Making and Remaking Life Under Threat: Disposability, Extraction, and Anti-black Historical Processes in Old Coronation, Mpumalanga

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by

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Table of Contents

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Acronyms and Abbreviations

AMD	Acid Mine Drainage
ANC	African National Congress
ARI	Acute Respiratory Infections
CBD	Central Business District
CEO	Chief Executive Officer
CER	Centre of Environmental Rights
CO_2	Carbon Dioxide
CWP	Community Work Programme
DA	Democratic Alliance
EFF	Economic Freedom Fighters
ELM	eMalahleni Local Municipality
ESKOM	Elektrisiteitsvoorsieningskommissie
MACUA	Mining Affected Communities United in Action
MES	Minimum Emissions Standards
NGO	Non-Governmental Organization
NOx	Nitrogen Oxides
NO_2	Nitrogen Dioxide
NPO	Non-profit Organization
PM	Particulate Matter
PPE	Personal Protective Equipment
SAGRC	South African Green Revolutionary Council
SES	Socioeconomic Status
SO_2	Sulphur Dioxide

TB	Tuberculosis
UIF	Unemployment Insurance Fund
UTI	Urinary Tract Infection
WHO	World Health Organization
WLM	Witbank Local Municipality

Abstract

Developed in the 1980s on an abandoned Anglo American coal mine, Old Coronation informal settlement in Mpumalanga is a site of environmental, infrastructural, social, and economic ruin. This thesis looks into the lives of the residents of Old Coronation as they navigate their existence in a scarcely-habitable environment compounded by poverty, joblessness, struggle, and historical and ongoing extractivist processes. The thesis intends to understand the lives of Old Coronation residents as they negotiate survival in a political and economic system, and mineral industry, in which their lives and futures have been abandoned. The main argument is that because of racial capitalism, neoliberalism, and extractivist processes, Old Coronation residents are forced into a life of extreme effort: making and remaking life always against threats, the escape of which only heightens the exposure to further threat.

Introduction

Life Under Threat

The *bakkie*[1] rumbles to a stop ahead large black hills of discarded coal. They stand tall and threatening as a legacy of Witbank, a pillar in its growth and eventual environmental and social destruction. My feet land heavily on the ground as I jump out of the bakkie and straighten my grey sweatpants and t-shirt after the hour-and-a-half-long drive from the Johannesburg airport to eMalahleni. My shoes sink into the softer parts of the coagulated coal, their soles stained black by the sticky residue. Before me stood the remnants of extractivism - a landscape of dangerous mineral discard left in the wake of destructive and gluttonous coal mining projects that dominated South Africa during the 1800-1900s and continue today.

I slowly trudge over the mountainous mineral and navigate my way between differently-sized sinkholes and water puddles. Each step is treated lightly, with fear of falling victim to softer earth that may sink into an underground hole. Man-sized holes used by zama zamas to obtain low-grade coal litter the landscape. The term 'zama zama' refers to artisanal miners who conduct illegal mining in abandoned mines (Campbell, 2016). Most of these projects are large-scale, with thousands of men staying underground for months at a time. In Old Coronation, however, extraction is small-scale and doesn't continue for longer than a few hours underground. Some holes are small, and oftentimes children are used to crawl into the space to mine for what remains.

Three types of coal rock lay at the mouth of the holes and within the debris across the mountain - yellow, red, and shiny black. The shiny black rock, in particular, is mined for as it can be used for energy or sold to locals. The rocks receive their shininess from the large volumes of sulphur contained within them, making them particularly dangerous objects of lung infection and disease. Localised knowledge on coal rock content has residents avoiding the red and yellow rock. Soaked in dissolved heavy metals and the result of spontaneous combustion, these are especially detrimental to health when burned.

Despite the environmental ruin, grass and plants fight to grow and provide life amidst the destruction. The tenacity of plant life is visible across Old Coronation. On the edge of the informal settlement, large jacaranda trees grow and shade the pothole-filled roads that coal

[1] A pick-up truck

trucks frequent every day. The beautiful purple leaves are an antithesis to the heaps of rubbish surrounding their trunks and the fires set on the field for warmth. Coal dust rises with each step I take and wafts its way into my mask. I cough and inhale deeply - my lungs burn, and I chide myself for packing my inhaler in my suitcase where I can't get to it easily. Not even ten metres away from the edge of the coal dump are homes inhabited by children, adults, and the elderly. The coal mountain stands as a background to differently designed homes; some painted brightly with exterior decor, and others with nothing but sand and stone surrounding their shack home. Such contrasts present themselves across the settlement; residents create a living space that resists their immediate environment and stands as a representation of survival amongst ruin.

Matthews points at the discard dump[2] and motions me to follow him as he begins to walk across the blackened hills. Matthews Hlabane is the founder and CEO of the environmental group, South African Green Revolutionary Council (SAGRC), and also my connection to residents, participants, and research assistants. Matthews is a leader in the community and a tower of strength for many. His work is twofold: creating awareness of the impacts of coal mining, and developing local subsistence farming in the face of food insecurity and agricultural destruction caused by mining activities. This has afforded him a reputation of trust, honesty, integrity, and influence. Matthews stands at 1.5m tall with a fit build. His neat short-cut hair matches his moustache and greying goatee. He's a never-ending repository of knowledge and passion wrapped up in a joyful and kind demeanour.

Matthews founded the SAGRC in 1986 as a high school student and anti-apartheid activist. The growing instances of residents falling into sinkholes and burning from underground fires spurred him to organise an advocacy group. Mostly consisting of students, the SAGRC advocated for awareness of the impact of mining on the environment. As the group grew in membership and impact, they started challenging mining companies and the State with policy development and even contributed to the Environmental Management Act and Minerals Policy. With the motto, "Ecologise Politics, Politicise Ecology," the SAGRC has created awareness of the State's prioritisation of mining contracts despite deadly pollution, toxicity, pollution-caused sickness, and the mortality of mining-affected communities. With a highly political approach, the organisation focuses on raising awareness, environmental justice

[2] The term 'discard dump' is used by local environmentalists to describe a dumping area where toxic coal byproducts are left behind when a mine is abandoned.

education, advocacy, community organisation, and mobilisation. This is done through picket rallies, peaceful protests, shutdowns, and meetings with ministers and politicians.

The SAGRC is a constituent of MACUA (Mining Affected Communities United in Action), a community-based united front of mining-affected communities. MACUA represents itself as a radical movement aimed at raising the voices of communities who have not been consulted in the process of allocating mining licences but bear the brunt of the social, economic, and environmental impacts of mining. The NGO stands as a formidable opposition to the destructive alliance between mining companies and the South African government. Despite the existence of more than one government since 1986, the SAGRC and MACUA don't recognise a difference between them because extractivism has remained much the same across political transitions. In partnership with each other, the SAGRC and MACUA aim to create change in policy and reduce the continuous degradation of human life and the environment by extractivism.

As Matthews and I continue walking, I notice an elderly man wheeling a rusty wheelbarrow filled with garbage. He stops ahead of a 5m wide sinkhole and empties the wheelbarrow's contents into the hole. We walk towards the sinkhole and I become dizzy at the sight of the ten-metre drop. The elderly man sees us and explains that the ground sank a few months prior and residents have been filling it up with garbage and waste in an attempt to close it and eliminate the source of danger, as many unsuspecting victims have fallen into the cavity when returning home at night.

Sinkhole subsidence is a phenomenon where the ground suddenly collapses into the underground due to mineral extraction (Sahu & Lokhande, 2015). Old Coronation is littered with sinkholes that reach up to 30m deep. Across the informal settlement remnants of houses unknowingly built on land that would later collapse, disintegrate in the holes, covered by garbage and grass that fights to grow. The devastation and death caused by subsidence is not a new phenomenon, and the historical record shows instances of sinkholes across the Witwatersrand. For example the 1964 sinkhole disaster in the gold mining village of Blyvooruitzicht, Carltonville. On 3 August 1964, the home of the Oosthuizens, disappeared into a massive sinkhole. The family and their domestic servant vanished into a cloud of red dust, buried alive in the unreachable depths of the hole (Morris, 2008). Many more incidents and deaths would occur due to the extensive gold mining activities underway at the time. In

the year 1970, a tennis court, along with a spectator plummeted underground into water and stone, effectively drowning in the "hellish underworld," as phrased by Morris (2008:100).

In these events, the sinkholes developed through shaft-digging for the extraction of deeply embedded gold. When digging thousands of metres underground, water is excavated to prevent the miners from drowning in the rivers that could possibly rush in to fill underground caverns. These caverns are left empty and vulnerable to collapse, and when such collapse occurs, the surface of the earth caves in to form a sinkhole (Morris, 2008:102). These are considered to be naturally occurring, but as Morris (2008:102) effectively articulates, ".. 'natural disasters' do not always have natural causes," as sinkholes can be triggered by artificial dewatering.

The idea of sinking and falling in the wake of building a livelihood under combative conditions is a common theme across this study. I conceptualise the phenomena of sinking, collapsing, and falling in two ways: the physical collapse of the earth and environmental infrastructure as a result of extractivism, and emotional sinking and falling under social, economic, historical, and familial conditions. It is a feeling of dread, palpable in every action and decision of the poor of Old Coronation - a choking feeling produced by the toxicity of the environment and the pressures of racial capitalism.

Old Coronation

Old Coronation is a 340-hectare informal settlement situated 50km from the eMalahleni city centre. The settlement comprises several subsections: Likazi, Coronation, Marikana, Likazi Ferrometers, and Newsstand. Prior to its development as a human settlement, Old Coronation was a colliery that underwent extensive mining. The Coronation colliery was developed from a public-private partnership between mining giant, Anglo American and the Witbank Local Municipality (WLM) under the apartheid regime[3]. The partnership was so successful that Witbank became one of the richest municipalities in Mpumalanga (Hlabane, 2022).

By the late 1960s, the colliery was abandoned as it was overmined and a large underground fire began to burn, a fire that continues to burn today. These fires, known as coal-seam fires, have the ability to smoulder for decades on the virtually endless supply of dirty fuel and oxygen (Munroe, 2019). Coal-seam fires are usually ignited by human activity during the

[3] The exact date of the development of Coronation mine is unknown. Research by Hallowes and Munnik (2016) suggest that it could have occurred between the 1920s and 1940s

process of mining or waste removal and are often difficult to detect and extinguish (Munroe, 2018). Today, the underground fire has expanded across the settlement and has increased the ground temperature to the extent that groundwater can be seen boiling from the heat of the fire. The underground fire has been a source of injury for many, particularly playing children who are burned when stepping into shallow sinkholes.

The land on which Old Coronation colliery was constructed consisted of an unmined area made up of clay that became the plot for Indian housing. The Group Areas Act of 1950 saw the apartheid government forcibly move part of the Indian population into an allotted portion of Coronation. By the 1980s, the community was moved to an area called Pine-Ridge after it was discovered that the land on which they were living was sinking and burning underground (Hlabane, 2022). In an attempt to combat the underground fire, the apartheid municipality declared it a dumping site in hopes that the waste would stop the fire (it didn't).

A railway borders Old Coronation and separates it from another informal settlement called Sizanani. The railway was once used to transport metals from the nearby Samancor Chrome ferrometal factory.[4] Within the same time of the relocation to Pine-Ridge, a new underground fire ignited below a portion of the land at the railway closer to Newsstand. Instead of waste, the municipality pumped sewerage underground to stop the fire. The result of this can still be seen today, where a section is permanently wet from the sewerage water rising to the surface, and a rancid smell permeates the air (Hlabane, 2022). The puddles of sewerage water create a border between Newsstand and Marikana, and residents dodge this section to prevent exposure to the harmful bacteria-ridden water by crossing the railway to walk on the dry land and recrossing once they have passed the source of danger.

When the Indian community was relocated, many of the people who worked for them as domestic or general workers remained behind and built shack houses for themselves instead of living in their employer's servants' quarters. From the 1980s, Old Coronation as a settlement grew rapidly. Following the end of apartheid in 1994, mining corporations began retrenching workers and demolishing hostels, subsequently forcing miners to return permanently to homes they were forced to create in the Bantustans. Many did not want to do

[4] Samancor Chrome was formed as an amalgamation of SA Manganese Ltd. and African Metals Corporation Ltd (Amcor) in 1975. The company was founded as a joint venture between Anglo American BHP Billiton - two major contributors to South Africa's mining industry that actively participated in the development and performance of apartheid reform policies.

so and instead took to seeking refuge in the settlement where land was plentiful and there was freedom from migrant labour and relegation to the Bantustans (Hlabane, 2022).

Today, Old Coronation is something of an amalgam of an informal settlement and a small town, conceptualised as something not rural, nor fully urban, but rather lying in limbo (Mahajan, 2014). Old Coronation has three entrances, each expanding into its own sections and meeting in the centre. At the third entrance, a thick, large black pole stands next to a sitting area with the words "Old Coronation" painted in white. The sitting area holds two picnic tables with attached benches, and every day, men congregate to talk, laugh, cry, and drink. Rows of houses built out of different materials line the clay streets; some built with concrete, others with zinc metal. Bakkies speed down the street, lifting a whirlwind of dust that colours the air. Passersby cough and sneeze as they inhale.

Every day, coal trucks and cars cross the threshold of the railway to access the settlement. A long stretch of road runs on the right side of the settlement, where stalls have been erected for business. Residents sell traditional food, and second-hand items, offer hair styling services, and tailoring. A *shebeen*[5] stands nearby the railway and acts as a point of connection for residents, mine workers for the nearby coal mines, and coal transporters. The street is alive with people creating the economy of Old Coronation.

The streets are busy during the day as most residents are unemployed and only work piece-jobs - a term used for work that lasts one to two days, usually involving hard labour, domestic work, farming, or gardening. Others set up stalls in front of their homes, or street corners where inner-settlement traffic is busiest. Fruit, vegetables, chips, sweets, paraffin, diapers, and other non-perishables are sold here to eliminate residents having to travel to downtown eMalahleni for essentials. Tailors and hairdressers also set up shop, using small solar panels to power their tools. Many women and teenage girls walk around the settlement with a signature red-lidded container filled with biscuits, scones, and *vetkoek*[6] to sell to people hurrying to work or school children.

Like many informal settlements, Old Coronation is a hub of economic and infrastructural improvisation. The informal settlement economy is an important enterprise in settlements, due to its geographical distance from urban economic centres (Mahajan, 2014). This spatial divide is expanded by the lack of affordable transport that makes job-seeking and economic

[5] An unlicensed establishment that sells alcohol
[6] A traditional South African fried dough bread

integration exceptionally expensive. Mahajan (2014) exemplifies this with the daily struggles of a mother living in Tembisa township who spends nearly five hours a day to and from work. From her salary of R1900, R700 is spent on monthly transportation - that's almost 40% of her salary and 100 hours on the road. Job-seeking residents in Old Coronation have to decide between travelling into the city centre to look for work and buying materials for lighting and cooking - each choice necessitates the loss of something vital for survival.

Simone (2004) conceptualises informal settlements as highly urbanised social infrastructures capable of enabling the intersection of socialites to make expanded social and economic operations accessible to residents of limited means. He frames this concept around the notion of 'people as infrastructure', which emphasises economic collaboration between residents marginalised from urban life. The social belonging that arises from this economic collaboration surpasses and seemingly erases the social and cultural differences of multiple identities found within the settlement. For example, if two ethnic groups dislike each other based on their cultural differences, it does not stop them from doing business with each other, sharing relationships, or residences (Simone, 2014).

