World-Ecological Crisis and the Resourceful Futures of World-SF

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Abstract

The idea that it seems "easier to imagine the end of the world than to imagine the end of capitalism" seems truer than ever. If, as this maxim (typically attributed to Fredric Jameson) suggests, a future of capitalist "business as usual" is incompatible with the long-term prosperity of all life on a damaged planet, how might the imaginative stranglehold that capitalism has upon our ability to imagine the future be broken? To begin answering this question, my thesis examines speculative fiction (SF) through emergent "worlded" and "resourceful" methodologies proposed by the Warwick Research Collective (WReC) and developed by others, which read "world-literature" via Jason W. Moore's (2015a) "world-ecological" re-conception of capitalism, and the uneven materialities of capitalist resource extractivism. In this sense, my thesis establishes and interrogates what I term world-SF: SF that registers and grapples with the uneven futures of the capitalist world-system and what Moore calls its ongoing world-ecological crisis. SF in "science fictional" guises has typically been associated with the privileged and typically "white" imaginaries of world-systemic cores. Recent years, however, have witnessed a growing outpouring of SF from the systemic peripheries long ignored by such imaginaries. It is to these fictions in particular that I turn. Despite emerging in different times and places within the neoliberal "arc", the SF modes of North American and Caribbean 'Afrofuturism' (Dery 1994), South Africa's 'postapartheid speculative' (Duncan 2018a), and what I call Nigerian post-petro-magic futurism all stage a coming to world-ecological consciousness that grasps the durable aftermaths of capital's uneven, racialised environment-making. These three clusters of interrelated SF texts reclaim the Black futures foreclosed by decades of neoliberalisation. When read as world-SF, however, they also open newly imaginative terrains from which to cultivate worlded and resourceful forms of thinking and being that can negotiate the uneven futures of world-ecological crisis.

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Declaration

I declare that this thesis is a presentation of original work and that I am the sole author. This work has not previously been presented for an award at this, or any other, university. All cited sources are acknowledged as References. Other sources consulted during the preparation of this thesis are acknowledged as Additional Works Consulted.

The total wordcount of this thesis – minus the frontmatter, figure captions, and bibliography – stands at 99,040.

A shortened, revised version of Chapter Three has been accepted for publication (forthcoming, 2021) in *The Routledge Handbook to Alternative Futurisms*, edited by Grace Dillon, Isiah Lavender III, Taryne Taylor, and Bodhisattva Chattopadhyay. New York: Routledge.

Words from Octavia E. Butler's Papers, screenshots of Neill Blomkamp's film *District 9* (2009), and lower-resolution excerpts of Dillon Marsh's photography series *For What It's Worth* (2014) are reproduced here as quotations in accordance with the principles of fair dealing.

Introduction

Systemic Crisis, World-SF, and Resourceful Futures

> Someone once said that it is easier to imagine the end of the world than to imagine the end of capitalism.
>
> --- Fredric Jameson, "Future City" in *New Left Review* 21, 2003

The idea typically attributed to Fredric Jameson, that it is easier to imagine the end of the world than the end of capitalism seems truer today than ever.[1] I wrote parts of this thesis introduction in the summer of 2020, in the midst of a viral pandemic and as vast wildfires in California, Oregon, and Washington offered nightmarish visions of possible futures to come on a rapidly warming planet. The world-historical "outsourcing" of capitalism's worst environmental consequences to the "disposable" populations of racialised world-systemic peripheries, and to generations yet unborn, appears increasingly untenable. As Jameson's maxim suggests, it is becoming ever more apparent that a future of capitalist "business as usual" is incompatible with the long-term prosperity, equitability, and sustainability of life upon our unevenly co-inhabited planet; not just for humans, but the multiplicity of species upon which our survival depends. Under the intensified resource extractivism and biospheric toxification attendant on decades of neoliberalisation throughout the capitalist world-system, the long underacknowledged 'unpaid debts' of 'cheap oil, water exhaustion, soil erosion and increasing social inequality' now seem, finally, to be returning with a vengeance (Oloff 2017, 320). As the crisis-talk proliferates, then, the urgent question is that of how to survive on a damaged planet whose material despoliation is profoundly at odds with the assumptions, imperatives, and cultural fictions that underpin the reproduction of 'petromodernity', Stephanie LeMenager's term for the forms of 'modern life based in the cheap energy systems made possible by oil' under capitalism (2013, 67).

In view of this problem, since the turn of the millennium an increasing number of scholars working in the "energy humanities" have sought to explicate what they understand to be the

[1] Indeed, Matthew Beaumont points out that it has even 'become something of a cliché' to cite this nonetheless still 'provocative' claim (2014, 79). Beaumont notes that Jameson first argues in 1994's *The Seeds of Time* that it 'seems to be easier for us today to imagine the thoroughgoing deterioration of the earth and of nature than the breakdown of late capitalism' (Beaumont 2014, 79; Jameson 1994, xii). It is in 2003's "Future City" that, according to Beaumont, Jameson then 'recapitulates and revises this point, and it becomes apparent that he is probably misremembering some comments made by H. Bruce Franklin about J.G. Ballard' (2014, 79).

constitutive relationship between culture and energy, especially with regard to capitalist culture and fossil fuels and, even more particularly, petroleum.[2] As Imre Szeman explains, 'energy is a fundamental element of human life' because it is 'what makes societies and the individuals in them "go", and not only in a basic, material sense, but socially and culturally too' (2017, 277). Until recently, he argues, 'leaving energy out of our picture of modernity has meant that we lack a full understanding of the forces and practices animating its politics and economics, as well as its social and cultural life' (2017, 277). In this vein, Timothy Mitchell (2011) has demonstrated authoritatively that, over the past two centuries, 'fossil fuels helped to create both the possibility of modern democracy and its limits', arguing that the vulnerability of coal-powered infrastructures to strike action in the nineteenth and early twentieth centuries granted workers a more effective means of forcing the acceptance of their demands than the easily-redirectable "grid-form" of oil-electric infrastructures across the world today (2011, 1). At the same time, he notes the way in which the abundance of cheap oil in the post-war boom years enabled democratic politics, in the US, and then the wider world, to develop a 'peculiar orientation towards the future' as being ostensibly 'a horizon of limitless growth' (2011, 142). Matthew Huber (2013) has persuasively argued that the post-war USian oil boom of the mid-twentieth century laid the foundations for the neoliberal turn of the 1970s onwards by fostering 'forms of social life that allow[ed] individuals to imagine themselves as severed from public life' (2013, xi). He explains that, then as now, 'the dense, versatile fuel of petroleum' propels 'a particular lived geography – a "structure of feeling" – that allows for an appearance of atomized command over the spaces of mobility, home, and even the body itself' (2013, 23). 'With all the "work" (or energy) accomplished through the combustion of taken for granted hydrocarbons', Huber argues, a kind of 'hostile privatism' could take over, wherein 'individual homeowners imagined themselves as autonomous, hardworking subjects whose very freedom was threatened by the ever-extending tentacles of "Big Government"' (2013, 23). When this way of life was thrown into doubt during the 1970s moment of "oil shocked" stagflation, Huber points out that policy makers tapped into this structure of feeling in order to win over 'the populist energy' of (mostly white) middle- and upper-income suburbanites, thereby manufacturing consent for neoliberal projects and policies targeted at rolling back the post-war "big state" social democratic consensus (2013, 158).

The work of energy humanists has helped to reveal that what Sharae Deckard and Stephen Shapiro have recently called 'neoliberal world-culture' can be thought of as a *world-petroculture*, in recognition of the way in which now globally hegemonic neoliberal thought is inextricable from the fantasies of individuated control over time and space that petroleum-based living seemingly enables

[2] It is important to note here that "petroleum" and the petro- prefix ought not to be taken as synonymous with gasoline (as in the British term "petrol"), but rather, as LeMenager points out, 'a diversity of nonsolid hydrocarbon resources, including natural gas and, more consistently, oil' (2013, 6).

