhere on the periphery of Cape Town city, Langa faced similar issues: the prioritisation of funding for municipal services was low for this black township. Where most of white South African garbage removal services had been motorised in the 1920s and 1930s,⁵¹² Langa's refuse removal was still done via animal-drawn

⁵⁰⁹ D.A. McDonald, 'World Class Inequity: Cape Town, South Africa', *Queen's Quarterly*, 114, 3, (2007), 395-405.

⁵¹⁰ KAB, 3/CT, 4/1/9/1/166, GN23/12, Nyanga West Emergency Camp- Removal of Stercus and Refuse, (5 November 1958).

⁵¹¹ KAB, 3/CT, 4/1/9/1/166, GN23/12, Nyanga West Emergency Camp- Removal of Stercus and Refuse, (3 July 1963).

⁵¹² See chapter two of this thesis about the motorisation of municipal refuse collection services.

transport.⁵¹³ Pleas from the Manager of the Native Administration to the Native Affairs Committee to switch to motorised transport initially fell on deaf ears, until a sound business proposal was drawn up that showed that the cost for fuel, oil and repairs for the vehicles would amount to less than the upkeep of the animals, as one vehicle could do the work of three horses. Seeing a good opportunity for saving funds, the government took this suggestion on, but instead of replacing the 12 mares with four vehicles, replaced them with only two. A few months later, the Native Affairs Committee declared that the cost of repairing the vehicles was too large for them and when the vehicles broke down they were to be left to disrepair.⁵¹⁴ According to Swart, the change over to motor vehicles had less to do with noise than with disease and waste.⁵¹⁵ Considering this, the continued use of mules for waste transportation in black and coloured areas speaks volumes about the initial prioritisation of spending over health in these areas.

These circumstances were certainly not original to the Cape Town city boundaries, and occurred across most of the country:

For the majority of people in South Africa, both urban and rural, the system of racial separation distorted relations with nature in a profound way. By allowing residence and land use in only certain places demarcated for "non-Whites," apartheid created overcrowding and made dangerous and environmentally destructive practices necessary for ordinary people trying to satisfy their basic needs for shelter, water, sanitation, and income.⁵¹⁶

Further up South Africa's east coast in the city of East London, the municipality complained of the difficulties in the establishment of new private townships, in regards to on whom the responsibility of service provision should fall when the township was incorporated into the Municipal area. It was tasked to the Public Works Committee by the East London Council to ensure the acceleration of municipal services and infrastructure within these townships as they were developed.⁵¹⁷ The Public Works Committee, however, was unable to fit the proposed budget for these

⁵¹³ KAB, 3/CT, 4/1/9/1/123, GN/46- Refuse Removals Langa- Replacement of Animal Drawn Transport, (28 July 1960).

⁵¹⁴ KAB, 3/CT, 4/1/9/1/123, GN/46- Refuse Removals Langa- Replacement of Animal Drawn Transport, 30 November 1960, 21 April 1961, (30 November 1961).

⁵¹⁵ S. Swart, "'The World the Horses Made': A South African Case Study of Writing Animals into Social History', *International Review of Social History*, 55, 2 (2010), 244.

⁵¹⁶ B. Wisner, 'The Reconstruction of Environmental Rights in Urban South Africa', *Human Ecology*, 23, 2 (1995), 261.

⁵¹⁷ KAB, 3/ELN, 1791, 661/8, Public Health, Refuse Removal Service, (11 November 1960).

newly formed black areas to the needs and in 1961, for one particular township, just 100 bins were ordered – falling short of the total of 600 needed to ensure group disposal and collection (as opposed to household collection). This left the township with corroded bins that attracted vermin and prevented decent sanitation in the area.⁵¹⁸ As a result of the poor municipal services, East London's largest township faced dire health problems. Mdantsane Bantu Township faced enormous sanitation issues: the black township had no refuse or slopwater removal. This resulted in a high death rate amongst black residents from infectious diseases. The Medical Officer of Health (MOH) reported 79 'non-European' deaths as a result of infectious diseases in the wider East London area compared with 5 'European' deaths in the month of June 1963 alone. In July, a further 43 'non-European' deaths in comparison to 3 European deaths were reported.⁵¹⁹ Despite the MOH's fierce warnings within this report for the municipality to take sanitation issues seriously as a result, the city of East London was slow in establishing sanitation relief for black townships and a proposal for refuse removal was only put forward the following year for Mdantsane.⁵²⁰ The lack of service provision in townships across South Africa shows both apathy from municipal officials and lack of political will. Health effects of poor municipal waste management were dire even in the 1960s and 1970s despite the widely known medical implications of poor sanitation. As discussed in Chapter two, poor sanitation in these areas led to the cementation of the perception of Africans in townships as the unsanitary Other.

Fixing and Breaking Windows: Broken Window Theory and Waste Behaviour

Lack of service provision and landfill placement create a diminished quality of life not only for the unsightly mess and health effects but also as a result of the noise, environmental degradation and risk, and danger they tend to attract.⁵²¹ In contrast to policies which deepen socio-environmental degradation through lack of service provision, Broken Window Theorists have asserted that orderly regulation in

⁵¹⁸ KAB, 3/ELN, 1791, 661/8, Public Health, Refuse Removal Service, (27 July 1961).

⁵¹⁹ KAB, 3/ELN, 1912, 665/23/18, Mdantsane Bantu Township (Bantu Dorp 55), Night Soil and Refuse, (27 August 1963).

⁵²⁰ KAB, 3/ELN, 1912, 665/23/18, Mdantsane Bantu Township (Bantu Dorp 55), Night Soil and Refuse, (10 July 1964).

⁵²¹ Nelson, Genereux and Genereux, 'Price Effects of Landfills on House Values', 359.

communities creates a sense of belonging, when streets are cleaner and fewer drunks loiter on street corners, residents feel safer.⁵²²

Broken Window Theory is rooted in the 1969 work of a Stanford psychologist conducting a comparative experiment in the staid community of Palo Alto, California and the historically poor community of Bronx, New York.⁵²³ Psychologist Phillip Zimbardo, better known for his work on the Stanford Prison Experiment,⁵²⁴ posited that conditions of neglect in a community were a major driving force for vandalism.⁵²⁵ The experiment was conducted by placing two vehicles on main streets of each of these areas. The automobile placed in Palo Alto was in good condition, where the Bronx vehicle was left with the bonnet up and no licence plates. As expected, the Bronx automobile was vandalised within a mere ten minutes, while the Palo Alto vehicle was left untouched for more than a week. However, when Zimbardo himself finally smashed in a window of the Palo Alto car, the behaviour of residents quickly followed suit and the car was turned upside down and destroyed within a few hours.⁵²⁶ Those who took part in the vandalism were mostly well-dressed residents (including families) from Palo Alto neighbourhoods. In 1982, James Q. Wilson and George L. Kelling posited their Broken Windows Theory, a criminological theory that expounded upon Zimbardo's work. Wilson and Kelling proposed that the torn social fabric allowing for vandalism led to further crime in neighbourhoods.⁵²⁷ Disorder in communities, Wilson and Kelling argued, inevitably led to crime.⁵²⁸ This heavily debated theory proposes that environmental factors play a large role as a determinant in crime in communities, as poor conditions (such as graffiti, broken windows and littering) reflect a lack of care from residents.⁵²⁹ Since, this theory has been applied to other citizenship behaviour such as littering. This has resulted in the understanding of littering as a consequence of a combination of environmental factors and social

⁵²² J.C. Kinkle, 'Making Sense of Broken Windows: The Relationship Between Perceptions of Disorder, Fear of Crime, Collective Efficacy and Perceptions of Crime', [unpublished doctorate], University of Maryland, (2009), 19.

⁵²³ Kelling and Wilson, 'Broken Windows'.

⁵²⁴ P.G. Zimbardo, 'Understanding How Good People Turn Evil', *Democracy Now!*, 2007, http://www.democracynow.org/2007/3/30/understanding_how_good_people_turn_evil, (accessed 10 September 2013).

⁵²⁵ Kelling and Wilson, 'Broken Windows'.

⁵²⁶ Kelling and Wilson, 'Broken Windows'.

⁵²⁷ D. Lind, 'The Bright Side of Blight', *New York Times*, (25 January 2011).

⁵²⁸ M. Gladwell, *The Tipping Point: How Little Things Can Make a Big Difference*, (London: Little Brown Book Group, 2000), 141.

⁵²⁹ A. Adler, 'Where We Are Shapes Who We Are', *The New York Times*, (16 June 2013).

influence. These theories have interesting implications for a South African waste sector from the 1960s in which uneven affluence was a large determinant in the supply of waste removal services to different areas.

Researchers investigating neglect in communities have expanded upon Broken Windows Theory since Wilson and Kelling published their theory in the *Atlantic Monthly* in 1982. For example, social psychologists Raymond Reno, Robert Cialdini and Karl Kallgren conducted an experiment using Broken Windows Theory to understand why people litter.⁵³⁰ Rather than concentrating on Broken Windows Theory and its applications to crime, these psychologists wished to explain waste behaviour in citizens under varying conditions. The experiment entailed flyers being placed on cars, in order to determine the littering behaviour of the drivers. Upon approaching the parking lot where their car was parked, a third of drivers would witness someone littering, another third would witness a person picking up someone else's litter in order to throw it away, and the last third was the control group in which the experimenter would simply walk past. This experiment was conducted in both clean and dirty (littered) environments. The bar graph below illustrates the results of the experiment.

⁵³⁰ C.R. Sunstein, 'Social Norms and Social Roles', *Chicago John M. Olin Law and Economics Working Paper*, 36, (1995), 1.

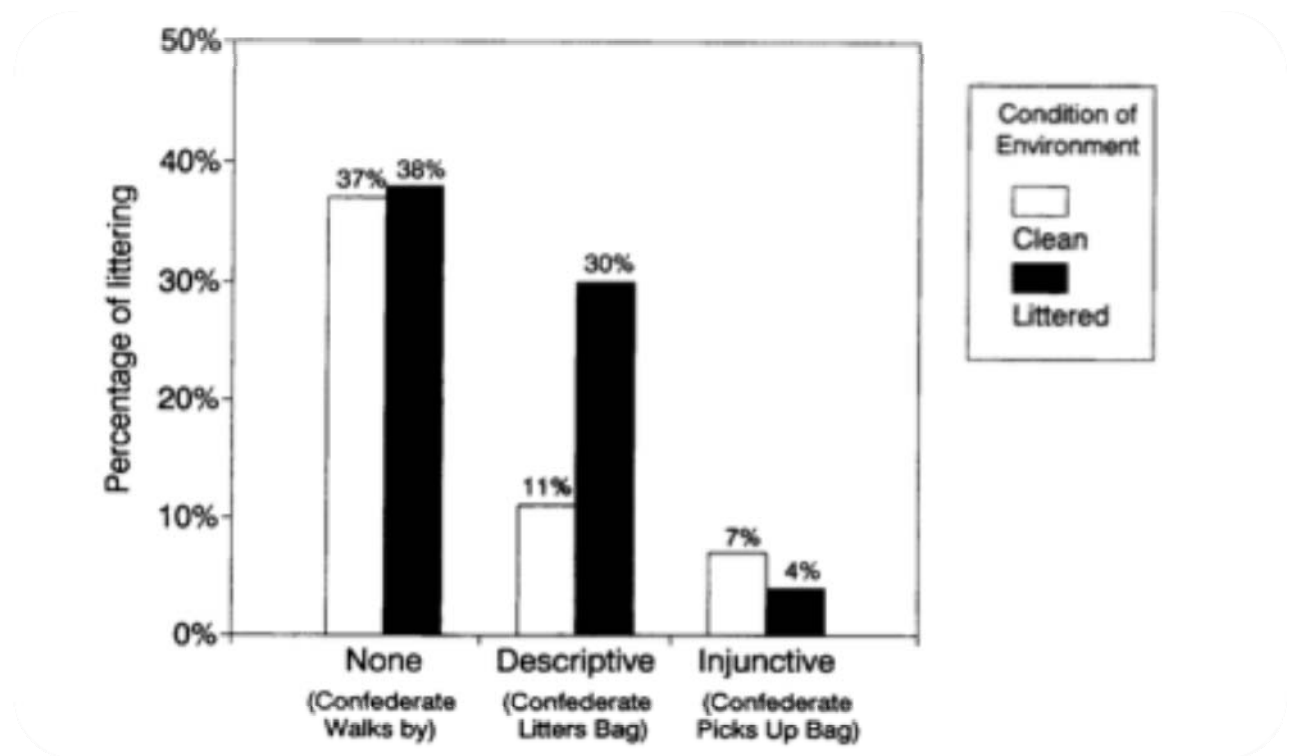


Figure 12: Percentage of subjects littering in the Reno, Cialdini and Kallgren study.⁵³¹

The experiment reveals multiple insights about littering. In the control group, in both clean and dirty environments the drivers have a preference for littering, which is highest amongst all the groups. This, therefore, implies that people have a preference towards disorder when they are not made aware of their behaviour in regards to littering. In the situation where the experimenter picked up an item of rubbish, very few of the drivers discarded the flyer in the parking lot, with only 3 percent more littering in cleaner environments. Most interestingly, in the final group that witnessed someone littering, there was a significantly higher number of drivers discarding the flyer in dirty environments than in clean ones. This implies that in this situation the behaviour of others as well as the environment heavily influences peoples' attitudes towards littering. In the Broken Windows Theory, Wilson and Kelling argued that 'vandalism can occur anywhere once communal barriers – the sense of mutual regard and the obligations of civility – are lowered by actions that seem to signal that "no one cares."' ⁵³² Furthermore, in neighbourhoods with broken social fabric, it becomes socially acceptable to engage in graffiti, loitering or littering. Littering, in particular, is difficult behaviour to prevent.

⁵³¹ R.R. Reno, R.B. Cialdini and C.A. Kallgren, 'The Transsituational Influence of Social Norms', *Journal of Personality and Social Psychology*, 64, 1 (1993), 106.

⁵³² Kelling and Wilson, 'Broken Windows'.

Littering is generally considered antisocial, unhealthy, and visually distasteful. It is also harmful to the environment and uses up a substantial part of community funds for cleaning. Yet litter is ubiquitous and, as experience teaches us, difficult to prevent. [...] Giving incentives is an effective means to reduce littering, however, incentives are costly and the desired behaviour stops when the incentives stop.⁵³³

As the encouragement of thrift faded in the 1950s and 1960s, and the upturn in the economy encouraged consumerism, waste became an increasingly troublesome issue for municipalities across the country.

It has been argued that the Apartheid government actively pursued a policy in which dispossession was central to ensuring the subordinate position of black South Africans.⁵³⁴ Whether this is true or not, what is apparent is that the uneven affluence of the 1960s facilitated a situation in which waste was easily sent 'away' from white areas to black municipalities. Historically, 'the situation of polluting industries and waste dumps in urban areas where poor people live and suffer from pollution related illnesses'⁵³⁵ has been common. The Bantu Homeland Constitution Act No. 21 of 1970 set the precedent to develop white and black areas separately.⁵³⁶ By removing the last traces of black land claims in South Africa this Act managed to remove the requirement for municipalities to implement waste services for 'non-permanent' residents. The denial of these basic rights within communities resulted in the erosion of conditions in townships. Moreover, Alonso asserts that place is important in the formation of identity between people and the state.⁵³⁷ Broken Window Theory can be used to explain another shift in the formation of people's self-identity, and their behavior towards litter. In South Africa, the extent to which communities were neglected and taken advantage of are unique in terms of the Apartheid policy's strict racial segregation and limitation of social and environmental justice according to race and class. The economy of the 1960s and the dispossession of land and relocation of

⁵³³ Y.A.W. de Kort, L.T. McCalley and C.J.H. Midden, 'Persuasive Trash Cans: Activation of Littering Norms By Design', *Environment and Behaviour*, (unknown volume and number), (2008), 1-2.

⁵³⁴ K. Lalloo, 'Citizenship and Place: Spatial Definitions of Oppression and Agency in South Africa', *Africa Today*, 45, 3 (1998), 441.

⁵³⁵ Cock, 'Connecting the red, brown and green', 7.

⁵³⁶ M. Ogura, 'Urbanisation and Apartheid in South Africa: Influx Controls and Their Abolition', *Developing Economies*, 14, 4 (1996), 413.

⁵³⁷ A.M. Alonso, 'The Politics of Space, Time and Substance: State Formation, Nationalism and Ethnicity', *Annual Review of Anthropology*, 23, (1994), 382.

landfill sites in the 1960s exacerbated the crude racial laws that Apartheid instituted, entrenching relationships between race, class and waste.

Pretoria is a prime example of this dispossession. The municipality not only prioritised the sanitation of white areas over black townships but the aesthetic beauty of these white neighbourhoods as well. In Lynnwood Township outside of Pretoria, 7½ Morgen⁵³⁸ of land was donated to the township from its owners for the purpose of a refuse dump.⁵³⁹ Messrs. L.H. and A. Behrmann, however, complained that the usage of the land for this purpose would depreciate the value of land in the areas around it, namely, Lynnwood Manor and the property purchased by the Council for Scientific and Industrial Research (CSIR.). It was, therefore, requested that Pretoria's Council take steps to ensure that this land was not used for the purpose it was prescribed but rather turned into a recreational park or sports field.⁵⁴⁰ The Director of Town Planning and Architecture replied supporting Messrs. L.H. and A. Behrmann's proposal, confirming that this spot, if used for refuse disposal for the local township, would adversely affect the surrounding properties and as a result, he proposed that selected garbage from the Park's Department was placed at the site to lessen the steepness of the slopes of the area before turning it into a sports field for organised sport.⁵⁴¹ The township owners would have to make another plan for the disposal of refuse. The case of Lynnwood was not, of course, the only case of prioritising white-owned property values by removing garbage dumps from these areas to townships. Garbage land was repurposed in many areas for alternate land use. For example, between 1960 and 1964 the municipality actively pursued the objectives of *greening* white areas and the result was that garbage dumps were moved out of city limits and into black townships. This was certainly the case where a bird sanctuary was situated in New Muckleneuk and the Langhoven School and the Harlequin's sports grounds were created from land that was initially proposed for refuse disposal.⁵⁴² This middle class pursuit to ensure green spaces in white neighbourhoods was a privilege afforded to white South Africans as a

⁵³⁸ The Morgen system, used until the conversion to the metric system in the 1970s was eventually worked out as *1 Morgen = 0.856 532 Hectares* in South Africa for Imperial land.

⁵³⁹ See Council for Scientific and Industrial Research (CSIR), 'Eighteenth Annual Report', 1962, 8. This source refers to the township owners Jacobsen and Gering, who received the land.

⁵⁴⁰ TAB, MPA, 3/4/1446, 102, Composting of Municipal Refuse (Waste), Rubbish Dumps, (28 July 1964).

⁵⁴¹ TAB, MPA, 3/4/1446, 102, Composting of Municipal Refuse (Waste), Rubbish Dumps, (1964).

⁵⁴² TAB, MPA, 3/4/1446, 102, City Engineer's response to CSIR. Report No. 211, (14 August 1964).

result of the distinct political, social and economic advantages. The divergent advantages and disadvantages of white and black areas respectively are exemplified by the case of Brakpan in Transvaal.

Brakpan: A Comparative Study of a white and black Municipality



Figure 13: Map of Brakpan⁵⁴³

This case study looks at a comparative analysis of a white municipality and a black municipality within the area of Brakpan. This is the only comparative source available recorded in the archives, within the same area at the same time period. The six-year time period analysed is during the height of Apartheid, from 1962-1968. Furthermore, it also takes place during the economic upturn for white South Africans as a result of the economic boom. The municipal records of Brakpan give a rare detailed account of the differentiation of basic amenities between the local black township and the white municipality. These comprehensive records of Brakpan's Bantu Affairs Department show no provision for refuse removal in the years 1962-1968. The extensive waste records describe the separation between white and black communities not only in terms of location as a result of restrictive Apartheid laws, but they also paint a picture of the realities of daily living in many urban townships across South Africa.

⁵⁴³ <http://www.sa-venues.com/include/images/maps/ga-brakpan.gif>, (accessed 12 September 2013).

Furthermore, the infrastructure needed in terms of the tarring of roads for the removal of rubbish from the typically disorganised street planning of townships, was provided for as a loan over twenty years, two thirds of which would be taxed from 'Bantu Beer sales'.⁵⁴⁴ Beer sales – used as a form of protest by women in urban areas in the twentieth century – competed against the mass beer sold by the municipal government.⁵⁴⁵ The need for funds for municipal services and amenities from the municipal monopoly on beer sales⁵⁴⁶ came hand in hand with alcoholism in the townships as a result. Additionally, the £47,500 proposed for this twenty-year time period for the township paled in comparison to the spending in white areas: a total of £18,900 for rubbish removal services and a further £33,100 for the tarring of roads and infrastructure such as a compressing machine, for white municipalities in the 1966/67-year alone.

It was not only differences in municipal spending and the provision of services and infrastructure that shows the sharp contrast between these two worlds. Brakpan's garbage related infrastructure for whites not only over-shadowed that of the local black township, but was also a reflection of the zeitgeist of the 1960s era. It seems that the economic prosperity (for whites) of the era was not only reflected in the increase of waste to dumpsite, but also in how that waste was disposed of. Entrepreneurs and businessmen proposed various schemes for easy waste removal in white municipalities across the country, a thorough record of which was kept with Brakpan's Municipal documents.⁵⁴⁷ Various types of street litter dustbins (Figures 3-7), and household dustbins were proposed to municipalities. Advances in bin technology for households meant a wide choice for white homeowners who received the door-to-door collection services. Included in these advertisements were various models of corrugated iron bins and black rubber bins. Unsurprisingly, the advertising around the dustbins mainly focused on women and children, and some of these

⁵⁴⁴ TAB, MBP, 2/2/943, 16/6/24, Brakpan, Public Health, Street Litter and Refuse Bins, (1958-1966, 1967-1971).