Capitalism's Proliferation

Subsidence, underground fires, and toxic air are byproducts of the extractivist processes of coal mining. Extractivism refers to a destructive capitalist model based on the exploitation of natural resources, particularly mining (Dossing, 2018). The model is rooted in racial capitalism which is perpetuated by neoliberalism. Çayli (2021) argues that extractivism negates the life and agency of racialised people and their land, and, in so doing, normalises the exploitation of their labour and resources. The process of extractivism has two main elements: the first refers to the process of extracting raw materials, such as minerals, oil, and gas, from the Earth; and the second refers to the conditions under which the process takes place, and whose interests it serves (Randriamaro, 2018). The extractivist framework is an unequal and dominant model based on the exploitation of natural resources for exportation. The model has been implemented and perpetuated since colonialism, and originates from what Marx (1867) calls 'primitive accumulation'.

Within the colonial context, primitive accumulation involves the extraction of natural resources from the colonies to feed the colonial centres with raw materials needed to accumulate capital and fuel development. It is a process of depravity that exploits labour and separates the producer from the means of production (Randriamaro, 2018; Marx, 1867). In

South Africa, systematic depravity, extractivism, and labour exploitation began when coal was discovered in 1699 at Franschhoek in the Western Cape. This discovery did not lead to anything for more than a century however; it was only in the 1800s that interest in the potential of coal developed. Coal was formally mined in 1867 following the discovery of the diamonds in Kimberley in the 1860s, and later, the discovery of gold deposits in Witwatersrand in 1886 (McKechnie, 2019). As the gold mining industry began to rapidly grow, coal-powered energy played a major role in the transportation of gold, labour, and machinery.

The 1860s and 1870s are considered crucial moments in which South Africa was drawn into a modern capitalist economy. This period transformed the political economy and saw the takeover of colonial political hegemony over regional African kingdoms (Dubow, 2004:107). At this point, the country was already tainted by the devastation of slavery and the Eurocentric 'civilisation' of non-Europeans. The use of racial hierarchy for purposes of justifying unequal capitalist development is known as racial capitalism and involves the consolidation of race and the reduction of racial identity as something that can be layered into the production process of capitalism (Leong, 2013). The Mineral Revolution and the forced migrant labour system are exemplary cases of racial capitalist social structure.

The study of racial capitalism draws attention to colonial conquests, imperial domination, and coercive labour systems that are integral to capital accumulation and the formation of racialized social systems (Clarno, 2017:9). The increasing value of mineral resources and South Africa's immense mineral deposits saw the development of a highly exploitable racial capitalist system. Upon the country's unionisation in 1910, economic revenue was largely based on coal, gold, and diamond extraction, thus requiring a greater workforce to maintain and grow production and capital. With the large-scale need for cheap labour, a solution was found through institutive legislative measures that limited the economic, social, and cultural opportunities of black people, and forced black men to work in mines to support their livelihood (Hammond et al., 2017).

The foundations of the migrant labour system were built through racialised residential segregation, established separate institutions for white 'citizens' and black 'subjects', Pass

laws[7], the development of native reserves[8], and the exclusionary 'colour-bar' that reserved skilled positions for white workers (Clarno, 2017:26). These measures created a steady supply of cheap black labour to white-owned farms, mines, and factories. By the 1940s, black workers were rebelling against work and wage conditions, and abandoning overcrowded reserves in lieu of urbanised neighbourhoods in the white centre. The threat of black urbanisation in white cities, the collapse of migrant labour, and the expected cut of white worker wages spurred the 'swart gevaar[9]' narrative that spread and underlined the ideology of South Africa's transition into the apartheid regime (Clarno, 2017:27).

According to Wolpe (1972), the apartheid State solidified white supremacy through tighter legislative measures and violence that intensified colonial policies of segregation. Police raids, deportations, and forced removals stabilised the once unsteady system of migrant labour (Clarno, 2017:27). The native reserves were transformed into 'Bantustans' to further control the movement and opportunities of black people and to also secure a consistent repository of cheap, exploitable labour. From 1948 to 1994, the South African economy was established through State support for mining and industry, full employment and welfare benefits for white people, and the super-exploitation of black workers (Clarno, 2017:28). To further enforce the migrant labour system, the apartheid State developed informal settlements on the periphery of white cities to cater to growing industrial demand for an urbanised working class.

State-Corporation Alliance

The successful creation of an army of cheap labour for mining and industry was only possible through the toxic alliance between the State and mining corporations. During apartheid, the mining industry was virtually exempt from environmental regulation and operated without restrictions (Hallows & Munnik, 2006; Leonard, 2017, as cited in Leonard, 2018). A separation between mining conglomerates and the government was largely indistinct, with the State providing mining companies with the licence to undertake massive projects of environmental destruction for capital accumulation, with no concern for ecology, employees, and the affected communities (Leonard, 2018). The mining industry also had excessive

[7] Pass laws date back to the 1760s, when slaves moving between rural and urban areas were required to carry a document to authorise their movement. The pass laws only ended in 1994.
[8] 7.3% of South African land reserved for the residence, agriculture, and economic activity of the 'native' population (Black Africans). Natives were also not allowed to buy or own land outside of the reserves, and any land owned prior to the institution of this policy was dispossessed.
[9] Meaning, 'black peril', the swart gevaar referred to the perceived security threat of the black population to the white population.

influence in government decision-making, as is evident in the migrant-labour system. One of the most influential and powerful mining corporations on apartheid and post-apartheid State decisions is Anglo American - an entity that has been in a complex and symbiotic relationship with the South African government since its inception (Mining Technology, 2021).

Anglo American was founded in 1917 by Ernest Oppenheimer with funding from financial giants in Britain and the United States (Hammond et al., 2017). Between the 1920s and 1930s, the Anglo group rose from being a junior mining house to southern Africa's most powerful corporation. This was achieved through the effective control of De Beers after the diamond corporation ran into financial difficulties in the mining market. With Anglo's financial backing of foreign investors, they were in the best position to take over the company (Innes, 1984). This acquisition made Anglo the largest single shareholder of De Beers by 1926 (Hallowes & Munnik, 2016). By 1945, the corporation consolidated its position in gold through the acquisition of SA Townships and Lewis & Marks: two firms that secured the richest of the newly found Free State gold deposits. Marks and Lewis was also the largest coal producer, with mines in Witbank and the Vaal, and this acquisition automatically made Anglo the largest coal producer in South Africa (Hallowes & Munnik, 2016).

During the Second World War, mining houses invested heavily in the Far West Rand and Orange Free State goldfields. With the large proportion of group profits produced from these fields and the additional foreign investment in the company, Anglo grew to hold such a strong position in the fields that by 1958 it became the biggest gold producer in South Africa (Innes, 1984). This began Anglo American's contribution to South Africa's energy mix through diamonds, gold, and coal. The corporation flourished under British colonialism and growing industrial capitalism, rooted in colonial and apartheid South Africa. According to Mohamed (2020), Anglo was key in developing the migrant labour system and mining finance houses - two institutions that have caused irreparable damage to the economy and society.

From its inception in 1917, Anglo American quickly became the country's dominant mining company with influence on racialised policies and laws for the development of an army of labour. The Anglo-State relationship was based on the following: the State was to provide infrastructure and laws that allowed for the appropriation and exploitation of land and black workers, and in compensation, and Anglo was to maintain mineral revenue that sustained the economy and legitimacy of apartheid policies (Hammond et al., 2017). Despite Anglo's

blatant exploitation of black workers to become one of the most powerful multi-corporations in the world, to the public, they represented themselves as opponents to South Africa's racial state. The Oppenheimer's were frequently reported in media and annual reports as protestors against State-enforced restrictions on black workers, yet, the two entities colluded and mutually supported this exploitation (Hammond et al., 2017).

In addition to Anglo American's support for racial hierarchy, the corporation had and continues to have, very little regard for the environment degraded by their mining projects (Green, 2020). In 2020, the South African division of Anglo American Ltd was served with a class action lawsuit on the basis of mass lead poisoning in Kabwe, Zambia. Since its closure in 1994, the lead mine has been a source of deadly lead-contaminated emissions to a nearby village of more than 230 000 people. A 2018 medical study estimated that 95% of the village children have elevated blood-lead levels (Bose-O'Reilly et al., 2018). This poisoning has occurred as a result of three-million tonnes of toxic waste from the mining process and 2.5 million tonnes of waste from the smelter - the byproducts of lead mining that Anglo failed to clean up according to regulation. In addition to improper mine closure and land rehabilitation, Anglo American has a list of abandoned mines, such as Old Coronation under their belt. Upon the over mining of Coronation mine, the corporation and apartheid municipality neglected to decommission, rehabilitate or close the mine according to regulations. All association with the mine has been renounced and information about the mine itself is virtually non-existent; an erasure of toxic destruction, and the people living in the wake of it.

Displaced People, Displaced Earth

Apartheid forced removals to satisfy racial ideology and the need for a repository of cheap labour for mining performed a double act of displacement - displacement of people and displacement of land. Forced removals was a pillar in the apartheid regime and its consequences are still deeply entrenched in contemporary, post-apartheid South Africa. Between 1960 and 1982, an estimated 3.5 million black South Africans were forcibly removed from their ancestral land and homes in newly designated 'white' areas and relocated to unfamiliar, uninhabitable, and barren land (Platzky & Walker, 1984). During this time, tens of thousands of children died as their families were removed and exposed to harsher conditions (Kgatla, 2013). In order to facilitate this process, force and excessive police brutality were used as a threat to quell resistance and demand submission.

Within relocation and extraction, the use of force is an action used for its success. During the process of coal mining, the earth is forced open through drilling and blasting, roads are driven into coal seams, and facilities are installed for human and material transport. This physical violence against the land transitions into environmental violence through air pollution, water contamination, soil erosion, land subsidence, and changes in soil properties, causing detrimental effects on agricultural food production. This force and violence translate into displacement without moving - a sort of displacement of people through the destruction of the environment that once sustained their livelihood.

This 'displacement without moving', as proposed by Nixon (2011:19) involves, "...being simultaneously immobilized and moved out of one's knowledge as one's place loses its life-sustaining features." Carnea (2000) catalysed Nixon's (2011) idea through his argument that displacement not only involves eviction from a home or dwelling but also the *expropriation of productive lands* and other assets. This loss of access to non-individual common property (i.e. arable land), "...represents a cause of income and livelihood deterioration that is systematically overlooked," (Carnea, 2000:8).

Prior to the 1960s forced removals, black people mainly engaged in the agricultural economy for economic sustainability and sowed the earth with their labour to create a livelihood. Relocation to the Bantustans and informal settlements caused not only physical displacement but also a displacement from their relationship with the soil. The ten designated Bantustans made up less than 13% of the total land in South Africa, despite the black population making up 70% of the country's total population (Butler & Rotberg, 1978). As a result of this overburden of land and overpopulation, the agricultural economy collapsed.

As put by Kiewiet (1941:80),

> ...the majority lived upon too little land to maintain them as in days of old. Such a crowding of men and beasts placed a severe strain upon the land that was left…The breakdown of soil into sand, the replacement of nutritious grass by weeds, the disappearance of trees and shrubs, the scarring of the land could not withstand the pressure upon it of too many men and too many beasts.

The designation of such a small percentage of land for people who depended on agricultural production for their livelihood was a calculated process to create unemployment and force

black men to seek employment in the mines, factories, and industry. This history illustrates how racial ideology and capital work side by side to achieve massive profits for white elites.

The Place of Coal

Displacement without moving is a widespread phenomenon across mining communities on the Highveld - an inland plateau made of almost the entire Free State and Gauteng. and portions of the Eastern Cape, Northern Cape, North West, Limpopo, and Mpumalanga provinces. Of these seven regions, most coal mining occurs in Mpumalanga, Free State, and Kwa-Zulu Natal (Jeffrey, 2005). Of the 132 coal mines in South Africa, 22 of them are situated in eMalahleni, Mpumalanga (Africa Mining IQ, 2022). In 2006, Witbank was officially renamed eMalahleni, meaning place of coal, owing to its coal mining legacy. eMalahleni is home to the country's largest coalfields and is currently the most significant source of coal. This has imposed a coal dynamic on the region that has resulted in major environmental, social, and health externalities (Laisani & Jegede, 2019). This dynamic involves coal mining, coal-fired electricity production at power plants, industry usage of coal to produce steel and alloy, truck coal-hauling, and indoor coal burning for heating and cooking (Laisani & Jegede, 2019).

After a century of these activities underway, large parts of the Mpumalanga Highveld have been permanently destroyed and resemble a, "...post-apocalyptic nightmare of an already dead and dying land," (Hallows & Munnik, 2016:3; Cock, 2019). The once fertile and arable land of the so-called 'bread basket' of South Africa has been severely damaged by toxic processes of coal extraction and burning (Hlabane, 2021). In 2015, Mpumalanga's agricultural contribution to the economy dropped from 27% to a mere 3% (de Villers, 2015). This can be attributed to the change in physical and chemical soil properties and the disruption of the hydrological cycle that is detrimental to subsistence and commercial food production (Feng et al., 2019; Tyson, 2020). This, in turn, threatens food security, particularly for communities who engage in subsistence farming for personal use and selling.

Most homes in Old Coronation have small vegetable gardens growing cabbage, lettuce, carrots, and potatoes. In some sections of the settlement, the garden blooms and produces a successful harvest; in other parts, seedlings die and never make it to mature growth. Residents report that only some land in the settlement has the ability to produce - others have been so severely tainted by the byproducts of coal mining, that nothing will grow.

This is not specific to Old Coronation. According to Cock (2019) the land of Arbor informal settlement near Kendal power station in eMalahleni is so degraded that household food gardens are impossible to foster. With the increase in food prices, household gardens are more important than ever, but by 2014, more than 61% of Mpumalanga's land fell under prospecting for mining applications. With how mining removes topsoil essential for cultivation, sustainable food production has become a slowly fading possibility for livelihood, especially in low-income mining communities. This is an illustration of displacement without moving. Unlike during apartheid-forced removals, these are not communities that were relocated to uninhabitable environments, they are communities that have lost the land and resources beneath them and have become stranded in a place that has been dispossessed from the very thing that made it habitable (Nixon, 2011:19).

The People of Coal

The first, and possibly most important participant in my fieldwork, is Maria. On the second day of my arrival, Matthews introduced me to Maria as my research assistant and gateway to forming relationships with the residents of Old Coronation. Throughout my research period, we stuck to each other like glue and created a lasting bond that transcended the distance between provinces. Maria is an empowered, strong, and steadfast woman, before being a mother of three and a wife. As a Venda woman who married a Zulu man, Maria performs the role of a Zulu wife and mother. She always wears a headscarf as an outward sign that she is married. She is also expected to cover her head when she is in the presence of her in-laws to show respect (Nhlapo, 2017). In addition to the headscarf, Maria wears a shoulder covering in public to indicate that she is off-limits to any suitors (Mhlongo, n.d). Maria played a pivotal role in accessing participants, translating, and explaining my intentions to potential participants. Even though most residents understood English, conversations flowed more naturally in Zulu, and Maria acted as the bridge of communication between us.