(2019, 15). Szeman suggests that 'to understand the modern as a petrocultural era' is to be 'attuned to the complex ways in which energy surplus' of the kind made possible by oil and other fossil fuels 'narrates, shapes, and circumscribes' how we live and think (2017, 285). The Petrocultures Research Group (PRG) explain that the term "petroculture" thus emphasises how societies are materially 'shaped by oil', especially in terms of 'values, practices, habits, beliefs, and feelings' (2016, 9).[3] As Szeman writes with Sheena Wilson and Adam Carlson, to speak of petroculture is to recognise how 'oil has made us moderns who and what we are, shaping our existence close at hand while narrating us into networks of power and commerce far, far away' (2017, 3). Szeman, Wilson, and Carlson argue that to name our present time as petrocultural is therefore to interrogate 'the social imaginaries brought into being by the energies of fossil fuels', or, more specifically, beliefs in which 'sociality is of necessity narrated by perpetual growth, ceaseless mobility, and the expanded personal capacities and possibilities associated with the past century's new flood of energy into our lives' (2017, 14, 3). Ross Barrett and Daniel Worden have similarly used the term "oil culture" to describe the 'dynamic field of representations and symbolic practices that have infused, affirmed, and sustained the material armatures of the oil economy', and 'the particular modes of everyday life that have developed around oil use in North America and Europe since the nineteenth century (and that have since become global)' (2014, xxiv). Such an oil culture has, they observe,

> helped to establish oil as a deeply entrenched way of life in North America and Europe by tying petroleum use to fundamental sociopolitical assumptions and aspirations, inventing and promoting new forms of social practice premised on cheap energy, refiguring petroconsumption as a self-evidently natural and unassailable category of modern existence, and forestalling critical reconsiderations of oil's social and ecological costs. (2014, xxv)

If oil culture thus encompasses 'the symbolic forms that rearrange daily experience around oil-bound ways of life', however, Barrett and Worden also emphasise that oil culture includes 'the many creative expressions of ambivalence about, and resistance to, oil that have greeted the expansion of oil capitalism', from the first "gushers" of the mid-nineteenth century, through to the present neoliberal moment (2014, xxvi). Consequently, Barrett and Worden suggest that the study of oil culture 'promises to yield a fuller understanding of the mechanisms underpinning oil capitalism's dominance', allowing us to 'confront that system's hegemonic self-presentations' and, in turn, 'open space from which to begin to conceive a post-oil future' (2014, xxvi).

[3] Founded in 2011, The Petrocultures Research Group is based at the University of Alberta and co-directed by Szeman and Sheena Wilson.

Critical interventions such as these have been crucial, and my thesis takes as its immediate starting point the increasingly apparent disjuncture between neoliberal world-petroculture and the biophysical limits of our unevenly co-inhabited planet. But why *petroculture* specifically, as opposed to "fossil culture", or a capitalist "energoculture" more broadly conceived? Szeman cautions that it is perhaps 'easy to overstate the degree to which oil or fossil fuels are in fact the dominant form of energy provision' today, given the way in which the 'use of coal continues to grow' throughout the world-system in an ostensibly "petrocultural" era, or the strong interest in renewables amongst certain sectors of capital and environmentalist movements alike (2017, 278). Moreover, Szeman points out that 'the assertion of a single petroculture not only obscures inequalities in energy use *between* nation states, but also elides the huge difference of access to power *within* sovereign nations' (2017, 279; original emphases). 'Elites everywhere use more energy per capita than poorer members of societies', he writes, 'while the use of wood and coal as well as human and animal muscle-power continues to fuel many communities around the world' (2017, 279). Nonetheless, Szeman argues that 'it *is* possible and necessary to speak meaningfully of a period of petromodernity or petroculture', since petroleum today appears hegemonic (2017, 281; original emphasis). As he explains, 'the fantasy of suburban living and the freedom of highways owe nothing to wind farms and solar power, and no country imagines the way forward in their development is to shape agricultural systems around plough and oxen as opposed to mechanical farming and [petro]chemical fertilizers' (2017, 281). Fredrick Buell writes that petroleum 'remains an essential (and, to many, *the* essential) prop underneath humanity's material and symbolic cultures' (2012, 70). So pervasive is petroleum's cultural influence that, as Barrett and Worden trenchantly observe, 'many "green" visions of the world entail maintaining our lives and practices as they exist with petroleum and simply swapping oil out for a different energy source that magically takes its place and replicates precisely its roles' (2014, xix). In this context, the term "petroculture" thus describes the cultural condition and material infrastructure of entire societies organised around petroleum extraction and consumption, whose influence can be felt unevenly throughout the world across even ostensibly non-petrolic sectors: hence, a *world-petroculture*, whose worldliness ought not to be understood as a uniformly global condition, but which is *one* and yet 'profoundly unequal' like the capitalist world-system from which it is seemingly inextricable (Szeman 2017, 281).

Despite the clear and present danger that neoliberal capital's one and unequal world-petroculture poses to both humans and the rest of the planet, what Mark Fisher called 'capitalist realism' remains hegemonic within it as a way of imagining the future (Fisher 2009, 2). Fisher's term riffs on Jameson's oft-repeated maxim to describe 'the widespread sense' that, especially in the neoliberal period, 'it is now impossible even to *imagine* a coherent alternative' to capitalism (2009, 2;

original emphasis). If, as Fisher suggests, 'capital follows you when you dream', then oil – and the "petro-fantasies" of limitless growth, individual autonomy, and endless "cheap" energy that it supports – is seldom far behind (2009, 34). Under such conditions, it seems that, as Szeman writes, 'the expectation that haunts the future is not the end of capital' but that the socio-ecological ruinations of capitalism will not end 'until every last drop of oil […] is burned' (2007, 820). In view of such imaginative paralysis, how can we imagine newly sustainable and equitable resource cultures? How might the imaginative stranglehold that capitalist realism has upon the future under neoliberal world-petroculture be broken?

To begin answering these questions, my thesis examines speculative fiction (SF) through emergent "worlded" and "resourceful" critical methodologies proposed by the Warwick Research Collective (WReC) and developed by others, which read "world-literature" via Jason W. Moore's (2015a) "world-ecological" re-conception of capitalism.[4] In other words, my thesis establishes and interrogates what I term world-SF; that is, SF that aesthetically registers and imaginatively grapples with the uneven futures of what Moore has termed the ongoing "world-ecological crisis" of the capitalist world-system. To chart world-SF's imaginative contours, I will respond to and build upon critical approaches that have, as Claire Westall succinctly explains, reoriented ongoing 'debates about the world-literary system' via world-ecological thinking, and 'through the dynamic interplay between material resources, material culture, and material acts of resistance' that scholars in the resource- and energy-conscious humanities have begun to explore (2017, 267). Moore re-positions the capitalist world-system – as identified and explicated by Immanuel Wallerstein and others – as a *world-ecology* that joins 'the accumulation of capital, the pursuit of power, and the co-production of nature in dialectical unity' (2015a, 3). Thus, for Moore, capitalism 'does not *have* an ecological regime', but rather '*is* an ecological regime'; one that hinges upon the production of "Cheap Nature" by reducing the complexity of the "web of life" to an objectified "nature" that is ostensibly distinct from humanity or "society", and therefore able to be "cheaply" put to work (2015a, 158; original emphasis).[5] Under the production of such "Cheap Nature", Moore writes, it has not only been 'the wage-worker' who has been put to work and exhausted in ever more intensive ways across five centuries of capitalist modernity, but rather 'all life-activity' – human and extra-human – 'that "works" within capitalism's value-relations' (2015a, 225). Capitalism has survived, Moore argues, through cyclically expansive and intensive 'world-ecological revolutions' that have temporarily offset the consequences of that

[4] The original contributors to WReC's *Combined and Uneven Development: Towards a New Theory of World Literature* (2015) were Sharae Deckard, Nicholas Lawrence, Neil Lazarus, Graeme Macdonald, Upamanyu Pablo Mukherjee, Benita Parry, and Stephen Shapiro.