⁵⁴⁵ H. Bradford, "'We are now the men": Women's Beer Protests in the Natal Countryside 1929,' and W. Beinart, 'Women in Rural Politics: Herschel District in the 1920s and 1930s' in B. Bozzoli, (ed.), *Class, Community and Conflict: South African Perspectives*, (Johannesburg: Ravan Press, 1987); C. Walker, *Women and Resistance in South Africa*, (London: Onyx Press, 1982).

⁵⁴⁶ C.M. Rogerson and D.M. Hart, 'The Survival of the Informal Sector: The Shebeens of Johannesburg', *GeoJournal*, 12, 2 (1986), 160.

⁵⁴⁷ TAB, MBP, 2/2/943, 16/6/24, Brakpan, Public Health, Street Litter and Refuse Bins, (1958-1966, 1967-1971).

became a little more risqué than in the era of frugality and thrift of the 1930s and post-dating the Second World War.⁵⁴⁸ The pictures provided below show the different possibilities for bins from parks and recreation areas to the home. Municipalities facilitated the choice of both of these types of bins according to what was best suited to waste management. However, in the 1960s ostentatious designs of bins were increasingly accepted both for their appeal to an audience and as novelty items rather than for their practicality. In Figure 3 (below) a conventional form of advertisements for women more along the lines of the era of frugality is shown.



Figure 14: Advertisement for a simplistic garbage disposal system, Gar-bag (Brakpan Municipality)⁵⁴⁹

⁵⁴⁸ See Chapter Three for a discussion on the role of women and children in propaganda and advertisements in the waste sector.

⁵⁴⁹ TAB, MBP, 2/2/943, 16/6/24, Brakpan, Public Health, Street Litter and Refuse Bins, (1958-1966, 1967-1971).



Figure 15: Advertisement for a secure garbage removal system emphasising security and cleanliness for white neighbourhoods (Brakpan Municipality)⁵⁵⁰



Figure 16: Advertisement for 'hygienic, clean, safe, attractive and durable' public garbage bins (Brakpan Municipality)⁵⁵¹

⁵⁵⁰ TAB, MBP, 2/2/943, 16/6/24, Brakpan, Public Health, Street Litter and Refuse Bins, (1958-1966, 1967-1971).

Figures 4 and 5 are two examples of the multiple options to municipalities across the country for public bins. Figure 5 shows a dustbin designed as a high-end product for areas such as golf clubs and theatres. Its marketing is centred on its attractiveness, cleanliness and safety.⁵⁵²



Figure 17: Advertisement for ‘fun’ rubbish bins in public areas, the marketing of which is focused at children and parents (Brakpan Municipality)⁵⁵³

⁵⁵¹ TAB, MBP, 2/2/943, 16/6/24, Brakpan, Public Health, Street Litter and Refuse Bins, (1958-1966, 1967-1971).

⁵⁵² TAB, MBP, 2/2/943, 16/6/24, Brakpan, Public Health, Street Litter and Refuse Bins, (1958-1966, 1967-1971).

⁵⁵³ TAB, MBP, 2/2/943, 16/6/24, Brakpan, Public Health, Street Litter and Refuse Bins, (1958-1966, 1967-1971).

Figure 6 is an example of advertisements that focus on children. This bin was advertised as a “lively litterbin” that would brighten up the municipality, and children in particular would enjoy “feeding” the litter through the penguin’s mouth. The correspondence for this dustbin advertisement also stated that Johannesburg municipality had invested in these bins for their public areas. These novelty bins were also available in various other models – such as tortoises and squirrels.⁵⁵⁴ The most controversial of the advertisements is of the bin advertised in Figure 7, meant for public spaces such as parks.



Figure 18: Advertisement of a public bin for parks and kerbsides, using a provocative image for the time (Brakpan)⁵⁵⁵

⁵⁵⁴ TAB, MBP, 2/2/943, 16/6/24, Brakpan, Public Health , Street Litter and Refuse Bins, 1958-1966, 1967-1971.

⁵⁵⁵ TAB, MBP, 2/2/943, 16/6/24, Brakpan, Public Health, Street Litter and Refuse Bins, (1958-1966, 1967-1971).

The controversial nature of the advertisement is due to its imaging: a woman is standing on the kerbside showing off the convenience of this particular dustbin and a little bit more. This form of advertising utilising women's bodies could be said to be indicative of the 1960s era in which 'social change and gender challenge[s]' were increasingly brought to light.⁵⁵⁶

Figures 3, 6 and 7 clearly show that women and children were still a common means of both selling and representing cleanliness in the municipal waste industry. Many municipalities spared little expense in ensuring that the town and city centres were kitted out with the most impressive waste bin technology. Where Chappells and Shove discuss 'the valuing of novelty and the valuing of durability'⁵⁵⁷ in the consideration of what is rubbish, it seems that these same concepts apply to the dustbin. Where previously there is strong evidence that municipalities invested in dustbins based upon the durability of the bin itself and the convenience for municipal workers and householders, it seems that the economic prosperity of the 1960s had the additional effect that even a dustbin became a commodity, and its novelty status suddenly became of importance.⁵⁵⁸ The cases of Randburg, in Transvaal and Philippi, in the Cape in the sections that follow are two descriptive case studies detailing the experience of a white municipality and a coloured municipality in their struggles with the waste sector in the 1970s and 1980s.

⁵⁵⁶ Du Pisani, 'Puritanism Transformed', in Morrell, *Changing Men in Southern Africa*, 157-176.

⁵⁵⁷ H. Chappells and E. Shove, 'The dustbin: A study of domestic waste, household practices and utility services', *International Planning Studies*, 4, 2 (2007), 269.

⁵⁵⁸ See Figure 7. This dustbin advertisement that was sent to the municipality of Brakpan was a novelty item for municipalities. Here, the company proposing the dustbin would place the dustbins free of charge in exchange for the use of advertising space on the dustbin's front side. This particular dustbin also came in the shape of squirrels, tortoises and other creatures. It was expressed in the advertisement that, "Lively litter bins such as these would brighten up your town and make it fun to be tidy. Children, in particular, would thoroughly enjoy 'feeding' litter through the animals' mouths." These bins were also implemented in the city of Johannesburg.

Randburg: A White Municipality's Struggle With Transition

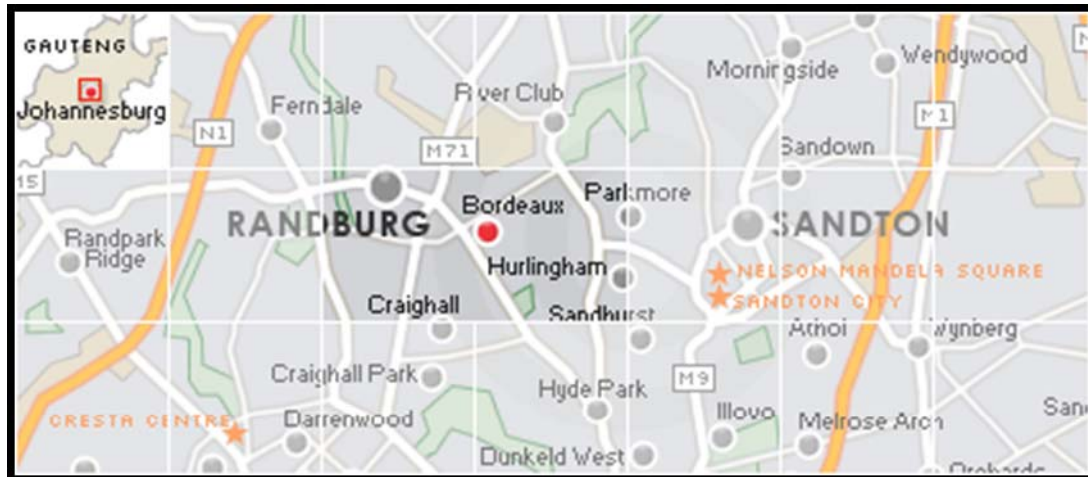


Figure 19: Randburg Map⁵⁵⁹

Randburg, located in north-western Johannesburg, Transvaal underwent a few transitions in the 1970s. This white municipality faced municipal rows after suggestions that whites put their household refuse bags on the street the day of collection. Historically, the residents had been used to having their rubbish bins collected from their doors rather than having to exert the effort to place them on the sidewalk. Residents of Randburg responded strongly to this change, not wanting their town being reduced to a 'slum'.⁵⁶⁰ The dissidence that resulted is interesting, as the growth in the use of domestic servants in the 1960s would have relegated these duties to the workers. When considering the implications of Broken Windows Theory on litter, these residents' response to this new by-law was a reaction to the area being viewed as unseemly as a result of visible rubbish.⁵⁶¹ Visible rubbish became a nuisance in this area as it was seen as out of place.⁵⁶² The description by residents of areas with visible rubbish (even contained in rubbish receptacles) as slums brings to mind the lack of refuse removal services in black townships across the country. Furthermore, where previously the Randburg residents had received two free black

⁵⁵⁹ <http://www.sa-venues.com/include/images/maps/ga-bordeaux.gif>, (accessed 10 September 2013).

⁵⁶⁰ TAB, MBP, 2/2/944, 16/6/24, Brakpan, Public Health, Street Litter and Refuse Bins: 'Randburg Council in Refuse Row', *The Star*, (12 July 1976).

⁵⁶¹ See Chapter Two for the discussion on Thompson's Rubbish Theory.

⁵⁶² Parsons, 'Thompsons' Rubbish Theory', 391.

refuse bags from the municipality per week, from 1976 they would have to pay for their own plastic bags. In this respect, the two worlds also allowed for differing cultural attitudes towards waste. The usefulness of waste, the probability of it being discarded and the job opportunities in the waste management industry all show a large divide between blacks and whites during the apartheid era. Thus, the environmental and social circumstances of the different group areas in regards to sanitation and waste removal services created very different urban realities and lived experiences for white and black South Africans. In 1976, the Randburg Council in addition to the decision to make residents buy their own household refuse bags, also decided to implement the policy of residents buying their own green refuse bags for garden waste, still used today.⁵⁶³ The rationale of separating garden refuse is that waste to landfill is reduced and garden waste can be repurposed for composting. This action by the Council may have been a sign of the rising environmental consciousness amongst whites that was a part of the international consciousness of the 1970s.

Philippi: Broken Windows and Litter Storage



Figure 20: Philippi map⁵⁶⁴

⁵⁶³ TAB, MBP, 2/2/944, 16/6/24, Brakpan, Public Health, Street Litter and Refuse Bins: 'Randburg Council in Refuse Row', *The Star*, (12 July 1976).

⁵⁶⁴ http://upload.wikimedia.org/wikipedia/commons/thumb/4/4d/Philippi,_Cape_Town_map.svg/1280px-Philippi,_Cape_Town_map.svg.png, (accessed 12 September 2013).

In Cape Town, a very different situation was unfolding to that of Transvaal. Philippi is an area on the outskirts of Cape Town that had, historically, been agricultural land from the late 1800s.⁵⁶⁵ In the 1970s and 1980s, however, this land-use was diminished with the rapid urbanisation and urban sprawl that occurred. This urban sprawl resulted in the phenomenon known as the Apartheid city. The Apartheid city, with its origins in the colonial era⁵⁶⁶, ‘represents a conception of urban form within a framework overtly structured to achieve a specific social and economic end.’⁵⁶⁷ The perpetuation of poor sanitation standards in black and coloured areas can be seen in the case of Philippi Waste Converters in the 1970s. Messrs Waste Converters (Pty), a waste salvaging company⁵⁶⁸ and a company that dealt with waste on a municipal level, WasteAway (Pty)⁵⁶⁹ were both situated in Philippi. In 1976, an industrial waste site began when the lease of the land in Visserhok was given for the purposes of industrial waste disposal for five years to the Divisional Council. When Visserhok began – a waste disposal site that is now the largest landfill site serving the wider Cape Town area – it was immediately recognised as a possible location for a long-term solution to industrial and domestic refuse disposal.⁵⁷⁰ The Cape Flats⁵⁷¹ is an area that was mainly occupied at this stage by the larger Cape Town’s coloured population as a result of the forced removals and group areas allocations.

Tensions rose during the 1980s in the Cape Town area townships where the rent and riot boycotts materialised. Part of these protests was spurred on by the poor conditions of the townships, compounded by the lack of municipal services.⁵⁷²

⁵⁶⁵ V. Bickford-Smith, E. van Heyningen and N. Worden, *Cape Town in the Twentieth Century: An Illustrated Social History*, (Claremont: David Philip Publishers, 1999), 80.

⁵⁶⁶ D. Simon and A.J. Christopher, ‘The Apartheid City’, *Area*, 16, 1 (1984), 60.

⁵⁶⁷ Simon and Christopher, ‘The Apartheid City’, 60.

⁵⁶⁸ KAB, CDC, 492, 13/35, A Group Areas Permit for Philippi for Waste Converters, (1971).

⁵⁶⁹ KAB, PAA, 1784, AF20/8/21, Cape Town Municipality Town Planning Scheme Application for the Dumping of Builders Rubble and Industrial Waste, (7 August 1970). This source deals with municipalities working together to solve the problems of industrial waste and builders waste. Each municipality faces varying problems, although all of them recognise the need to identify ‘long term dumping sites.’

⁵⁷⁰ KAB, PAA, 1784, AF20/8/21, File 2, Cape Town Municipality Town Planning Scheme Application for the Dumping of Builders Rubble and Industrial Waste, (1 June 1976).

⁵⁷¹ The Cape Flats area includes Athlone, Belhar, Blue Downs, Bonteheuwal, Bishop Lavis, Crawford, Crossroads, Delft, Elsie’s Rivier, Epping, Hanover Park, Grassy park, Guguletu, Khayelitsha, Langa, Landdowne, Lotus Rover, Manenberg, Mfuleni, Mitchell’s Plain, Nyanga, Ottery, Philippi and Wetton. The majority of these areas were located as coloured settlements or townships by the Group Areas Act (1950).

⁵⁷² Wisner, ‘The Reconstruction of Environmental Rights in Urban South Africa’, 262.

Infrastructure and services in the townships were always rudimentary- one of the causes of the rent and rate boycotts in the 1980s- but subdivision made the burden on existing facilities such as water, drainage, sanitation, fire protection, markets, and open space.⁵⁷³

These rudimentary services were of little concern to many township residents in the face of the prevailing political injustices of the day. In some political circles, environmentalist issues were thought of as an elitist pursuit and not one that fit in with the urban realities of black township residents.⁵⁷⁴

Conclusion

Thus far, this thesis has discussed the implementation of waste removal services that largely relied upon class in order to implement the system. This relatively disorganised service was expanded as a result of fears of death and disease, and was more formally structured along the lines of both race and class. Although this system was eventually put in place it did little to change the behaviour of ordinary citizens towards waste. However, the use of gender and a specific wartime agenda that necessitated thrift and recycling, discussed in Chapter Three, saw the temporary shift in waste behaviour in the Union. This, however, was largely targeted towards the Union's white population. With the decline of this active propaganda during the post-World War Two (WWII) Apartheid era, reduced incentives to recycle meant the decline of this well-structured system. However, as Chapter Four discusses, the implementation of Apartheid did its part to further cement racial segregation through various laws. These laws, though, had a minimum effect upon already disparate experiences of waste, race and class.

However, as this chapter has shown, the major disparities in the waste sector in South Africa came about not solely as a result of crude Apartheid laws, but rather the change in the economy in the 1960s. Increased prosperity in the 1960s resulted in changing consumption patterns amongst whites that led to a culture in which buying new was easier and even cheaper. Africans however were not afforded the same luxuries and this meant the continuation of the need to value thrift and also the decreased autonomy of the Bantu Affairs Department-run municipalities, ensuring

⁵⁷³ Wisner, 'The Reconstruction of Environmental Rights in Urban South Africa', 262.

⁵⁷⁴ Khan, 'Environmentalism in South Africa', 166.

little or no waste services to African townships. Affluence in white communities led to effluence that was discarded and relegated to African and coloured townships that did not receive the benefits of the economic upturn in the 1960s. Over time the power this economic advantage wielded, as well as the socio-political circumstances under the Apartheid system, ensured that waste sites were increasingly situated in African and coloured townships and the white experience of waste became quite detached. The metaphorical 'broken windows' of waste in communities across South Africa have historically been shaped along the lines of race and class.

CHAPTER SIX:**“Ons skarrel”, “Ons Lag”: A Community History of Devon Valley Landfill, Stellenbosch, 1964-2013**

The previous chapter focused on the shift from an age of wealth from waste, to one in which affluence contributed to increasing effluence within society. This chapter, however, uses the sparse resources available in the murky landfill of the archives to piece together the history of waste during the time period from 1964-1996. This section of this chapter will give insight into the developments of the larger waste narrative in South Africa and how waste removal services became formalised within the 1996 constitution. It is intended merely to provide background and context for the case study of the community living at Devon Valley, Stellenbosch. This ethnographic case study uses in-depth qualitative interviews to shed light upon the subaltern as waste pickers on the landfill, and to investigate avenues for human agency.

Waste, Health and the Environment, c.1970-1980

The 1960s also saw the global rise of environmental concerns, which were thoroughly lacking in South Africa. It was during this time that Environmental Non-Government Organisations (ENGOS) that centred themselves on conservation issues of interest to the white population were established.⁵⁷⁵ The separation of the political and environmental issues for many these ENGOS ensured not only that they isolated themselves from growing interest within black communities, but also that they isolated themselves from pressing environmental concerns such as pollution via waste in the townships. The ‘limits to growth arguments’ of the 1970s established strong contradictions to the national atmosphere of consumerism that began in the 1960s and persisted into the 1970s.⁵⁷⁶ Although this argument certainly should have had an impact on the various municipalities across the country that had increasing waste output throughout the prosperous 1960s, the political realm strongly resisted

⁵⁷⁵ P. Steyn, ‘Popular Environmental Struggles in South Africa: 1972-1992’, *Historia*, 47 1 (2002), 125-158.

⁵⁷⁶ S. Barr, *Household Waste in Social Perspective*, (England: Ashgate Publishing, 2002), 169.

environmental concerns. According to Khan, not only did the NP government ministers have little interest in environmental issues, but also they actively resisted letting these issues come to the fore.⁵⁷⁷ The ‘modern “landfill site” []emerged in response to [the] recognition of the environmental impact of uncontrolled waste disposal.’⁵⁷⁸ Keep South Africa Tidy represented one of the few environmental organisations focussing on solid waste and received annual grants from the government.⁵⁷⁹ It is unknown, however, where this ENGO functioned and whether it included urban black areas as part of its activism areas.⁵⁸⁰

The international scene was as such that in the 1970s, the formation of the Environmental Protection Agency (EPA) in the United States of America (USA) was making waves of environmental consciousness throughout the world. This agency, formed in the late 1970s, was created in response to the decline in the number of landfills in the United States⁵⁸¹ and various environmental crises. This reduction meant rising and broadening landfill sites would have longer-term and riskier effects on the surrounding environment. While the EPA at this time required landfill owners to monitor sites for 30 years post closure⁵⁸² to ensure that no leachate seeps into the groundwater harming the surrounding lands and water supply, in South Africa such an action was not taken until far later.⁵⁸³ The waves of environmental consciousness encouraged by the formation of the EPA – and their investigations into solid waste – had little effect in South Africa, as the nation state’s isolation was at its height.⁵⁸⁴ In the interim, the number of dumpsites in South Africa was being reduced as small dumpsites in the large cities were closed down. These landfills, relegated to the peripheries of towns and cities, landed in the midst of Apartheid urban planning⁵⁸⁵

⁵⁷⁷ F. Khan, ‘Contemporary South African environmental response: an historical and socio-political evaluation with particular reference to blacks’, [unpublished master’s thesis], University of Cape Town, (1990), 95-96. .

⁵⁷⁸ Gandy, *Recycling and the Politics of Urban Waste*, 7.

⁵⁷⁹ Steyn, ‘Popular Environmental Struggles in South Africa: 1972-1992’, 127.

⁵⁸⁰ Steyn, ‘Popular Environmental Struggles in South Africa: 1972-1992’, 128, 133 and 142.

⁵⁸¹ Rathje and Murphy, *Rubbish!*, 48.

⁵⁸² Royte, *Garbage land*, 60.

⁵⁸³ The National Environmental Management Act 107 of 1998.

⁵⁸⁴ See A. Klots, *International Relations: The Struggle Against Apartheid*, (New York: Cornell University Press, 1995); H. Wolpe, *Race, Class and the Apartheid State*, (New Jersey: African World Press, 1990); S. Ellis and T. Sechaba, *Comrades against Apartheid: The ANC and South African Communist League in Exile*, (Bloomington: Indiana University Press, 1992).

⁵⁸⁵ P. Bond and K. Sharife, ‘Africa’s Biggest Landfill Site: The Case of Bisasar Road’, <http://www.amandla.org.za/amandla-blog/patrick-bond/1196-africas-biggest-landfill-site-the-case-of-bisasar-road-by-patrick-bond-and-khadija-sharife>, (accessed 9 April).

where the resultant health effects became significantly more important than the environmental cost of these large rubbish piles. During the 1970s:

[t]he practical difficulties facing urban waste management [were] further compounded by the financial difficulties facing many urban municipalities since the 1970s, leading to political conflict between environmentalist demands for comprehensive recycling strategies to tackle the growing waste stream and attempts by city administrations to control their expenditure.⁵⁸⁶

It could be seen during this time period, however, that white municipal interests and the interests of black township residents began to intersect as environmental and health concerns respectively grew in importance. Despite this junction, the political landscape ensured the unequal experiences of environmental and health rights for different racial groups in the country. The political resistance to environmental concerns and the disregard of urban black health concerns guaranteed that little attention was paid to growing pollutants such as garbage. In addition, the increasing urbanisation of black South Africans in concentrated land areas and the lack of refuse removal resulted in environmental degradation that spread beyond city limits.⁵⁸⁷

H.L. Zietsman's engineering publication in 1979 gives rare detail on waste production from households in the wider Cape Town area. This publication measured the output of waste in both white and coloured areas, and measured certain variables to determine discrepancies in how much waste was being produced in households. These variables included family income, occupation, industry and housing status parameters, socio-economic index, family size, racial composition, neighbourhoods and age composition. Zietsman points out that up until this point little research had been produced on the creation of solid waste. The root of this was in the rising per capital production of solid waste associated with the rising standards of living, as well as new trends in the packaging of goods. In 1979, Zietsman writes that solid waste was seen as a necessary evil for the growth of the economy and this only became an issue when it was visible to individuals. Thus, by discarding solid waste from households to the

⁵⁸⁶ Gandy, *Recycling and the Politics of Urban Waste*, 2.