I spent three months as a resident of eMalahleni, from October to December 2021, to conduct my ethnographic fieldwork. The first two weeks consisted of Maria and I walking through the streets of Old Coronation and starting conversations with residents; most of whom we caught outside as they sat in the sun, hand-washed clothing, or listened to the radio. These conversations were mainly initiated by Maria, who knew how to introduce my presence and research in an accessible manner. These short, informal interviews helped me ease my way into the community and lessen my anxieties about not being accepted in the space. It also

provided me with insight into how residents understood and mediated their conditions and circumstances. By the end of the second week, we managed to involve three residents in the project who wished to borrow their time and a piece of their history to me: Linda, Pamela, and Zintle.

Linda is a middle-aged Mosotho woman and mother to four children - three of which live with her, and one who lives with her parents in Lesotho. As an undocumented migrant, Linda is unable to acquire formal work and resorts to sex work to sustain her family. Even so, meals are few and far in between, the hunger shown in the painfully visible spines of her six-year-old daughter, Thandi and nine-year-old son, Themba. Because Linda's youngest daughter is only one year old, whatever food is available is given to her, as her growth takes priority. Although Thandi and Themba are of school-going age, Linda has not sent her them to school to receive an education. I suspected that this was mainly due to her undocumented status and her fear of being deported, but Linda expressed that it was mainly because she didn't think it was necessary for her children. In a small red sink house, the family ekes out an existence against perpetual poverty, hunger, hopelessness, and illness caused by the nearby ferrometal factory and active coal mining projects.

A short distance from Linda's home lives Pamela with four children, her fifth one soon to enter this world. Pamela lives directly next to the latest coal mining project in Old Coronation[10], and a ferrometal factory. The activities create a dark hue in the sky, giving the area an ominous feeling. With her eighth month of pregnancy and two young children aged two and four, Pamela is unable to work her intermittent domestic work and labouring jobs. Much like Linda's children, Pamela's youngest two, Olwethu and Nobuhle, are skin and bones, appearing smaller than they are. Her older two, Nothando aged seven and Noxolo, aged ten, were never seen during my fieldwork as they were always at school when I visited. Their daily escape from home provided them with a school-provided meal[11] and less toxic breathing air - making them the luckiest out of the family of six.

At a creche at the entrance of Old Coronation, I met Zintle at Yolwazi Indawo creche. Zintle works as a general worker and cook at Indawo Yolwazi. She cooks lunch, cleans the classroom and kitchen, and sweeps the grounds of the creche. Zintle lives on the creche

[10] I was unable to enter the site of this project or obtain any information as no signage or company name was visible. Residents were uncertain as well, and only knew of it as a coal mining project.
[11] School-provided meals are part of the Department of Health's School-Feeding Scheme strategy instituted in 2002. This strategy aims to relieve child hunger for impoverished children who are rarely fed at home.

grounds with her fiancé, in a room adjoining the kitchen. In an effort to give their two children a life without desperate poverty and high rates of crime within Old Coronation, they were sent to live with Zintle's future father-in-law in Limpopo. Without her children by her side, Zintle embraces the learners with overflowing love, care, and kindness.

This is a story about the people of Old Coronation, Mpumalanga as they navigate their existence in a scarcely-habitable environment compounded by poverty, joblessness, struggle, and extractivist processes. It tracks the lives of Maria, Linda, Pamela, and Zintle across several themes: infrastructural improvisation under housing insecurity in a neoliberal economy; environmental pollution and slow violence; the creation of surplus populations and 'human waste' through racial capitalism; the role of religion in the lives of the poor and the exploitation of desperation by the church, and local-level resistance of these designations. These themes are underlined by the concept of effort, attempt, and the making and remaking of life against threat. The same effort and attempt that heightens that threat.

My first writings of Old Coronation were full of emotive language and subjective responses to the difficult and terrible conditions in which my participants and the general settlement population were inhabiting. These physical conditions incited an onslaught of emotions; I couldn't bear to witness the suffering and poverty. This idea of witnessing is an important concept within this thesis. For many, if something is not witnessed or publicised in the media; it doesn't exist. And as such, the public is virtually unaware of the presence of Old Coronation because of its lack of media and political coverage. Much like Anglo America's abandonment of Coronation mine, the Old Coronation settlement has been erased and become a blindspot to environmental and social awareness, and political intervention.

By slowly working through my fieldnotes and recordings, I have come to an argument and narrative that intends to show how racial capitalism and neoliberalism is transformed into environmental ruin and the effects on individuals who live in that ruin. The first chapter, *House and Home, Stand and Stone,* explores infrastructural improvisation in Old Coronation. I argue that Old Coronation is not a township, but rather an informal human settlement developed on the concept of peripheral urbanisation and auto-construction (Caldeira, 2016). I show that the national housing crisis has made self-building essential for survival but that it is also a symptom of the neoliberal state and self-responsibilisation framework. With weakened welfare systems and the increased prioritisation of competition, vulnerable black populations are left to eke out their own survival in a State that has systematically impoverished them, but

expects them to embody the 'neoliberal citizen'. I further argue that the State has applied Giroux's (2006) biopolitics of disposability to black populations unable to become the neoliberal citizen (due to racial capitalism and the migrant labour surge) as they are viewed as inhibitors to capital's progression.

Chapter 2, *Slow Motion Violence,* focuses on basic service improvisation and environmental ruin and toxicity. In life under constant threat by environmental, social, and infrastructural conditions, residents have to make decisions for survival that impact that very survival. This cyclical pattern produces an existence of constant attempts at sustaining life. I argue that these continued conditions coupled with air and water pollution caused by coal mining embody Nixon's (2011) slow violence – an incremental violence that inflicts disease and illness over time. I use this notion to further argue that these environmental conditions and basic service improvisation slowly kill the poor black population over time and enact genocide by attrition. I show that racialised exposure to pollutants is rooted in colonial and apartheid history, and its contemporary continuance is rooted in racial capitalism and racial policy.

Chapter 3 *The Forgotten People*, attempts to conceptualise an abandoned people living in an abandoned space. I apply Marx's (1867) concept of the 'surplus population' to residents of Old Coronation considered to be the wastes of capitalism. I show how the Mineral Revolution created a reserve army of labour and subsequently abandoned them as technology and capital's needs developed. I explore two forms of human waste: the redundant and migrants, and rely on the works of Bauman (2014), Agamben (1998), and Wenzel (2018) in its conceptualisation. I show how the State casted aside migrants during the Covid-19 pandemic and excluded them from internal care work. I thus argue that this enacted slow death on migrants and that the exclusionary policies created embodied necropolitics (Mbembe, 2003). I further argue that the State has treated surplus populations as waste by relegating them to a wasted space, i.e. Old Coronation.

This chapter also delves into religious capitalism. In a dispensation where religion is used as a coping mechanism to explain away suffering and poverty, leaders exploit vulnerability and base this suffering on a lack of faith and contribution to the church. This is enacted through the prosperity gospel and inadvertently forces the poor to give all they have in order to receive financial blessings. I thus present how even faith is threatened and exploited by capitalism.

In Chapter 4, *Creating Life in Ruins*, I explore the resilience of residents in Old Coronation to resist disease and death. I argue that residents engage in DIY citizenship (Rato & Boller, 2014) to eke out a viable existence. These DIY acts are performed through home improvements, decorations, and community collaboration for JoJo tanks, water pipes, and electricity transformers. I further that this form of citizenship encourages self-responsibilisation, but it's also the only choice residents have to survive in a permanent state of abandonment.

Chapter 1

House and Home, Sand and Stone

A brick to keep the door ajar.
An old cloth underneath the door to block out the cold.
Plastic hissing on the window fending off raindrops.
A car tyre on the roof to keep lightning at bay.
An old TV in the lounge needing to be tapped back to life.
The bed balancing on bricks.
Toothbrushes inside an old ice-cream container.
School socks drying behind the fridge.
Everything having to be reused before disposed.
Everything

Improvisation by Musawenkosi Khanyile

In Likazi Ferrometers, Pamela's house sits next to a five-metre deep sinkhole filled with trash, large rocks, and uprooted trees. A thick brush of trees surrounds the sinkhole and leads into a forested area of the settlement. A short distance across from the house is a small vegetable garden with budding cabbage and flowers. Of all the open areas on the plot, only this small section of soil is able to produce food, as most of the soil in Old Coronation has been altered by coal mining activity, and is no longer viable.

Pamela's home is constructed out of white, rusted steel sheets. She built the house herself, with help from her neighbours. Outside of the front door is a makeshift lapa created with tattered green shade cloth attached to wooden poles with wire. The lapa is used as a cooking and sitting area, and two small gallie filled with coal and wood sit in the corner of the structure. A gallie refers to a fire stand built with small pieces of metal that is used for cooking and heat. On the sandy ground, magazine papers, broken toys, and used coal lay, frequently picked up and played with by the children. Inside the house, blankets and cloth banners with the words "Coverland Roofing Solutions" hang on the walls for insulation.

The home is neat; a single bed with white sheets stands at the doorway with yellow foam from inside the mattress peeking out from where it is ripped. At the end of the bed, three blankets are folded for the colder nights, and a pillow lays across from it. The four children share a double bed in the other room of the house, sectioned by black cloth held on two poles.

Next to their bed is the kitchen area. I was unable to see more of this part of the house as Pamela valued her privacy and was understandably unwilling to let me venture further.

Self-building

Old Coronation is contemporarily viewed as a township due to its infrastructural, social, and economic characteristics; although it holds none of the characteristics of the systematic framework for the conditions of township development, and is rather representative of an informal settlement. The concept of the "township" was developed during the great expansion of the mining industry, and the subsequent expansion of other industries and enterprises. With the increased need for cheap black labour, black urbanisation and housing demand also increased, leading to the restructuring of racial urban policy. The restructured urban policy was based on limiting the rights of black people to be urban residents and to control their movements, thus leading to the systematic framework of conditions for the development of townships (Mahajan, 2014:4).

According to the framework, townships needed to: be a sufficient distance from white areas; be adjoined to an existing black township to decrease the number of areas for black people; have an industrial area as a buffer between white areas; and be a considerable distance from main and national roads (Mahajan, 2014:4). The township is characterised by:

- Dormitory-style, uniform houses built away from economic activity;
- Historically lacking basic services, such as electricity, water, and sanitation; and
- Lacking adequate infrastructure, such as tarred roads

Apartheid townships were planned and organised by the State, with the necessity for the abovementioned criteria to be met. The development of Old Coronation, however, was auto-constructionist and completely separate from the State, meaning that it is not a township, but rather a space of informal human settlement. Coined by anthropologist Teresa Caldeira (2016), auto-construction refers to the process of building one's own structure for occupation. Residents build their homes and neighbourhoods step-by-step according to the resources they are able to put together at each moment in this process. Each phase of auto-construction involves a considerable amount of improvisation and bricolage, calculations, strategy, and constant imagination of what a home should look like (Holston, 1991, as cited in Caldeira, 2016).

Autoconstruction falls within the concept of Caldeira's (2016:4) *peripheral urbanisation*, a mode of resident-led city-making that, "...consists of a set of interrelated processes. It refers to modes of the production of urban space that (a) operate with a specific form of agency and temporality, (b) engage transversally with official logics, (c) generate new modes of politics through practices that produce new kinds of citizens, claims, circuits, and contestations, and (d) create highly unequal and heterogeneous cities." These urban spaces are always in the making, they are never complete, and instead have a distinctive temporality, where homes and neighbourhoods grow little by little in an endless process of incompletion and improvement (Caldeira, 2016). Across Old Coronation, already inhabited homes exist in varying phases of auto-construction. The whirring of construction tools fills the air as residents work to build their homes. For first-time settlers, hammers and nails hit into steel sheets and wooden stumps to create the signature informal settlement zinc metal house. Tyres, bricks, and rocks are lifted above to hold down the unsteady sheet roofing, and a family starts their new life in this growing neighbourhood.

In a moment of crisis and desperation, as seen in South Africa's housing crisis, auto-construction has, "...provided a faithful and intuitive idiom for movements of aspiration and autonomy…for eclectic and wilding investigations into and out from the material depths of precarity," (Jiménez, 2017:452-453). It is a form of resistance and reclaiming of autonomy in a country with more than 12 million people in dire need of housing (Saal, 2022). As illustrated in the economy and social life of Old Coronation, a great deal of improvisation is required in neighbourhood-making. In urban studies, improvisation emerges as a practice of 'making-do' for the urban poor and marginalised (Müller & Trubina, 2020). This improvisation acts as a means to bring together vulnerable and impoverished livelihoods in the absence of infrastructure and is enacted through resource mobilisation and social solidarity.

Caldeira (2016) argues that peripheries change progressively and unevenly. Residents inhabit precarious and unfinished spaces with an expectation that they will improve one day and become urbanised like the more formalised, planned cities. In some places, as Caldeira (2016) illustrates, these expectations are realised and come with their own set of social and economic consequences; in Old Coronation, however, these expectations are increasingly understood as pipedreams that will rarely be realised. Auto-constructed settlements begin without the necessary infrastructure to support basic needs, i.e. water, sanitation, electricity, and refuse. In Caldeira's (2016) conception, as the space grows and the population increases,

streets will be paved, electricity, water, and sewerage will be provided, and local commerce will expand. This is a particularly reductionist view that fails to acknowledge weak local and national governments that do not provide for these improvements.

Old Coronation, like most auto-constructed settlements in South Africa, does not have access to water, sanitation, electricity, refuse, and paved roads despite its large population, size, and decades of existence. The precarity that existed at the beginning of neighbourhood-making, remains and persists with a state that refuses to take accountability for citizen welfare. According to Hlabane (2021), local municipalities do not provide informal settlements with basic services on the basis of their informality and the lack of infrastructure required for connection. Moreover, the eMalahleni Local Municipality refuses to recognise Old Coronation as a human settlement under its jurisdiction, as that lawfully requires them to provide basic services and create a safe, habitable space for residents. This is perplexing, as the ELM owns the land, so it still legally falls under their jurisdiction. These multi-level government-citizen dynamics are essential in conceptualising peripheral urbanisation development.

Cramped

Linda's house is small and cramped, each corner filled with the family's belongings. Curtains and blankets hang on the metal walls in the lounge and kitchen for decoration and insulation. Upon our first step into the house, Linda offers Maria a seat on the two-person coach stood at the entryway of the home - the couch sighs as it sinks under her weight. The house is disorderly, the kitchen area stacked with unwashed pots and plastic containers; a plastic bowl with leftover beans and bones sits on the makeshift cabinet. Flies swarm around it and create a consistent buzzing noise in the home. Linda looks down sheepishly in embarrassment, a faint smile on her face.

Most of the food Linda and her family eat is provided by her neighbours. Despite most being in the same precarious situation, they share what they have left with her. Class differences exist everywhere, even in informal settlements. Old Coronation comprises different levels of poverty: there are the utterly poor, who go without eating for days within a week; those who are employed formally or informally, and are able to eat every day; and those who are able to enjoy a wider array of foods every day.

Food consumption is dictated by the purchasing power of an individual, which is directly influenced by socioeconomic class. Linda's socioeconomic status places her within the worst bracket of food insecurity and vulnerability, where food deprivation can last for days. When they do eat, the family's diet consists mainly of pap. Research has shown that individuals who have experienced food precarity have a preference for foods high in fat and energy that provide a comforting and satiating effect. Pap is also preferred because of its ability to keep one full for longer. I would argue that this is not a preference, as preference implies choice - the consumption of pap is largely based on its filling properties and its relative cheapness that no other food type is able to replicate.