[5] Such "cheapness" refers not only to the per-unit price of resources, but to all manner of socio-ecological costs ignored or downplayed by capitalist agencies, such as those associated with "externalities" like pollution.

exhaustion via imperial, technical, and organisational 'projects' that have sought to 'compel' the web of life 'to work harder and harder – for free, or at a very low cost' (2015a, 30, 13).

As Graeme Macdonald writes, petromodernity constitutes 'a massive ecological regime in itself which has overseen tremendous world-systemic revolutions in ecological space' (2017b, 61). Undoubtedly, nineteenth-century Europe's Industrial Revolution, and then the petro-fuelled "Great Acceleration" of the twentieth century, have inaugurated changes in human-nature relations on an unprecedentedly planetary scale, albeit with profoundly uneven consequences. Clearly, the consolidation of neoliberal world-petroculture since the 1970s has propelled the production of socio-ecological consequences in the web of life further and faster than ever before. Mitchell points out, for instance, that 'in the case of oil, […] more than half the total consumed in the 150 years between the 1860s […] and 2010 was burned in the three decades after 1980' (2011, 6). The consequences of that dramatically accelerated extraction, combustion, and consumption have been felt even across non-petrolic sectors, to the extent that Buell claims – albeit from the privileged vantage point of the world-systemic core – that today we seem to live in oil 'as if it were our oxygen' (2012, 70). On the one hand, then, this would seem to necessitate that petroleum – or fossil fuels writ large – require special attention because of the decisive way in which they shape other systemic resource frontiers under capitalist petromodernity, and so make possible the accelerated extractivism upon which neoliberal capital depends more generally. On the other hand, however, a world-ecological perspective emphasises that our present crisis-bound moment does not have its roots in what Andreas Malm provocatively characterises as 'two centuries of fossil capital' *per se* (2016, 393). The pivotal importance of "fossil capital" and neoliberal world-petroculture as ecological regimes should always be recognised. At the same time, though, a world-ecological perspective also recognises the origins of our present more properly in what Moore describes as 'the revolutionary shift in environment-making that occurred after 1450' with the birth of the modern world-system's cyclically expansive, yet *cumulatively consequential*, developmental phases (2015a, 92). Neoliberal world-petroculture and its particular ways of refashioning "nature" into capital, then, constitute only the most recent configuration of capitalism as an ecological regime, or a capitalist energoculture more broadly conceived. Under neoliberal world-petroculture, capitalism has seemingly arrived at an historically unprecedented predicament. In view of compounding resource depletion, biospheric toxification, species die-offs, and, of course, mounting climatic instability and soaring temperatures today, Moore argues that capitalism's old methods of restoring the flow of Cheap Nature appear to be breaking down (2015a, 13). In view of this predicament, today's common notion of proliferating "crises" obscures what is, for Moore, the 'singular and manifold' nature of what is actually a more fundamental

world-ecological *crisis*, in which capitalism's historically successful strategies for producing Cheap Natures is at or nearing exhaustion (2015a, 4).

Consequently, my thesis charts how world-SF registers this world-ecological crisis, and grapples with the uneven challenges to survival that it poses, both now and in the future. SF, especially in the guise of "science fiction", has typically been associated with the privileged imaginaries of systemic core zones. However, in this project I turn to the growing speculative outpouring that has emerged from and about the racialised world-systemic (semi-)peripheries long ignored by such imaginaries. Sharae Deckard has argued that despite the locally particular material contexts that inform 'peripheral and postcolonial literary forms', such contexts and forms nonetheless share discernible 'structural *homologies* and similarities of concern' prompted by their wider imbrication in the capitalist world-system (2012, 6; original emphasis). Such texts, she writes, can therefore be described as either self-consciously 'world-ecological', or as having a world-ecological consciousness embedded in their irrealist aesthetic forms (2012, 10-11). The following chapters will focus on three exemplary nodes of world-SF production. They will show that, despite emerging in different times and places across the "arc" of world neoliberalisation, the SF modes North American and Caribbean 'Afrofuturism' (Dery 1994), South Africa's 'postapartheid speculative' (Duncan 2018a), and what I call Nigerian post-petro-magic futurism all stage a coming to world-ecological consciousness. Jameson famously observed that SF 'demonstrate[s] […] our incapacity to imagine the future', with its 'multiple mock futures' instead transforming the 'unimaginable' totality of our present into 'some future world's remote past' (2005, 288-89). Even if SF cannot offer programmatic visions of a postcapitalist world-ecology, then, my thesis aims to show that by cultivating a "histofuturist" perspective, the world-SF texts examined in the coming chapters grasp how the past, present, and future have been and will remain structured by the durable aftermaths of capital's racially iniquitous patterns of resource extractivism and biospheric ruination.[6] Despite effecting consequences on a planetary scale, however, the capitalist world-system and its neoliberal world-petroculture do not cover the globe uniformly, nor to total effect. Other ecologies and systemic models remain and have always remained where traces of pre- or non-capitalist cultural formations persist. My thesis reads for the ways in which Afrofuturist, postapartheid speculative, and post-petro-magic futurist texts draw upon such formations to reclaim the Black futures foreclosed not only by decades of neoliberalisation, but also across the *longue durée* of capitalist modernity. In this way, such texts point to how world-SF texts more generally encode how the present petrocultural moment fits within the *longue durée* of capitalist modernity, thereby revealing humanity's actual situatedness in the web of life. In doing so, they show how world-SF texts

[6] As I will explain in Chapter One, I borrow the term "histofuturist" from the unpublished papers of Afrofuturist author Octavia E. Butler, which are collected at the Huntington Library in San Marino, California.

can open newly resistive grounds from which to cultivate the worlded and resourceful ways of thinking needed to push past capitalism's systemic reach and imagine survival in a future of world-ecological crisis.

"Worlding" SF

I will begin by unpacking what I mean by world-SF, where "SF" stands for *speculative* rather than the *science* fiction typically associated with the label. I will explain the reason for this choice later. For now, it suffices to say that if, as Szeman argues, such 'science fiction' is 'the genre that deals with the future', my thesis likewise understands SF to mean, broadly speaking, narratives that imagine the future or in which the future is otherwise legible as an interpretive horizon (in Yaeger et al. 2011, 325). Many commentators have remarked that US cultural production has long dominated the SF field. Writing in 2003, John Clute noted that the 'old sf story', which he characterised as a projection of 'the American Dream' into the future, remained 'easy to recognize' (2003, 66). In that story, he wrote, 'progress' was conceptualised in terms of the ever-greater 'control of nature', and was thus understood to be attainable via 'miracles of applied opportunity-grabbing science', the 'penetration of frontiers', 'the taming of alien peoples', and, ultimately, the establishment of 'hierarchical centralized governances throughout the galaxy' (2003, 66). Notwithstanding the 'scrutinies of varying intensity' that many US and European SF writers had brought to bear upon that 'dream' in the closing decades of the twentieth century, Clute wrote that its familiar upwards and outwards trajectory had retained a 'fascination as a big story about visible triumphs' well into the twenty-first (2003, 66). This is no less true today than in 2003. In an era of mounting ecological breakdown and an increasingly strained US world-systemic hegemony, the promulgation of a techno-utopian 'astrofuturism' (Kilgore 2003) remains firmly entrenched in the US cultural imaginary, and continues to shape the wider SF field. While Donald Trump's pledge to "Make America Great Again" has included ambitions for a renewed US presence in space, the Hollywood blockbuster and other mass-entertainment forms remain replete with spectacular visions of technologically augmented humans settling, living, and working in extraterrestrial environments, thereby projecting the indefinite continuation of the capitalist world-system's "American Century" into a seemingly infinite cosmos.