⁵⁸⁷ V. Percival and T. Homer-Dixon, 'Environmental Scarcity and Violent Conflict', *Journal of Peace Research*, 35, 3 (1998), 289.

landfill – out of sight – waste became a purely engineering problem.⁵⁸⁸ Zietsman's arguments follow the lines of Thompson's Rubbish Theory (see Chapter One for details), mirroring concerns about what is not valued and is as a result discarded is only noticed when it is in sight and becomes a nuisance.⁵⁸⁹ Zietsman's thesis fails to recognise the impacts of solid waste disposal within communities situated in or around landfills, discussed extensively in the previous chapter.

The 'serious lack of necessary and appropriate information to achieve the goal of such a wide range of variables'⁵⁹⁰ being measured in this publication is a point of concern for the author. Yet another example of the elusiveness of waste studies, this extensive quantitative research adds to the few historic publications detailing waste behaviour in South Africa. Zietsman found that the average waste per capita household per day was 0.70 kilograms, higher than what had previously been measured across 22 localities in 1973.⁵⁹¹ However, neighbourhoods had differing waste output according to the variables mentioned previously. Waste output ranged from 0,196 to 1.02 kilograms. For white areas, the average of waste output per household per day was 0.576 and for coloured areas was 0.268. However, in two higher socio-economic, exclusively white residential areas the average was 0.734 kilograms. Comparatively, in the United States, a study conducted indicated that the household solid waste output ranged from 0.3222 to 1.5444 kilograms. According to Zietsman's study, the highest household solid waste output in the greater Cape Town area was in Camps Bay, Tijgerhof, and parts of Mowbray, Rosebank, and Rondebosch main road. The lowest per capita waste creation was in the coloured residential areas of Athlone, Bonteheuwel and Retreat.⁵⁹² Cecyl Esau, anti-Apartheid activist and oral historian, comments that in Worcester, where he grew up in the 1970s, the coloured area was supplied with adequate solid waste collection services. All waste was discarded and collected as one, as there was still no garden refuse collection. Waste collection services were originally carried out using equine-drawn rubbish carts. Later on,

⁵⁸⁸ H.L. Zietsman, *Die Kaapse Metropolitaansa Gebied: Huishoudelike Afvalskopping en die Seleksie van Potensiele Opvulstortingsbiede*, (Stellenbosch: Instituut vir Analise, 1979), 6.

⁵⁸⁹ Thompson, *Rubbish Theory*.

⁵⁹⁰ Zietsman, *Die Kaapse Metropolitaansa Gebied*, 2.

⁵⁹¹ Zietsman, *Die Kaapse Metropolitaansa Gebied*, 5. Unfortunately, Zietsman does not reference this previous study and does not give any other details.

⁵⁹² Zietsman, *Die Kaapse Metropolitaansa Gebied*, 4-11.

however, roads were paved in Worcester.⁵⁹³ This is similar to Langa in Chapter Five, in which animal-drawn carts were still used in the 1970s, despite the move away from this form of transportation as early as the 1920s in some areas. Cecyl recalls that there was little waste from households in his community, as strict mothers and poor socio-economic standards helped to enforce frugality amongst residents in Worcester.⁵⁹⁴

Educating children how to salvage and save is a strong enforcer for frugality, especially when taught within schools (see Chapter Three). Environmental education was virtually non-existent in the 1970s – the rise of environmental consciousness in the Western world – and concerns for health was the closest linking factor to waste and sanitation. Cecyl Esau comments that in the 1970s he was taught Health Studies in school, with a curriculum that included body cleanliness and other hygiene matters. It was not only within coloured schools in South Africa that environmental concerns were missing from the education curriculum. David Attenborough, who also attended school in the 1970s, went to an all-white school, at which he reflects, ‘There were absolutely no such things taught in school. Everything was in good supply, so there were no concerns about shortages’.⁵⁹⁵ Sally Attenborough comments that the only shortages that concerned them, as children, were petrol shortages in the 1970s, the time of the international oil crisis,⁵⁹⁶ which resulted in petrol rationing across South Africa.⁵⁹⁷ Phia Steyn, however, writes that there was a rise in environmental consciousness, which infiltrated some schools between 1972 and 1982.⁵⁹⁸

Income, social status, family size, population age, population density, cost, frequency and manner of refuse removal and packaging tendencies were found to be the highest factors influencing waste production in Cape Town. Zietsman recognises within this study that socio-economic status and race are factors which significantly influence the

⁵⁹³ Interview with Cecyl Esau, 15 June 2013, conducted by Giorgina King (in person).

⁵⁹⁴ Interview with Cecyl Esau, 15 June 2013, conducted by Giorgina King (in person).

⁵⁹⁵ Interview with David Attenborough, 22 September 2013, conducted by Giorgina King (phone interview).

⁵⁹⁶ See R. Barsky and L. Kilian, ‘Oil and the macroeconomy since the 1970s’ *Journal of Economic Perspectives*, 18, 4 (2004), 115-134; N. van de Walle, *African Economies and the Politics of Permanent Crisis, 1979-1999*, (Cambridge: Cambridge University Press, 2001); J.J. Wakeford, ‘The Impact of Oil Price Shocks on the South African Macroeconomy: History and Prospects’, Paper prepared for the TIPS/ DPRU Forum: “Accelerated and Shared Growth in South Africa: Determinants, Constraints and Opportunities”, Johannesburg, (2006).

⁵⁹⁷ Interview with Sally Attenborough, 21 September 2013, conducted by Giorgina King (phone interview).

⁵⁹⁸ Steyn, ‘Popular Environmental Struggles in South Africa: 1972-1992’, 125-158

amount of waste produced, particularly because where in higher income areas things are discarded more readily, these same items may be treasured in poorer communities.⁵⁹⁹ Following on from previous chapters, waste behaviour differs according to socio-economic class (and race, as a result of Apartheid's stringent racial laws). Literature has emerged studying the effect of socio-economic differences on effluence from across the world.⁶⁰⁰ The analysis clearly shows that socioeconomic status and all other related measures of status definitely positively correlated with waste creation.⁶⁰¹ The case study of Devon Valley waste-pickers and the lives of the community members will also explore how socio-economic status can affect waste behaviour in the waste industry.

The year 1976 heralded the beginning of a new chapter for ENGOs and waste management. In a public meeting in Randburg about municipal solid waste concerns municipal officials from the Transvaal, Orange Free State, Natal and the Cape were drawn together to discuss the pressing concerns of waste management. As a result of the interest in these issues from the participants, this meeting encouraged the formation of the Association of Cleansing Officers, which later became the Institute of Waste Management of Southern Africa (IWMSA).⁶⁰² Concerns arose amongst those present at this meeting about the following issues:

the lack of national attention to Solid Waste Management; the inability of both private and public bodies to work in concert on the problems of waste; [and] the dearth of either academic or technical training for anyone interested in fields relating to Waste Management.⁶⁰³

Over the years this organisation developed a strong voice on issues from littering to

⁵⁹⁹ Zietsman, *Die Kaapse Metropolitaansa Gebied*, 15.

⁶⁰⁰ See G.J. Dennison, V.A. Dodd and B. Whelan, 'A socio-economic survey of household waste characteristics in the city of Dublin, Ireland: Waste Composition', *Resources, Conservation and Recycling*, 17, 3 (1996), 227-244; P. Beigl, G. Wassermann, F. Schneider and S. Salhofer, 'Forecasting Municipal Solid Waste Generation in Major European Cities', *Institute for Waste Management: University of Natural Resources and Applied Life Sciences, Vienna, Austria*, http://www.iwar.tu-darmstadt.de/media/iwar_ica_iwm/publications/part2/beigfore.pdf (accessed 14 April 2013); A. M. Troshinetz and J.R. Mihelic, 'Sustainable recycling of municipal solid waste in developing countries', *Waste Management*, 29, 2 (2009), 915-932.

⁶⁰¹ Zietsman, *Die Kaapse Metropolitaansa Gebied*, 17.

⁶⁰² KAB, PACG, 811, 13/2/2/42, 'Organisations and Institutions, Incidental Organisations and Institutions, Interdepartmental Simposiums. Institute of Waste Management Southern Africa', (1985-1989).

⁶⁰³ 'Institute of Waste Management South Africa', <http://www.iwmsa.co.za/site-content/history.html>, (accessed 10 April 2013).

landfill management. IWMSA expanded into the Southern Africa region in 2000 and still exists in the present day.. One of the key concerns identified by the organisation in addressing waste issues, the sanitary landfill, in the meantime only became popular in South Africa towards the end of the 1970s.⁶⁰⁴ . While the Association of Cleansing Officers, later the Institute of Waste Management, initially consisted of waste and municipal managers and waste contractors; it later expanded to a group consisting of hardened waste professionals. During the organisations development, the issues surrounding waste addressed by IWMSA began with littering, labour issues and dumping sites, and solid waste removal and the equipment needed.⁶⁰⁵ This organisation, however, initially represented white concerns and environmental rights – as most conservationist organisations during this time period did. Its interest did not expand to the wider social justice concerns of the black population until after the formation of a new democratic state in 1994,⁶⁰⁶ and, resultantly, neglected the rights of Africans, particularly those working as informal waste –pickers in South Africa.⁶⁰⁷

Providing Services? The formation of the 1996 constitution: Waste Removal rights, c.1980-1996

From the 1980s onwards, the sparse sources ensure that waste history becomes increasingly muddier and more convoluted. There is less material available to the interested historian, who must piece together the remnants of archival sources with secondary sources in garner a better understanding of waste during this time period. Phia Steyn and other socio-environmental historians are of particular use in compiling this contextual section.

Steyn writes, that at the same time as the rise of the ENGOs, in townships across South Africa the Black Consciousness Movement (BCM) was making headway by striving for health and welfare concerns.⁶⁰⁸ Through the set up of Black Community Programmes that assisted in general municipal service provisions, BCM managed to

⁶⁰⁴ See Chapter Three of this thesis.

⁶⁰⁵ 'Institute of Waste Management South Africa', <http://www.iwmsa.co.za/site-content/history.html>, (accessed 10 April 2013).

⁶⁰⁶ KAB, PACG, 811, 13/2/2/42, 'Organisations and Institutions, Incidental Organisations and Institutions, Interdepartmental Simposiums. Institute of Waste Management Southern Africa', (1985-1989).

⁶⁰⁷ Khan, 'Environmentalism in South Africa', 158.

⁶⁰⁸ Steyn, 'Popular Environmental Struggles in South Africa: 1972-1992', 128.

provide both upliftment and pride within communities, and to create a consequent sense of citizenship and identity. '[T]he rise of African unions in the 1970s and their rapid growth during the early 1980s'⁶⁰⁹ allowed for increased agency within the workforce for sanitation workers and domestic workers. Residents in the townships, however, continued to receive little in the way of waste management services and dissatisfaction over this contributed to the rate and rent boycotts of the 1980s.⁶¹⁰ The 1970s and 1980s also signifies a time of political upheaval and the continual national emergencies; waste concerns were sidelined in the face of the bigger struggle agenda. All the while though, degradation of the natural environment and pressing health concerns resulted from the lack of foresight in waste management.

By 1989, increasing concerns arose regarding the viability of the government's balance in addressing social justice and environmental issues. There was increasing apprehension that the government was more concerned with conservation issues than with the wellbeing of black South Africans.⁶¹¹ By 1989 urgent cries for environmental issues to be put on the table and the imminent peace talks resulted in the African National Congress (ANC) releasing a 'detailed statement on its position regarding the environment, but cautioned that it was impossible to pursue a rational environmental policy within the confines of the apartheid system.'⁶¹² When the ANC came into power in 1994, the environmental issues facing them were astounding. By 1994, 14 percent of the population had absolutely no form of refuse removal while a larger percentage had inadequate access to these sanitation services. Furthermore, 'without adequate refuse collection, garbage quickly accumulates in open spaces and becomes infested with rats and disease.'⁶¹³ Thus, the urgent environmental issues to be dealt with were framed in terms of health concerns in the new South Africa.

Even struggles over access to natural resources such as water are not framed as environmental struggles. According to one key informant this is because 'the environmental rights in the South African constitution are framed in health terms. You don't go to a poor community and talk about the environment, you talk about health. The environment has no rhetorical

⁶⁰⁹ MacDonald and James, 'The hand on the Tiller', 393.

⁶¹⁰ Wisner, 'The Reconstruction of Environmental Rights in Urban South Africa', 262.

⁶¹¹ E. Koch, D. Cooper and H. Coetzee, *Water, waste and wildlife: the politics of ecology in South Africa*, (Johannesburg: Penguin Books, 1990), 2; C. Walker, "The Rhino and Elephant Foundation", *African Panorama* 40, 5 (1995), 50-54.

⁶¹² Khan, 'Environmentalism in South Africa', 167.

⁶¹³ McDonald, 'Neither from Above nor from Below', 317.

power. The discourse is about health and rights.⁶¹⁴

Thus, sanitation concerns were limited solely to an individual's access to sanitation and community health concerns. Newspaper sources are a strong reflection of attitudes towards and concerns about solid waste during this era. These newspaper articles also provide access to this time period, whereas municipal records in the archives are still closed. Newspaper sources document the development of the concerns around solid waste management, health effects, privatisation, the rise of the informal economy in the waste sector, public participation and environmental costs. Furthermore, certain sources give us insight into the lives of individuals within the waste sector, and this gives context and comparison for the Devon Valley landfill community.

Plastics were also becoming an issue within South Africa during this time. Plastic and plastic shopping bags were introduced into the United States in the 1960s and 1970s, where the plastic bag was only introduced in Western Europe in the 1980s.⁶¹⁵ The introduction of plastic into the waste stream came with a rise in consumerism and the changing trends in packaging in the Western world during the 1960s. In the United States,

Plastics consumption per capita shows an upward trend, mainly owing to the development of new products and markets and material substitution in established markets. In fact, in many cases, plastics have become the material of choice, displacing metals, paper, leather, glass, and wood in a range of common products.⁶¹⁶

The rise of plastic use in the West has been well documented by waste historians.⁶¹⁷ Despite this, no documented proof currently exists of the exact dates when plastic was introduced into South Africa. However, 'plastic bags were slowly introduced in the late 1970s, but even in 1990 had not reached the high levels [of the late 1990s]'.⁶¹⁸ For waste-pickers, the changing nature of materials being consigned to the landfill

⁶¹⁴ Cock, 'Connecting the red, brown and green', 2.

⁶¹⁵ J. Clapp and L. Swanston, 'Doing away with plastic shopping bags: international patterns of norm emergence and policy implementation', *Environmental Politics*, 18, 3 (2009), 317.

⁶¹⁶ G. Matos and L. Wagner, 'Consumption of Materials in the United States, 1900-1995', *Annual Review Energy Environment*, 23, (1998), 118.

⁶¹⁷ See J.L. Meikle, *American Plastic: A Cultural History*, (New Brunswick: Rutgers University Press, 1995); J.L. Meikle, 'Material Doubts: The Consequences of Plastic', *Environmental History*, 2, 3 (1997), 278-300; K. Mulder and M. Knot, 'PVC plastic: a history of systems development and entrenchment', *Technology in Society*, 23, 2 (2001), 265-286.

⁶¹⁸ Interview with Denise Robertson, 14 October 2013, conducted by Giorgina King (phone interview).

added plastics to the list of recyclables. Plastic usage, furthermore, rose steadily in the 1990s, to add to the polluted environment within townships that were growing at an alarming rate during this time.⁶¹⁹

Although the ANC had prepared itself for political take-over during the 1980s and for peace talks, local ANC government structures were found to be quite lacking. This resulted in a concentration of strong political leaders in the national government sector and little strong governance amongst municipalities when the ANC came into power. Furthermore, the delayed municipal elections meant that these systems were left in disarray for even longer. Little did they know, the rapid urban expansion of the post-1994 era would cause even more pressing environmental and social concerns as, '[t]he social costs of informal settlements derive from the poor quality of housing, the absence of essential services such as water, sewerage, roads and garbage collection.'⁶²⁰ By the time that many municipalities took over governance, they were forced into considering privatisation of many local amenities in order to cope with the prevailing social and environmental conditions. While municipalities struggled to address these issues, the informal sector strengthened as waste-pickers moved on to landfills and dumps to seek work. By 2000, the national dispensation was such that waste attitudes led to plastic bags being littered across the country on South African motorways, streets, and back alleys and in the natural vegetation. The then Minister of Environmental Affairs and Tourism, Valli Moosa, termed the plastic bag "the national flower".⁶²¹

Similar to scholarship on the structure of South African cities, racial differences in waste removal services came about as a result of a need to address health concerns in the early 1900s, and were cemented not solely by the implementation of Apartheid, but also by changing consumption patterns and uneven affluence in the 1960s. In order to understand this consumption and what is valued within society – as Thompspon's Rubbish Theory asserts – it is important to investigate waste and what is not valued within society. Thus, the rights laid forth of the South African constitution

⁶¹⁹ J. Western, 'A Divided City: Cape Town', *Political Geography*, 21, (2002), 713.

⁶²⁰ A. Todes and N. Walker, 'Women and Housing Policy in South Africa: A Discussion of Durban Case Studies, Paper presented to the Conference on Women and Shelter: First and Third World Perspectives', *Urban Forum*, 3, 2 (1992), 128.

⁶²¹ C. Olver, 'SA must act to root out 'national flower'', *Business Day*, (22 November 2000).

in 1996 lies in stark contrast to the lived realities of many citizens. South African society has an experience of municipal services such as garbage disposal, removal and dumping that has been constructed along social divisions of race and class. As a result, garbage has come to represent different meanings to different sectors of the population.

What is garbage to rich people is useful to poor people. [P]oor people waste less than the rich. They scavenge for materials to use and to sell. They supply secondhand producers' markets. And poor people constitute secondhand consumers' markets, the institutions of which (junk stores and thrift stores) depend on richer people to cast things off and even to subsidize their operations with cash.⁶²²

Building on the previously discussed notion of the treatment of garbage as a result of lack of ownership amongst the black population in South Africa, garbage itself comes to represent varying experiences for South African citizens as a result of race and class. These experiences are lived day in and day out by the people who scavenge waste for their daily survival.

⁶²² Strasser, *Waste and Want*, 9.

Devon Valley: “Ons Skarrel”⁶²³, “Ons Lag”⁶²⁴



Figure 21: Devon Valley Landfill Community: The Community wall can be seen on the right hand side with the landfill rising above it in the background.⁶²⁵

Driving down the potholed road to the homes of the community at Devon Valley landfill, the houses are aligned neatly along the right side of the road. A straight wall in front of the “hokkies” creates the impression that these homes are small and insignificant. The neat row of homes, from a distance, mirrors the mirage of the landfill – its smooth surface rising up behind the community – appearing quiet and calm. Upon approach, however, the small mounds of rubbish and chaos of people “skarreling” are seen across the surface of the landfill and in the community. The closer one gets to the landfill, and waste history for that matter, the messier and more

⁶²³ Group Interview with seven Devon Valley community members: Tinus Wenn, Lionel Plaaityjies, E. Mentoor, Josaline Johannes, Pauline Jacobs, Margaret Anthony, and Elaine Plaaityjies, (4 July 2012), conducted by Giorgina King (in person).

⁶²⁴ Interview with Francois van der Bank, (9 July 2012), conducted by Giorgina King (in person).

⁶²⁵ Photograph taken by the author.

layered it gets. This multi-valent, many-layered semi-chaos is evident as a theme (or trope) in the stories of the community members living on the landfill at Devon Valley, in which multiple contradictions exist. These stories do converge to give an ethnographic insight into this landfill community. Piecing together these subaltern narratives is important for the wider sub-discipline of waste history, in that it not only gives a 'human face'⁶²⁶ to this history, but also addresses silences in the historical record. The use of the notion of the subaltern gives this case study a framework for understanding this community history. The subaltern is a concept developed by Gayatri Spivak, who writes, '[t]he reasonable and rarefied definition of the word [is]: to be removed from all lines of social mobility.'⁶²⁷ The community living at Devon Valley is one of the best representative groups of this definition. Individuals who end up living there claim they have 'no where else to go, this is last option'.⁶²⁸ Subaltern studies assumes that, 'the oppressed, if given the chance [] *can speak and know their conditions*'.⁶²⁹ The community members of Devon Valley express their experiences of living on the landfill with frustration at the conditions and at the apathy with which municipal officials treat them.

The Devon Valley dump outside of Stellenbosch was established in 1964, but was only converted to a landfill in the 1989.⁶³⁰ With a daily tonnage ranging from about 6000-6800 in February 2012,⁶³¹ Stellenbosch is one of the highest producers of municipal solid waste (not counting industrial, construction and mining waste) in the country.⁶³² Belinda Bozzoli, in *Women of Phokeng: Consciousness, Life Strategy, and Migrancy in South Africa, 1900-1983* (1991), writes that oral history exposes 'the existence of a world [] that is, generally speaking, neglected'.⁶³³ In interviews conducted with the Devon Valley residents, these community members fluctuate from

⁶²⁶ Tosh, *The Pursuit of History*, 176.

⁶²⁷ G.C. Spivak, 'Scattered speculations on the subaltern and the popular', *Postcolonial Studies*, 8, 4 (2005), 475.

⁶²⁸ Group Interview with seven Devon Valley community members: Tinus Wenn, Lionel Plaitjies, E. Mentoor, Josaline Johannes, Pauline Jacobs, Margaret Anthony, and Elaine Plaitjies, (4 July 2012), conducted by Giorgina King (in person).