In Linda's home, a brown chest of drawers next to the bed is covered in an array of daily used things - a makeshift candle holder made out of a Coke bottle, tablets, toilet papers, candles, and more. An unmade queen-sized bed takes up the rest of the space in the house with clothes piled messily on the border of the bed. Linda tells me that she rarely makes the bed because she doesn't have the energy to. Upon hearing this, Maria calls Linda's six-year-old daughter, Thandi, over and tells her to help her mother make the bed. The two work together to finish the task and soon enough it's made. Linda lifts her 1-year-old, Nandi, onto the bed and begins to change her diaper and her clothing. She can only afford to use 3 diapers per day, so Nandi sits in her waste for long periods, leaving her with a severe diaper rash and at risk for urinary tract infections.

Because of water access insecurity, the family is only able to clean themselves once a week, leaving the children, especially grubby after playing outside every day, and making them more susceptible to disease and infection. The lack of bodily and homely cleanliness is seen in the bodily conditions of Linda's children and herself. Thandi's entire lower back down to her buttocks is covered in flea bites; she scratches her back constantly and leaves behind open wounds and scars. The sand surrounding the house is a breeding ground for fleas and because the children play in the sand, the fleas attach to them and transfer to the blankets, bed, couch, and all over the house, creating ideal conditions for the fleas to fester.

Speltini and Passini (2014) argue that in water-scarce areas, cleanliness is not only associated with the custom of hygiene, but also with the opportunity to access employment opportunities. As such, cleanliness must be viewed within the context of the economics of being clean. Accessing water and infrastructure to maintain a clean appearance is essential to ensuring acceptance in the waged workforce and society (Jack et al., 2020). Basic hygiene,

and the lack of access to practice it, places individuals like Linda in a perpetual cycle of poverty, where mandatory cleanliness for employment cannot be achieved because of the lack of access, resulting in the absence of work and life of precarity. Within socio-economic inequality, practices of cleanliness are mediated by infrastructural planning which perpetuates social and economic inclusion and exclusions (Jack et al., 2020).

Infrastructures of cleanliness are interwoven with not only class, but also gender, and reify a particular kind of gendered hydraulic citizenship (Anand, 2017)[12]. Women are expected to uphold higher cleanliness standards than men, and are subjected to gendered discipline when performing labour; i.e. dressing a certain way, maintaining a smile, and wearing makeup (Jack et al., 2020). This also extends into the household, where women are expected to keep a clean and tidy home. Yet, women are even more disadvantaged with a lack of water access than men or children, as they ensure their children, partners, and homes are clean before themselves. They are socially required to put themselves last, and simultaneously maintain gender standards - a practice poverty does not allow.

The Neoliberal Citizen

Peripheral urbanisation and auto-construction are underlined by the personal responsibilisation narrative of the neoliberal framework. In a society where the State will not provide housing, proactive citizenry through self-building enacts the ideology of self-provision for what is meant to be State-provided services. The personal responsibility ideology of neoliberalism has transformed government and society, where the government has been exonerated of its role in supporting and safeguarding citizens (Vallelley, 2020). Where the State was once the master of markets, the markets have now become the masters of the State (Strange, 1994:4, as cited in Mavelli, 2018).

This framework has transformed global welfare systems, where, once conceived as an institution for support based on diverse values, is now regarded as a tool intended to reward the responsible and punish the irresponsible (Watts, 2018). State responsibilities, such as security, education, and employment, have now been passed on as the responsibility of private institutions and individuals - a responsibility most cannot afford. Hache (2007) argues that this state reorganisation involves the creation of an attachment to new ways of thinking and behaving. This is done in two stages: The first is done by making certain types of behaviour, like dependence on the state, undesirable; and then secondly, making another

[12] The concept of hydraulic citizenship is explored more in chapter, 'Slow Motion Violence'

behaviour desirable, one that is seen as responsible. Hache (2007) offers this example to describe how state welfare dependence has been manipulated into undesirable behaviour.

> Making the relationship of dependence on the welfare state undesirable implies increasingly associating redistribution and assistance as well as identifying the person who receives state aid as an assisted person. This undesirability is expressed in different forms according to social class: if poor people are perceived and are to see themselves as assisted people, even parasites, the favoured group must come to consider any state redistribution it receives as a form of abuse, and it would be immoral of them to "take advantage" of State aid. Our attachment to the State is thus made undesirable by depicting it solely as a form of dependence and no longer as the condition of independence that it was for many people. (Hache, 2007:4).

Only in a system that favours the rich is welfare support seen as undesirable and exploitative. Neoliberalism and the personal responsibility rhetoric are inherently classist and racist. The rich, white perceive their success and wealth as acquired through merit, and ignore the advantages given to them through their education, inheritance, and class (Monbiot, 2016). While the poor, black, are stuck in a system that blames them for their failure, instead of circumstances largely out of their control, i.e. systematic unemployment, housing costs, generational poverty, and the impact of racial institutions.

Neoliberalism has applied the logic of the market, especially the principle of competition, to all areas of human existence (Brown, 2015). Brown (2015:10) argues that neoliberalism, "...transmogrifies every human domain…along with humans themselves, according to a specific image of the economy. She follows that all conduct is economic conduct, and existence is framed and measured by economic terms - making humans strictly *homo oeconomicus*. Homo oeconomicus is human capital tasked with improving and working its competitive position, with enhancing its monetary and non-monetary value across all endeavours and venues" (Brown, 2015).

Neoliberal market policies are based on the global development of what Randles and Woodward (2018) refer to as the "neoliberal citizen". The neoliberal citizen is the epitome of self-sufficiency, and self-regulation, and exists as the embodiment of competition and free enterprise, self-help, and materialism. All of which must be achieved with minimal or no State welfare. The good neoliberal citizen has not been disadvantaged by racial, gender, or

ethnic discrimination, criminal records, health problems, disabilities, or stigmatised sexual and gender identity (Randles & Woodward, 2018). Thus, the ideal-type citizen largely on which neoliberal governance is premised is one that assumes racial, gender, and class privilege.

Neoliberal citizenship and personal responsibility have been crafted in such a way that individuals view it as an idyllic form of individualism, prosperity, and "making it in life" - which can only be done through wholly sacrificing oneself to capitalism and participating in the "grind". The idea and practice of responsibilization, according to Brown (2015) forces the citizen to become a successful self-provider and self-investor. But what about individuals who live on the margins of society and have been historically disadvantaged? Those who don't have access to the means that underpin neoliberal citizenry? Giroux (2006) answers this question through his theorisation of the "biopolitics of disposability". This refers to the marginalisation of entire races and classes on the basis of their redundancy and perceived burden on the State finances. These populations are consigned to survive by themselves without State support.

The biopolitics of disposability are realised by removing or making invisible groups who are perceived to be constraining or obstructing market freedom, consumerism, and free trade (Nix-Stevenson, 2013:6). These groups are regarded to be a hindrance to economic development and a burden on the State and have been abandoned to create viable life on their own or succumb to the conditions - a modern day 'survival of the fittest' reminiscent of social Darwinism. Neoliberal logic and practices force individuals to navigate the relationship between themselves and others around the logic of, "competition, individual risk, self-interest, and a winner takes all survivalist ethic." (Giroux, 2008:591). This survivalist ethic reinforces racial hierarchy, as the neoliberal agenda has systematically sought to recreate racial segregation and exclusion (Giroux, 2008). This biopolitics, as argued by Giroux citing Foucault (2006), are marked by questions on who will live and who will die, and represent a set of forces that have abandoned populations made "at risk" by the long history of racial capitalism and the neoliberal economy.

Chapter 2

Slow Motion Violence

I was born in a drought year. That summer

my mother waited in the house, enclosed
in the sun and the dry ceaseless wind,
for the men to come back in the evenings,
bringing water from a distant spring.
veins of leaves ran dry, roots shrank.
And all my life I have dreaded the return
of that year, sure that it still is
somewhere, like a dead enemy's soul.
Fear of dust in my mouth is always with me,
and I am the faithful husband of the rain,
I love the water of wells and springs
and the taste of roofs in the water of cisterns.
I am a dry man whose thirst is praise
of clouds, and whose mind is something of a cup.
My sweetness is to wake in the night
after days of dry heat, hearing the rain.

Water by Wendell Berry

Watching smoke stacks choke the sky
Always makes me want to cry.
I just can't help but wonder why
The factories won't even try
To find a safer, better way
To put their poisonous waste away.

A Choking Sky by Anonymous

I squeezed my eyes shut as they made contact with the bright sun; the rays covered my body and heated up my denim dungaree, making the metal buttons hot to the touch. A sheen of perspiration covered my forehead, and my t-shirt clung to my chest and back the more I

began to sweat. I swallowed dryly and licked my lips, the strong taste of a cigarette coating my mouth. Maria and I had just arrived at Linda's home in Newsstand, Old Coronation. She walked over to the red sink house and I trailed after her, trying my best to appear confident despite my shyness. A tattered and broken fence lined the field the home was built upon, a large space inhabited by a small isolated structure. Outside the house sat Linda, with Nandi, wiggling on her lap.

Thandi, Linda's oldest daughter, stood in the doorway of the home; she looked at me curiously, but didn't return the smile I offered. She walked over to a log placed against the house and crouched down, leaned her weight on the zinc wall, and placed a halfway-filled 5l water bottle next to her. Her shorts and t-shirt were stained and unwashed; feet bare despite the glass and nails that lay on the ground. Thandi lifted the bottle to her lips and took long sips, going back for more after she caught her breath. The water was murky and riddled with particles, but she held onto it like a lifeline in the sweltering heat.

Effort, attempt, and struggle - three words that characterise the lives of Old Coronation residents. In an existence plagued with poverty, unemployment, basic service insecurity and environmental toxicity, residents make a concerted effort to sustain life under claustrophobic conditions of entrapment. The double-edged sword of basic service and environmental improvisation places them in a position where attempts to sustain life simultaneously put them at more risk. When the only options of survival present differing dangers to that survival, what choice should be made? Should they drink the water riddled with infection-causing bacteria, or should they not drink any water and risk dehydration? Should they engage in domestic-fuel burning to cook food and risk lung disease and infection, or should they not cook at all and endure hunger? What are the long-term effects of choosing the obvious path of drinking the water and engaging in domestic fuel burning? And should these effects be considered when immediate needs are at risk of not being fulfilled?

This is the nature of slow violence. Nixon's (2011:2) definition of slow violence is "a violence that occurs gradually and out of sight, a violence of delayed destruction that is dispersed across time and space, an attritional violence that is typically not viewed as violence at all." It is the long-dying and discounted human and ecological casualties that result from toxic aftermath - an incremental violence that occurs across the temporal scales of time and space (Nixon, 2011:2). The invisibility of the embodied somatic degradation caused

by power plants, mining, pollution, and domestic fuel burning ultimately invisibilise the experiences of residents.

The bodies within which this process takes place remain mostly unobserved, untreated, and undiagnosed (Nixon, 2011). When violence is not seen, it is often ignored or not viewed as violence at all. As such, Nixon (2011) urges us to move away from the common conception of violence as spectacular, immediate, and visible. Slow violence studies provoke an expansion of our imaginations on what constitutes harm and insist that we reckon with violence that has become detached from its original causes (Davies, 2019).

Slow violence is a symptom of the State's refusal to provide informal settlements with basic services and their lack of action in reducing and rectifying air and water pollution in disproportionately affected low-income areas. Within the context of air and water pollution, environmental violence is especially relevant; where deadly environmental conditions slowly sicken and kill the poor over time. This "genocide by attrition" (Rosenberg, 2012) manifests through the engineered sickness, weakened immunity, and expanded mortality of black communities in an effort of eradication.

Silina (2008) describes "genocide by attrition" as a slow process of annihilation that unfolds over months and even years. Much like slow violence, genocide is increasingly being conceptualised as a process that unfolds over time through indirect methods of destruction. The genocidal process urges attention to the phenomena as a process, rather than an outcome of a process (Rosenberg, 2012). Rosenberg (2012) argues that the excessive focus on violent deaths and the number of victims obscures alternative means of annihilation and signals of unfolding tragedy. She exemplifies the Holocaust, where 13.7% of victims died, not as a result of direct murder, but as a result of disease and starvation caused by confinement in dire and life-threatening ghettos prior to deportation to extermination camps (Rosenberg, 2012).

The emerging link between slow violence and genocide by attrition is based on the temporal scales of time and space, and its role in constituting what is violence and what is genocide. Temporality and toxins have a dialectic relationship, where time is an integral factor that determines the level of damage a toxin causes (Davies, 2018). Thus, the longer someone is exposed to a toxic substance, the higher the chance and degree of harm done. Murphy (2013) argues that toxins have the ability to delay health consequences across time and space and consequently create a distance and uncertainty between toxicity and the people affected. The

incremental nature of the deposit of toxic damage into human bodies allows the build-up of pollution to be ever-present, yet unrecognised.

Water Woes and Water Foes

The water in Thandi's bottle comes from a standpipe located in a neighbouring settlement. Linda, like most residents in Old Coronation, walks varying distances to access water from standpipes closest to her home. These taps don't always have water, and sometimes operate for weeks on the drip system. eMalahleni's tap water is unsafe and contains high levels of contaminants that make it unfit for human consumption. Although the ELM disagrees and vows that the tap water meets the minimum standards for safe consumption, water tests prove otherwise. When I noticed that the tap water at my accommodation had a brownish, rust colour with floating orange particles, I decided to conduct an at-home water test[13]. Results from a test on 1 litre of tap water indicated that the water contained 50 mg/l of lead and 25 mg/l of fluoride. Although not tested for, ELM officials have reported that the brownish, rust colour of the tap water is attributed to the high concentration of manganese caused by mining activities (Goldswain, 2019).

According to the South African Water Quality Standards Guideline, safe drinking water contains a maximum of 20µg/l of lead, 1µg/l of fluoride, and 0.15mg/l of manganese (South African Water Quality Act Guidelines, 1996). With the exceptional difference between legislative quality standards and the test results, it is apparent that eMalahleni tap water is not safe for drinking and can have significant health effects if consumed over long periods of time.

The consumption of water with high levels of lead is life-threatening and is linked to neurological damage to brain and nerve tissue in developing children and foetuses, kidney damage, hearing disorders, digestive issues, and anaemia, among others. (South African Water Quality Act Guidelines, 1996; NHS Inform, 2022). High levels of fluoride ingestion through contaminated drinking water can lead to skeletal fluorosis, a condition that causes bones to break easily and calcium to build up in ligaments and tendons, and severe tooth damage (South African Water Quality Act Guidelines, 1996; American Cancer Society, 2015). Additionally, long-term manganese consumption is linked to problems in memory, attention, and motor skills in children and adults, and the development of learning and behaviour problems in infants (Minnesota Health Department, 2022).

[13] A DNX 16 in 1 at home water quality test kit was used.

The biggest contributor to water pollution in eMalahleni is the major coal mining operations and the high concentration of coal power plants. Opencast and underground coal mining, both methods used in South African coal operations, cause the contamination of groundwaters, the formation of acid mine drainage (AMD)[14], and heavy metal pollution in water systems. During the mining process, a huge amount of water is discharged onto the surface. This water usually contains high levels of heavy metals, such as iron, lead, zinc, copper, cobalt, manganese, and nickel, that pollute ground and surface water (Shylla et al., 2020). The consumption of AMD and heavy metal-contaminated water is linked to cardiovascular disorders, neuronal damage, renal injuries, kidney damage and a greater risk of cancer and diabetes development (Garland, 2012).