As Clute pointed out in 2003, the US-led SF "mainstream" continued to offer a 'First World vision', one written primarily by and for the privileged inhabitants of the "developed" world (2003, 66). Even then, however, it was clear that challenges to this vision had also long been a key feature of SF production. Clute notes that 'dozens, perhaps hundreds, of sf stories of significance failed to argue that central story of the future' as it 'struggled to prevail through the last decades of the [twentieth]

century' (2003, 66). Moreover, other writers have quite consciously challenged the predominant and presumptive "whiteness" of that central story, as had been established by the so-called "Golden Age" SF of the 1940s and 1950s. As Adam Roberts explains, 'Golden Age' is not 'a neutral or value-free description', but rather a term 'coined by a partisan fandom' to valorise 'a particular sort of writing: hard SF', or 'linear narratives' about (predominantly white, male) 'heroes solving problems or countering threats in a space-operatic or a technological-adventure idiom' (2016, 287). The year after that narrative had seemingly been realised by Neil Armstrong and Buzz Aldrin, Gil Scott-Heron's "Whitey on the Moon" (1970) lampooned the extent to which Black Americans remained excluded from popular imaginaries of humanity's spacefaring future, even as those imaginaries seemingly depended upon undervalued Black labour.[7] Writing in 1994, Mark Dery coined the word 'Afrofuturism' to describe the SF in a diverse range of media that had emerged to contest and rectify this exclusion by imagining Black futures (1994, 180). Other scholars have since taken up and refined the term, expanding its reach beyond the USian context to which Dery's initial reflections were confined, and identifying Afrofuturist antecedents from across North America and the Caribbean stretching back at least into the nineteenth century.

Recently, Marvel's *Black Panther* (dir. Coogler 2018) has placed Afrofuturism squarely on the "big screen" of the SF mainstream, fuelling an already growing appetite for Afrofuturist cultural production from an ever-increasing legion of writers and filmmakers now too numerous to list here. Indeed, the growing commercial and critical popularity of cultural products marketed as "Afrofuturist" amongst white audiences, as well as the term's origins in the work of a white scholar, have led a number of Black scholars and creators to reject the term, especially when "Afrofuturism" is also used to describe works produced in African rather than American contexts.[8] For challenges to the "First world" vision of SF's "old story" have not been confined to North American and Caribbean contexts. A number of writers and scholars have pointed to the rich lineage of SF traditions outside USian and European contexts. British-Nigerian author Tade Thompson points out that 'Africans have been writing science fiction since at least the 1920s' (2018a, n.pag.); Rachel Haywood Ferreira's *The Emergence of Latin American Science Fiction* (2011) establishes the genre's presence in Argentina, Brazil, and Mexico as far back as the nineteenth century; and, in his recent monograph, *Final Frontiers: Science Fiction & Techno-Science in Non-Aligned India*, Upamanyu Pablo Mukherjee affirms 'the existence of a long and rich tradition of non-European science fictional texts that have been relatively invisible to European audiences' (2020, 5). While some of these traditions have been elucidated through what Haywood

[7] In his spoken-word poem, Scott-Heron laments that 'I can't pay no doctor bill' and 'ten years from now I'll be payin' still (while Whitey's on the moon)'. Then, after chronicling the deprivation of Black tax-paying communities, he asks if 'all that money I made las' year' was 'for Whitey on the moon' (1970).

[8] See, for example: Aliyu and Mbewe (2018), Okorafor (2019), Wabuke (2020), and Wilson (2021).

Ferreira describes as a process of "retrolabeling" on the part of authors, fans, and critics alike, there has been, especially since the turn of the millennium, a veritable outpouring of SF texts that have, from the beginning, been conceived and marketed as such.

SF scholars have already begun to grapple with the timing and scale of this worldwide speculative outpouring from Latin America, Africa, Asia, the Middle East, and the other places that have, as Hugh Charles O'Connell observes, long 'functioned as the spectral Other against which the [Euro-American] techno-rational SF imagination pits itself' (2019, 680). Representative studies demonstrate what we might call a "postcolonial" turn within SF scholarship, and have included *Science Fiction, Imperialism and the Third World: Essays on Postcolonial Literature and Film* (ed. Hoagland and Sarwal 2010), Jessica Langer's *Postcolonialism and Science Fiction* (2011), and Eric D. Smith's *Globalization, Utopia, and Postcolonial Science Fiction: New Maps of Hope* (2012). In "Teaching Postcolonial Science Fiction", Uppinder Mehan positions "postcolonial" SF as that which is written by the 'survivors […] of sustained, racial colonial processes', borrowing from the afterword he wrote for *So Long Been Dreaming: Postcolonial Science Fiction & Fantasy* (2011, 162).[9] In that afterword, Mehan emphasises the expressly political and decisively future-shaping stakes of such "postcolonial" SF writing, warning that 'if we do not imagine our futures, postcolonial peoples risk being condemned to be spoken about and for again' (2004, 270). Langer similarly defines "postcolonial" SF in terms of its efforts to recuperate 'indigenous and other colonized systems of knowledge', and to examine how 'scientific discourse' has shaped 'the cultural production of colonized peoples' (2011, 9). Ericka Hoagland and Reema Sarwal conceive of "postcolonial" SF in terms of its 'relentless search for moving forward and beyond the warp of colonialism' (2010, 18). Smith, meanwhile, rather than seeking to 'extend or apply the familiar conventions of postcolonial analysis to these new works of science fiction', instead explores how such works challenge the 'institutional limits' of those conventions, and so 'reconfigure and reclaim the materialist stakes of an anti-imperialist resistance' (2012, 15). Early interventions like these have begun to point to how the worldwide rise of SF production today offers potentially new ways of envisioning the future, a project that my thesis takes up and extends via its understanding of world-SF.

My formulation of world-SF is intended to inaugurate a paradigm shift in how the timing and scale of this worldwide SF rise is accounted for and, consequently, to what critically transformative ends its efforts to envision the future may yet be directed. It is also intended to develop the wider conversation already ongoing about just what exactly SF is, where it comes from, and what it "does" or *can* "do" imaginatively and politically. Especially since the turn of the millennium, SF has come to be defined in increasingly open and flexible terms that have expanded the scope of the field

[9] *So Long Been Dreaming* is an anthology of short stories that Mehan edited with Nalo Hopkinson in 2004.

considerably. In their recent introduction to *The Cambridge History of Science Fiction*, for example, Eric Carl Link and Gerry Canavan describe SF as 'a very broad category of aesthetic enterprise that posits some discontinuity with the empirical world' (2019, 7). Indeed, if a definitional "war" between efforts to 'purify' SF and to 'blast its cargo doors open' remains ongoing, as Hoagland and Sarwal suggest, then efforts of the latter kind seem to be "winning" today (2010, 5). John Rieder's essay "On Defining Science Fiction, or Not" (2010) has become something of a critical touchstone for such efforts. In it, he argues that SF is, among other things, not 'a set of texts, but rather a way of using texts and of drawing relationships between them' (2010, 193). Most importantly then, Rieder posits that SF is not some timeless generic category but is in fact 'historical and mutable' (2010, 193). Roger Luckhurst similarly argues for 'a historicist definition of SF', and many such definitions have positioned SF as a particular outgrowth of, product of, or response to the shifting material conditions and consequent structures of feeling of "modernity" (2005, 11). Luckhurst himself writes, for instance, that SF texts 'imagine futures or parallel worlds premised on the perpetual change of modernity, often by extending or extrapolating' technologies and their impacts 'from the contemporary world' (2005, 3). In other words, for Luckhurst, SF both expresses and reflects upon 'the terrors and delights of technologized modernity' (2005, 170). Even as early as 1995, Damien Broderick described SF as 'that species of storytelling native to a culture undergoing the epistemic changes implicated in the rise and suppression of technical-industrial modes of production, distribution, consumption and disposal' (1995, 157). Or, as Nick Hubble succinctly puts it, SF has 'two key historical contexts: modernity and the future' (2013b, 1).