⁶²⁹ Neslon and Grossberg (eds), *Marxism and the Interpretation of Culture*, 25. [Own emphasis in italics]

⁶³⁰ Interview with Saliem Haider, (22 June 2012), conducted Giorgina King (in person).

⁶³¹ G.M. Collinson, 'Daily Tonnage', GM Waste, (February 2012).

⁶³² Interview with Gary Collinson, (12 June 2012), conducted by Giorgina King (in person); Interview with Saliem Haider, (22 June 2012), conducted Giorgina King (in person).

⁶³³ B. Bozzoli, *Women of Phokeng: Consciousness, Life Strategy, and Migrancy in South Africa, 1900-1983*, (Portsmouth: Heinemann, 1991), 15.

expressing serious concerns to fits of laughter. ‘There is a lot of laughter on the dump, ons lag [we laugh], ons moet lag [we must laugh]’.⁶³⁴ Residents Josaline Johannes, Pauline Jacobus, Margaret Anthony and Frank Julius (Chairperson) served on the Devon Valley community committee.⁶³⁵ This committee represented the community at meetings with the municipality, other communities in the area, waste pickers and multi-stakeholder events.⁶³⁶ Even committee leaders express the contradictions that exist within the interviews undertaken. Residents of the landfill claim, ‘You cannot move us, we do not want to move’, ‘we want to live somewhere else, it is not nice here’, ‘this is our home, we will not go’, and ‘we have been waiting so long to move, we want to move not far from here so we can [work] here’.⁶³⁷

The waste pickers in the community rise early, so that they can start working on the landfill at four in the morning.⁶³⁸ Lionel Plaitjies, who is formally employed at the dumpsite, rises at the same time so that he can collect goods before his official working hours begin.⁶³⁹ Where other residents may at times seem undecided about the landfill’s management staff, Lionel Plaitjies is firm in his support of his employer.⁶⁴⁰ In 2013, the committee members were sent to Johannesburg to attend a conference on waste picking, but never returned.⁶⁴¹ In the wake of this, the support structure able to guide this community through difficulties has fallen away and many residents in the troubles they have faced in 2013 have struggled more without the support from this committee. The average day scavenging on the landfill can earn a picker anything between R150 and R750. The picture below is from the top of the Devon Valley Landfill, waste-pickers can be seen working here.

⁶³⁴ Interview with Francois van der Bank, (9 July 2012), conducted by Giordina King (in person); Interview with Alec Basjan, (9 July 2012), conducted by Giordina King (in person).

⁶³⁵ Interview Josaline Johannes, (4 July 2012), conducted by Giordina King (in person); Interview Pauline Jacobus, (4 July 2012), conducted by Giordina King (in person); Interview Margaret Anthony, (4 July 2012), conducted by Giordina King (in person).

⁶³⁶ Interview Josaline Johannes, (4 July 2012), conducted by Giordina King (in person).

⁶³⁷ Group Interview with seven Devon Valley community members: Tinus Wenn, Lionel Plaitjies, E. Mentoor, Josaline Johannes, Pauline Jacobs, Margaret Anthony, and Elaine Plaitjies, (4 July 2012), conducted by Giordina King (in person).

⁶³⁸ Swilling, ‘Stellenbosch Landfill is Full’, <http://www.sustainabilityinstitute.net/newsdocs/si-news/item/stellenbosch-landfill-is-full> (accessed 24 September 2012).

⁶³⁹ Interview with Lionel Plaitjies, (4 July 2012), conducted by Giordina King (in person).

⁶⁴⁰ Group Interview with seven Devon Valley community members: Tinus Wenn, Lionel Plaitjies, E. Mentoor, Josaline Johannes, Pauline Jacobs, Margaret Anthony, and Elaine Plaitjies, (4 July 2012), conducted by Giordina King (in person).

⁶⁴¹ Interview with Tinus Wenn, (26 July 2013), conducted by Giordina King (in person).



Figure 22: On top of the landfill at Devon Valley, Stellenbosch⁶⁴²

This amount escalates on special days when individuals find special finds such as rings, working electronics and ‘gold watches’.⁶⁴³ These items are then either traded between community members, or, in the case of very valuable items, are taken into town to be sold. Waste-pickers at Devon Valley collect a variety of goods including plastics, metal, paper, electronics and glass.⁶⁴⁴ Parsons has argued that there is a need to understand garbage outside of the usual theoretical understandings of consumerism in terms of the flow of objects from their supply and demand and where the lifetime of a product implies an inevitable end. In fact in this day and age rubbish can no longer be seen as something that is of no worth but rather in a particular phase within consumerism. Discarded and forgotten objects may be found again, restored, displayed and reused to fit their original means or a new purpose.⁶⁴⁵

⁶⁴² Photograph taken by Luke Metelerkamp from: M. Swilling, ‘Stellenbosch Landfill is Full’, <http://www.sustainabilityinstitute.net/newsdocs/si-news/item/stellenbosch-landfill-is-full> (accessed 24 September 2012).

⁶⁴³ Interview with Jacobus Smit, (26 July 2013), conducted by Giorgina King (in person).

⁶⁴⁴ Group Interview with seven Devon Valley community members: Tinus Wenn, Lionel Plaaitsjies, E. Mentoor, Josaline Johannes, Pauline Jacobs, Margaret Anthony, and Elaine Plaaitsjies, (4 July 2012), conducted by Giorgina King (in person).

⁶⁴⁵ Parsons, ‘Thompsons’ Rubbish Theory’, 392.

Items salvaged on the dump do not only represent income to the Devon Valley community waste pickers, but also explicate much of the culture of this subaltern survival strategy. The work done in collecting the recyclables is often dangerous and health hazards include being cut on iron scraps, exposure to poisonous materials, exposure to tuberculosis and exposure to extreme weather conditions in the seasons.⁶⁴⁶ Place is an important factor in determining health risks and disease, and as a result, the Devon Valley community members are constantly at risk.⁶⁴⁷ The recyclables are collected each day from different recycling companies that pay informal pickers in cash. Most of the money earned goes towards buying food and other necessary items and paying off debt. Most of the landfill residents are on a funeral plan, for which they pay R75 a month. ‘You will be in debt forever [without the plan] if something happens’.⁶⁴⁸

Residents of the landfill have also bought generators, when money has been less tight, so that the children can watch television in the evenings. Tinus Wenn comments that the ‘hard money’ he has spent on his generators (some have broken down over the last few years) has been worth it so that his children have something to do in the evenings and are not exposed to the drug dealers (from Kuilsrivier) who sometimes roam the dump in the evenings.⁶⁴⁹ The children also have Nintendos and Playstations that have been salvaged from the landfill. Their parents believe that this will keep the children occupied and not seek trouble. Most of the children, Tinus Wenn reflects, make friends in school that are older than them. This is because the older children speak about the future, ‘nie dom dinge’⁶⁵⁰ (not silly things). Residents at Devon Valley have a strong sense of community that they are very firm on: they report that they share much of what they have when others are in need, they look after each other and they share a cellular phone.⁶⁵¹ Throughout the trying seasons on the landfill, community

⁶⁴⁶ Group Interview with seven Devon Valley community members: Tinus Wenn, Lionel Plaaitsjies, E. Mentoor, Josaline Johannes, Pauline Jacobs, Margaret Anthony, and Elaine Plaaitsjies, (4 July 2012), conducted by Giordina King (in person).

⁶⁴⁷ P. Bond, *Cities of Gold, Townships of Coal: Essays on South Africa's New Urban Crisis*, (Asmara: Africa World Press Inc., 2000), 77.

⁶⁴⁸ Interview with Tinus Wenn, (26 July 2013), conducted by Giordina King (in person).

⁶⁴⁹ Interview with Tinus Wenn, (26 July 2013), conducted by Giordina King (in person).

⁶⁵⁰ Interview with Tinus Wenn, (26 July 2013), conducted by Giordina King (in person).

⁶⁵¹ Group Interview with seven Devon Valley community members: Tinus Wenn, Lionel Plaaitsjies, E. Mentoor, Josaline Johannes, Pauline Jacobs, Margaret Anthony, and Elaine Plaaitsjies, (4 July 2012), conducted by Giordina King (in person).

members look out for each other, for at times, when the residents express ‘I have no choice’,⁶⁵² the community comes together to support each other.

Residents of the landfill refer to their homes as ‘hokkies’⁶⁵³ and strongly object to calling these structures houses. The residents collect all the materials for their “hokkies” from the landfill, piecing together broken tile pieces for flooring and aesthetic quality.



Figure 23: Home of a Devon Valley Family with tiled floors: all materials are salvaged from the dumpsite⁶⁵⁴

Despite this, the Devon Valley residents will not call these homes because they believe that homes should have solid walls and ceilings, resistant to the sizeable rats

⁶⁵² Interview with Elaine Plaitjies, (26 July 2013), conducted by Giorgina King (in person); Group Interview with seven Devon Valley community members: Tinus Wenn, Lionel Plaitjies, E. Mentoor, Josaline Johannes, Pauline Jacobs, Margaret Anthony, and Elaine Plaitjies, (4 July 2012), conducted by Giorgina King (in person).

⁶⁵³ Group Interview with seven Devon Valley community members: Tinus Wenn, Lionel Plaitjies, E. Mentoor, Josaline Johannes, Pauline Jacobs, Margaret Anthony, and Elaine Plaitjies, (4 July 2012), conducted by Giorgina King (in person).

⁶⁵⁴ Photograph taken by the author.

and winter rainfall. The informal structures they have built from landfill scraps are not the type of structures in which they want to live.⁶⁵⁵ A 17-year-old resident (who will not be named) was kind enough to give the author a tour of her home in 2011. In what can only be described as a shrine to twenty-first century consumerist teenage identity, her room showcased a mosaic styled mirror pieced together from different broken mirrors and intersected with Miley Cyrus stickers and broken blackberry phones.



Figure 24: Teenager's Shrine to 21st century consumerism⁶⁵⁶

Her home is one of three that burnt down at the beginning of 2013, and residents have since rebuilt these “hokkies” from materials found on the landfill. Similar mantelpieces can be seen in most bedrooms, where what cannot be sold is collected, cleaned and showcased. Most homes have a mantelpiece that display a variety of items – including fluffy toys, empty photo frames, old medicine bottles, and broken

⁶⁵⁵ Interview with Tinus Wenn, (26 July 2013), conducted by Giorgina King (in person); Interview with Jacobus Smit, (26 July 2013), conducted by Giorgina King (in person).

⁶⁵⁶ Photograph taken by the author.

electronics – all of which transcend traditional restrictions of both age and gender. An example of this is seen in the photograph below.



Figure 25: Mantelpiece in Tinus Wenn's bedroom, 2011⁶⁵⁷

These mantelpieces are physical representations of the individuals' histories, collected in the day-to-day lives over the years lived on the landfill. 'Appadurai usefully observes that 'commodities, like persons, have social lives.'⁶⁵⁸ On the mantelpieces of these "hokkie" owners, this concept comes alive. Parsons (building on Thompson's Rubbish Theory) observes that value emerges from how objects are placed.⁶⁵⁹ Items placed on these mantelpieces are carefully selected as decoration for the "hokkies", as the residents have a keen sense of what items have use and are aesthetically pleasing. In the developing world, discarded objects are often repossessed and reused for both everyday survival and use, for 'what is waste/ rubbish/ garbage to one is a means for

⁶⁵⁷ Photograph taken by the author.

⁶⁵⁸ Parsons, 'Thompsons' Rubbish Theory', 390.

⁶⁵⁹ Parsons, 'Thompsons' Rubbish Theory', 392.

survival for another'.⁶⁶⁰ Perhaps the only exception to these cluttered – yet clean and organised – hokkies is Oom Garrett's bedroom.



Figure 26: Portrait of Oom Garrett, 2011⁶⁶¹

Oom Garrett is the oldest resident of the landfill, and the resident who has been living at the landfill for the longest.⁶⁶² As mentioned previously, unlike most landfill residents, Oom Garrett does not hoard any of the goods he has collected over the almost forty years he has been at the landfill. His bedroom, shown in the illustration below, is the epitome of simplicity.

⁶⁶⁰ Parsons, 'Thompsons' Rubbish Theory', 392.

⁶⁶¹ Photograph taken by the author.

⁶⁶² It is uncertain what Oom Garrett's surname is, as he is only referred to by this affectionate name amongst landfill residents, and he very seldom answers a question directly.



Figure 27: Oom Garrett's bedroom, a representation of his basic lifestyle⁶⁶³

Garrett's bedroom contains three hooks, a quilt blanket, a broken radio he was fixing, a piece of a broken mirror, and pinned to the wall was a R10 note that had been torn in half.

‘In an ideal world... an object would reach zero value and zero expected life-span at the same instant, and then... disappear into dust. But, in reality, it usually does not do this; it just continues to exist in a timeless and valueless limbo, where, at some later date (if it has not by that time turned, or been made, into dust) it has the chance of being discovered’,⁶⁶⁴

Garrett's home explicates what most residents know to be true of the landfill, that much like the refuse discarded at the landfill, most of the people who come to live on the Devon Valley site never leave. When Garrett arrived on the landfill forty years ago, it was still illegal for “scavengers” to pick the dump. Garrett would have to sneak onto the landfill at night, braving barbed wire fences, vicious dogs and possibly even more vicious security guards. An individual whom Garrett only refers to as ‘die Wit Man’⁶⁶⁵ (the White Man) owned the Doberman that used to guard the landfill at night.⁶⁶⁶ At this time, garbage picking was truly a survival tactic in that “scavengers” would only brave the dump when in dire need of food or in search of valuables that

⁶⁶³ Photograph taken by the author.

⁶⁶⁴ Parsons, ‘Thompsons’ Rubbish Theory’, 391.

⁶⁶⁵ Interview with Oom Garrett, (9 July 2010), conducted by Giorgina King (in person).

⁶⁶⁶ Interview with Francois van der Bank, (9 July 2012), conducted by Giorgina King (in person).

were sellable. Many times, Garrett recalled, dogs on the landfill attacked him for returning. It was only in recent years that Garrett and his peers have been allowed to pick the waste dump.⁶⁶⁷ Community members recall that the “Wit Man” owned a shambock and hit anyone trespassing on the landfill if he could catch the “scavengers”.⁶⁶⁸

When Jacobus Smit first moved to the landfill just over twelve years ago, this was still the *modus operandi*. They used to get chased away and come back again, over and over again until the landfill managers eventually organised a meeting to investigate why these individuals kept returning to the dump, despite being so harshly discouraged.⁶⁶⁹ Smit told the landfill owners, ‘We want to support our kids – we’re not [] here to drink alcohol and do drugs; we are not here to loiter and do bad things. We are here to make a life for ourselves.’⁶⁷⁰ Jacobus Smit (37 years old) moved to the landfill as a result of the loss of his family support structure. Born in Ceres, Smit moved to Maitland, in Cape Town, when he was a small boy of about five or eight years old. His father, having been employed by a factory in the area, moved his family to Maitland in the hopes of better opportunities for schools and employment. In the years that followed, his father relocated his family again and they moved to Stellenbosch. Smit’s mother died soon after the move from “asthma” and within two years his father had also passed away. For a while the impetus was left on Smit to look after his younger brother and sister, until his elder sister decided to move the younger siblings back to Ceres. Smit was left behind, as his family decided he was ‘old enough’⁶⁷¹ to look after himself, at the age of fifteen. He moved in with his aunt, who had been recently left by her husband, and decided to leave school at the age of fifteen to help his aunt support the household. Having found a job as a farm labourer, Smit was able to contribute his earnings to supplement his aunt’s meagre income.

In the years that followed, Smit worked at the nursery in Devon Valley. From here, he was eventually fired for the drinking habit he had succumbed to whilst working on the

⁶⁶⁷ Interview with Oom Garrett, (9 July 2010), conducted by Giordina King (in person).

⁶⁶⁸ Interview with Oom Garrett, (9 July 2010), conducted by Giordina King (in person); Interview with Francois van der Bank, (9 July 2012), conducted by Giordina King (in person); Interview with Tinus Wenn, (26 July 2013), conducted by Giordina King (in person).

⁶⁶⁹ Interview with Jacobus Smit, (26 July 2013), conducted by Giordina King (in person).

⁶⁷⁰ Interview with Jacobus Smit, (26 July 2013), conducted by Giordina King (in person).

⁶⁷¹ Interview with Jacobus Smit, (26 July 2013), conducted by Giordina King (in person).

farm. Having turned up to work one two many times – he remarked in a hushed tone – where he was ‘very rude’.⁶⁷² Smit gets even quieter as he admits, ‘and drugs’.⁶⁷³ The hushed tone with which Jacobus Smit admits to his old drinking habit is typical of the attitude of Devon Valley community members. There is a sense of pride in self amongst individuals in the community that is best explained by Fiona Ross’ *Raw Life, New Hope: Decency, Housing and Everyday Life in a Post-Apartheid Community* (2010). Ross explains that for community members of The Park, concepts of ‘*ordentlikheid*’⁶⁷⁴ (decency) are integral in preserving a sense of self and community worth. Smit’s desperation mounted after he was fired from the nursery. Unable to find employment, he ‘started getting hungry’⁶⁷⁵ A friend then propositioned him to join him on the dump, to make money to buy food. Soon afterwards, Smit moved to the landfill and has been living on the tip for about fifteen years. Over the last decade years, Smit has enjoyed working on the dumpsite where he can find scraps and collections – such as toys and other represents for his young boy – and sell these to either community members or in town.⁶⁷⁶ Currently employed as a farm labourer for the last two years, despite this recent increase in social mobility, Smit chooses to remain on the landfill with his wife and two children, as the people living there have become his community, and supplementary family.

Elaine Plaaitjies (41 years old) has been living on the landfill for over ten years. She currently serves as a committee member for the community’s committee that represents them at meetings with various stakeholders. Plaaitjies was born in Murraysberg (now in the Eastern Cape), but moved with her parents to the Western Cape when she was four years old. Her family settled in Wellington (now in the Western Cape) and it was there that she attended school. When her father abandoned her family and moved to Kraaifontein (now in the Western Cape), Elaine ‘trekked to Stellenbosch. [When she realised work was scarce, she] moved to the dump site.’⁶⁷⁷ Elaine does not seek work elsewhere, for she enjoys working on the landfill. If offered formal employment, she says would turn it down as she enjoys the work that

⁶⁷² Interview with Jacobus Smit, 26 July 2013, conducted by Giorgina King (in person).

⁶⁷³ Interview with Jacobus Smit, 26 July 2013, conducted by Giorgina King (in person).

⁶⁷⁴ F.C. Ross, *Raw Life, New Hope: Decency, Housing and Everyday Life in a Post-Apartheid Community*, (Cape Town: UCT Press, 2010), 23.

⁶⁷⁵ Interview with Jacobus Smit, (26 July 2013), conducted by Giorgina King (in person).

⁶⁷⁶ Interview with Jacobus Smit, (26 July 2013), conducted by Giorgina King (in person).

⁶⁷⁷ Interview with Elaine Plaaitjes, (26 July 2013), conducted by Giorgina King (in person).

she does in ‘skarreling’⁶⁷⁸ on the landfill. ‘Skarelling’, spoken about in Fiona Ross’ *Raw Life, New Hope* (2010) is a term used to describe the type of work in which people ‘just get by’.⁶⁷⁹ This term for certain types of work can be used to refer to anything within the informal employment or semi-permanent working sector. This Afrikaans verb is translated as ‘to rummage or scramble, scuttle or scurry’.⁶⁸⁰ In the case of the informal waste pickers at Devon Valley, this term is more specific. “Skarrelling” is used to refer to the action and work done by the waste pickers across the landfill, evoking imagery of mice or rats scuttling across the surface of the dump. The Devon Valley community members claim this term with humour, ‘soos muis op die tip’⁶⁸¹ (like mice on the dump).

Plaaitjes’ identity and sense of ‘*ordentlikheid*’ is closely aligned with her religious convictions. Reminiscent of the days when Stellenbosch theology students used to hold services at the tip on Sundays, she comments that,

[It] was great that they came. It was good for the soul of people. So that people don’t just think that you’re the same [as the waste]. It is not because you live in a place like this you are the same. It is not that you live in a place like this that you are using drugs, using alcohol and things like this. There are very nice and peaceful people in this place.⁶⁸²

Rachel de Kock writes in her investigation of waste pickers in 1986, ‘The pickers perceived themselves to be viewed with suspicion, ridiculed and despised by their community’.⁶⁸³ Although the Devon Valley community is concerned with perceptions of their decency and worthiness, their perceptions of being despised and suspicions of them are low. This is, perhaps, for three reasons. First, the community lives together as (mostly) informal waste pickers at the municipal dump, limiting exposure to ridicule from outside communities. Second, the increase in informal waste pickers in recent years has resulted in ‘scavenging [as] one of the last resorts of the

⁶⁷⁸ Group Interview with seven Devon Valley community members: Tinus Wenn, Lionel Plaaitjes, E. Mentoor, Josaline Johannes, Pauline Jacobs, Margaret Anthony, and Elaine Plaaitjes, (4 July 2012), conducted by Giorgina King (in person).

⁶⁷⁹ Ross, *Raw Life, New Life*, 107.

⁶⁸⁰ Ross, *Raw Life, New Life*, 108.

⁶⁸¹ Group Interview with seven Devon Valley community members: Tinus Wenn, Lionel Plaaitjes, E. Mentoor, Josaline Johannes, Pauline Jacobs, Margaret Anthony, and Elaine Plaaitjes, (4 July 2012), conducted by Giorgina King (in person).

⁶⁸² Interview with Elaine Plaaitjes, (26 July 2013), conducted by Giorgina King (in person).