The above-mentioned illness and disease derived from the continuous consumption of heavy-metal contaminated water is enacted across time and latently develops within the body. Due to its lack of immediacy and incremental pace, the violence of water pollution is not considered an immediate threat and is placed on the back burner. Nixon (2011) attributes this to the dissonance between the narrative of environmental pollution, media expectations for spectacular forms of violence, and the swift seasons of electoral change. Politicians habitually adopt a "last in, first out" logic toward environmental issues, "...admitting them when times are flush, dumping them as soon as times get tight," (Nixon:2011:9). These issues are put aside until they have immediate consequences, putting slow violence in the domain of the "yes, but not now, not yet," modus operandi (Nixon, 2011). This, compounded with the poverty and lack of resources of Old Coronation residents, perpetuates inaction and perceived insignificance.

Residents have localised knowledge of their environment that informs their actions to protect their health and safety. There is a general understanding that the mining activity surrounding the settlement pollutes the water and leads to sickness if ingested without prior precautionary measures. These measures involve boiling all water obtained from taps, water trucks, or dams before using it. Through knowledge gained from their lived experiences with the contaminated water, residents are aware that consumption without precaution leads to bouts of diarrhoea, vomiting, and an upset stomach. The resulting dehydration it causes could lead to worsening health conditions and even death in children. Individuals experiencing the consequences of environmental degradation and toxicity are witnesses not only to

[14] AMD occurs when mineral pyrite comes into contact with water. It is highly acidic and contains toxic heavy metals.

environmental destruction but also bodily destruction. Their skin, cells, organs, and bodily functions are informants to this slow violence and witnesses of genocide by attrition.

Neoliberal Water

"He's doing what Mandela [was] scared to do."

It was local election season during my fieldwork in Old Coronation, and voting posters for the Economic Freedom Fighters, African National Congress, and Democratic Alliance hung all over the settlement. Although not a factor I considered for my study, the timing for local municipal elections fell within my research period and it felt neglectful to not try to understand the dynamics of the election in the settlement. As Maria and I walked the streets of Old Coronation, we came across Mandla, a young man standing inside a makeshift wooden shelter, rolling dagga into paper to prepare a joint. He wore an EFF t-shirt and his dreadlocks hung long down his back. He was ready to talk to me the moment he saw my book and pen. His girlfriend wore the same t-shirt but shyly avoided conversation, her pregnancy bump visible underneath with three more months before their baby arrives. I ask Mandla if he thinks the EFF will change things in Old Coronation and provide residents with water. He's quick to answer.

> I believe that actually…he's [Julius Malema] doing what Mandela [was] scared to do 'cause he was scared that the white people could kill him, you see. Freedom is economical.

Strang (2019) argues that water is intrinsically related to economic and political power. History has illustrated how water control and distribution mirrors social, political, and environmental relations. The politics of accessing water is rooted in what Anand (2017) refers to as "hydraulic citizenship". This refers to the ability of residents to be recognised by the State through legitimate water services. It is a cyclical process that is dependent on social histories, political technologies, and material semiotic infrastructures of water distribution (Anand, 2017:8-9). Although Anand (2017) contextualises this form of citizenship within the politics of Mumbai, India, the premise of the argument is applicable to South Africa.

Hydraulic citizenship is represented through apartheid and post-apartheid water governance. The mining boom and growth of the industrial sector in the 1900s saw the improvement of the South African economy and a need for a shift in State priorities to support further development. With the mining industry at the centre of economic growth, the State instituted

policies, such as the Water Act No.54 of 1956, to develop water access and infrastructure necessary to foster industrialisation and urbanisation (Tarantino, 2019).

The aim of the Water Act of 1956 was to consolidate and amend the laws enforced in the Union that relate to the control and conservation of domestic, agricultural, and industrial water use. In accordance with racialised separate development, the Act was designed to promote water access for domestic and agricultural use for white urban areas (Tarantino, 2019). The development of water infrastructure and services was not a priority in predominantly black areas, such as informal settlements, as the government feared that residents would not be able to afford to pay for the services (despite the fact that the reason for this fear was due to the State's institutionalised impoverishment of black people) (Tarantino, 2019). As such, the contemporary lack of and inadequate provision of safe basic water and sanitation is rooted in the apartheid ideology of racialised deprivation.

Something Stinks

With the lack of water and sewerage services, sanitation is severely compromised, causing widespread disease. Pit toilets involve a hole in the ground where an individual has to squat to excrete into the hole. When the hole is full, sand is thrown over it to cover the smell and to prevent the spread of bacteria. Most residents have constructed a cement or wooden cubicle for privacy. Here, a bucket is used instead of a hole as covering up waste with sand will require moving to a new spot each time. When the bucket is filled, the waste is buried under nearby sand.

Residents like Linda who aren't able to procure the material required for a safe and private pit toilet, make use of their neighbour's cubicles, or engage in open urination or defecation. Other means of accessing sanitation in informal settlements include the use of flying toilets, where a plastic bag is used as a collection device for faeces (Taing, 2015; Winter et al., 2018). The lack of adequate sanitation and poor hygiene practices have been highlighted as contributing factors to high incidences of sanitation and hygiene-related morbidity and mortality in informal settlements and townships (WHO, 2009, as cited in Muanda et al., 2020).

A lack of sanitation leads to the transmission of pathogens through faeces and urine. Pathogens from faeces are ingested through transmission from fingers, flies, soil, fluids, and food. This ingestion results in a number of fatal diseases; namely, diarrhoea, enteric infection,

Hepatitis A & E, respiratory infection, polio, parasitic worm infections, trachoma, and conjunctivitis (Hutton & Chase, 2017:177). Diarrhoea is the leading cause of poor sanitation-based mortality and accounts for 19% of deaths in children under five in South Africa (Awotiwon et al., 2016). The slow violence of basic need insecurity permeates the cells, tissues, and organs of the poor most exposed to high levels of toxins. It is embodied and experienced as aftermath within, blind to the common gaze.

According to the Free Basic Sanitation Policy, local municipalities are responsible for the delivery of infrastructure for free limited water and sanitation in informal settlements and rural areas. Municipalities are allocated an equitable share through nationally-raised revenue to provide basic services and perform their allocated functions. Equitable share revenue was designed to provide municipalities with the resources needed to provide poor households with free basic services and to build administrative infrastructure (Department of Human Settlements, 2013).

Sanitation facility options to be provided by municipalities included communal flush toilets, communal water-independent urine diversion toilets (known as MobiSan), communal full-flush toilets (known as Kayaloo), and individual portable toilets (Muanda et al., 2020). Through the implementation of this policy, sanitation backlogs were reduced by 21% in 2001 (DHS, 2012). Old Coronation, however, was not included in this widespread implementation - not one government-provided sanitation facility is present across the entire settlement. This is not specific to Old Coronation, as other settlements in eMalahleni have also been excluded. This illustrates the limits of the ELM and begs the question of where the funds allocated for these facilities went.

Slow violence has a significant connection to structural violence with its focus on social injustice and how broader systemic conditions and social institutions perpetrate violence by preventing people from being able to meet their basic needs (Christian & Dowler, 2019; Lee, 2019). In Old Coronation, structural violence is embodied through a lack of water and sanitation infrastructure that mortality depends on. Doherty (2019:323) defines infrastructural violence as, “the interconnected ways that infrastructures participate in slow and structural, as well as more traditionally conceived, forms of violence.” According to Rogers and O’Neill (2012) infrastructure is the material embodiment of structural violence. Structural violence flows through material infrastructural forms, and thus, social suffering is experienced materially (Miller, 2005, as cited in Rogers & O’Neill, 2012). The concept of

materially-experienced infrastructural violence is a central theme throughout this study, as it is a consistent factor that is woven into every aspect of the lives of residents.

Inhale, Exhale

I settle in the passenger seat as Maria drives us down a long stretch of road. The clouds hang heavy in the sky - mixing with smog that saturates the world in a yellow hue. We turn right under a bridge with painted murals of Nelson Mandela and Desmond Tutu, a welcoming sight before our entry into the cemetery. We circle a large fountain surrounded by white flowers and plants and drive through winding roads marked by headstones and wooden crosses before Maria stops the car for us to get out. She guides me through hundreds of graves, keeping her eyes peeled for the ones she's looking for. When we find it, she stops and bends down, cleaning the burial site from the overgrown grass and sand that surrounds it. She sorrowfully rubs her hand over the name on the headstone and sits down, beginning a conversation with the deceased.

This is the final resting place of Maria's daughter, Bongi, who died at age 14 after a long battle with cancer. A few metres from her grave rests Maria's mother, also a victim of cancer. The information I received about their deaths and lives was minimal, as Maria's silence on the topic made it evident that she wasn't willing to share. By 2021, Bongi would have been 17 years old, 2 years younger than her older sister is now. Maria sits at the grave and tells Bongi about all the things that have been happening in the lives of her family as if she were sitting right next to her mother, listening intently.

"This is Shakira," Maria tells her daughter.

I'm taken aback by her introduction and touched by the importance of this moment. My name, Zaakiyah, had always been difficult for her to say, so for the duration of my fieldwork, I went by Shakira, a stranger not only to residents but also to myself. Maria moves to her mother's grave and performs the same ritual she had with her daughter. I walk away and allow her the moment in privacy. I was met with long periods of silence all throughout my fieldwork: silences of ponder, embarrassment, protection against painful thoughts (Dragojilovic & Samuels, 2021), and of refusal to share - all nuanced non-narrative forms of speaking. When Maria and I first met and started to learn about each other; our lives, our homes, our personalities, she told me she had three children, and after a beat of silence, mentioned the fourth, Bongi. "But she died," Maria said after, her voice noticeably smaller

and weaker than before. She appeared to be swallowing her pain, trying to bury it under her usual carefree demeanour but failing. After explaining Bongi's cause of death to me, Maria ended the conversation with finality. Her tone and body language indicated that this would be the first and last time we'd speak about her. I realised that I wouldn't be privy to this "...painful narrative shaped by untold histories," (Das, 2007, as cited in Dragojilovic & Samuels, 2021:417).

Maria held onto Bongi's life history with a vice grip, never speaking about her, other than giving me bare details of her death and age. Yet, I was brought to the most sacred and vulnerable space that held her daughter. As an ethnographer, I rely on details to create a story, but I came to realise that silence and actions can write that story. Maria wasn't able to verbalise information relating to Bongi - too overcome by emotion and pain (it appeared), and instead took me to her, as if Bongi herself could have that conversation with me. This was a gesture remarkably more important than any spoken word could ever be.

Maria was unable to tell me the type of cancer her family members were afflicted by, and mainly described it as a "bad sickness" and a state of being "very sick". Clinical names for the disease held no importance to her as her main focus was the weight of the sickness and its robbery of life. Research has shown that ambient air pollution is not only linked to the development of lung cancer (American Association for Cancer Research, n.d.; Turner et al., 2020; Centre for Environmental Rights, 2012), but also liver, breast, and pancreatic cancer (Wong et al., 2016). Further studies have found that the mortality risk for developing these cancers was between 35-80% higher for individuals exposed to long-term fine particulate matter (PM). Possible explanations for the increased association between cancers and air pollution include the development of defects in the repair function of DNA, alterations in the body's immune response, or inflammation that triggers the growth of new blood vessels that allow malignant tumour growth (Wong et al., 2016).

PM emissions are a leading environmental pollution issue associated with coal mining (Qi et al., 2020). PM is an airborne mixture of solid particles and liquid droplets made up of organic compounds, metals, acid, soil, and dust (Gautam et al., 2016). Coal mining operations, such as drilling, blasting, mineral loading, haulage and unloading, generate varying sizes of PM particles that disperse into breathing air. The size of the particles dictates which site in the respiratory tract it will deposit, with bigger particles depositing in the upper respiratory tract, and finer particles reaching lung alveoli (Gautam et al., 2016). The toxic compounds in PM

particles may be absorbed into the bloodstream and could lead to toxic and carcinogenic reactions (Gautam et al., 2016). Moreover, evidence has shown that hazardous air pollution is associated with a greater risk of the development of childhood leukaemia (Reynolds et al., 2003).

Maria lives in Tala, a settlement in close proximity to Old Coronation, with her three children and husband. Tala residents are exposed to significant industrial pollution from ferrometal factories, active coal mining projects, and power stations. The streets are filled with trash, from packets to diapers and rotting food. Built behind her house is a canal filled with dirt and sewerage water that overflows into the street. The smell is unlike anything I had experienced before: something between rotten eggs, faeces, and a smelly drain. According to Maria, the municipality dumps hospital sewerage into the canal. The lifetime exposure to air and environmental pollution may be the cause of the cancer that developed in Bongi's body.

All air is not equal.

Dirty Air

"We have the dirtiest air in the world," read 2018 headlines after data from a Greenpeace report revealed that Mpumalanga has the world's largest nitrogen dioxide (NO_2) hotspot across six continents (Goldswain, 2018). NO_2 is released into the atmosphere when fossil fuels, like coal, are burned at high temperatures. NO_2 is extremely dangerous as the continuous inhalation of the pollutant can lead to airway inflammation, coughing, wheezing, and reduced lung function (American Lung Association, 2020). Growing evidence has also found that indoor NO_2 exposure can trigger and aggravate asthma symptoms in children (Gillespie-Bennet et al., 2011).

When coal is burned, six principal pollutants are released: sulphur dioxide (SO_2), nitrogen oxides (NOx), particulate matter, carbon dioxide (CO_2), mercury and other heavy metals, and fly ash and bottom ash. These pollutants are linked to acid rain, respiratory illness, lung disease, and neurological and developmental damage (U.S Energy Information Administration, 2021).

Compared to other countries, South Africa's Minimum Emissions Standards (MES) allow coal-fired power stations to release up to ten times more NO_2 than China and Japan - countries with extreme levels of air pollution (Greenpeace Africa, 2018). In order to combat this, amendments to the sulphur dioxide MES were made from 3500 mg/Nm3 to 1000

mg/Nm3 with effect from April 2020 (Department of Forestry, Fisheries, and the Environment, 2020). All industries were set to comply with this amendment by April 2020, however, Eskom[15] has declared that 13 power stations will never be able to comply with these standards. Instead, they intended to apply for "rolling postponements" to receive ongoing, consecutive postponements for five years until the power stations are decommissioned (Gifford, 2019). Even so, Eskom has only set out seven power stations for decommissioning by 2030. Mining and power-producing corporations continue to get away with such blatant violations despite the penalties laid out in Chapter 7, section 52 of the Air Quality Control Act. This is largely due to the lack of penalty enforcement by government officials[16].

Section 24(a) of the Bill of Rights states that "everyone has the right…to an environment that is not harmful to their health or well-being." This includes the right to clean air. The 2019 "Deadly Air" court case brought against the State by environmental justice groups groundWork and Vukani Environmental Justice Movement in Action, argued that the government has violated this right by not improving deadly air pollution levels in the Highveld Region (CER, 2019). Supporting evidence from a 2017 study commissioned by groundWork found that an estimated 2239 deaths per year are attributed to air pollution in South Africa, and more than 9500 cases of bronchitis among children aged six to twelve years old (Ncube, 2021).