In view of expansive definitions such as these, SF seems "bigger" than ever. Indeed, the rapidly growing SF corpus poses a problem of scale that Franco Moretti has addressed in relation to wider debates about the vexed category of "world" literature. In "Conjectures on World Literature" (2000), Moretti castigates comparative literary methodologies for what he sees as their failure to live up to the *Weltliteratur* imagined by Goethe, and, later, Marx and Engels.[10] If 'the literature around us is now unmistakably a planetary system', Moretti argues, then 'the question is not really *what* we should do – the question is *how*' (2000, 54-55; original emphasis). For Moretti, the 'sheer enormity' of approaching hundreds of thousands or even millions of texts in thousands of languages means that 'world literature' cannot be an 'object' to be studied but remains instead 'a *problem* that asks for a new critical method' (2000, 55; original emphasis). We might well say the same of SF and, to be sure,

[10] Goethe wrote in 1827 that 'Nowadays national literature doesn't mean much: the age of world literature is beginning, and everybody should contribute to hasten its advent', while, in *The Communist Manifesto* (1848), Marx and Engels described a condition in which 'National one-sidedness and narrow-mindedness become more and more impossible, and from the many national and local literatures, a world literature arises' (both qtd. in Moretti 2000, 54).

some scholars have alluded to as much. As noted above, Rieder posits that SF should not be thought of as a body of texts but 'a way of using texts and of drawing relationships between them' (2010, 193). Istvan Csicsery-Ronay Jr. similarly argues that 'as more and more models of the fantastic flow together from different artistic and folk traditions', SF itself will have to be thought of as less like 'a kind of text' and more like 'a specific attitude' (2012, 480-81). As the texts examined by this thesis will demonstrate, we might say that this "attitude" is one of envisioning, claiming, and influencing the future, especially given Hubble's provocatively pithy statement that if 'realist fiction sets out to describe the world', then 'science fiction sets out to change it' (2013a, xii). When conceptualised this way, many SF narratives are in fact deeply sceptical of "Enlightened" scientific knowledge forms, such that I am inclined to describe such an attitude as a *speculative* rather than a "science fictional" mode of future-oriented storytelling. Hence, I take "SF" to mean speculative rather than science fiction. One whose speculation is not so much "predictive" as it is interested in the possibilities of what *could* be. In other words, I stand aligned with recent developments in SF studies that have, per the examples above, figured SF as a politically interventionist attitude towards imagining and writing the future, one that is decisively shaped by and bound up with the shifting material conditions of modernity and its technologies of power and production.

What has been underappreciated in such analyses, however, is the extent to which, as WReC argue – via Jameson and Moretti – that 'modernity' corresponds to 'the time-space sensorium corresponding to capitalist *modernisation*', or, better yet, the lived experience of 'capitalist social relations', wherever in the world that experience happens to be felt (2015, 12; original emphasis). If the sheer scale of world literature demands a new comparative method, then to begin to supply such a method Moretti borrows from world-systems analysis, for which, as he explains:

> international capitalism is a system that is simultaneously *one*, and *unequal*: with a core, and a periphery (and a semiperiphery) that are bound together in a relationship of growing inequality. One, and unequal: *one* literature (*Weltliteratur*, singular, as in Goethe and Marx), or perhaps, better, one world literary system (of inter-related literatures); but a system which is different from what Goethe and Marx had hoped for, because it's profoundly unequal. (2000, 55-56; original emphases)[11]

Thus, as WReC elaborate, what Moretti calls "world literature" is 'neither a canon of masterworks nor a mode of reading', but rather 'a *system*' that is 'structured not on *difference* but on *inequality*', one whose conditions of unevenness are decisively shaped by what they call, after Trotsky, the 'combined

[11] Szeman (2017) also draws from Moretti's point here, arguing that neoliberal world-petroculture is likewise one and unequal.

and uneven' developmental logic of the capitalist world-system (2015, 7, 10; original emphasis).[12] Capitalist development 'does not smooth away' unevenness, WReC write, as is implied by more celebratory responses to the "cosmopolitan" potential that is supposedly opened up in an era of increasing globalisation (2015, 12). Rather, they argue, the process of capitalist development '*produces*' unevenness because, especially in peripheral zones of resource extractivism, such "development" takes the form of a coercive 'development of under-development' (2015, 12-13; original emphasis).[13] Thus, for WReC, 'the face of modernity is not worn exclusively by the "futuristic" skyline' of Shanghai or London, but also 'the slums' of Bombay and Lagos, and other 'deindustrialised wastelands' and 'impoverished and exhausted rural hinterlands' the world over (2015, 12-13). In the context of this combined but uneven capitalist modernity, a number of questions must inform any efforts to unpick how SF imagines the future. Who exactly gets to imagine this future? From where in the world-system do they do so? And, most importantly of all, how does that position shape SF's form, content, and the political ends to which it is, or can be, directed?

To address these questions, I argue that any and all SF production must necessarily be read as what WReC call 'world-literature'; that is, as literature conceived of 'through its mediation by and registration of the modern [capitalist] world-system' (2015, 9). In other words, *all* SF must be read as what I am calling world-SF. Such a reframing is possible because, as WReC point out, the modern capitalist world-system is not only 'a bounded social universe' but also, 'uniquely and for the first time', a system of the entire world (2015, 8). Thus, they argue, 'the effectivity of the [capitalist] world-system will *necessarily* be discernible in any modern literary work since the world-system exists unforgoably as the matrix within which all modern literature takes shape and comes into being'; even if, of course, that effectivity is neither uniform nor total (2015, 20; original emphasis). Importantly, though, world-SF *does not* simply refer to the sum total of worldwide SF production because, as WReC point out via Moretti, 'to think of "world literature" as the corpus of all the literature in the world would be strictly nugatory or useless' (2015, 8). 'Reading "more" is always a good thing', Moretti writes, but can never be a 'solution' in itself (2000, 55). Yet precisely this sense of "more" seems to animate the optimism of Langer's conclusion in *Postcolonialism and Science Fiction*, where she states that SF is increasingly 'transformed and enriched' by increasing numbers of texts from hitherto neglected voices, 'just as the cosmopolitan city gains both a multiplicity of voices and an expansion outside of its former boundaries' (2011, 159). Langer celebrates what she describes as 'the

[12] I will return to WReC's explication of combined and uneven development's relationship to literary form, content, and aesthetics in more detail in the next section of this introduction.

[13] In reference to the Nigerian context in particular, Jennifer Wenzel goes further still and describes a process of 'de-development' at work in the Niger Delta, wherein 'development begins and turns backward […] when [oil] prices fall or wells run dry' (2014, 213).

interpolation of subaltern spiritualities into traditional science fiction generic narrative, and the interpolation of science fiction elements into traditional narratives of colonized people' (2011, 158). However, this position replicates the ascendant idea of "world literature" as a "level playing field" of which WReC is so critical (2015, 22). Instead, I intend the term world-SF to describe that part of the world-literary system that envisions future and/or alternative worlds, and whose visions both register and are shaped by the uneven materialities of the capitalist world-system. Although my thesis focuses on specific examples of the growing SF outpouring from world-systemic peripheries, even Hollywood blockbusters and other core-zone SF production can and must be read as world-literature, and thus as world-SF.