⁶⁸³ De Kock, *Garbage Picking as a Strategy for Survival*, 42.

unemployed,'⁶⁸⁴ has risen in popularity amongst unsuccessful job seekers.⁶⁸⁵ Tinus Wenn a resident of the landfill for twelve years, commented that the unemployed youngsters arrived in droves from 2010 onwards, 'You have to carry your stuff with you everywhere as far as possible because the kids steal things from your piles, the young ones are very rude.'⁶⁸⁶ New comers to the Stellenbosch landfill in recent years have meant fierce competition for the landfill community pickers.⁶⁸⁷ De Kock writes,

Garbage picking is one area in which, from an economic point of view, entry is relatively open. This openness, coupled with unattractive working conditions and the relatively low rates of return, (which discourage entrance into the sector by those who can do better), means that it is an activity which like that of street trading, can be used as a 'survival strategy',⁶⁸⁸

These 'youngsters' then, see this work as an opportunity to make money when employment can otherwise not be found. Individuals travel on the train from as far as Khayalitsha, Cape Town have been regulars to the dump in recent years. Landfill manager Gary comments that on an average summer day there can be up to 150 informal waste pickers on the landfill.⁶⁸⁹ The third reason that Stellenbosch community waste pickers are less likely to be viewed the same as waste pickers in 1985 (De Kock's research was conducted in 1985 and published in 1986) is that the legal framework has changed in recent years. The National Environmental Management Act (Act 107 of 1998) did not, even after the formation of the 1996 constitution, recognise scavengers in this policy document.⁶⁹⁰ It was only with the National Waste Act (Act 59 of 2008) that the waste pickers were legally allowed to salvage on the landfill.⁶⁹¹

Perceptions about the landfill residents, however, are not always favourable. The landfill Manager, Gary Collinson, expressed concern over the behaviour of waste pickers on the dump, and although much has been done in recent years to bridge divides, there are still trust issues. During first visit to the landfill undertaken for this

⁶⁸⁴ De Kock, *Garbage Picking as a Strategy for Survival*, 36.

⁶⁸⁵ Economics Department, 'Economic Survey of South Africa 2010', <http://www.oecd.org/eco/southafrica2010.htm> (accessed 7 September 2013).

⁶⁸⁶ Interview with Tinus Wenn, (26 July 2013), conducted by Giorgina King (in person).

⁶⁸⁷ Interview with Tinus Wenn, (26 July 2013), conducted by Giorgina King (in person).

⁶⁸⁸ De Kock, *Garbage Picking as a Strategy for Survival*, 1-2.

⁶⁸⁹ Interview with Gary Collinson, (12 June 2012), conducted by Giorgina King (in person).

⁶⁹⁰ Samson, *Reclaiming Livelihoods*, 2.

⁶⁹¹ Interview with Saliem Haider, (22 June 2012), conducted Giorgina King (in person).

thesis, the author mistakenly parked on the ‘wrong side’ of the landfill site. Rather than the official municipal entrance, the old Opel with a broken window and a friend’s blackberry left on the dashboard was parked on the side of the landfill where the community lives., Thus began the great trek to the top and over the landfill. In the first interaction with the municipal landfill manager, he was wholly concerned with the vehicle being left on the other side of the dump. ‘They will strip it down, you will get back and there will be nothing left.’⁶⁹² Although it is unclear whether Gary was referring to the landfill community residents or the influx of newcomers to the landfill, it is clear that the perception of waste pickers and trust between them and the municipal contractors is unsteady. Community residents, however, do express gratitude for Collinson who often warns them when the ‘big boss’⁶⁹³ is coming and, therefore, small steps have been taken in recent years to build better relationships between the management staff and the residents. Upon returning to the car, everything was in its right place and community members were eager to engage in conversation. As Alessandro Portelli has commented, ‘There is no such thing as the observer and the observed’.⁶⁹⁴ It is clear that this is the case when interacting with community residents of Devon Valley. As much as it is important for the historian to remain objective, often interviews with community members were informal in nature.

Tinus Wenn (52 years old) used to work for the Department of Arts and Culture. Unlike most of the stories at Devon Valley, Wenn moved to the dump for very different reasons. Having been born and raised in Stellenbosch, Wenn calls himself a ‘Stellenboscher’, and exclaims that now that he lives on the landfill, he is ‘going nowhere’.⁶⁹⁵ For many years, Wenn visited the landfill for his work and it was here that he met the woman who would become his wife. As a coloured man, Wenn emphasises that when he was in school, he never thought he would fall in love with an African woman. But now, he claims, ‘[He is] colour blind, out of his whole family, [he is] the colour blind one.’⁶⁹⁶ Wenn remarks that his wife loves the dump and her

⁶⁹² Personal comment, Gary Collinson, (May 2011).

⁶⁹³ Group Interview with seven Devon Valley community members: Tinus Wenn, Lionel Plaitjies, E. Mentoor, Josaline Johannes, Pauline Jacobs, Margaret Anthony, and Elaine Plaitjies, (4 July 2012), conducted by Giordina King (in person).

⁶⁹⁴ A. Portelli, University of Cape Town History seminar, ‘Sound and Meaning in and beyond Oral History’, (22 May 2012).

⁶⁹⁵ Interview with Tinus Wenn, (26 July 2013), conducted by Giordina King (in person).

⁶⁹⁶ Interview with Tinus Wenn, (26 July 2013), conducted by Giordina King (in person).

community, so twelve years before he made the decision to move to the landfill for her. He has now been married to her for approximately three years. Wenn's rhetoric differs from most of the landfill residents. Where most claim that their work on the landfill is arduous but rewarding,⁶⁹⁷ Wenn claims that he does not work. Perhaps as a result of his former formal government employment, Wenn does not consider garbage-picking work.⁶⁹⁸ Wenn's family is currently situated in Stellenbosch, Eerste Rivier (Western Cape) and Springbok (Northern Cape). His sister is a social worker in Springbok, and his one brother is a welder by trade in Eerste Rivier. It is clear that Wenn does not have the same background as many of the other residents of the landfill, whose familial support networks have fallen away and this was their last resort for survival. Wenn remarks, his is a 'simple story, for love is blind'.⁶⁹⁹

Francois van der Bank and Alec Basjan, two men in their early thirties, live on the 'other side' of the landfill. Both Wenn and Smit claim that although there is no direct conflict between their community and the Other community, contention exists as a result of the land on which these 'other side' individuals live, which is farmland and not municipal land.⁷⁰⁰ Basjan and van der Bank are wholly concerned with the conditions in which they live on the landfill. These men have both arrived at the Stellenbosch dump because there is no other work for them, but now they are desperate living in squalor. Huddled over a burning plastic crate in the midst of winter, these men and Van der Bank's eight-month pregnant girlfriend express their woes of living on the tip.⁷⁰¹ Each landfill resident seems to fluctuate between whether s/he enjoys working on the landfill or dislikes it, whether s/he wants to live there or wants to move, and whether s/he has choice in this. Arturo Escobar writes that, 'place has dropped out of sight in the "globalization craze" of recent years, and this erasure of place has profound consequences for our understanding of culture, knowledge,

⁶⁹⁷ Group Interview with seven Devon Valley community members: Tinus Wenn, Lionel Plaitjies, E. Mentoor, Josaline Johannes, Pauline Jacobs, Margaret Anthony, and Elaine Plaitjies, (4 July 2012), conducted by Giorgina King (in person).

⁶⁹⁸ Interview with Tinus Wenn, (26 July 2013), conducted by Giorgina King (in person).

⁶⁹⁹ Interview with Tinus Wenn, (26 July 2013), conducted by Giorgina King (in person).

⁷⁰⁰ Interview with Tinus Wenn, (26 July 2013), conducted by Giorgina King (in person); and Interview with Jacobus Smit, (26 July 2013), conducted by Giorgina King (in person).

⁷⁰¹ Interview with Francois van der Bank, (9 July 2012), conducted by Giorgina King (in person); and Interview with Alec Basjan, (9 July 2012), conducted by Giorgina King (in person).

nature, and economy’⁷⁰² Place is central to how the Devon Valley community experience their identity, culture and the environment.

Animals form a large part of the landfill experience for those living on the dump. The sound of scavenger birds – particularly crows⁷⁰³ and Seagulls – is incessant, reverberating throughout the community and on the landfill.⁷⁰⁴ Cats, dogs and rats largely form part of the socio-environmental experience of living on the landfill. ‘Cats’, Wenn laughingly admits, ‘are afraid of the rats – the rats fight back’.⁷⁰⁵ Community members are afraid of these rats, as they can grow to much larger sizes’ *vatte lange*⁷⁰⁶ (barrels long) feasting off of the landfill. Although there are few rats in winter, in summer these rats chew through the wooden walls of the “hokkies”. ‘This is why we want proper homes’,⁷⁰⁷ remarks Smit. The dogs, however, have a different relationship with the community members. As the protectors from the “youngsters” and “drug dealers” in the evenings, the dogs look after the community members at night, when ‘it is not even safe to go to the toilet’.⁷⁰⁸ In the absence of effective police work, these dogs attack drug dealers and thieves who come from Eerste Rivier at night. Wenn is concerned that,

The place is not like it was before, it is getting dangerous now, since 2011. [There are] different faces here. They make money [here] and from that money they buy and sell drugs here, drug dealers know there is a lot of money here so they come here. It is dangerous for the poor kids.⁷⁰⁹

The smell from the landfill and the sewerage plant that neighbours the dumpsite and the community is one of the largest environmental concerns of the residents. Community members express that they do not get used to the smell and in summer in particular ‘Dit Stink! It is not smelling nice.’⁷¹⁰ Golden retriever-cross Legal is a dog that lived on the landfill for over fifteen years. ‘He [Legal] likes it on the dump.

⁷⁰² A. Escobar, ‘Culture sits in places: reflections on globalism and subaltern strategies for localization’, *Political Geography*, 20, (2001), 141.

⁷⁰³ See T. Londei, ‘How the most widespread African crow, the Pied Crow *Corvus albus*, depends on man’, *Ostrich: Journal of African Ornithology*, 81, 3 (2010), 243-246.

⁷⁰⁴ The birds can be heard throughout all of the interviews undertaken, interviews that ranged from early morning to the evenings.

⁷⁰⁵ Interview with Tinus Wenn, (26 July 2013), conducted by Giorgina King (in person).

⁷⁰⁶ Interview with Jacobus Smit, (26 July 2013), conducted by Giorgina King (in person).

⁷⁰⁷ Interview with Jacobus Smit, (26 July 2013), conducted by Giorgina King (in person).

⁷⁰⁸ Interview with Elaine Plaaitjes, (26 July 2013), conducted by Giorgina King (in person).

⁷⁰⁹ Interview with Tinus Wenn, (26 July 2013), conducted by Giorgina King (in person).

⁷¹⁰ Interview with Francois van der Bank, (9 July 2012), conducted by Giorgina King (in person).

Everybody knows that dog.’⁷¹¹ Many times, Gary Collinson recalls, have ‘the animal welfare people come and pick up the dog and take him away. But he always returns’.⁷¹²

Conclusion

In 2013, three “hokkies” had burnt down at the landfill,⁷¹³ a young woman with a six-month-old baby had died,⁷¹⁴ the committee representing the community had fallen apart, and the floods during the Stellenbosch winter resulted in the breakdown of the bridge and the closure of the temporary rubbish tip. As a result of the collapse of the bridge, Stellenbosch Waste has had to be directed elsewhere, causing havoc for the municipality and residents alike. The municipality has had to redirect its solid waste to Kuilsrivier, Belleville and Klappmuts in the interim. For the residents, the lack of incoming garbage to the landfill means that there is no new waste to salvage for recycling purposes and many are left without an income.⁷¹⁵ These, by no means, are the extent of the Devon Valley residents’ problems. Many of them think that there is little they can do to change their circumstances,⁷¹⁶ especially considering that the municipality continually give them ‘empty promises’.⁷¹⁷ Furthermore, Tinus Wenn comments that, ‘they do not vote. These people are ghosts, they don’t have birth certificates or ID documents.’⁷¹⁸

This ethnographic case study of Devon Valley landfill gives the waste historian specific insight into subaltern strategies for survival and insights for social historians into human agency. This case study, riddled with contradicting perceptions of agency from the landfill residents, expresses the community’s paradoxical experience of the landfill, their environment, their culture and identity. The rhetoric of ‘choice’ is inconsistent within the interviews, where community members express both a lack of

⁷¹¹ Interview with Tinus Wenn, (26 July 2013), conducted by Giorgina King (in person).

⁷¹² Interview with Gary Collinson, (12 June 2012), conducted by Giorgina King (in person).

⁷¹³ Interview with Tinus Wenn, (26 July 2013), conducted by Giorgina King (in person).

⁷¹⁴ Interview with Jacobus Smit, (26 July 2013), conducted by Giorgina King (in person).

⁷¹⁵ *Saturday Argus*, (14 September 2013), 8.

⁷¹⁶ Group Interview with seven Devon Valley community members: Tinus Wenn, Lionel Plaitjies, E. Mentoor, Josaline Johannes, Pauline Jacobs, Margaret Anthony, and Elaine Plaitjies, (4 July 2012), conducted by Giorgina King (in person).

⁷¹⁷ Interview with Elaine Plaitjies, (26 July 2013), conducted by Giorgina King (in person).

⁷¹⁸ Interview with Tinus Wenn, (26 July 2013), conducted by Giorgina King (in person).

choice and claim that living on the landfill is their own choice, despite other options. These choices are severely limited as a result the lack of recognition from government of waste-pickers within the informal economy. However, at Devon Valley the community members have an understanding with the municipality and the landfill contractor. 'It is better because the understanding is there, and we try to understand one another'.⁷¹⁹

As discussed previously in this chapter, the interests of environmental activists led to controversy in the drafting of the 1996 constitution. By digging through the sparse and scattered archival documents to unearth the history of garbage between 1960 and 1996 it is the dynamics of race and class are revealed as prominent in helping shape how garbage was addressed, and how waste played a role in the lived experience of race and class. The marginalisation of environmental rights in South Africa has meant that individuals such as those at Devon Valley – whose livelihood is so intricately linked with their environment – are easily disregarded. Shannon Lambrechts, who grew up in Lavender Hill in Cape Town, recalls that admiration he had for his uncle as a young teenager. His uncle, who worked as a garbage collector, was always bringing home interesting artefacts that most residents of Lavender Hill could not afford. 'I wanted to be a garbage collector when I grew up', he says, 'for me, it was the only option that I could see that could get me out of there'.⁷²⁰ Agency within the garbage narrative is restricted along lines of race, class and gender. There are, however, cracks in the barriers restricting agency that the Devon Valley members face. These fissures allowing for (albeit nominal) agency come from the community's interaction with the environment surrounding them. For the community, in the years to come they will encounter the closure of the Devon Valley landfill and the need to move elsewhere to make a living. Their livelihoods are so integrated with that of the landfill that if the waste flowing into the noisome dump is stopped, they will be forced to relocate. 'The landfill has been here a long time', Oom Garrett utters in a hushed tone, and 'it will be here much longer than [us]'.⁷²¹

⁷¹⁹ Interview with Jacobus Smit, (26 July 2013), conducted by Giorgina King (in person).

⁷²⁰ Personal comment, Shannon Lambrechts, (7 October 2013).

⁷²¹ Interview with Oom Garrett, (9 July 2010), conducted by Giorgina King (in person).

The community members have a connection to the landfill. Hidden in the macabre environment (that most visitors initially perceive at the landfill) rests the vibrant lifestyle and livelihood of the Devon Valley residents. The community members' attitude towards the landfill fluctuates frequently, as they are unsure of whether they will remain on the land for much longer. No one knows the landfill as well as the residents, and perhaps the unrelenting gold-retriever, Legal (who died in 2013). 'Legal loves the dumpsite, they cannot move him.'⁷²² Community members identify with Legal's unrelenting behaviour in returning to the dump. Jacobus Smit affectionately remarks, 'he would not leave. Like us, he [belongs to] the landfill'⁷²³

⁷²² Interview with Gary Collinson, (12 June 2012), conducted by Giorgina King (in person).

⁷²³ Interview with Jacobus Smit, (26 July 2013), conducted by Giorgina King (in person).

CHAPTER SEVEN:

CONCLUSION

“A Load of Rubbish!”: Layers of meaning in municipal solid waste

“It’s our life. Hierdie tip: Dis ons [This dump: it’s ours], it is our choice [to remain]”

– Tinus Wenn, Devon Valley Resident⁷²⁴

‘We’re running in front of an avalanche and it’s already beginning to bury us’⁷²⁵
Waste is a mounting issue within the modern world. As this thesis has shown, the burden of waste upon modern society has historical roots in socio-economic imbalances, changing values, and changing patterns of consumption. Stewart Barr writes,

We are still at the stage of contemplation and, in terms of environmental change, we are still blissfully unappreciative of what problems could face us in the future if we do not act now. But action must come from the bottom upward; from individuals through society. This approach, recognising the valuable contribution each individual has to make to environmental preservation and sustainability, will enable environmental behaviour to become socially normative within several generations.⁷²⁶

This thesis uses both a wider macro historical narrative, case studies from various localities as well as the deep ethnographic study of the Devon Valley landfill community in order to better understand the political economy of waste. As noted in Chapter One, municipal solid waste is by no means the biggest or the most hazardous of environmental concerns.⁷²⁷ It is, therefore, easily overlooked. Surprisingly, this is not a topic that should be so readily discarded. Landfill sites contribute to both climate change and environmental degradation.⁷²⁸ In South Africa, municipal solid waste accounts for only 4.5% of the total solid waste stream.⁷²⁹ However, despite this the production of goods that contribute to municipal solid waste result in waste that

⁷²⁴ Interview with Tinus Wenn, (26 July 2013), conducted by Giorgina King (in person).

⁷²⁵ Ambassador College, *Our Polluted Planet*, Ambassador College Press, England, 1968, 47.

⁷²⁶ S. Barr, *Household Waste in Social Perspective*, (England: Ashgate Publishing, 2002), 175.

⁷²⁷ J.E. Young, *Discarding the Throwaway Society*, Worldwatch Paper 101, (1991).

⁷²⁸ X. Lou and J. Nair, ‘The impact of landfilling and composting on greenhouse gas emissions: A review’, *Bioresource Technology*, 100, 16 (2009), 3792–3798.

⁷²⁹ J. Lincoln, ‘South Africa: Waste Management’, www.osec.ch (accessed 20 January 2012).

accounts for much of the rest of this waste stream. Furthermore, South Africa's solid waste is expected to double between 2013 and 2025.⁷³⁰ 'The economy of discarded things shadows other economies, yet often moves in the opposite direction.'⁷³¹ Thus, it is imperative that more research should be undertaken within the field of waste history in South Africa, especially research that investigates localities and investigate materials such as plastic. This is not only due to the existence of gaps that need to be filled within this history, but also because this discarded history can often contribute to wider narratives within historical studies. Thomson's assertion that rubbish should be studied to better understand what society values means that the historian must delve into the archives to retrieve this history. For South Africa, where this history has not been unearthed until now, limitations exist in what can be covered within this thesis. South African waste history can also offer insights for the work of other historians and social scientists, where gaps in the histories have come about from information that would otherwise be considered as discarded.

Jane Carruthers writes of South African history,

When South African history is discussed in the context of other histories, it is frequently singled out as an 'exception' because of its apartheid past. Certainly, Southern Africa's political history is aberrant [but] there is value and insight to be gained by shifting focus more widely.⁷³²

As mentioned in Chapter One, this thesis is contextualised within the nation state of South Africa as a result of both the subject matter and the remit of a master's thesis, which discourage the investigation into waste history in Southern Africa. However, Carruthers' argument that South African history should not be viewed as an exception as a result of its Apartheid past is an important lesson for this thesis. Chapter One, in contextualising this thesis within the colonial context, has ensured that this research cannot be seen in isolation to waste literature as a whole, nor in isolation to the development of the waste sector and the experience of waste in the West. Waste history – as discussed in Chapter One, and shown throughout this thesis – is intricately linked to other fields of study. This includes, but is not limited to: urban

⁷³⁰ 'SA Waste to double by 2025', <http://www.news24.com/Green/News/SA-waste-to-double-by-2025-20131031>, (accessed 31 October 2013).

⁷³¹ E. Brownwell, 'Negotiating the New Economic Order of Waste', *Environmental History*, 16, (2011), 282.

⁷³² Carruthers, 'Environmental history in southern Africa', in Dovers, Edgecombe and Guest (eds), *South Africa's Environmental History*, 12.

histories and city planning; health and disease; war history and the politics of resistance; economic history of consumption and the environmental impact of human history; narratives of race, class, and gender; the evolution of technology; and changing patterns of transport.

Archaeologists across the world have gained insight into the lives of sedentary communities using waste in shell middens. William Rathje and Cullen Murphy comment,

A century of avid, painstaking archaeology on six continents by thousands of scholars has yielded tome after tome in which the secrets held by ancient discards have been revealed. The contents of household garbage of our time, in contrast, remain largely a mystery.⁷³³

It is, therefore, important to delve into the landfill of history to investigate forgotten narratives. The narrative of waste, however, is not only forgotten but also is purposefully silenced. The noisome subject matter is relegated to the rubbish dump to be buried for many years to come. Short of physically digging through the landfill, the historian must wade through littered archival documents, the grimy contents of which are often convoluted and missing large sections of evidence. Despite its muddy nature, waste as subject matter offers a mirror – albeit a fractured one – to society, reflecting and tracing the development of humankind.

Socio-environmental history provides a framework for this thesis, which reveals humans' interaction with the environment through the waste sector. Chapter Two, which covers the time period 1890-1920s, is an investigation of the implementation of the rollout of (largely colonial) waste collection services. This chapter clearly shows that there are particular drivers for change within the waste industry. These are, most especially, disease, war and socio-economic circumstances. Throughout this thesis it is shown that developments within the waste sector are often in reaction to events, rather than a proactive and progressive approach that would put society ahead of the avalanche of waste. These events, however, helped to contribute to the cementation of racial and cultural identities based not only class (as had been seen in Britain), but also race. Maynard Swanson's work on the "Sanitation Syndrome"⁷³⁴ helps to frame

⁷³³ Rathje and Murphy, *Rubbish!*, 45.