These deaths and diseases continued despite the declaration of the Highveld Region as a Priority Area in 2007. In accordance with the National Environmental Management: Air Quality Act 39 of 2004, priority areas are declared when "...ambient air quality standards are being, or may be, exceeded in the area and… the area requires specific air quality management action to rectify the situation." Once a priority area is declared, the air quality

[15] South African electricity public utility

[16] Eskom# was established in 1923 as a monopoly State entity with the main purpose of supplying cheap electricity to the railway and the mines (Woode-Smith, 2019; van Niekerk, 2020). The utility played a key role in the development of South Africa's capitalist economy, where "...electrification was shaped by the minerals-energy complex." The minerals-energy complex refers to established institutions and industries that have developed around mining, energy, and finance sectors (Fine & Rustomjee, 1996). At the centre of the MEC is mineral extraction and processing, a sector that has led to a wide range of mining-related industrial and manufacturing firms (McDonald, 2009:8). Electricity production and Eskom as a public utility is a driver of racial capitalism, particularly during the colonial and apartheid era.
During colonial and apartheid South Africa, electrification was apportioned according to race, phenomenon known as 'energy racism'. A 1991/2 report showed that all white homes were electrified during apartheid, but less than 10% of black township and Bantustan residents has electricity access (Theron, 1991). This vast access inequality was in place despite the fact that it was mainly black workers who provided the labor in coal mines to produce electricity. Eskom directly contributed to this throw the separate administration of electricity in accordance with racial policy. During a Truth and Reconciliation hearing in 1997, Willem Kok, Eskom's acting CEO admitted that, "Separating the administration of black urban areas from white cities often meant that the black areas were left without electricity services," (South African Press Association, 1997)

control officer must develop a priority area air management plan, illustrating out how the issue will be tackled (Air Quality Act, 2004). The management plan for the Highveld region had seven goals for 2020, three of which were relevant to the mineral industry.

- By 2015, organisational capacity within the government is further developed for effectively and efficiently maintaining, enforcing, and monitoring compliance with ambient air quality standards;
- By 2020, industrial emissions are fairly reduced to be compliant with air quality management standards and dust fallout limit values[17]; and
- By 2020, air quality in low-income settlements is in full compliance with air quality standards

15 years after the area was declared a high priority and a management plan was developed, little to no progress has been made - despite the goals set out. This is mainly due to the government's initial refusal and delay to develop and prescribe implementation regulations to enforce the plan (Sefatsa & Lesele, 2022). Former Minister of Environmental Affairs, Nomvula Mokonyane told the Centre of Environmental Rights (CER) that it was unnecessary to create regulations to enforce and implement the Highveld Region Air Management Plan, and that the plan was only one of several tools to address air pollution, and was only meant to be a plan that seeks collaboration between stakeholders that articulate shared visions and goals (CER, 2019). This statement goes completely against the rules and regulations of the Air Quality Act.

Domestic Fuel Burning

I close my eyes and make myself comfortable in the car seat as Maria and I take a break on the side of the road before we make our way to Zintle. We're parked on one of Old Coronation's dusty, undeveloped roads in front of a pink house with "Rooms to Rent" painted on the front wall of the house. I wiggle my nose as a strong odour creeps its way into it; a strange combination of incense and sulphur permeates the air. I choose to ignore it and try to sneak in a quick nap, but Maria taps my shoulder and points toward the house next to the one we are parked in front of. There stands a metre-tall gallie sending out thick billowing clouds of smoke into the air. The area around the gallie is shrouded in dark pollutants. The

[17] The dust fallout refers to dust particles that settle at a particular point. For residential areas, the limit is 600 mg/m2/day on a 30 day average, and for non-residential areas, 1200 mg/m2/day on a 30 day average (Lotter & Loans, 2015).

sight and smell of the fire cause an itch in my lungs and I suddenly start to cough, as if coughing will somehow expel the pollution from within my body.

A *gallie*[18] and primus stove is the primary form of energy creation in Old Coronation. With the lack of basic services, like electricity, residents have to rely on domestic fuel burning, a process where materials such as coal, wood, and paraffin are burned to meet energy needs. Globally, an estimated 2.6 billion people cook using open fires fueled by coal, kerosene or biomass. Out of this 2.6 billion, seven million people die prematurely from illnesses caused by indoor household pollution (World Health Organization, 2021). The fuels and mechanisms used in domestic fuel burning produce high levels of indoor pollution that give off damaging pollutants, such as soot particles that penetrate the lungs.

At Yolwazi Indawo Creche, an old-fashioned wood fire and coal stove are used to cook food for the children. Zintle, the general worker and cook at the creche, lights the coal and smoke engulfs the room.

> "Does this not sit on your chest and make you cough?" I asked her.
>
> "When you use the wood, nothing goes like coughing, but when you use the charcoal, yah" she tells me.

My eyes start to burn as the smoke increases. The smell of sulphur is so strong I can taste it. Zintle stokes the fire and closes the hatch, but it's not properly fitted, so the smoke still escapes. She's so used to it, she tells me, that she can barely feel the effects of the fumes, but her cough tells a different story. The kids roam around through the creche grounds and into the kitchen, inhaling the smoke and coughing periodically. With two small windows barely able to open, and only a door, the kitchen has little to no ventilation. Zintle tells me that they aren't affected because the hatch prevents smoke from escaping, and laughs guiltily after, even though the situation isn't her fault.

In poorly ventilated indoor areas, as in the creche, smoke levels from an indoor open flame? can reach up to 100 times higher than the acceptable levels for fine particles (World Health Organization, 2022). The WHO (2012) has found that this disproportionately affects women and children as they spend more time around these makeshift stoves. Researchers argue that children are especially susceptible to developing acute respiratory infections (ARI) due to their higher sensitivity to pollution exposure and because they spent a large part of their early

[18] A fire stand made with a round metal barrel

and middle childhood in and around the home with exposure to indoor cooking pollution (Landrigan et al., 2017; Wright et al., 2020).

Household pollution nearly doubles the risk for childhood pneumonia and is the cause of 45% of global pneumonia deaths in children under 5 years old (WHO, 2021). The provision of electrical services and the strict implementation of air quality regulations in mining settlements will drastically reduce death and illness in children and adults.

Tuberculosis

Maria opens her front gate to allow me in; the black metal screeches as she pushes it to a close and guides me to the back entrance of her house. The pink exterior walls and blooming flower and vegetable garden stand out among the surrounding zinc houses. The backdoor creaks as it swings shut as Maria walks me through her kitchen into the lounge area. Her home is a modest two-bedroom, neatly arranged with ornaments, photo frames, and wall art. She adjusts her yellow headscarf and tells me to sit. The brown leather couch pulls me in and I sink into its folds, my feet dangling off the edge. A cold breeze makes its way into the legs of my pants and sends a shiver through my body. Maria rests on the arm of the couch and carefully applies lipstick while looking into the adjacent mirror. A short cough escapes her lungs and she heaves slightly forward to catch her breath, prompting her to tell me about her history of breathing.

Until her resignation in 2010, Maria was employed by Eskom as a coal ash quality control officer. Her role included physical and chemical testing of coal, coal quality monitoring, and testing and preparing coal samples. All quality control officers were required to wear personal protective equipment (PPE) to prevent adverse health effects from breathing in the particles of the coal ash. Yet, two months after her resignation, Maria found herself in severe respiratory distress. “The ash was sitting on my lungs. I realised after 2 months I’ve got TB.”

Tuberculosis development and progression are associated with the inhalation of free crystalline silica, a pollutant found in coal ash (Konečný et al., 2018). Silica is most commonly associated with silicosis, an occupational fibrotic lung disease caused by the inhalation of silica crystal particles (Ehrlich et al., 2021), but studies have found that exposure to silica without developing silicosis can predispose individuals to TB (Cowie, 1994; Hnizdo & Murray, 1998; teWaternaude et al., 2006).

Maria's tuberculosis symptoms were so advanced that she underwent seven months of intensive treatment. She lost half of her body weight and was unable to walk for longer than 10 metres at a time without feeling tired and losing breath. When I asked whether she took legal action against the company, she explained that this was impossible, as, according to Eskom, once an employee has left the premises and is no longer employed at the company, the respiratory disease cannot be attributed to work in the power station. "Maybe they will say, you didn't get that thing [TB] here." she says dejectedly.

This logic is implemented despite the fact that TB can take 2-3 months to develop into an active disease after infection (New York State Department of Health, 2018). Chapter 7, section 65(4) of the Compensation for Occupational Injury and Disease Act, 1993 states that "...a right to benefits in terms of this Chapter [compensation] shall lapse if any disease…is not brought to the attention of the commissioner or the employer or mutual association concerned, as the case may be, within 12 months from the commencement of the disease."

Maria's TB went into active infection two months after her resignation. Through her understanding of her workplace rights, she was not able to file for disease compensation because the infection only manifested once she had resigned. Big corporations, like Eskom, rely on employees being uninformed in order to not take responsibility. As a result, individuals like Maria are not compensated for occupational disease and have to bear the medical cost of treatment. Maria's development of TB while working to ensure the safety and quality of coal ash has a twisted irony. If the toxicity of coal ash is dangerous enough to penetrate PPE, is it really safe to be used in paved roads, as structural filler, concrete, and school running tracks? What are the measures of this illusive quality and safety measures considering the well-known toxicity of coal ash?

Today, Maria still suffers from periodic coughing, the sound drawing a picture of the damage the TB caused to her lungs. In the last month of my research Maria's health declined rapidly. The coughing increased, and she had chronic headaches, nosebleeds, and dark circles around her eyes. I feared that she too would be afflicted by the disease that took her daughter and mother. She described constant pressure in her head, like blood collecting at the base of her skull pushing to be released. I never did find out the cause of it, but I watched as she became sicker, even in the few months that I spent with her during my research. I wondered if this was the cause of the pollution, genetics, or the years of work at the power station, and through which avenue slow violence was being performed.

Racialised Exposure

The burden of air, water, and environmental pollution is disproportionately experienced by communities living on the margins of society (Ncube, 2022; Failey, 2016). Studies have shown that socioeconomic status (SES) and air pollution are directly related, where lower classes are disproportionately exposed to high levels of air pollution in comparison to the middle and upper classes (Hajat et al., 2015). This environmental equality presents a triple jeopardy where low SES communities face greater exposure to air pollution and environmental hazards, and an increased susceptibility to poor health as a result of psychosocial stressors (i.e. discrimination, chronic stress, extreme poverty, poor health status), resulting in health inequality driven by environmental factors (Hajat et al., 2015:441).

Environmental inequality is a key premise of what Pulido (2016) refers to as 'environmental racism', a form of systemic racism where, "...communities of colour are disproportionately burdened with health hazards through policies and practices that force them to live in proximity to sources of toxic waste," (Beech, 2020). Environmental racism in South Africa is a product of colonialism that successfully materialised through apartheid's racial spatial engineering. Through the apartheid ideology of spatial hierarchy, legislated racial stratification manifested through community zoning for specific races. This zoning prevented people of colour from moving to better neighbourhoods regardless of economic or cultural characteristics (Schensul, 2009:14). It also forced black people to accept employment in more polluting industries, making them more susceptible to illness and disease.

In post-apartheid South Africa, little has changed. In fact, these inequalities have become more deeply entrenched. As such, Pulido (2016) argues that environmental racism is a constituent of and crucial expression of racial capitalism. Pulido (2016) argues that the State is not invested in solving the environmental racism gap because it will be too costly and disruptive to the industry, the political system, and the State itself. The continuation of the disproportionate burden of disease and death toll on black people, as a result of industrial pollution, is due to what Ma´rquez (2013) terms, a "racial State of expendability." This is described as a "fundamental and existential life devaluation, a perpetual susceptibility to obliteration and legal impunity," (Ma´rquez, 2013:44).

Pulido (2016) has shown that the State will not implement meaningful initiatives to dismantle environmental racism because it seeks to maintain racial capitalism. In following suit, capital will not address environmental justice issues because sanctions will be minor. What we see

before us is State-sanctioned genocide-by-attrition performed incrementally through the institutionalised weakened health and eventual mortality of black people who are perceived as burdens to capital's progression and dispensable surplus.

Chapter 3

The Forgotten People

I grow within a long barren garden
A flower full of flaws
In soil full of rot
In the shadow of an abandoned home.

Year in and year out
I brave the elements.

Not a storm nor a flood
nor the heat of a blistering summer
has taken me yet.

No animal to cut me down,
no visitors to trample me,
no insects to graze upon
my spoiled leaves.

I am but a long forgotten weed,
by a long forgotten house,
in a long unloved bed,
in which one day I too
shall perish...

And along with I...
so shall the memories once cherished

The Final Weed by Valkivarie

Marx (1867:784) views the surplus population as a necessary product of the accumulation or development of wealth on the basis of capital. In the same vein, it is also the condition for the existence of capitalist modes of production. Capital wealth production creates a disposable reserve army of labour - "...a mass of human material always ready for exploitation by capital." (Marx, 1867:784). The oversupply of labour that enters and leaves the workforce according to its needs is a primary feature of capital. Capital is intrinsically selective according to its needs; it acquires labour to use when required, and discharges it when it is no longer needed (Magdoff & Magdoff, 2004).

History overflows with different moments in which these expendable populations have been created and subsequently disposed of in the process of refining capitalist processes and needs. The great migrant labour surge during South Africa's Mineral Revolution saw an exponential rise in employment, followed by massive retrenchment as mining technology developed and many mines were either closed or abandoned. This phenomenon has not been left in the past, as mine job loss has intensified ever since[19]. The first massive retrenchment of mineworkers occurred in 1987. Maphosa and Morojele (2013) cite three major happenings that contributed to this large-scale job loss:

Because capital prioritisation rules the economy, companies will always use new means to increase production and reduce expenditure. The increased mechanisation of mining processes made excess labour redundant as machines were able to do what labourers could do without the requirement of wage payment and benefits. Secondly, the several-week-long wage increase strike of 1987 saw mining companies retrenching an estimated 60 000 workers due to the substantial loss of production during that period[20]. Third, global market gold prices saw a rapid decrease from $850 per ounce in 1980 to $500 per ounce in 1987. With successive decreases, workers were retrenched, contracts weren't renewed, and mining operations closed down as they became bankrupt (Maphosa and Morojele, 2013).

The rapid retrenchment of hundreds of thousands of workers from the 1980s to present day has created a surplus population of unemployed and underemployed workers. Bauman (2004) argues that surplus populations are unplanned collateral casualties of economic progress. These casualties occur through the course of economic progress which successfully dismantles the existing forms of creating a living into pieces that are recycled into new forms. During the process, some pieces are damaged beyond repair, and only a reduced quantity of that which survived is required in a smarter and slimmer working contraption (Bauman, 2004:45). The damaged and leftover make up the surplus population - groups of people who are left redundant due to the structure of capitalist systems of production (Rajaram, 2018). The forever-changing requirements for capital's progress enact a certain form of displacement of economic security and sociality. These changes create an upheaval in once-sustaining

[19] According to data from Statistics South Africa, 50 000 mine workers lost their jobs between the first quarter of 2017 and the beginning of 2018.
[20] The 1987 strike saw an estimated 340 000 people industrial strike, with more than 70% representing black coal and gold miners. The strike occurred as a result of an ignored proposal of a 40%-50% wage increase, concessions for holiday leave, danger pay, and death benefits. With the mining chamber only agreeing to a 12.5% wage increase, a strike was arranged.

activities of livelihood and economically displace individuals who do not fit within this new capital contraption.

> To be declared redundant means to have been disposed of *because* of being disposable - just like the empty and non-refundable plastic bottle or once-used syringe, an unattractive commodity with no buyers, or a substandard or stained product without use thrown off the assembly line by the quality inspector. (Bauman. 2004:18)

In the capitalist economy, the assembly line is economic progress and the quality inspector is capital's valorisation. Liboiron and Lepawsky (2022) argue that disposability is one essentializing effect of stereotyping Stereotyping is a system that creates systems of simultaneous value and worthlessness. It essentialises groups who are considered to be less than the norm, allowing them to be 'Othered' as less worthy of human rights, less human, and more disposable (Liboiron & Lepawsky, 2020:111).