This proposition is of notable utility to SF studies on several fronts. As a methodology, world-SF pushes against any suggestion that "postcolonial SF" or "Global South SF" (see O'Connell 2019) be set within a chronology that positions their "arrival" as that of a "subgenre" after a more fully-realised "Euro-American" or even "white" SF tradition. As British-Nigerian SF author Tade Thompson has recently observed, the repeated invocation of "the rise of African science fiction" in response to each new text that garners any international attention has functioned as something like 'a gentle literary oppression that keeps African science fiction infantile', given the established tradition of African speculative writing that Thompson emphasises (2018a, n.pag.). The "worlding" of SF can, at the same time, resist the undifferentiated homogeneity implied by other formulations that have sought to grasp SF in totality, such as an unhyphenated "World SF", or "Global SF" (see Tidhar 2010; Csicsery-Ronay Jr. 2012). Canavan points to two apparently contradictory SF "genealogies" sketched out by recent SF scholarship. In one, he writes, SF's 'utopian impulses' have been aligned with 'anti-colonialism's on-the-ground fight for global justice' as an attempt 'to imagine alternate futures for a human race whose history is not doomed always to be a nightmare' (2012, 495, 494). At the same time, what Canavan describes as an "imperial turn" in SF criticism has 'proposed an opposite genealogy' in which SF 'becomes instead empire's propaganda arm', or an 'R&D lab' whose function remains that of 'accommodating us to tomorrow's genocides today' (2012, 494-95). Worlding SF can reveal the ways in which these two SF "traditions", impulses, or imaginative tendencies are linked as particular responses to the singular, yet always uneven and everywhere specific, process of capitalist modernisation.

Worlding SF in this way offers a significant developmental move away from the misidentification as "postcolonial" of what are actually better thought of as (semi-)peripheral SF texts. What is striking about accounts of "postcolonial" SF so far has been their replication of what Neil Lazarus identifies as the 'notable failure' in postcolonial studies 'to situate the historical projects of colonialism and imperialism' – which postcolonialists all-too-often figure as exercises 'solely in *political* domination' –

within 'the determinant contexts of the inception, consolidation and development of the modern [capitalist] world system' (2011b, 7, 11; original emphasis). Thus, Lazarus observes, postcolonial criticism 'has tended to turn a blind eye' to what postcolonial texts have 'notably been concerned to put on display': 'the centrality of capitalism to colonialism' and its unevenly ongoing effects and long-unfolding aftermaths (2011b, 14, 11). Tellingly, Langer's *Postcolonialism and Science Fiction* mentions capitalism fleetingly on just three occasions, while only one of the *fourteen* essays collected in Hoagland and Sarwal's volume engages capitalism in any sustained detail.[14] Without an account of the kind Lazarus describes, Patricia Kerslake's *Science Fiction and Empire* can only generalise that 'since almost every extant society today can look back at moments in time when it was subject to empire in one form or another, it would be foolish to assume our imaginations have not been conditioned, in some manner, by this experience' (2007, 188). Even with scholars who have foregrounded the "global" dimensions of capitalism in their analyses of "postcolonial" SF there remains room for improvement. In the "SF and Globalization" themed special issue of *Science Fiction Studies*, David M. Higgins positions SF as a 'useful site to conduct an analysis of globalization's conditions and consequences'; with "globalisation" understood here to mean 'the imperial expansion of planetary capitalism' (2012, 370). Smith similarly proposes that "postcolonial" SF represents 'the literary and cultural expression of the habitus of globalization' and is therefore 'formally equipped to offer critical mappings of its geospatial structures' (2012, 16). O'Connell perhaps comes closest so far when he suggests that "Global South" SF 'points towards the larger *combined and uneven* development of global modernity', yet, frustratingly, makes no reference to Trotsky or of WReC's mobilisation of him, and replaces the specificity of a capitalist modernity with an amorphously ill-defined "global" one (2019, 695; my emphasis).

O'Connell is quite right to channel Marx and Engels in suggesting that the 'specter' that haunts 'Western SF […] is the Global South', though we might reframe this in the world-systems terms of core and (semi-)periphery (2019, 680). However, as the three case studies examined in the following chapters will demonstrate, the potential of SF from world-systemic (semi-)peripheries to challenge the capitalist realism of so much "core zone" SF only becomes legible when, via WReC, it is examined in terms of how its efforts to imagine futures of and after capitalist modernity proceed 'under the sign of combined and uneven development' (2015, 17). As WReC explain, the 'value' of such worlding 'lies in the fact that it enables comparison of discrepant literary subunits and social formations of the world-system' *not only* 'at the same point in chronological time' but also 'at congruent conjunctures in the recurring rhythmic cycles of capitalism' (2015, 68). What ties together the texts that I will

[14] The essay in question is Shital Pravinchandra's "Body Markets: The Technologies of Global Capitalism and Manjula Padmanabhan's *Harvest*" (2010).

examine in the following chapters, then, is not the 'abstract connectivity […] across time and space' suggested by the "postcolonial" turn of SF scholarship (WReC 2015, 50). Rather, they are unified by 'the dialectics of core and periphery that underpin all cultural production in the modern era' via which, as WReC argue, literary forms 'are brought into being (and often into collision with other, pre-existing forms) through the long waves of the capitalisation of the world' and its far-reaching socio-ecological consequences (2015, 51).

While the meanings of "core", "periphery", and "semiperiphery" have been well-explicated elsewhere, it is worth reiterating these definitions here to emphasise that they name the 'modality' of inclusion 'within a system' – that of the modern world-system, or the capitalist world-economy – rather than passing any kind of value judgement on relative "worth" (WReC 2015, 123). Wallerstein explains that the modern capitalist world-economy is 'marked by an axial division of labor between core-like production processes and peripheral production processes', which favours the flow of surplus value to core agents (2004, 17). Importantly, however, Deckard and Stephen Shapiro caution that 'in discussions of the core-semiperiphery-periphery, the tendency has been to treat these as *spaces* rather than *processes*, thus reducing the world-system to a homogenous geography of nation states' (2019, 9; original emphases). Indeed, Wallerstein suggests that it *is* possible to 'use a shorthand language by talking of core and peripheral zones (or even core and peripheral states)', because such processes tend to 'group together in particular countries' (2004, 17). Thus, as Deckard and Shapiro explain, 'core zones are those which tend to have multiple production processes, often involving secondary or finishing processes', while so-called core states are those 'strong sovereign states that are able to enforce their decisions about the trans-boundary movements of goods, people, and capital' (2019, 9). Peripheral zones, meanwhile, 'have weak sovereignty and usually tend towards monocultures of cash crops or extractive industries of single export commodities', and semiperipheral zones feature a pronounced mixture of both core and peripheral processes because they 'mediate' between the two (2019, 8-9). As Wallerstein reminds us, however, this shorthand of "zones" and "states" is only tenable 'as long as one remembers that it [is] the production processes and not the states that [are] core-like and peripheral' (2004, 17). In actuality, core, semiperipheral, and peripheral zones or states are not monolithic blocs that correspond to outlines on a map, because they are in fact internally differentiated. As Deckard and Shapiro explain, 'core-semiperiphery-periphery' must be understood as 'relational zones that operate on multiple scales, rather than strictly national spheres', because 'each spatial level (whether the household, city, region, nation, or macro-area) contains its own internal core-periphery differences' (2019, 9). As they explain further:

> Urban settings have their own class-differentiated regions, from the peripheral slums inhabited by manual labour forces and reserve armies of

> the unemployed, to the core sectors where elite classes live and work. At a higher level, individual nation-states are divided between internal peripheries and core-like zones, such as north/south and urban/agrarian divisions. The urban cores of these different zones are often organized within a 'city system', where some cities are more dominant than others, and rise and fade in prominence; at the global level, core cities in the world city system exercise more power than others, whether in finance, industry, and international politics or in the dissemination, translation, and consecration of cultural capital. (2019, 10)

Crucially, what binds such cores and peripheries together is the semiperiphery, which, as Wallerstein emphasises in the first volume of *The Modern World-System* (1974), is 'a necessary structural element' of the capitalist world-system; what Shapiro describes trenchantly as the 'internal arterial matrix' that 'allows all the world-system's regions to communicate with each other' (Wallerstein 1974, 349; Shapiro 2008a, 38-39).