⁷³⁴ Swanson, 'The Sanitation Syndrome', 387-410.

the creation of Africans as the unsanitary Other and helped to contribute to the definition of African as Other. The cyclical effect of the relegation of Africans to unsanitary places – reinforcing ideas of the African as unsanitary and therefore ensuring a lack of service provision in response to disease and poor sanitation – became an endless quagmire in which a cornerstone of racial segregation was laid for the years to come. Waste and unsanitary conditions played a large role in reinforcing these stereotypes. This self-fulfilling prophecy is also seen in the concentration camps for Afrikaner women during the South African war.

Where Chapter Two concentrated on the development of racial identity and mediums that effect change in the waste industry, the time period that follows – the 1930s to 1945 – examines the intersectionality of gender, nationalism and the Second World War in the creation of “good” waste behaviour. Purposeful parsimony was cultivated as a civic value during this time, with the help of the NAWO. The recreation of value within a wartime society – in which it is possible to use a nationalist propaganda to encourage frugality, the repurposing of goods and salvaging – demonstrates how waste behaviour can be influenced within the nation state. The use of gender roles in this chapter shows the intricate link between the role of women in the household and the waste sector. As has been stated previously, what is regarded as valueless to some is of value to others. The scope of NAWO, however, was limited in reach and identified little purpose in focusing on Africans during this time.

Chapters Four and Five have built on the narrative of the marginalisation of Africans’ experience of waste in that the growing numbers of urbanising Africans⁷³⁵ and changing socio-economic patterns have ensured the historical development of landfills were relegated to African areas. Easy “solutions” were often taken in the waste industry, as discussed in Chapter Two. When more concrete solutions (that required slightly greater effort from municipalities) were proposed in the time post-dating the WWII, these were rejected in favour of the landfill. Despite the potential of projects suggested by willing entrepreneurs during this time, municipal officials sought out the easier “solution” to the waste crisis. This came in the form of the

⁷³⁵ J. McNeil, ‘Environment and history in South American and South Africa’, in S. Dovers, R. Edgecombe and B. Guest (eds), *South Africa’s Environmental History: Cases and Comparisons*, (Cape Town: David Philip Publishers, 2002), 249.

landfill, implemented across the globe during WWII and eagerly taken on by sanitary engineers and municipal officials to curb the growing waste problem. The landfill spread throughout South Africa in the decades that followed, reaffirming Thompson's Rubbish Theory of waste being placed out of sight. In the context of South Africa, however, race complicated the politics of urban waste in that "out of sight" usually resulted in waste being sent into African townships. The socio-political hegemony of whites in South Africa in pre-Apartheid and Apartheid South Africa thus defined "out of sight" as only out of the sight of the eyes of the white and wealthy. The implementation of Apartheid in South Africa, however, was not a turning point in waste history. As Chapter Two illustrated, the already developing ideology of the urban African as the unsanitary Other did much in propelling South Africa towards harsher racial segregation policies in the pre-Apartheid era. Apartheid did, however, enforce boundaries of class along racial lines and this meant that the growing population after WWII would face ever-increasing problems during a time of rapid urbanisation.

Much like in the rest of the world, urbanisation, growing economies and consumerism led to the monumental increase in waste. 'Urban growth and development involved both environmental improvement and environmental degradation, a tension that moved along steadily in succeeding stages of urban history'.⁷³⁶ Urbanisation coupled with the landfill meant that the slow adaptive measures of municipal officials, discussed in the previous chapters, overshadowed the escalating issues of urban solid waste. Rubbish building up in and around townships impacted upon the socio-environmental experience of the urban African. Broken Windows Theory gives Chapter Five a theoretical framework with which to explore the widening disparities in the experience of waste according to race and class divides. As Afrikaners grew richer in South Africa during the 1960s, race and class divides widened. This resulted in waste increasingly becoming an African problem. The reclamation of waste spaces in white areas during this economic boom saw the rise in green spaces in these areas, and landfills and dumps increasingly situated within townships on the outskirts of cities and towns.

⁷³⁶ Hays, *Explorations in Environmental History*, 72.

The Sixth and final Chapter of this thesis looks at an overview of the years c.1970-1996 in order to contextualise the development of the waste industry and waste behaviour for the case study of the community living at Devon Valley landfill. Environmental rights are enshrined as health rights in a country where environmental concerns are still today largely seen as a middle class pursuit. South Africa's racial history has resulted in the silencing of the history of particular groups. Within the waste industry, the subaltern comes in the form of the informal waste picker. The Devon Valley landfill community have little access to environmental and health rights enshrined within the 1996 constitution. Edward Said writes that, 'human societies, at least the more advanced cultures, have rarely offered the individual anything but imperialism, racism, and ethnocentrism for dealing with "other" cultures'.⁷³⁷ The marginalisation of the subaltern waste picker evokes pungent imagery of extreme class divides within South Africa. The Devon Valley community's expressions of frustration with their own lack of agency are paradoxical to their own claims of living and working on the landfill by choice.

Strasser argues that 'scavengers and the authorities might disagree about the fine line between finding things and stealing them, between what belonged to nobody and what belonged to somebody'.⁷³⁸ However, at Devon Valley, waste pickers have strict codes of how to behave (especially towards other workers). Community members claim a sense of '*ordentlikheid*' (decency) and affirm notions that they are not 'Weggooi mense'⁷³⁹ (throwaway people). In *Women of Phokeng*, Bozzoli comments that,

The women are almost all keen to be interviewed. They wish their village and their people to be known. They place a value on history, on recording the deeds of people, and on genealogy. They display a feeling that the past contains truths and inspirations that the present has crushed.⁷⁴⁰

Similar to the women of Phokeng, the landfill community rush through their personal narratives enthusiastically, eager to tell their stories. Community members, throughout the interviews, are also fixed in the present day. They wish to talk about

⁷³⁷ Said, *Orientalism*, 204.

⁷³⁸ Strasser, *Waste and Want*, 116.

⁷³⁹ Ross, *Raw Life, New Hope*, 18.

⁷⁴⁰ Bozzoli, *Women of Phokeng*, 11.

the issues they are currently facing. The community waste-pickers work hard in ensuring that they do not only ‘just get by’.⁷⁴¹ Jacobus Smit affirms,

The more you collect, the more money you get. That is how they survive. Sometimes they come with big trucks and give fresh food to us... we support the school children... [we pay off our] debt, *everything comes from the landfill*.⁷⁴²

Despite their reliance upon the waste on the landfill, community members claim, ‘we don’t really want to live here forever’.⁷⁴³ Rachel de Kock writes, ‘scavenging is clearly one of the last resorts of the unemployed.’⁷⁴⁴ For most community members at Devon Valley this is true. However, community members are also fiercely protective about their land ‘dis ons’ and the work that they do for ‘hard money’ on the landfill.⁷⁴⁵ In historicising the subaltern there is a need to write collective community histories, not merely histories of individuals.⁷⁴⁶ The Devon Valley community is a story of the subaltern considering the limitation of their own agency and that waste-pickers are not recognised in the highest legislature on waste in South Africa. Furthermore, their stories are often marginalised and forgotten. The community members express frustration with their lack of agency. This is, perhaps, because they are worried of their status and try to dispel the label of ‘weggooi mens’,⁷⁴⁷ for they do not wish to be consigned to the landfill of history.

⁷⁴¹ Ross, *Raw Life, New Life*, 107.

⁷⁴² Interview with Jacobus Smit, (26 July 2013), conducted by Giorgina King (in person). [Own emphasis]

⁷⁴³ Interview with Jacobus Smit, (26 July 2013), conducted by Giorgina King (in person).

⁷⁴⁴ De Kock, *Garbage Picking as a Strategy for Survival*, 36.

⁷⁴⁵ Interview with Tinus Wenn, (26 July 2013), conducted by Giorgina King (in person).

⁷⁴⁶ Spivak, ‘Scattered speculations on the subaltern and the popular’, 484-485.

⁷⁴⁷ Ross, *Raw Life, New Life*, 107.

SOURCES

Primary Sources

Archival Sources

Cape Town Archives Repository (KAB)

1/ MDB

1/ MDB, 6/1/59, 17/25/2 Part 6, Economy and the Anti-Waste Campaign, 13 July 1942.

3/BEL

3/BEL, 4/1/21, RA/17 Refuse and Slopwater Removals, 21 February 1930.

3/CBG

3/CBG, 4/1/1, C2/1/5 Wealth from Waste Handbook, 1942.

3/CBG, 4/1/1, C2/1/5 Anti Waste Campaign Circular, 1942.

3/CBG, 4/1/1, C2/1/5 Anti Waste Campaign: *Wealth from Waste Handbook*, 1942 8-9.

3/CBG, 4/1/1, C2/1/5 *Wealth from Waste Handbook*, 1942

3/CT

3/CT, 4/1/1/55, C11/1 In re- Dustbins, 8 October 1903.

3/CT, 4/1/1/55, C11/1 In Re: Dustbins, letter dated 10 December 1907.

3/CT, 4/1/1/64, D54/1 Letter from Undersecretary of Agriculture, 22 May 1894.

3/CT, 4/1/1/64, D54/1 Letter from Undersecretary for Agriculture Re Waste Removal, 22 May 1894.

3/CT, 4/1/1/64, D54C Volume 2, Refuse Disposal Fish Offal Correspondence, 1904.

3/CT, 4/1/1/64 Volume 2, Refuse Disposal Fish Offal Correspondence, letter dated 14 April 1904.

3/CT, 4/1/1/64	Volume 2, Refuse Disposal Fish Offal Correspondence, letter dated 29 April 1904.
3/CT, 4/1/1/64	Volume 2, Refuse Disposal Fish Offal Correspondence, letter dated 3 May 1904.
3/CT, 4/1/1/81, D198/1	Refuse Disposal Memorandum and Draft Agreements in Re: Removal of, 1901.
3/CT, 4/1/3/7, A54/3	Receptacles for Rubbish, Salt River Market, 1917.
3/CT, 4/1/9/1/123, GN/46	Refuse Removals Langa- Replacement of Animal Drawn Transport, 28 July 1960.
3/CT, 4/1/9/1/123, GN/46	Refuse Removals Langa- Replacement of Animal Drawn Transport, 30 November 1960, 21 April 1961, 30 November 1961.
3/CT, 4/1/9/1/166, GN23/12	Nyanga West Emergency Camp- Removal of Stercus and Refuse, 3 July 1963.
3/CT, 4/1/9/1/166, GN23/12	Nyanga West Emergency Camp- Removal of Stercus and Refuse, 5 November 1958.
3/CT, 4/2/1/1/13, 1491/7	Unsatisfactory Way of Emptying Refuse Bins, 31 Kensington Crescent, 1905.
3/CT, 4/2/1/1/1357, 569/5	Refuse Bins for households, 1903-1908;
3/CT, 4/1/1/55, C11/1	Collection of refuse bins for households, 1902-1903.
3/CT, 4/2/1/1/45, 1040/9	Explosives Found in Refuse, letter dated 10 December 1907.
3/CT, 4/2/1/1/76, 345/10	Body Found at Refuse Dump, 22 March 1909.
3/CT, 4/2/1/1/85, 9/10	Removal of Refuse and Street Sweepings, Belleville, letter dated 1 December 1909.
3/CT, 4/2/1/1/85, 9/10	Removal of Refuse and Street Sweepings, Belleville, letter dated 29 October 1909.

3/CT, 4/2/1/1/85, 9/10	Removal of Refuse and Street Sweepings, Belleville, 1909-1910.
3/CT, 4/2/1/1/23, 518/8	Tipping of Refuse on Reclamation Works, 1906.
3/CT, 4/2/1/1/95, 75/11	Removal of Refuse, Adderley Street, 1911.
<u>3/ELN</u>	
3/ELN, 176, 132	Rubbish Removal and General Cartage Contract, 1909-1912.
3/ELN, 1791, 661/8	Public Health, Refuse Removal Service, 11 November 1960.
3/ELN, 1791, 661/8	Public Health, Refuse Removal Service, 27 July 1961.
3/ELN, 1912, 665/23/18	Mdantsane Bantu Township (Bantu Dorp 55), Night Soil and Refuse, 10 July 1964.
3/ELN, 1912, 665/23/18	Mdantsane Bantu Township (Bantu Dorp 55), Night Soil and Refuse, 27 August 1963.
3/ELN, 798, 50/2009	Utilisation of Municipal Wastes, 1951-1953.
3/ELN, 798, 50/2009	Utilisation of Municipal Wastes, 27 March 1953.
<u>3/KIM</u>	
3/KIM, 4/1/205, P107	Paper, Conservation of: Waste Paper and Salvageable Material letter from the town clerk in Kimberly, 23 August 1965.
3/KIM, 4/1/205, P107	Paper, Conservation of: Waste Paper and Salvageable Material, 1951-1967.
3/KIM, 4/1/205, P107	Paper, Conservation of: Waste Paper and Salvageable Material: Waste Paper Recovery page 107 from the Minutes and Agenda of Ordinary Council Meeting Executive All the Committee, 25 September 1967.
<u>3/KWT</u>	
3/KWT, 4/1/203, S15/9	Bubonic Plague: Death of rat under suspicious circumstances, 1923.

3/KWT, 4/1/214, T29/10	Tarring of Streets, 1909.
3/KWT, 4/1/214, T29/16	Sanitary conditions of streets, 6 March 1911.
3/KWT, 4/1/214, T29/24	Re: Manure from Municipal Stables and Street Sweepings, 19 October 1914.
3/KWT, 4/1/214, T29/30	Town Clerk to Officer Commanding of South African Police, King William's Town, Throwing Fruit Peels and Rubbish on the pavements and in the streets, 21 April 1923.
<u>3/PEZ</u>	
3/PEZ, 4/2/1/1/620, 27/6	Production of compost and Anti-Waste entitled Miscellaneous Matters, 1942-1950.
3/PEZ, 4/2/1/1/620, 27/6	Production of compost and Anti-Waste entitled Miscellaneous Matters, 24 December 1948.
3/PEZ, 4/2/1/1/620, 27/6	Production of compost and Anti-Waste entitled Miscellaneous Matters, July 1950.
<u>3/SMT</u>	
3/SMT, 4/1/103, S19/4/1	Anti Waste Campaign and Paper Saving, 12 May 1943.
3/SMT, 4/1/103, S19/4/1	Anti Waste Campaign and Paper Saving, 1942-1945.
3/SMT, 4/1/103, S19/4/1	Anti Waste Campaign and Paper Saving, 6 January 1943.
3/SMT, 4/1/103, S19/4/1	Anti Waste Campaign and Paper Saving, 6 January 1943.
<u>3/STD</u>	
3/STD, 4/1/62, W/14	Utilisation of Municipal Waste, 15 November 1954.
<u>3/UIT</u>	
3/UIT, 4/1/271, 119	Refuse Removal Service, 3 November 1937.
3/UIT, 4/1/271, 119	Refuse Removal Service: Dumping of Rubbish on Outskirts of the Town, 13 March 1944.

- 3/UIT, 4/1/271, 119 Refuse Removal Service: Refuse Removal in the Kabah Location, 10 November 1945.
- 3/UIT, 4/1/271, 119 Refuse Removal Service: Rubbish Tip, 1944.
- 3/UIT, 4/1/271, 119 Refuse Removal Service: Unlawful Refuse Dumping in Town Area, 24 March 1944.
- 3/UIT, 4/1/271, 119 Refuse Removal Service: Unlawful Refuse Dumping, 11 March 1944.
- 3/UIT, 4/1/271,119 Refuse Removal Service: Extract from the Town Clerk's report, 10 September 1937.
- 3/UIT, 4/1/271,119 Refuse Removal Service: Extract from the Town Clerk's report, 20 September 1937.
- 3/UIT, 4/1/271,119 Refuse Removal Service: letter to Mrs Minty from the Town Clerk, 2 October 1937.
- 3/UIT, 4/1/271,119 Refuse Removal Service: Minutes from a Town Council Meeting where Mrs Harvey is present, 17 April 1944. T
- 3/UIT, 4/1/271,119 Refuse Removal Service: Report from the Health and Markets Committee: Interview with Mrs. M.C.E. Harvey, Municipal Refuse Removal Contractor, 17 April 1944.
- 3/UIT, 4/1/271,119 Refuse Removal Service: Report of Town Engineer to Works Committee-Sanitary Service, 17 April 1944.
- 3/UIT, 4/1/271,119 Refuse Removal Service: Report of Town Engineer to Works Committee-Sanitary Service, 20 March 1944.
- 3/UIT, 4/1/271,119 Refuse Removal Service: Report of Town Engineer to Works Committee-Sanitary Service, 27 October 1944.
- 3/UIT, 4/1/271,119 Refuse Removal Service: Report of Town Engineer to Works Committee-Sanitary Service, 5 July 1948.

AG Collection

AG Collection, Photograph, AC17247	'City Council Tip-Truck No. 11 tipping refuse at Three Anchor Bay', 1934.
<u>AGR</u>	
AGR, 199	Cape Town Formal Proceedings: Destructor's Wanted, 31 August 1893.
AGR, 199/1363	Parts 1-2, Cape Town refuse deposit of: Cape Flats to arrest the spread drift sands, 1893-1894.
AGR, 199/1363	Parts 1-2, Cape Town refuse deposit of: Cape Flats to arrest the spread drift sands, 31 August 1893.
AGR, 199/199	Cape Town Formal Proceedings: Destructor's Wanted, 31 August 1893.
AGR, 199/7/422	Eerste Rivier to take over Skead Contract, 12 December 1895.
<u>CA Collection</u>	
CA Collection, CA1832	Well or refuse pit uncovered in grounds of Schreuder House, Stellenbosch, 1975.
<u>CDC</u>	
CDC, 492, 13/35	A Group Areas Permit for Philippi for Waste Converters, 1971.
<u>CGR</u>	
CGR, 2/1/325, 8425	Plague Special Committee: Open Refuse Trucks, 4 March 1901.
<u>Elliott Collection</u>	
Elliott Collection, Photograph, E9080	Rubbish dump, Cape Town', date unknown.
<u>MOH</u>	
MOH, 156, L23C	Insanitary Condition of Municipal Location, Cradock, 1907.
<u>PAA</u>	
PAA, 1784, AF20/8/21	Cape Town Municipality Town Planning Scheme Application for the Dumping of Builders Rubble and Industrial Waste, 7 August 1970.

- PAA, 1784, AF20/8/21 File 2, Cape Town Municipality Town Planning Scheme Application for the Dumping of Builders Rubble and Industrial Waste, 1 June 1976.
- PACG
- PACG, 811, 13/2/2/42 Organisations and Institutions, Incidental Organisations and Institutions, Interdepartmental Simposiums. Institute of Waste Management Southern Africa, 1985-1989.
- PAS
- PAS, 2/1009. L19/A/101 Cape Town Municipality, Regulations Prohibiting the Dumping of Refuse in Fishing Waters', 1928.
- PAS, 2/394, L99B Tarkastad Divisional Council: Rubbish Depositing in Public Roads, 1914.
- PWD
- PWD, 1/2/410, B533 Bubonic Plague: AM Fisher's patent Refuse Cart and Receptacle, 1901.
- PWD, 2/1/29, A9/27 Cape, Bubonic Plague, Uitvlugt Native Location. Sanitary Service: Latrine and refuse pails, 1901.
- PWD, 2/2/217, A13/4 Bubonic Plague: Government House discovery of rats, 1901.
- T29/24
- T29/24 Re Manure from Municipal Stables & Street Sweepings, 19 October 1914.
- Pietermaritzburg Archives Repository (NAB)**
- CSO
- CSO, 503, 1875/3 Mayor, Durban: Requests Government to take steps to destroy accumulated rubbish washed down to the Umgeni Mouth. Debris Complained of is on the Admiralty Reserve, 1875.
- 3/PMB
- 3/PMB, 4/3/18, 878/1928 S. Browne, Complaint Re Driver of Rubbish Cart, 1928.

National Archives Repository (SAB)

BNS

BNS, 1/4/4, K666 Request from New Zealand (Tawranga) for Information regarding the sewerage and town waste, 19 October 1944.

CSO

CSO, 1, S01A/G National Anti-Waste Organisation, 1944

CSO, 1, S01A/G National Anti-Waste organisation, 4 May 1944.

CSO, 1, S01A/G National Anti-Waste organisation, October 1944.

DEA

DEA, 190, A9/24x Anti-Waste Materials Other than Ephemeral Records, 2 September 1942.

HEN

HEN, 1815, 403/24 Conferences, Congresses Etcetera (South Africa): Housewives League of South Africa, 1936-1959.

PWD

PWD, 847, 2/2243 Johannesburg Education Department, Accommodation for Anti Waste 1942-1946.

SEC

SEC, 95, SEC73/4 Resolutions National Anti-Waste Organisations, 1942-1945

SEC, 95, SEC73/4 Resolutions National Anti-Waste Organisations, 5 May 1944.

SEC, 95, SEC73/4 Resolutions National Anti-Waste Organisations, 9 December 1942.

SEC, 95, SEC73/4 Resolutions National Anti-Waste Organisations, Minutes of the Conference of Local Anti-Waste Committees held in the Large Committee Room, City Hall, Johannesburg on 29 and 30 March 1943.

- SEC, 95, SEC73/4 Resolutions National Anti-Waste Organisations, Report of Executive Committee 1 May to 31 May 1943.
- SEC, 95, SEC73/4 Resolutions National Anti-Waste Organisations: Health, Anti-Waste and Welfare Awareness Week- Cape Town, 11-14 May 1945.
- SEC, 95, SEC73/4 Resolutions National Anti-Waste Organisations: Minutes of Meeting of the Executive Committee in Howard House, Johannesburg, 29 January 1943.
- SEC, 95, SEC73/4 Resolutions National Anti-Waste Organisations: Minutes of Meeting of the Executive Committee in Howard House, Johannesburg, 5 March 1943.
- SEC, 95, SEC73/4 Resolutions National Anti-Waste Organisations: Minutes of the Conference of Local Anti-Waste Committees held in the Large Committee Room, City Hall, Johannesburg on 29 and 30 March 1943.
- SEC, 95, SEC73/4 Resolutions National Anti-Waste Organisations: Minutes of the Conference of Local Anti-Waste Committees held in the Large Committee Room, City Hall, Johannesburg on March 29th and 30th, 1943.
- SEC, 95, SEC73/4 Resolutions National Anti-Waste Organisations: Minutes of the Executive Committee held on Friday, the 12th February 1943.
- SEC, 95, SEC73/4 Resolutions National Anti-Waste Organisations: Minutes, 1 September 1944; SAB, CSO, 1, S01A/G, National Anti-Waste Organisation, 1944

UOD

- UOD, 96, E5/17 Policy in regard to Concentration of Advanced Housewives Classes, 1930-1937.