Wasted Humans

Mbembe (2020) argues that the human itself is a product of waste at the interface of race and capitalism. He furthers that the wasting of black lives is an integral part of capitalist logic, particularly in contexts where race is central to wealth production and the creation of surplus people, i.e. the mining industry (Mbembe, 2020).

Surplus populations are one form of what Bauman (2004) refers to as 'wasted humans' or 'human waste'. Bauman (2004) identifies two categories of wasted humans: first, the redundant who are without work or a source of labour. Redundant populations should not be confused with the unemployed - unemployment is regarded as a temporary ailment which can be cured with employment. Redundancy, however, "whispers permanence", there is no undoing of the condition. Bauman (2004:17) describes it as being, "...supernumerary, unneeded, of no use - whatever the [changing] needs and uses are that set the standards of usefulness and indispensability." Whereas the unemployed can be recycled back into the labour force, the disposability of the redundant relegates them to the waste yard (Bauman, 2004).

The second category of human waste is refugees, asylum seekers, and undocumented migrants - the wastes of globalisation. They are "outsiders incarnate", perpetual visitors and out of place everywhere they go, stateless, and left in a liminal drift, with no way of knowing

if it's temporary or permanent (Bauman, 2004:79; Agier et al., 2002). Old Coronation is home to many refugees, asylum seekers, and undocumented migrants hailing from Lesotho, Swaziland, Zimbabwe, and Mozambique, who came to South Africa with hopes of a better life. For Linda and Pamela, South Africa was a place of hope for economic opportunity and escape from poverty. However, the reality of this dream was far from expected and landed them in similar or even worse conditions than they once were in. Linda lamented over this with Maria, and how she would at least have consistent access to food if she were in Lesotho with her family. Her life now is plagued with hunger and dire poverty, a condition she doesn't foresee escaping from.

The permanent outsider as a wasted human is rooted in Giroux's (2006) biopolitics of disposability - a phenomenon which globally manifested in terms of migrant care politics during the pandemic. The pandemic caused refugees and migrants to experience new vulnerabilities through exclusionary measures. Aside from the closure of borders for migrants and refugees to prevent the spread of the virus, migrants existing as outsiders in these spaces were excluded from inward care work. The empathy and visibility of the vulnerabilities migrants experienced were diminished in place of concern for the nation and *its* people (Tazreiter & Metcalfe, 2021:6-7).

During South Africa's 21-day lockdown in 2020, structural and practical xenophobia was perpetuated by the State's exclusion of this population in poverty and hunger-allieviating strategies (Mukumbang et al., 2020). In order to assist the population with the social and economic distress caused by the virus, the State instituted five financial provisions: the Covid-19 Relief of Distress grant of R350 for individuals who have lost their jobs or were unemployed for six or more months as a result of the virus; an increase in the value of social and child grants; a Business Relief Fund of R500 million for businesses affected by the virus; a tax subsidy for small businesses and lower contributions to UIF (Unemployment Insurance Fund); and food parcel distribution for those threatened by food insecurity (Mukumbang et al., 2020).

These measures, however, were exclusionary - meant for "us" not "them". Undocumented persons and foreign-born migrants gained no benefit from this economic relief as they were exclusive to South African citizens. Many foreign-born migrants owned businesses but were not included in the Business Relief Fund on the condition that they were not 100% South African-owned (Mukumbang et al., 2020). Asylum seekers and special permit holders

employed in the formal sector were also denied UIF payouts that they mandatorily contributed to on the argument that the UIF electronic system did not recognise passport numbers (Mukumbang et al., 2020). Similarly, foreign-born migrants were excluded from food relief packages as a South African identity document (ID) or special permit was required - which the majority did not have.

Foreign-born migrants, asylum seekers, refugees, and undocumented individuals were left to fend for themselves during the worst of the pandemic, and continue to have to do so today. Linda and Pamela, like many in Old Coronation, were exempt from these relief measures and were left in a condition of abandonment compounded by their existing struggles. These kinds of exclusionary policies embody Mbembe's (2003) 'necropolitics'. The premise of necropolitics rests on the sovereign's power to 'let die' and expose certain groups to conditions so detrimental to their health that it will lead to death (Sandset, 2021). Mbembe (2003) focuses on conditions of death and disease that are created in such a way that certain groups are situated in zones of living that do not sustain life, but rather enable 'slow death'.

Berlant (2007:754) defines slow death as the physical wearing out of a population and the deterioration of people within that population that is a nearly defining feature of their experience and historical existence. The acceptance of necropolitical conditions allows the continued existence and creation of zones where people are exposed to conditions of slow death (Sandset, 2021). In instances of global panic and disaster, groups of outsiders, like migrants, are divested of their right to legal protection and the protective shield of social norms (Sandset, 2021), and are reduced to what Agamben (1998) calls 'bare life'. Those living 'bare life' can be subjected to all manners of violence with impunity - as such, the sovereignty has power over the individual to act upon their life and deprive them of the right to live (Sandset, 2021; Agamben, 1998).

Agamben (1998) argues that refugees are the ultimate biopolitical subject who can be regulated and governed in a permanent state of exception; exception from legal, normative and social rights (Sandset, 2021). Refugees and migrants situated in this state of exception within the global pandemic were reduced to all aspects of bare life and slow death. Foreign-born migrants in South Africa have lived in precarity long before the pandemic. Mukumbang et al., (2020) cite weakened social support structures, unequal access to health and social services, precarious housing, and higher chances of exploitation and abuse, and some of the conditions endured. Research has shown that migrants were disproportionately

affected by the pandemic as many found themselves jobless, evicted from their homes, food insecure, and trapped in lockdown camps without necessary infection prevention measures (Mukumbang et al., 2020; OECD, 2022). The lack of equal State support for migrants and refugees enacted sovereignty's power to decide who is worthy of living and who can be left to die.

Dirt Politics

In a more context-specific view, Wenzel (2018) situates the concept of waste within South Africa's "cultural politics of dirt", and separates it into two different meanings: the beckoning frontier of development and the spatial relations of waste. The private development and gentrification of land yield a variation of dispossession, displacement and waste consignment. We see an example of this in Woodstock, Cape Town, where the area was designated as a priority urban development zone with significant tax breaks for developers and investors (Joseph, 2014). The previously working-class neighbourhood underwent renovation and as a result, property and rental prices increased, placing financial pressure on the people already inhabiting the space, and increasing the chance of displacement. Many long-term residents were forced to relocate, with some becoming homeless (Andersen, 2021). Gentrification transforms working class neighbourhoods into centres of commodification and reinvestment (Ley, 2003, as cited in Andersen, 2012).

Although not noted by Wenzel (2018), frontier development as waste within the capitalist regime can also be understood through Liboiron and Lepawsky's (2022) concept of the relations between centres and peripheries, and its subsequent development of sacrifice zones (Lerner, 2012). In the words of Hopkins (2020), "...you can't have sacrifice zones without disposable people, and you can't have disposable people without racism." According to Liboiron and Lepawsky (2022) waste is made through the relations between the centre and the periphery, where the coherence of the centre depends on the periphery.

For example, in industrial waste systems, waste belongs in a defined place - a dump, recycle bin, or steel barrel. These objects allow the centre to carry on without trouble (Liboiron & Lepawsky, 2022). Within the same context, people live and work on these peripheries - in areas and in populations designated for waste management. The placement of this human and industrial waste on the periphery, allows the centre (i.e. society, corporations, and the economy) to operate without concern. Sacrifice zones imply sacrificed people - which historically and contemporarily are black people. The second meaning of waste, according to

Wenzel (2018) refers to dirt that has been discarded and put in its correct place, i.e. a dump, or a trashcan. In terms of forced removals, the "waste" is people of colour who are relegated to racialized zones and sacrifice zones as a form of waste management.

Old Coronation holds a history of residents being relegated to an already wasted space and the creation of a wasted space after its establishment as a residential settlement. Despite the known health dangers of exposure to coal mine processes, two major operations are underway on the surrounding edges of Old Coronation; one directly next to Likazi Ferrometers and another next to Coronation. According to residents, prior to the commencement of operations, the coal companies visited homes in close proximity to the mine to receive consent. However, this consent was obtained coercively through promises of employment, tenders, and housing - a promise that never came to fruition.

Much like political parties, large corporations make promises to the most vulnerable in order to extract capital, but never follow up on these promises. It is always the most vulnerable and marginal of society who are exploited, abused, and deceived due to their desperation to access basic human and social rights.

Religious Capitalism

During my research, I was met with exploitation in the last place I thought to find it - the Church. Since the late 1900s, the exploitation of desperation and vulnerability began flourishing in the Church through the prosperity gospel. (Bowler, 2010). The prosperity gospel argues that humanity's salvation is a contractual agreement with God, where belief and surrender to God bring atonement of sins, health, and exceptional wealth. God's prosperity is believed to be accessible through prayer, confessions, and generous offerings to the church through tithing[21] (Zulu, 2022). For Hunt (2000:333), the prosperity gospel assures believers that, "... 'health and wealth' are the automatic divine right of all Bible-believing Christians and may be procreated by faith as part of the package of salvation since the Atonement of Christ includes not just the removal of sin, but also the removal of sickness and poverty."

[21] Tithing involves donating ten percent of your income to support the church, the needs of the pastor, and missionary work (Zavada, 2019). In contemporary church practices, tithing expectations vary from church to church, where some congregations are encouraged to give only what they can afford, while others encourage to give as much as possible, to receive more from God.

For the poor, the prosperity gospel promises power and change through devotion and most importantly, offerings. It is this specific feature that exploits desperation and suffering caused by a dysfunctional economy and social instability (Zulu, 2022). I noticed that Zintle fell victim to this exploitation in her efforts to ease her suffering and look toward a better future for herself, her children, and her fiance.

Zintle and her fiance, Manzi, live a life of constant difficulty. Although they are both employed, their combined salary does not afford them a comfortable or even livable livelihood. Zintle earns R1500 per month, Manzi's salary is unknown, however typical gardeners' salaries begin at R2937 (MyWage.org, 2022). During the winter months, work is minimal, creating an unstable flow of income, and a decrease in his usual pay. Their income dictates their food and nutrition intake, leading to low levels of nutrients required for immune system health. The couple mainly eat pap, rice, and harvested vegetables, such as cabbage, carrots, and potatoes.

The tedium of consuming the same foods causes Zintle to often daydream about buying herself KFC chicken one day. She smiles dreamily as she thinks about it, and tells me that maybe in her next life she'll be able to afford all the things she desires, and perhaps she was meant to suffer in this one. Despite this, Zintle doesn't question God's intention for her suffering. She follows his message and practises His teachings to secure her future blessings.

Zintle attends church every Sunday and telephonic Bible Study every Tuesday or Thursday. Her circumstances do not afford her the ability to tithe, yet, she does so every week. Archbishop (Dr.) Olanrewaju Obembe (2017), presiding Archbishop of El-Shaddai Bible Church and Apostolic Cardinal ICCAM in Nigera, argues through his Biblical knowledge, that one act of tithing promises ten blessings on the individual, three of which involve blessings of financial gain. If an individual wants God to be involved in their finances, they must honour God with their tithe. Dr Obembe (2017) further explains this:

> 'You have to give out carbon dioxide to take in oxygen. If you do not give out carbon dioxide, you cannot take in oxygen. Failure to give out carbon dioxide will lead to death," (Archbishop (Dr.) Olanrewaju Obembe (2017).

It is through this indoctrination that many impoverished believers donate the last of their money in hopes that more will be returned to them in the nearing future. Such teachings allow some of the rapidly rising new-age church denominations, such as Pentecostalism, to

manipulate the desperate and make themselves wealthy under the guise of church support. Pentecostalism is a Protestant Charismatic Christian movement that emphasises the Holy Spirit, spiritual gifts, and miracles. According to Eriksen et al., (2019:138), pentecostalism has been theorised and understood as epitomising the neoliberal economy.

Instead of addressing the neoliberal economic system as the cause of suffering, the prosperity gospel addresses the symptoms of the system as attributed to the lack of belief and faithfulness (See Liboiron & Lepawsky, 2022:29 for more on solutionism, systems, and symptoms of systems). In reality, suffering is not rooted in religious doctrine, rather, it is a by-product of self-serving politicians, racial capitalism, neoliberalism, an economy that prioritises competition over citizen welfare, and what Comaroff and Comaroff (2001) term 'millennial capitalism' - a salvation gospel, that, if correctly utilised, has the capacity to completely transform the lives of the marginalised and disempowered. These externalities are not mentioned by prosperity preachers because they are benefiting from the system (See Liboiron & Lepawsky, 2022:20-24 for more on externalities). By preaching that willpower can raise individuals from systematic destitution, preachers encourage self-responsibilisation and reinforce neoliberal ideologies.

Chapter 4

Creating Life in Ruins

I look at the world
From awakening eyes in a black face—
And this is what I see:
This fenced-off narrow space
Assigned to me.

I look then at the silly walls
Through dark eyes in a dark face—
And this is what I know:
That all these walls oppression builds
Will have to go!

I look at my own body
With eyes no longer blind—
And I see that my own hands can make
The world that's in my mind.
Then let us hurry, comrades,
The road to find.

I look at the world by Langston Hughes

In the chapters above, I have shown how residents of Old Coronation make constant attempts at survival in the wake of environmental and social threats. Each chapter has laid out how racial capitalism and neoliberalism are transformed into environmental ruin through extractivist processes. In this chapter, I pay specific attention to residents' will to live and carry out a life in the ruins of colonial extractivist histories. Mbembe and Agamben have been criticised for their theories' lack of conceptualisation for everyday forms of opposition (Comaroff, 2007; Skorzak, 2019; Peoples & Vaughan-Williams, 2015; Akinci, 2018; Makley, 2015; Ryan, 2016). The finality of these theories does not account for the human will to survive and create life in the direst of circumstances.

Throughout my work in Old Coronation, I was consistently met with illustrations of creating life in ruins - a term I use to describe the creation of a meaningful existence and life against the discourse of humans as waste and bare life. Opposition to precarious living concerns the force of survival and endurance and the exercise of the eventuality of freedom even in unfree,

bare life (Skorzak, 2019:3). In his article on the Palestinian Occupation, Ghassan Hage (2013) explores the "spaces of resilience" within Palestinian society, where residents are free from occupation and resistance to that occupation. By borrowing Hage's (2013) concept, I argue that similar spaces of resilience exist across Old Coronation.

Self-Help and DIY-Citizenship

In Tala, Maria and her street neighbours create spaces of resilience through large-scale forms of self-help. Like most informal settlements, Tala has no access to water and electricity. A couple of years ago, residents in Maria's street rallied together to employ a private contractor to install pipes so all the houses in their street could access water. When communities feel a sense of agency and have established social capital, strategies for survival as shown here, are established (Arvanitakis, 2014/5). Through years of saving and collecting money, they were able to afford themselves a basic right through privatisation. The residents weren't compensated by the local municipality for the thousands of rands they contributed for the installation, but they are expected to pay monthly water rates.