Shapiro points out that Wallerstein construes the semiperiphery as 'a collection of states that are in the minor leagues, hoping to become core players, but also fearing relegation to the periphery': effectively, the semiperiphery is 'the buffering, junior managerial region that gets its hands dirty by administering core-logistics on peripheral regions and protecting the core from directly receiving the force of peripheral acts of resistance and revenge' (2008a, 37). At the same time, however, Shapiro expands upon this to argue that 'because the social action of the core region is too incommensurate with that of the periphery, the world-system requires a calibrating zone that can mediate and "translate" the cultural and commodity economies of each sphere to one another' (2008a, 37). In other words, within the capitalist world-economy, the semiperiphery functions as

> the "transistor" space where two different segments of a commodity chain become articulated and receive their first pricing, the semiperiphery is the contact zone that makes it possible for core and periphery to transmit value to each other, especially as both the rural dispossessed of the hinterland and the factors of the core's jobbing interests congregate there, one to commodify their labor and the other to finance and insure the material apparatuses that will consume this labor-power. (Shapiro 2008a, 37)

Due to its status as systemic "contact" or "calibration" zone, the semiperiphery has received particular attention within the emergent "world-literature" paradigm. Shapiro writes that

> as the zone where political economy receives its greatest cultural inflection and amplification, the semiperipheries are the sites where the experience of trauma by peripheral peoples and the speculative entrepreneurialship [sic]

> of the core collide to produce new forms of representation, especially as [the semiperiphery] receives both the oral, folk beliefs of the periphery and the core's printed matter and institutionally consecrated notations, objects, and behavioral performances. (2008a, 37-38)

In view of this, WReC argue that it is 'in (semi-)peripheral aesthetics [that] the "shock" of combined unevenness is registered with particular intensity and resonance' (2015, 72). Following this argument, my thesis is likewise concerned with peripheral and semiperipheral SF texts, referred to here as (semi-)peripheral to emphasise that even though many writers and texts discussed below do not themselves occupy the peripheries proper, peripheral and semiperipheral experiences are nonetheless at the forefront of their future-envisioning.

Importantly, Shapiro writes that 'if the semiperiphery is the zone of transculturation and transvaluation, then it stands as a privileged region for registering the sociocultural formations of each phase in the world-system' (2008a 38). He goes on to argue that

> As semiperipheries mediate the experience of violence and coercion in the periphery and in the core's institutions of cultural valorization, they become especially pressurized in times of phase transition as they bear the burden of suturing two different configurations, one emerging, the other fading. Consequently, in times of transition between long economic waves and the ensuing spatial reorganization of the world-system, the semiperiphery functions as the locale of a heightened globalizing structure of feeling, producing affects and artifacts often in advance of these experiences' concrete articulation by agents at either end of the system. (2008a,38)

Shapiro's positioning of the semiperiphery as the site from which the present configuration and the emergent future of capitalist modernity might most readily be discerned underpins my readings of world-SF texts in the following chapters. Taking neoliberal world-petroculture to be the latest developmental phase of capitalism as an ecological regime, then, the visions of the future offered by North American, South African, and Nigerian texts explored in this thesis are, I argue, well-placed to register the racial injustices that underpin that world-petroculture, the socio-ecological contradictions that imply its forthcoming collapse, and, finally, to offer glimpses of the emergent postcapitalist, post-petrocultural ecopolitics needed for equitable survival on an unevenly damaged planet.[15]

[15] Indeed, WReC caution that 'the broad tendency in terms of which core modes and forms' – like the novel – 'superimpose themselves or overwrite peripheral ones […] should not blind us to the existence of a counter-current', wherein 'literary forms and models developed in (semi-)peripheral locations are often pirated by core writers' (2015, 56). While my thesis concentrates its world-SF enquiries upon (semi-)peripheral texts, further work might examine the extent to which such "pirated" elements can destabilise the petromodern assumptions that underwrite these visions.

Initially, it might seem unwarranted to include USian texts or South African and Nigerian texts that centre regional core locations like Johannesburg, Cape Town, and Lagos, under the (semi-)peripheral banner. However, as Shapiro argues, because 'the semiperiphery […] also includes the littoral and interstitial spaces within core and periphery territories, the semiperiphery is poorly delineated with basic cartographic implements like two-dimensional maps' (2008a, 39). Indeed, in view of such complexities, WReC emphasise that 'world-literary criticism demands a multi-scalar, multidimensional understanding of the place of literature in the world-system' (2016, 547). On the one hand, WReC point out,

> literary works deriving from socio-economically "peripheral" zones are frequently produced by writers who are themselves metropolitan or cosmopolitan in their formation and who live in socio-culturally privileged, urban locations, even if their practice as writers involves the disposition of cultural materials and folkways that are not themselves "metropolitan." (2016, 547)

On the other hand, WReC write elsewhere, 'the "unevenness" characteristic of (semi-)peripheral literature will also be discernible in literature from the core formations that is nonetheless "peripheralised" by its relatively disprivileged (or provincial) location *within* the highly mobile and scalar "centre" (2015, 57). If peripherality and peripheralization are to be understood relationally, rather than spatially, then here it is worth remembering Wallerstein's point that 'racism, sexism, and other anti-universalistic norms' play pivotal roles 'in allocating work, power, and privilege within the modern world-system', operating as modes of 'inclusion at inferior ranks' (2004, 40-41). As Shapiro explains further, 'the patriarchal family or a racialized society can also be conceptualized as having white men as its core and women and nonwhites as peripheral actors' meaning, again, that the geography of core-semiperiphery-periphery 'cannot easily be mapped on two- or even three-dimensional surfaces' (2008a, 33-34). In sum, establishing the positionality of the texts and authors examined by this study is a necessarily *complicated* endeavour, given that many of the authors examined here could be described as attached to local and systemic cores in some ways, and relatively peripheralised in others. I use (semi-)peripheral here not as some "cop-out" measure, then, but, following WReC, to acknowledge that 'some writers from strong core zones are also best situated within the semi-periphery, since they produce work from within (relatively) marginalized class, ethnic, gender, or regional' positions (WReC 2016, 547-48).

We might consider, for example, Octavia E. Butler, whose novel *Kindred* (1979) I turn to in Chapter One. Though writing from Los Angeles, which has long been a powerhouse within the USian petro-economy and cultural industry, Butler's experiences upon the city's racialised periphery in the