URU

MGP, 145, 586A/02	Tenders for the removal of rubbish, 1900-1902
MGP, 145, 586A/02	Tenders for the removal of rubbish, 1900-1902.
MGP, 57, 8278/00	Re: Erection of Destructor about 4 Miles West of the town for the purpose of destroying all fever excreta from the Palace of Justice Hospital, 4 July 1900.
<u>MKD</u>	
MKD, 2/3/10, A5	Klerksdorp, Anti-Waste Organisation, 1944.
<u>MPA</u>	
MPA, 3/4/1446, 102	City Engineer's response to CSIR Report No. 211, 14 August 1964, and a letter from the Director, National Institute for Water Research, 19 June 1964.
MPA, 3/4/1446, 102	City Engineer's response to CSIR Report No. 211, 14 August 1964.
MPA, 3/4/1446, 102	Composting of Municipal Refuse (Waste), 20 October 1955.
MPA, 3/4/1446, 102	Composting of Municipal Refuse (Waste), Rubbish Dumps, 28 July 1964.
MPA, 3/4/1446, 102	Composting of Municipal Refuse (Waste): Letter from C.S.I.R addressed to the Director of the National Institute of Waster Research, 19 June 1964.
<u>MPO</u>	
MPO, 2/1/364, 3065	Potchefstroom, Anti Waste Campaign Minutes of Meetings and General, 7 September 1951.
MPO, 2/1/364, 3065	Potchefstroom, Anti Waste Campaign Minutes of Meetings and General, December 1940.
MPO, 2/1/364, 3065	Potschefstroom, Anti Waste Campaign Minutes of Meetings and General, 16 July 1941.
MPO, 2/1/364, 3065	Potschefstroom, Anti Waste Campaign Minutes of Meetings and General, 1941-1955.

Richards, J.H.M., 'Novel Hornsey System of Salvage Collection', *Municipal Journal and Local Development*, (21 August 1942).

Saturday Argus, 14 September 2013, 8.

Staff Reporter, 'Baby's body dumped in rubbish bin', *Cape Argus*, (19 November 1998).

The Housewives League, *Housewives League Magazine*, 7, New York, (1916).

Oral Sources

All interviews were conducted by G. King.

Alec Basjan, Devon Valley, (9 July 2012).

Cecyl Esau, Wynberg, (15 June 2013).

David Attenborough, phone interview, (22 September 2013).

Denise Robertson, phone interview, (14 October 2013).

Elaine Plaaitsjies, Devon Valley, (26 July 2013).

Francois van der Bank, Devon Valley, (9 July 2012).

Gary Collinson, Devon Valley (12 June 2012).

Jacobus Smit, Devon Valley, (26 July 2013).

Josaline Johannes, Devon Valley, (4 July 2012).

Lionel Plaaitsjies, Devon Valley, (4 July 2012).

Margaret Anthony, Devon Valley, (4 July 2012)

Oom Garrettt, Devon Valley, (9 July 2010).

Pauline Jacobus, Devon Valley, (4 July 2012).

Saliem Haider, Devon Valley, (22 June 2012).

Sally Attenborough, phone interview, (21 September 2013).

Tinus Wenn, Devon Valley, (26 July 2013).

Group Interview with seven Devon Valley community members: Tinus Wenn, Lionel Plaaitsjies, E. Mentoer, Josaline Johannes, Pauline Jacobs, Margaret Anthony, and Elaine Plaaitsjies, (4 July 2012).

Personal comments to G. King

Gary Collinson, (May 2011).

Shannon Lambrechts, (7 October 2013).

Reports and Advertisements

Centre for Scientific and Industrial Research (CSIR), *Guidelines for Human Settlement Planning and Design*, Chapter 11: Solid Waste Management.

Cohn, M.M. (ed.), 'A Drop in the Bucket', *Sewage Works Engineering*, (New York, 1957).

Collinson, G.M., 'Daily Tonnage', *GM Waste*, (February 2012).

Council for Scientific and Industrial Research (CSIR), 'Eighteenth Annual Report', 1962.

CSIR, 'Chapter Eleven: Solid Waste Management', *Guidelines for Human Settlement Planning and Design*, Pretoria, (Pretoria: Capture Press, 2000).

CSIR report, No. 211 of 1964.

CSIR, *Municipal Solid Waste Management: Good Practices*, (Pretoria: Capture Press, 2011).

Department of Environmental Affairs and Tourism, National Waste Management Strategy Implementation South Africa: Recycling, Review of Industrial Waste Exchange, (2005).

Samson, M., *Dumping on Women: Gender and Privatisation of Waste Management*. South African Municipal Workers Union Municipal Services Project, 2003.

Grosskopf, J.F.W., Wilcocks, R.W., Malherbe, E.G., Murray, W.A., Albertyn, J.R. and Rothmann, M.E., *The Poor White Problem in South Africa: Report of the Carnegie Commission*, Volumes I-V. (Stellenbosch: Pro Ecclesia-Drukkery, 1932).

Secondary Sources

Books

Ambassador College, *Our Polluted Planet*. (England: Ambassador College Press, 1968).

Barr, S., *Household Waste in Social Perspective*, (England: Ashgate Publishing, 2002).

Barsky, R. and Kilian, L.: 'Oil and the macroeconomy since the 1970s', National Bureau of Economic Research Working Paper Series, 10855, (2004).

Beinart, W., Delius, P. and Trapido, S. (eds), *Putting a Plough to the Ground: Accumulation and Dispossession in Rural South Africa, 1850-1930*. (Johannesburg: Ravan Press, 1986).

- Beinart, W., 'Women in Rural Politics: Herschel District in the 1920s and 1930s', in Bozzoli, B. (ed.), *Class, Community and Conflict: South African Perspectives*. (Johannesburg: Ravan Press, 1987).
- Beinart, W., *The Political Economy of Pondoland, 1860-1930*. (Cambridge: Cambridge University Press, 1982).
- Beinart, W., *The Rise of Conservation in South Africa: Settlers, Livestock and the Environment 1770-1950*. (Oxford: Oxford University Press, 2003).
- Beinart, W., *Twentieth-Century South Africa*. (Oxford: Oxford University Press, 2001).
- Beinart, W. and Hughes, L., *Environment and Empire* (Oxford: Oxford University Press, 2009).
- Bickford-Smith, V., Van Heyningen, E. and Worden, N., *Cape Town in the Twentieth Century: An Illustrated Social History*, (Claremont: David Philip Publishers, 1999).
- Bond, P., *Cities of Gold, Townships of Coal: Essays on South Africa's New Urban Crisis*, (Trenton NJ: Africa World Press, 2000).
- Bonner, P., 'Eluding Capture: African Grass-roots Struggles in 1940s Benoni', in Dubow, S. and Jeeves, A., *South Africa's 1940s: Worlds of Possibilities*. (Cape Town: Double Storey Books, 2005).
- Bozzoli, B., *Women of Phokeng: Consciousness, Life Strategy, and Migrancy in South Africa, 1900-1983*. (Portsmouth: Heinemann, 1991).
- Bradford, H., "'We are now the men': Women's Beer Protests in the Natal Countryside 1929," in Bozzoli, B. (ed.), *Class, Community and Conflict: South African Perspectives*. (Johannesburg: Ravan Press, 1987).
- Briggs, A., *Victorian Cities* (Berkeley and Los Angeles: University of California Press, 1993).
- Burke, P., *Eyewitnessing: The Uses of Images as Historical Evidence*. (Ithaca: Cornell University Press, 2008).
- Carruthers, J., 'Environmental history in southern Africa: An overview', in Dovers, S., Edgecombe, R. and Guest, B. (eds), *South Africa's Environmental History: Cases and Comparisons*, (Cape Town, David Philip Publishers, 2002).
- Cuthbertson, G., Grundlingh, A. and Suttie, M.L. (eds.), *Writing a Wider War: Rethinking Gender, Race and Identity in the South African War, 1899-1902*. (Athens: Ohio University Press, 2002).
- De Kock, R., *Garbage Picking as a Strategy for Survival*, Sciences Working Paper 16, University of Natal, Durban, (1986).
- Delius, P., *The Land Belongs to Us: The Pedi Colony, the Boers and the British in the 19th century Transvaal*. (Johannesburg: Ravan Press, 1983).
- Dickens, C. *Oliver Twist*. (London: Richard Bentley, 1839).

- Douglas, M., *Purity and Danger: an analysis of the concepts of pollution and taboo*, (London: Routledge & Kegan Paul, 1966).
- Dovers, S., Edgecombe, R. and Guest, B. (eds), *South Africa's Environmental History: Cases and Comparisons*, (Cape Town: David Phillip Publishers, 2002).
- Dovers, S., 'Commonalities and contrasts, pasts and presents: An Australian view', in Dovers, S., Edgecombe, R. and Guest, B. (eds), *South Africa's Environmental History: Cases and Comparisons*. (Cape Town: David Philip Publishers, 2002).
- Du Pisani, K., 'Puritanism Transformed: Afrikaner Masculinities in the Apartheid and Post-Apartheid Period', in Morrell, R., *Changing Men in Southern Africa*. (Pietermaritzburg: University of Natal Press, 2001), 157-176.
- Ellis, S. and Sechaba, T., *Comrades Against Apartheid: The ANC and South African Communist League in Exile*, (Bloomington: Indiana University Press, 1992).
- Evans, S. T. and Webster, D. L., *Archaeology of Ancient Mexico and Central America: An Encyclopedia*, (New York: Garland Publishing, 2001).
- Falasca-Zamponi, S., *Waste and Consumption: Capitalism, the Environment, and the Life of Things*. (New York: Routledge, 2011).
- Fanon, F., 'Black Skin, White Masks' in Calhoun, C., Gerteis, J., Moody, J., Pfaff, S. and Virk, I., *Contemporary Sociological Theory*. (United Kingdom: Blackwell Publishing, 2012), 417-425
- Feldman, D., 'Polymer History', *Designed Monomers and Polymers*, 11, 1 (2008), 1-15.
- Foucault, M. *Power/Knowledge: Selected Interviews and Other Writings, 1972-1977*. (New York: Pantheon Books, 1980).
- Freund, B., *The African City: A History*. (Cambridge: Cambridge University Press, 2007).
- Gandy, M., *Recycling and the Politics of Urban Waste*. (London: Earthscan, 1994).
- Gladwell, M., *The Tipping Point: How Little Things Can Make a Big Difference*. (London: Little Brown Book Group, 2000).
- Gregson, N. and Crew, L., *Second-Hand Cultures*. (Oxford and New York: Berg, 2003).
- Grobler, J.E.H., *The War Reporter: The Anglo-Boer War Through the Eyes of the Burghers*. (Cape Town: Jonathan Ball Publishers, 2004): 'Maltreatment of Women and Children', 1 December 1901, 'Miss Emily Hobhouse on Concentration Camps', 1 June 1901, 'The Concentration Camp', 1 March 1902, and 'News from Prisoner-of-War Camps', 1 December 1901.
- Hays, S.P., *Explorations in Environmental History: Essays*. (Pittsburgh: University of Pittsburgh Press, 1998).

Hill, J., *The Secret Life of Stuff: A Manual for a New Material World*. (London and New York: Random House, 2011).

Housewives League of South Africa, *Handbook of the Housewives League of South Africa*. (place unknown: Housewives League of South Africa, date unknown).

Housewives League of South Africa, *Hints for the Home*. (place unknown: Housewives League of South Africa, date unknown).

Iiffe, J., *Africans: The History of a Continent* (Cambridge: Cambridge University Press, 1995).

Jacobs, N.J., *Environment, Power, and Injustice: A South African History*. (Cambridge: Cambridge University Press, 2003).

Kennedy, G., *An Ontology of Trash: The Disposable and Its Problematic Nature*. (New York: SUNY Press, 2007).

Killingray, D., *Fighting for Britain: African Soldiers in the Second World War*, (Suffolk: Boydell and Brewer, 2010).

Klots, A., *International Relations: The Struggle Against Apartheid*. (New York: Cornell University Press, 1995).

Koch, Cooper, D. and Coetzee, H., *Water, waste and wildlife: the politics of ecology in South Africa*. (Johannesburg: Penguin Books, 1990).

Lee, E., 'Public Health, Past and Present: A Shared Social Vision', in Rosen, G., *A History of Public Health*. (Maryland: The Johns Hopkins University Press, 1993).

Louw, P.E., *The Rise, Fall, and Legacy of Apartheid*. (Westport: Praeger Publishers, 2004).

Marcus, G., *The Dustbin of History*. (Cambridge: Harvard University Press, 1995).

McDonough, W. and Braungart, M., *Cradle to Cradle: Remaking the Way We Make Things*, (New York and China: North Print Press, 2002).

McShane, C. and Tarr, J.A., *The Horse in the City: Living Machines in the Nineteenth Century*. (Baltimore: Johns Hopkins University Press, 2007).

Meikle, J.L., *American Plastic: A Cultural History*, (New Brunswick: Rutgers University Press, 1995).

Melosi, M.V., *Garbage in the Cities: Refuse, Reform, and the Environment*. (Pittsburgh: University of Pittsburgh Press, 2005).

Melosi, M.V., *The Sanitary City: Environmental Services in Urban America from Colonial Times to Present*. (Pittsburgh: University of Pittsburgh Press, 2008).

Mutari, E. and Figart, D.M., (eds), *Women and the Economy: A Reader*, (United States of America: M. E. Sharpe, 2003).

Myers, G., *Disposable Cities: Garbage, Governance, and Sustainable Development in Urban Africa*, (Aldershot: Ashgate Press, 2005).

- Nasson, B., *Abraham Esau's War: A Black South African War in the Cape, 1899-1902*. (Cambridge: Cambridge University Press, 1991).
- Neslon, C. and Grossberg, L. (eds), *Marxism and the Interpretation of Culture*. (London: Macmillan, 1988).
- Packard, V., *The Waste Makers*. (New York: IG Publishers, 1960).
- Paton, A., *Hofmeyr*. (Cape Town: Oxford University Press, 1964).
- Pellow, D.N., *Garbage Wars: The Struggle for Environmental Justice in Chicago*. (Cambridge: MIT Press, 2004).
- Posel, D., 'The Case for a Welfare State: Poverty and the Politics of the Urban African Family in the 1930s and the 1940s', in Dubow, S. and Jeeves, A., *South Africa's 1940s: Worlds of Possibilities*. (Cape Town: Double Storey Books, 2005).
- Potgeiter, T. and Liebenberg, I. (eds), *Reflections on War*, (Stellenbosch: Sun Media, 2012).
- Pye, G. (ed.), *Trash Culture- Objects and Obsolescence in Cultural Perspective*. (Bern: Peter Lang, 2010).
- Qotole, M., Xali, M. and Barchiesi, F., *The Commercialisation of Waste Management in South Africa*, Municipal Services Project, Occasional Papers 3, (2001).
- Rathje, W. and Murphy, C., *Rubbish! The Archaeology of Garbage*. (Tucson, A.Z.: The University of Arizona Press, 2001).
- Rogers, H., *Gone Tomorrow: The Hidden Life of Garbage*, (New York: New Press, 2002).
- Ross, F.C., *Raw Life, New Hope: Decency, Housing and Everyday Life in a Post-Apartheid Community*. (Cape Town: UCT Press, 2010).
- Royte, E., *Garbage Land: On the Secret Trail of Trash*. (United States: Little, Brown, 2005).
- Sadler, P., *Sustainable Growth in a Post-scarcity World: Consumption, Demand, and the Poverty Penalty*. (Farnham: Garner Publishing Limited, 2010).
- Said, E.W., *Orientalism*. (United Kingdom: Routledge and Kegan Paul, 1978).
- Samson, M., *Reclaiming Livelihoods: The role of reclaimers in municipal waste management systems*, (South Africa: groundWork, 2010).
- Scandura, J., *Down in the Dumps: Place, Modernity, American Depression*. (Durham, N.C.: Duke University Press, 2008).
- Sharma, K., *Women of Africa: Their Role and Positions in Society*, (New Delhi: K. M. Mittal, 1989).
- Smith, J. K. Jr., 'World War II and the Transformation of the American Chemical Industry', *Sociology of the Sciences*, 12, 1 (1998), 307-322.

- Stanley, L., *Mourning becomes... Post/memory, commemoration and the concentration camps of the South African War*. (Manchester: Manchester University Press, 2006).
- Strasser, S., *Waste and Want: A Social History of Trash*. (New York: Henry Holt and Company, 1999).
- Swart, S., *Riding High: Horses, Humans and History in South Africa*. (Johannesburg: Wits University Press, 2010).
- Thompson, M., *Rubbish Theory*. (Oxford: Oxford University Press, 1979).
- Tinley, J.M., *South African Food and Agriculture in World War II*, (Stanford: Stanford University Press, 1954).
- Tosh, J., *The Pursuit of History*. (London and New York: Longman, 1989).
- Van de Walle, N., *African Economies and the Politics of Permanent Crisis, 1979-1999*, (Cambridge: Cambridge University Press, 2001).
- Van Heyningen, E., *Women and Disease*, in Cuthbertson, G., Grundlingh, A. and Suttie, M.L. (eds), *Writing a Wider War: Rethinking Gender, Race and Identity in the South African War, 1899-1902*. (Athens: Ohio University Press, 2002).
- Van Heyningen, E., *The Concentration Camps of the Anglo-Boer War*. (Cape Town: Jacana, 2013).
- Walker, C., *Women and Resistance in South Africa*. (London: Onyx, 1982).
- Warwick, P., *Black People and the South African War, 1899-1902*. (Cambridge: Cambridge University Press, 1983).
- Warwick, P., *South African War, 1899-1902*. (Essex: Longman, 1980).
- Watts, A.G., 'Careers guidance under apartheid,' *National Institute for Careers Educaiton and Counselling*, (United Kingdom: Martinus Nijhoff Publishers, 1980).
- Whitely, G., *Junk: Art and the Politics of Trash*. (London: IB Taurus, 2010).
- Wolpe, H., *Race, Class and the Apartheid State*, (New Jersey: African World Press, 1990).
- Wylie, D., *Starving on a Full Stomach: Hunger and the Triumph of Cultural Racism in Modern South Africa*. (Charlottesville: University Press of Virginia, 2001).
- Zietsman, H.L.: *Die Kaapse Metropolitaansa Gebied: Huishoudelike Afvalskepping en die Seleksie van Potensiele Opvulstortingsbiede*, (Stellenbosch: Institut vir Analise, 1979).
- Zimring, C.A. and Rathje, W.A. (eds), *Encyclopedia of Consumption and Waste- The Social Science of Garbage*. (Thousand Oaks, CA.: Sage Publications, 2012).

Peer-reviewed Journal Articles

- Ackerknecht, E.H., 'Anticontagionism between 1821 and 1867', *International Journal of Epidemiology*, 39, (2009), 7-21.
- Allen, M., 'From Cesspool to Sewer: Sanitary Reform and the rhetoric of resistance 1848-1880', *Victorian Literature and Culture*, 30, 2 (2002), 383-402.
- Alonso, A.M., 'The Politics of Space, Time and Substance: State Formation, Nationalism and Ethnicity', *Annual Review of Anthropology*, 23, (1994), 379-405.
- Barsky, R. and Kilian, L., 'Oil and the macroeconomy since the 1970s', *Journal of Economic Perspectives*, 18, 4, (2004), 115-134.
- Blake, J.B., 'The Origins of Public Health in the United States', *American Journal of Public Health*, 38, 11 (1948), 1539-1550.
- Brantlinger, P., 'Victorians and Africans: The Genealogy of the Myth of the Dark Continent', *Critical Inquiry*, 12, 1 (1985), 166-203.
- Carton, B., 'The Forgotten Compass of Death: Apocalypse Then and Now in the Social History of South Africa', *Journal of Social History*, 37, 1 (2003), 199-218.
- Chappells, H. and Shove, E., 'The dustbin: A study of domestic waste, household practices and utility services', *International Planning Studies*, 4, 2, (2007), 267-280.
- Chertow, M.R., 'Waste, Industrial Ecology, and Sustainability', *Social Research*, 65, 1 (1998), 31-53.
- Choi, Y., 'Writing the Victorian City: Discourses of Risk, Connection, and Inevitability', *Victorian Studies*, 43, 4 (2001), 561-590.
- Christopher, A.J., 'Apartheid Planning in South Africa: The case of Port Elizabeth', *The Geographical Journal*, 153, 2 (1987), 195-204.
- Clapp, J. and Swanston, L., 'Doing away with plastic shopping bags: international patterns of norm emergence and policy implementation', *Environmental Politics*, 18, 3 (2009), 315-332.
- Cock, J., 'Disposable Nannies: Domestic Servants in the Political Economy in South Africa', *Review of African Political Economy*, 21, (1981), 63-83.
- Cooper, T., 'Burying the "refuse revolution": the rise of controlled tipping in Britain, 1920-1960', *Environment and Planning*, 42, (2010), 1033-1048.
- Cooper, T., 'Challenging the "refuse revolution": War, Waste and the Rediscover of Recycling, 1900-1950', *Historica Research*, 81, 214 (2008), 710-731.
- Cooper, T., 'Rags, Bones and Recycling Bins', *History Today*, 2, (2006), 17-18.
- Crane, B.D., 'Filth, Garbage, and Rubbish: Refuse Reform, and Nineteenth Disposal, Sanitary Yard in Century Deposits Washington, D. C.', *Society for Historical Archaeology*, 34, 1 (2000), 20-38.