A year or two later, the community came together again to raise money for the installation of a transformer for electricity access. Each home contributed R500 to the project, and after much financial struggle to make up the required amount, the street had electrical access. In 2021, eMalahleni was rocked by storms with powerful bouts of thunder and lightning. It was during one particularly stormy night that the transformer exploded after being hit by lightning. The street was in the dark again after residents poured their time and money into its installation. When the municipality was informed about this, they instructed the residents to pay R400 each to replace the transformer, only then would they be able to access electricity again. It took almost two months for the money to be raised and for the electricity to be reconnected.

In moments of disaster, such as a transformer exploding, "cultures of resilience" develop Arvanitakis (2014/5). These "cultures of resilience" are situated strategies used by communities to cope with disaster. For the residents in Maria's street, this included recollecting money for a new transformer. In Old Coronation, it involves helping a family quickly build a new home after theirs was swallowed by a sinkhole. These strategies are essential for communities living on the frontline of land being impacted by large-scale, human-environment development and disaster (Arvanitakis & Wilson, 2013).

A short distance from Pamela's house stands a large Jojo tank, filled with water from the heavy rains experienced during the week. Some years prior, residents combined money to buy a large water tank able to service all residents in the street. Those with the financial capacity contributed toward its purchase, but others, like Pamela, were unable to - caught between accessing water or quelling hunger. Despite the lack of financial contribution by some residents, the Jojo tank is accessible to all who live on that street. There is no contention over who paid and who didn't, simply a shared concern for each other.

Such large-scale acts of DIY citizenry are not new to South Africa. The inception of Makana Revive! is based on this premise. Founded in 2017, Makana Review! is a Makhanda-based organisation that raises and disburses funds to upgrade, maintain, and provide services to residents that local municipalities are failing to do. "Most South African municipalities cannot deliver on their constitutional mandates and endless complaining won't help either," says their website. The organisation's duties extend to filling potholes, installing CCTV cameras in the Central Business District (CBD), and removing refuse from under-serviced communities. Here, we see auto-construction within the city, where citizens take over State infrastructural and safety services and perform it themselves.

Ratto and Boller (2014:3) view DIY citizenship as a term intended to highlight the diverse ways citizenship is enacted and performed. I'd like to take this definition further and introduce it within the political realm of privatised and neoliberal citizenship. Rosol (2011) views citizens performing State responsibilities as "private activity in the public realm". Citizens enact a form of privatised citizenship, where State-involvement is minimal and civil society is left to create a livable existence for themselves, and still contribute to economic progress. Within our context, DIY citizenship is mainly performed in settlements and low-income communities. Ghose and Pettigrove (2014:1104) suggest that individuals participating in private basic service provision are further impoverished, as it involves extracting material and labour resources from the already poor who struggle to fulfil their basic needs.

I deny Rosol's (2011) inadvertent blame put on community members for their acts of volunteerism as encouraging neoliberalism's self-serving logic. Rosol (2011), perhaps unknowingly, perpetuates the responsibility neoliberalism forces onto citizens, while arguing against it. Responsibility, not in the form of service provision neglected by the State, but rather, responsibility for actions taken to create a meaningful existence.

Beauty in Waste

Bare life and slow death are consistently contested in a community of supposed redundant and disposable individuals. Another form of opposition, and perhaps, care for the psyche within a degraded environment, is home interior and exterior design. In an environment where the State expects residents to accept their infrastructural circumstances and remain idle until death, powerful acts of rejection of the narrative occur. In different spots across Old Coronation, beautifully decorated and well-kept homes stand out from the rest.

In Marikana, a beautiful coral blue, red, and silver-painted house is home to an elderly couple, their daughter, and granddaughter. The home has a cemented front yard decorated with a flower garden, large trees, and a standpipe. The interior of the home is charming; family pictures and generational relics sit on shelves behind a leather couch covered in protective plastic. Yellow walls extend from the lounge into the kitchen, where the dinner table sits - an object of connection and togetherness in the loving home. The elderly woman, Sandra, exudes the same energy as her home - warmth and peace, a safe haven among the ruins. Sandra and her husband took years to design and build the home they wanted. After realising that they would be living in Old Coronation until their death, they slowly created an infrastructurally safe and aesthetically pleasing home - one they hold pride in today.

When reading about these stories of resistance and creating life in ruins, I implore you to refrain from emotionally responding to these real-life experiences with feelings of inspiration, strength, or perseverance. My intention is not to romanticise or fetishize these stories, but to rather expose the large extents marginalised individuals have to go to in order to survive. Resistance has been critiqued for essentializing participants and focusing too much on power (Seymour, 2006). I sincerely hope I haven't provided more support for this critique. As resilience is a major part of South African identity and culture due to our colonial and apartheid history, I find it neglectful not to give recognition to its power within contemporary class struggles.

Conclusion

No Means to an End

As I reach the end of this thesis, I find it difficult to conclude this study. am constantly consumed by the feeling of words on paper not being enough to make a change when conditions are deeply systematically entrenched. How is it possible to bring to conclusion the lives and experiences of suffering when, after my writing is complete, the suffering continues?

Effort, attempt, struggle, threat, and resilience, a cyclical action in the everyday lives of Old Coronation residents. In a life under constant threat and of precarity, decisions made to survive come with their own set of threats to that survival; consuming bacteria-ridden water when it's the only accessible form of water, engaging in domestic fuel burning because it's the only source of energy, despite its health dangers, and selling sex for food, are all attempts to create a better life but are simultaneously sources of danger. Residents unwillingly living on the edge of social, economic, and environmental danger are constantly placed in a position of peril. This cycle produces a state of sinking and collapse, not only abstractly, but also physically - to the unsuspecting child burnt after stepping into a hot shallow sinkhole during play and the family losing their home to a collapsing foundation.

Urban precarity is made of and through absences - the absence of infrastructure, sustainable housing, water, electricity, health care, and environmental safety. Throughout this paper and my time in the field, I was met with the finality of residents not foreseeing escape from their conditions and struggle. They expected to live this way for their entire lives. Lancoine (2018) conceptualises this 'entirety' as not to be only understood in temporal terms, but also complicated cartographies of homes in the past and present, and those dreamt of and feared. Although Lancoine (2018) contextualises this within forced removals, I borrow his thinking in exploring social, economic, and environmental instability.

The instability of home infrastructure and the looming threat of falling in Old Coronation generate fragility that is experienced through trauma, emotions, and labour necessary to create a life on the urban margins (Thieme, 2017, as cited in Lancione, 2018). Much like peripheral urbanisation, urban precarity is never complete and always in the making. It is a somatic, embodied experience, where the body is the site where conditions of precarity are lived and felt. As such, the body is the site where dispossession, displacement, and trauma,

are assembled and enacted (Lancoine, 2018). As I've illustrated, the bodies of participants and residents depict their socioeconomic conditions - Thandi's back filled with flea bites, Nandi's diaper rash from the absence of necessary diaper changes, Maria's bouts of coughing from her TB, Bongi's cancer that took her life, the hunger of Linda and Pamela's families. This somatic experience of precarity is rife in mining settlements plagued by environmental toxicity and economic disparity under racial capitalism and the neoliberal framework.

The first chapter, *Living Under Threat,* sought to establish the context of this study within Old Coronation and eMalahleni. It provided a historical overview of the role eMalaheni played in the development of the coal mining industry and how that industry and racialised policies under colonialism and apartheid led to the development of the Old Coronation township. It further illustrated the environmental, social, and economic damage caused by the toxic alliance between Anglo American and the State. This chapter attempted to show how Old Coronation and its impoverished residents would not have existed without the ruin caused by racial capitalism and the neoliberal framework.

House and Home, Sand and Stone, establish Old Coronation as an informal settlement developed out under Caldeira's (2016) auto-construction and self-building. These improvisational acts of infrastructure were presented as a source of danger and survival - a double-edged sword that residents are threatened by daily. These acts of improvisation are essential under a national housing crisis compounded by a weakened welfare system. I concisely explored infrastructures of cleanliness that illustrated how the lack of access to water resources is an inhibitor to employment. There exists a cyclical action where unemployment leads to poverty, but that unemployment is directly caused by the lack of access to basic services. I further argued that the logic of Giroux's (2006) biopolitics of disposability to systematically impoverished black populations that are unable to meet the standards of the neoliberal citizen.

In a life under constant threat, where attempts at a meaningful existence lead to more threat, slow violence and genocide by attrition manifest. In *Slow Motion Violence,* I presented how basic service improvisation and water and air pollution caused by coal mining embody Nixon's (2011) slow violence. I used this notion to argue that these environmental conditions and basic service improvisation slowly kill the poor black population over time and enact genocide by attrition. This racialised exposure to pollutants is rooted in colonial, and apartheid history and its contemporary continuance are rooted in racial capitalism and racial

policy. This chapter attempted to illustrate how virtually all of the odds were systematically stacked against black South Africans, and even in attempts at creating and sustaining life, they are at risk of disease and even death.

A particularly theoretical chapter, *The Forgotten People,* conceptualised and theorised an abandoned people living in an abandoned space. With the use of Marx (1867), Bauman (2004), Agamben (1998), Mbembe (2003), and Wenzel (2018), I presented the capitalist process of creating a surplus population and rendering wasted humans redundant to the needs of capital's progress. I showed how during the Covid-19 pandemic, the State casted aside migrants from internal care politics - a large majority of Old Coronation's population is comprised of migrants. I thus argued that this enacted slow death on migrants and that the exclusionary policies created embodied necropolitics. This chapter sought to show how scholars have theorised the phenomena of an abandoned people and attempted to contribute to the literature with a contextual reference.

In a diaspora dominated by competition and greed, faith and religion, a safe haven for the poor is exploited and manipulated. this chapter further carries this notion of threat and attempt within the realm of religion. These religious organisations give poor and vulnerable populations the will to carry on through their welfare projects and the gospel but undermine their capacity to carry on by manipulating their vulnerability to extract capital. There's something nauseating about such a sacred part of an individual's identity and coping mechanisms being transformed into a money-grabbing scheme.

Creating Life in Ruins illustrated the resilience of residents in resistance conditions imposed upon them. I explored the many strategies communities use to create a life in ruins - a term I coined to describe the creation of a meaningful existence and life against the discourse of humans as waste and bare life. I showed how these strategies embody DIY-Citizenship and the personal responsibilisation logic of neoliberalism. This chapter sought to illustrate the will of Old Coronation residents to live and carry out a life in the ruins of colonial extractivist histories.

What I have illustrated here is the continuing lives of Old Coronation residents as they negotiate survival in a system and industry detached from their lived reality, and the human will to create life in ruin. I have presented how racial capitalism and neoliberalism are presented through environmental ruin and the individuals who live in that ruin. This thesis tracked the lives of Maria, Linda, Pamela, and Zintle, as they navigate their existence in a

scarcely-habitable environment compounded by poverty, joblessness, struggle, and extractivist processes. I have argued that because of racial capitalism, neoliberalism, and extractivist processes, Old Coronation residents are forced to a life of effort, attempt, making and remaking life against threat - the same effort and attempt that heightens that threat.

Experiencing a piece of the lives of people who have been historically and systematically wronged has been an emotionally tumultuous journey. When writing and attempting to conceptualise these lived experiences, I was overwhelmed with sadness, anger, and defeat. As a budding anthropologist, my goal is to make a difference through my research, but when injustice is so deeply entrenched, how will my efforts make a difference? These thoughts constantly plagued me and were largely the reason for my first writings sounding so overly emotional. When I first read through each chapter, I needed to pause for breath to digest the harrowing information. As such, I thought it fit to include poetry as a way of taking a breath amidst the writing. These poems are not meant to distract or ease any anxieties aroused when reading this thesis; instead, it intends to keep you in the moment and grounded in the reality of the experiences of living under threat. I offer you this writing in the hope that it will convey the difficulty of the experiences described and bring your attention and concern to the people of Old Coronation.

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Appendix

Figure 1: Coal mountain at Old Coronation informal settlement

Figure 2: Man-sized hole containing garbage

Figure 3: Yellow unusable coal nuggets

Figure 4: Coal mountain with man-sized holes

Figure 5: Coal tuck driving down a road in Old Coronation

Figure 6: Coal mining operation underway on the border of Old Coronation

Figure 7: Homes in Old Coronation

Figure 8: Homes on the opposite side of the railway in Old Coronation

Figure 9: A pit toilet next to a home

Figure 10: A large sinkhole filled with garbage

Figure 11: Woman standing behind her self-constructed water barrel afrer collecting water

Figure 12: A discarded teddy bear laying in a field

Figure 13: A public TB hospital on the border of Old Coronation

Figure 14: A gallie

Figure 15: A gallie cooking chicken feet

Figure 16: Tap water from my accommodation

Figure 16(1): Tap water from my accomodation

Figure 17: A mobile clinic

Figure 18: A drinking water tank provided by the City

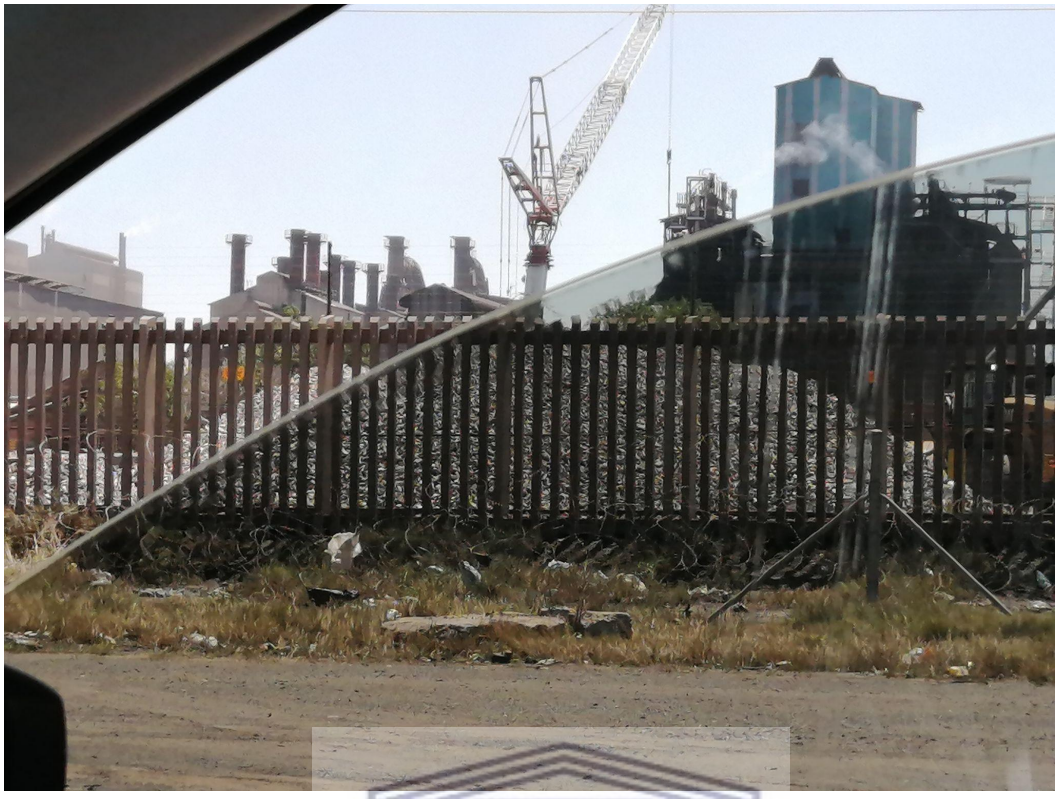

Figure 19: Smoke coming out from the ferrometal factory on the border of Old Coronation

Figure 20: An EFF rally

Figure 20(1): An EFF rally

Figure 21: Garbage near a coal mountain