- De Kort, Y.A.W., McCalley, L.T., and Midden, C.J.H., 'Persuasive Trash Cans: Activation of Littering Norms By Design', *Environment and Behaviour*, unknown volume and number, (2008), 870-891.
- Deacon, H.J., Deacon, J., Brooker, M. and Wilson, M.L., 'The Evidence for Herding at Boomplaas Cave in the Southern Cape, South Africa', *The South African Archaeological Bulletin*, 33, 127 (1978) 39–65.
- Dennison, G.J., Dodd, V.A. and Whelan, B.: 'A socio-economic survey of household waste characteristics in the city of Dublin, Ireland: Waste Composition', *Resources, Conservation and Recycling*, 17, 3 (1996), 227-244.
- Dubow, S., 'Afrikaner Nationalism, Apartheid and the Conceptualization of "Race"', *The Journal of African History*, 33, 2 (1992), 209–237.
- Duffey, A., 'J.H. Pierneef and the Union Buildings', *de arte*, 82, (2010), 8-23.
- Du Pisani, K., 'What is global environmental history? Conversation with Bevilacqua, P., Castro, G., Chakrabarti, R., Du Pisani, K., McNeill, J. R., Worster, D.', Forum edited by Corona, G.. *Global Environment, A Journal of History and Natural and Social Sciences*, 2 (2008), 228-249.
- Elshkokia, A., van der Voeta, E., Timmermansb, V. and Van Holderbekeb, M., 'Dynamic stock modelling: A method for the identification and estimation of future waste streams and emissions based on past production and product stock characteristics', *Energy*, 30, 8 (2005), 1353-1363.
- Escobar, A., 'Culture sits in places: reflections on globalism and subaltern strategies for localization', *Political Geography*, 20 (2001), 139–174.
- Fourie, J., 'The South African poor White problem in the early twentieth century: Lessons for poverty today', *Management Decision*, 45, (2007), 1270-1296.
- Freund, B., 'Class, Race and Inequality in South Africa', *The Journal of African History*, 50, 1 (2009), 129-132.
- Gaitskell, D., 'Housewives, Maids or Mothers: Some Contradictions of Domesticity for Christian Women in Johannesburg, 1903-39', *The Journal of African History*, 24, 2 (1983), 241-256.
- Godbey, G., Lifset, R. and Robinson, J., 'No time to Waste: An Exploration of Time Use, Attitudes towards Time, and the Generation of Municipal Solid Waste', *Social Research*, 65, 1 (1998), 101-140.
- Golueke, C.G. and Gotaas, H.B., 'Public Health Aspects of Waste Disposal by Composting', *American Journal of Public Health Nations Health*, 44, 3 (March 1954), 339-348.
- Grundlingh, A., "'Are we Afrikaners Getting too Rich?'" Cornucopia and Change in Afrikanerdom in the 1960s', *Journal of Historical Sociology*, 21, 2 (2008), 143–165.
- Guard, J., 'A Mighty Power against the Cost of Living: Canadian Housewives Organize in the 1930s', *International Labor and Working-Class History*, 77, (2010), 27-47.

- Hamlin, C. and Sheard, S., 'Education and the Debate: Revolutions in public health 1948, and 1998?', *British Medical Journal*, (317), (7158), 1998, 587–591.
- Hardin, R., 'Garbage Out, Garbage In', *Social Research*, 65, 1 (1998), 9-30.
- Heath, J., 'Work of the Housewives League', *Annals of the American Academy of Political and Social Science*, 48, (1913), 121–123.
- Karani, P. and Jewasikiewitz, S. M., 'Waste Management and Sustainable Development in South Africa', *Environment, Development and Sustainability*, 9, (2007), 163-185.
- Kelling, G.L. and Wilson, J.Q., 'Broken Windows: The Police and Neighbourhood Safety', *The Atlantic Monthly*, (March 1982), 29–38.
- Klein, R.G., 'The Prehistory of Stone Age Herders in the Cape Province of South Africa', *Prehistoric Pastoralism in Southern Africa*, 5, number unavailable, South African Archaeological Society, (June 1986), 5-12.
- Laloo, K., 'Citizenship and Place: Spatial Definitions of Oppression and Agency in South Africa', *Africa Today*, 45, 3 (1998), 439-460.
- Lammas, R., 'Townscapes, Townshapes, Townships: Investigating Experiences of Urban South Africa through Black Art', *GeoJournal*, 301, 1 (1993), 45-51.
- Lamont, M. and Molnár, V., 'The Study of Boundaries in the Social Sciences', *Annual Reviews*, 28, (2002), 167-195.
- Lederburg, J., 'Infectious History', *Science Magazine*, 288, (2000), 287-293.
- Londei, T., 'How the most widespread African crow, the Pied Crow *Corvus albus*, depends on man', *Ostrich: Journal of African Ornithology*, 81, 3 (2010), 243-246.
- Lou, X. and Nair, J., 'The impact of landfilling and composting on greenhouse gas emissions: A review', *Bioresource Technology*, 100, 16 (2009), 3792–3798.
- MacDonald, M. and James, W., 'The hand on the Tiller: The Politics of State and Class in South Africa', *The Journal of Modern African Studies*, 31, 3 (1993), 387-405.
- Matos, G. and Wagner, L., 'Consumption of Materials in the United States, 1900-1995', *Annual Review Energy Environment*, 23, (1998), 107-122.
- Maylam, P., 'The rise and decline of the Urban Apartheid in South Africa', *African Affairs*, 89, 354, (1990), 58-64.
- McDonald, D.A. and Smith, L., 'Privatising Cape Town: From Apartheid to Neo-liberalism in the Mother City', *Urban Studies*, 41, 8 (2004), 1461-1484.
- McDonald, D.A., 'Neither from Above nor from Below: Municipal Bureaucrats and Environmental Policy in Cape Town, South Africa', *Canadian Journal of African Studies*, 31, 2 (1997), 315-340.
- McDonald, D.A., 'World Class Inequity: Cape Town, South Africa', *Queen's Quarterly*, 114, 3 (2007), 395-405.

- McEwan, C., 'Building a Postcolonial Archive? Gender, Collective Memory and Citizenship in Post-apartheid South Africa', *Journal of South African Studies*, 29, 3 (2003), 739-757.
- McNeill, J.R. and Winiwarter, V., 'Breaking the sod: humankind, history, and soil,' *Science*, 304, 5677 (11 June 2004), 1627-1629.
- Meikle, J.L., 'Material Doubts: The Consequences of Plastic', *Environmental History*, 2, 3 (1997), 278-300.
- Miraftab, F., 'Neoliberalism and Casualization of Public Sector Services: The Case of Waste Collection Services in Cape Town, South Africa', *International Journal of Urban and Regional Research*, 28, 4 (2004), 874-892.
- Mironesco, M., 'Disconnection: advertising and editorial content in the Housewives League Magazine (1913-1916)', *Atenea*, 31, (2011), 145-156.
- Monama, F.L., 'The Second World War and South African Society', in Potgieter, T. and Liebenberg, I. (eds.), *Reflections on War: Preparedness and Consequences*, (Stellenbosch: Sun Media, 2012), 47-56.
- Moran, J., 'History, Memory and the Everyday', *Rethinking History*, 8, 1 (2004), 51-68.
- Morris, E., 'From Horse to Horsepower', *Access*, 30, (2007), 2-9.
- Mulder, K. and Knot, M. 'PVC plastic: a history of systems development and entrenchment', *Technology in Society*, 23, 2 (2001), 265-286.
- Nelson, A.C., Genereux, J. and Genereux, M., 'Price Effects of Landfills on House Values', *Land Economics*, 68, 4 (1992), 359-356.
- Ngulube, P., 'Future of the past: access to public archives in southern Africa and challenges to historical research', *Historia*, 47, 2, (2003), 562-582.
- Nhamo, G., 'Regulating Plastic Waste, Stakeholder Engagement and Sustainability Challenges in South Africa', *Urban Forum*, 19, (2008), 83-101.
- Ogura, M., 'Urbanisation and Apartheid in South Africa: Influx Controls and Their Abolition', *Developing Economies*, 14, 4 (1996), 402-423.
- Parnell, S., 'Creating Racial Privilege: The Origins of South African Public Health and Town Planning Legislation', *Journal of Southern African Studies*, 19, 3 (September 1993), 476-477.
- Parnell, S., 'Sanitation, segregation and the Natives (Urban Areas) Act: African exclusion from Johannesburg's Malay Location, 1897-1925', *Journal of Historical Geography*, 17, 3 (1991), 271-288.
- Parsons, L., 'Thompson's Rubbish Theory: Exploring the practices of Value Creation', *European Advances in Consumer Research*, 8, (2009), 390-393.
- Percival, V. and Homer-Dixon, T., 'Environmental Scarcity and Violent Conflict', *Journal of Peace Research*, 35, 3 (1998), 279-298.

- Peterson, J.A., 'The Impact of Sanitary Reform upon American Urban Planning, 1840-1890', *Journal of Social History*, 13, 1 (1979), 83–104.
- Phillips, S.T., 'Lessons From the Dust Bowl: Dryland Agriculture and Soil Erosion in the United States and South Africa, 1900-1950', *Environmental History*, 4, 2 (1999), 245–266.
- Redman, C.L. and Jones, N.S., 'The Environmental, Social, and Health Dimensions of Urban expansion', *Population and Environment*, (2004), 505-520.
- Reno, R.B. Cialdini and Kallgren, C.A., 'The Transsituational Influence of Social Norms', *Journal of Personality and Social Psychology*, 64, 1 (1993), 104-112.
- Rich, P., 'Race, Science, and the Legitimization of White Supremacy in South Africa, 1902-1940', *The International Journal of African Historical Studies*, 23, 4 (1990), 665– 686.
- Rogerson, C.M. and Hart, D.M., 'The Survival of the Informal Sector: The Shebeens of Johannesburg', *GeoJournal*, 12, 2 (1986), 153-166.
- Saunders, C., 'The creation of Ndabeni: urban segregation and African resistance in Cape Town', *Studies in the History of Cape Town*, 1, (1979), 165-193.
- Schwartz, J. M. and Cook, T., 'Archives, Records, and Power: The Making of Modern Memory', *Archival Science*, 2, (2002), 1–19.
- Seekings, J., "'Not a Single White Person Should Be Allowed to Go Under": Swartgevaar and the Origins of South Africa's Welfare State, 1924-1929', *The Journal of African History*, 48, 3 (2007), 375-394.
- Shanks, M., Platt, D. and Rathje, W.L., 'The Perfume of Garbage Modernity and Archeological Garbage', *Project Muse*, 11, 1 (2004), 61-83.
- Shifrin, N.S., 'Pollution Management in the Twentieth Century', *Journal of Environmental Engineering*, (May 2005), 676–691.
- Simkins, C., 'South African Disparities', *Journal of Democracy*, 22, 3 (2011), 105-119.
- Simon, D. and Christopher, A.J., 'The Apartheid City', *Area*, 16, 1 (1984), 60-62.
- Spear, T., 'Neo-Traditionalism and the Limits of Invention in British Colonial Africa', *The Journal of African History*, 44, 1 (2003), 3–27.
- Spence, J.E., 'Southern Africa in the Cold War', *History Today*, 49, 2 (February 1999), 43–49.
- Spivak, G.C., 'Scattered speculations on the subaltern and the popular,' *Postcolonial Studies*, 8, 4 (2005), 475–486.
- Steyn, P., 'Popular Environmental Struggles in South Africa: 1972-1992', *Historia*, 47, 1 (2002), 125-158.
- Sunstein, C.R., 'Social Norms and Social Roles', *Chicago John M. Olin Law and Economics Working Paper*, 36, (1995), 1-47.

- Suttie, M.L., 'Rethinking the South African War, 1899-1902: The Anatomy of a Conference', *South African Historical Journal*, 39, 1 (1998), 144-153.
- Swanson, M.W., 'The Sanitation Syndrome: Bubonic Plague and Urban Native Policy in the Cape Colony, 1900-1909', *The Journal of African History*, 18, 3 (1977), 387-410.
- Swart, S., "'The Terrible Laughter of the Afrikaner'" - Towards a Social History of Humour', *Journal of Social History*, (2008), 889-917.
- Swart, S., "'The World the Horses Made": A South African Case Study of Writing Animals into Social History', *International Review of Social History*, 55, 2 (2010), 241-263.
- Tarr, J.A. and McShane, C., 'The Horse as an Urban Technology', *Journal of Urban Technology*, 15, 1 (2008), 5-17.
- Tempelhoff, J., 'Die ontginning van Noord-Transvaal se houtbronne in die negentiende eeu en vroeë bewaringsmaatreëls' [The exploitation of the Northern Transvaal wood resources in the nineteenth century and early conservation measures], *South African Forestry Journal*, 158, 1 (1991), 67-74.
- Thompson, L., 'Afrikaner Nationalist Historiography and the Policy of Apartheid', *The Journal of African History*, 3, 1 (1962), 125-141.
- Todes, A. and Walker, N., 'Women and Housing Policy in South Africa: A Discussion of Durban Case Studies, Paper presented to the Conference on Women and Shelter: First and Third World Perspectives', *Urban Forum*, 3, 2 (1992), 115-138.
- Totman, C., 'Master of the Universe, Wrecker of the Biosphere?', *Environmental History*, 10, 4, (October 2005), 749-751.
- Troschinetz, A.M. and Mihelic, J.R., 'Sustainable recycling of municipal solid waste in developing countries', *Waste Management*, 29, 2 (2009), 915-932.
- Van Eeden, E.S., Liefferink, M., and Tempelhoff, J., 'Environmental ethics and crime in the water affairs of the Wonderfontein Spruit Catchment, Gauteng South Africa', *The Journal for Transdisciplinary research in Southern Africa*, 4, 1 (2008), 31-58
- Van Eeden, E.S., 'Weaknesses in environmental action in South Africa: A historical glance on the West Rand (Gauteng Province)', *International Journal of Water Resources Development*, 24, 3 (2008), 463-475.
- Vincent, L., 'Bread and Honour: White Working Class Women and Afrikaner Nationalism in the 1930s', *Journal of Southern African Studies*, 26, 1 (2000), 61-78.
- Walker, C., 'The Rhino and Elephant Foundation', *African Panorama*, 40, 5 (1995), 50-54.
- Welsh, D., 'Urbanisation and the Solidarity of Afrikaner Nationalism', *The Journal of Modern African Studies*, 7, 2 (1969), 265-276.
- Welshman, J., 'Evacuation, Hygiene, and Social Policy: The Our Towns Report of 1943', *The Historical Journal*, 42, (2000), 781-807.

Western, J., 'A Divided City: Cape Town', *Political Geography*, 21, (2002), 711-716.

Wilson, D.G., 'A Brief History of Solid-Waste Management', *International Journal of Environmental Studies*, 9, 2 (1976), 123-129.

Wisner, B., 'The Reconstruction of Environmental Rights in Urban South Africa', *Human Ecology*, 23, 2 (1995), 259-284.

Witkowski, T.H., 'World War II Poster Campaigns: Preaching Frugality to American Consumers', *The Journal of Advertising*, (Spring 2003), 69-82.

Non Peer-reviewed Articles

Bryce, A., 'Feeding of Food Waste To Pigs', Ministry of Agriculture and Forestry (MAF) Discussion Paper, 01, 26 (2001), 7.

Cooper, T., 'Challenging the 'Refuse Revolution': War, Waste and the Rediscovery of Recycling, 1900-1950', Arts and Humanities Research Council (AHRC) Research Centre for Environmental History, Unpublished Dissertation, 11-12.

Davenport, T.R.H., 'The beginnings of urban segregation in South Africa: the Natives (Urban Areas) Act of 1923 and its background', Grahamstown, Institute of Social and Economic Research Occasional Paper, (1971), 7.

Duncan, D., 'The Origins of the "Welfare State" in Pre-Apartheid South Africa', unpublished seminar paper, (1993), 109.

Grundlingh, A., 'Social History and Afrikaner Historiography in a Changing South Africa: Problems and Potential', unpublished, (1993), 2.

Khan, F., Contemporary South African environmental response: an historical and socio-political evaluation with particular reference to blacks, M.A., UCT, (1990).

Kinkle, J.C., 'Making Sense of Broken Windows: The Relationship Between Perceptions of Disorder, Fear of Crime, Collective Efficacy and Perceptions of Crime', (unpublished doctorate), University of Maryland, (2009).

Majewski, T. (ed.), 'Down in the Dumps: Context Statement and Guidance on Historical-Period Waste management and Refuse Deposits', *SHPO Advisory Committee on Historical Archaeology*, [unpublished].

Samson, M., *Reclaiming Livelihoods: The role of reclaimers in municipal waste management systems*. groundWork, South Africa, (2010).

Seekings, J., 'The Carnegie Commission and the Backlash against welfare state-building in South Africa, 1931-1937', Social Policy Series, Centre for Social Science Research (CSSR) Working Paper 159, (2006), 2.

Shiao, H., 'The Waste and the Gift: A Comparative Study Between Recycling Management Models in Helping the Bottom Poor in Taiwan', PhD dissertation, Institute of Development Studies of National Cheng Chi University, (2009).

Wakeford, J.J., 'The Impact of Oil Price Shocks on the South African Macroeconomy: History and Prospects', Paper prepared for the TIPS/ DPRU Forum: "Accelerated and Shared Growth in South Africa: Determinants, Constraints and Opportunities", Johannesburg, (2006).

Young, J.E., *Discarding the Throwaway Society*, Worldwatch paper 101, (1991).

Internet Sources

'Institute of Waste Management South Africa, <http://www.iwmsa.co.za/site-content/history.html>, (accessed 10 April 2013).

Barber, S.L. and Halbach, T.R., 'Life-cycle of a Consumer Product', <http://www.extension.umn.edu/distribution/naturalresources/dd5569.html> (accessed 28 August 2013).

Beigl, P., Wassermann, G., Schneider, F. and Salhofer, S., 'Forecasting Municipal Solid Waste Generation in Major European Cities', Institute for Waste Management: University of Natural Resources and Applied Life Sciences, Vienna, Austria, http://www.iwar.tu-darmstadt.de/media/iwar_lca_iwm/publications/part2/beigfore.pdf (accessed 14 April 2013).

Bond, P. and Sharife, K., 'Africa's Biggest Landfill Site: The Case of Bisasar Road', <http://www.amandla.org.za/amandla-blog/patrick-bond/1196-africas-biggest-landfill-site-the-case-of-bisasar-road--by-patrick-bond-and-khadija-sharife>, (accessed 9 April).

Cock, J., 'Connecting the red, brown and green: The environmental justice movement in South Africa', *Globalisation, Marginalisation and New Social Movements in post-Apartheid South Africa*, <http://www.ukzn.ac.za/ccs/>, 2004.

Economics Department, 'Economic Survey of South Africa 2010', <http://www.oecd.org/eco/southafrica2010.htm> (accessed 7 September 2013).

Eys, H.J.M., 'A Boer Girl's Memory of the War', <http://www.erroluys.com/BoerWarChildsStory.htm> (accessed 3 April 2013).

Kumar, S., 'Plastics, Rubbers, and Textiles in Municipal Solid Waste in the United States', 1999, <http://infohouse.p2ric.org/ref/33/32720.pdf#page=19>, accessed 12 July 2013.

Lincoln, J., 'South Africa: Waste Management', Swiss Business Hub South Africa, www.osec.ch (accessed 20 January 2012).

Photograph taken by Luke Metelerkamp from: M. Swilling, 'Stellenbosch Landfill is Full', <http://www.sustainabilityinstitute.net/newsdocs/si-news/item/stellenbosch-landfill-is-full> (accessed 24 September 2012).

Oxford Dictionary, (Oxford: Oxford University Press, 2010), published online at www.oxfordreference.com, (accessed on 23 August, 2012).

'SA Waste to double by 2025', <http://www.news24.com/Green/News/SA-waste-to-double-by-2025-20131031>, (accessed 31 October 2013).

Steyn, P., 'The Greening of Our Past? An Assessment of South African Environmental Historiography', *New Contree*, 4 (1999), available online at: <http://www.h-net.org/~environ/historiography/safrica.htm> (Accessed 14 March 2013).

Swilling, M., 'Stellenbosch Landfill is Full', <http://www.sustainabilityinstitute.net/newsdocs/si-news/item/stellenbosch-landfill-is-full> (accessed 24 September 2012).

Winsborough, W., Carr, D., and Martin, S., 'Birth, Death, and the Survival of the Family', *Centre for Demography and Ecology (CDE) Working Paper 97-06 University of Wisconsin-Madison*, (date unknown) 1-35.

Zimbardo, P.G., 'Understanding How Good People Turn Evil', *Democracy Now!*, 2007, http://www.democracynow.org/2007/3/30/understanding_how_good_people_turn_evil, (accessed 10 September 2013).

Maps (online)

http://upload.wikimedia.org/wikipedia/commons/thumb/4/4d/Philippi,_Cape_Town_map.svg/1280px-Philippi,_Cape_Town_map.svg.png, (accessed 12 September 2013).

(<http://w0.fast-meteo.com/locationmaps/Uitenhage.8.gif>, (accessed 25 July 2013).

<http://www.sa-venues.com/include/images/maps/ga-bordeaux.gif>, (accessed 10 September 2013).

<http://www.sa-venues.com/include/images/maps/ga-brakpan.gif>, (accessed 12 September 2013).

Other Sources

Achankeng, E., 'Globalization, Urbanization and Municipal Solid Waste Management in Africa', African Studies Association of Australasia and the Pacific Conference Proceedings - African on a Global Stage, (2003), 12.

Bond, P., 'The impact of the privatisation of public services in South Africa', *Municipal Services Project*, (2002).

Nasson, B., 'Battling for History: The Impact of War upon Modern South Africa', *2nd Turner Lecture*, South African Military Academy, (2001).

Portelli, A., University of Cape Town History seminar, 'Sound and Meaning in and beyond Oral History', (22 May 2012).

Reagan, R.W., *Address to the British House of Parliament*, (8 June 1982).