late 1970s clearly inflect her novels. Though we might be cautious about offering a strict biographical reading of *Kindred*, for example, the similarities between the trajectory of its protagonist's life and Butler's own have been widely noted. Dana Franklin is, like Butler was in the 1970s, a Black woman working a series of precarious temp jobs while struggling to earn a living as a full-time writer within a genre field whose gatekeepers (then, as now) skew towards whiteness. Or, we might consider Nnedi Okorafor, whose works I examine in Chapter One and Chapter Three. Born to Nigerian Igbo parents in Cincinnati and now living in the suburbs of Chicago, Okorafor has acquired a considerable international reputation as a multiple award-winning SF writer amongst metropolitan "core-aligned" audiences across the world. At the same time, however, Okorafor describes being part 'of the first black family to move into our south-suburban-Chicago neighborhood', and the deep links that she retains with Nigeria, which she regularly visits and describes as where 'my creative muse is located' (qtd. in Wabuke 2015, n.pag.). 'The thing that kicked me into writing', Okorafor says, 'was not the existing sci fi, but considering Nigeria and wanting to see Africa in the future' (qtd. in Wabuke 2015, n.pag.). We might think also of the white South African filmmakers and writers whose works are discussed in Chapter Two. On the one hand, such works emanate from privileged positions of whiteness in urban centres like Johannesburg and Cape Town. On the other, though, as will be seen, these works also speak to the country's wider condition of semiperipherality within the capitalist world-economy, and in so doing attempt - not always unproblematically - to grapple with the intensified continuity of racial injustice and the putting to work of Black bodies in the putatively postapartheid neoliberal South Africa. The extent to which the texts discussed below "belong" to the core or (semi-)periphery could no doubt be debated further. For now it suffices to say that in this thesis I am interested in tracking how, in alignment with WReC's broader methodological claims for world-literature, these texts all nonetheless bear 'testimony' in different yet comparable ways to 'the massive rupture effected at the levels of space-time continuum, lifeworld, experience and human sensorium by capitalist modernisation' (2015, 50). Yet, as Moore's world-ecological reconceptualisation of capitalism emphasises, this process is one of *socio-ecological* reorganisation. The dialectic of core and periphery is, he writes, one of 'productivity' at the core and 'plunder' at the periphery, where the accumulation of capital has been sustained by the devaluation and forcible integration of hitherto uncapitalised "natures" into the capitalist world-ecology (2015a, 96). Consequently, Mike Niblett argues, if world-literature is the literature of the capitalist world-system, then it must also be 'the literature of the capitalist world-ecology' (2012, 20). Or, as Deckard and Shapiro have recently re-iterated, 'it must therefore also be the literature of the "Capitalocene"'; a term that Moore offers – in rebuttal to the undifferentiated culpability implied by the Anthropocene hypothesis – for what is, more properly speaking, 'the historical era shaped by relations privileging the endless accumulation of capital' (Deckard and Shapiro 2019, 7; Moore 2015a,

273). These interventions are crucial. They mean that any world-SF reading must also proceed in view of world-ecological thinking, naming the interpretive horizon of any and all speculative fiction today as the unevenly damaged planet of the Capitalocene and its future.

Neoliberalism and the Uneven Rise of "Negative-Value" Futures

> Capitalism is not an economic system; it is not a social system; it is *a way of organizing nature*.
>
> --- Jason W. Moore, *Capitalism in the Web of Life*, 2015 (original emphasis)

Thompson is right to caution against narratives that celebrate the "rise" of an only-just-emerged tradition of "African" SF, or even that of a wider Black future-envisioning. Nonetheless, we are in the midst of an unprecedented outpouring of SF from and about the world-systemic (semi-)peripheries, including from those wherein the uneven attenuation of Black futures in particular has long been driven by the imperatives of capitalist resource extractivism and exacerbated under neoliberal world-petroculture. "Postcolonial" readings of this speculative surge, though, have been ill-equipped to explain *why* it should have emerged at this historical moment in particular, and, hence, the full extent of what is at stake in its efforts to reclaim the future. Smith points out that 'postcolonial SF undertakes the urgent and totalizing recovery' of what Lazarus calls 'the materialist heartbeat of much "postcolonial" writing' (Smith 2012, 194; Lazarus 2011a, 79). We can push this reading further, however, by re-orienting that "materialist heartbeat" towards world-ecological thinking and the "worlded" and "resourceful" reading practices that have begun to develop through and around it over the past decade. As Westall points out, a 'world-literary approach […] also requires a newly energetic materialism invested in systemic reading practices by which the inequities of capitalism's unevenly combined relations, patterns, cycles and disruptions can be analysed' (2017, 270-71). Such an energetic materialism, as Westall explains, marshals 'a Marxist-inflected historical, relational and dialectical approach to the material culture of capitalism's resource-bound work/energy systems' (2017, 267). Hence, bringing such "energised" reading practices to bear upon the dramatic uptick in (semi-)peripheral SF production today can reveal the ways in which it confronts and responds to neoliberal world-petroculture as the latest and potentially terminal developmental phase of capitalism's centuries-ongoing project to appropriate unpaid 'work/energy' from 'the biosphere' and transform it into capital (Moore 2015a, 14).

As Deckard and Shapiro point out, "neoliberalism" has 'become a standard keyword to categorise the present regime of accumulation, especially after the 2008 financial crash that made the

term “globalization” seem inadequate’ (2019, 1). It is therefore worth unpacking a little how exactly my thesis mobilises this term. Writing in 2005, David Harvey defined neoliberalism as being ‘in the first instance a theory of political economic practices that proposes that human well-being can best be advanced by liberating individual entrepreneurial freedoms and skills within an institutional framework characterized by strong property rights, free markets, and free trade’ (2005, 2). However, Harvey noted that despite being ‘deeply opposed to state interventionist theories’, the ‘theory of neoliberalism and the actual pragmatics of neoliberalization’ are in paradoxical ‘tension’ with each other (2005, 20-21). Over and above neoliberalism’s purportedly ‘utopian project to realize a theoretical design for the reorganization of international capitalism’, he writes, it has instead constituted ‘a political project to re-establish the conditions for capital accumulation and to restore the power of economic elites’, within which ‘the second of these objectives has in practice dominated’ (2005, 19). Consequently, he writes, the actual process of neoliberalisation has

> ‘entailed much “creative destruction”, not only of prior institutional frameworks and powers (even challenging traditional forms of state sovereignty) but also of divisions of labour, social relations, welfare provisions, technological mixes, ways of life and thought, reproductive activities, attachments to the land and habits of the heart’. (2005, 3)

More recently, Deckard and Shapiro likewise differentiate between “neoliberalism” and the actual material projects or processes of “neoliberalisation”; a distinction that also informs my use of the terms. To begin with, Deckard and Shapiro offer an extensive list of “neoliberal” markers that is worth repeating here as a primer for the following chapters, since extrapolative responses to many of them are clearly discernible in the texts examined by my thesis. Deckard and Shapiro write that

> Features of neoliberalism include state deregulation of markets, privatization, and anti-labour and social welfare strategies; the ascendancy of finance capital; the renewed imperialism of law-and-order schemes on the global level (as in the endless “war on terror”) and in domestic arenas (as with the creation of a prison industrial complex); the elite project of wealth redistribution through new forms of ecological enclosure and accumulation via dispossession; the proliferation of metrics that spur competition in new realms of social life and administrative oversight; the exploitation of crises and disasters to force the imposition of austerity and structural adjustment; the increased biopolitical control of individuals by the state; the redefinition of individuals as quantums of human capital rather than subjects of interior development or political representation; the deployment of mass personal debt in ways little foreseen by prior macroeconomics; and the emergence of new algorithmic technologies of

> surveillance and financialization that have penetrated everyday life. (2019, 2)

Importantly, though, Deckard and Shapiro caution against focusing 'on the cultural or ideological symptoms of *neoliberalism*' instead of 'critiquing the process of *neoliberalization* from a world-historical perspective of capitalism's developmental cycles' (2019, 3; original emphases). In what follows, then, I do not mean to argue that the worldwide efflorescence of SF production today be read merely as symptomatic of "neoliberalism" writ large. Rather, my project is instead intended to begin the work of reading it in a worlded and resourceful fashion for its locally particular registrations of the unevenly disastrous materialities of neoliberalisation. In this, I follow Deckard and Shapiro in referring to neoliberalisation as today's particular configuration of 'the material processes and technologies of capitalist penetration and development', which collectively 'generate the new lifeworlds of neoliberal modernity' (2019, 15).

Crucially, Deckard and Shapiro emphasise that 'the specific contrast between neoliberalism and neoliberalization seeks to differentiate between the baggy nominalism of an unchanging, homogenous thing-form – an "ism" – from a dynamic process – an "ization" – that involves multiple, often contradictory operations that are never simply guaranteed in outcome or predictable in advance' (2019, 16). Consequently, they write, the term "neoliberalisation" underscores 'an antagonistic conception of the political agency of elites in conflict with modes of contestation-from-below: the blockages to the strategies of neoliberalisation presented by new modes of political resistance' (2019, 16). In bringing newly worlded and resourceful reading practices to bear upon the texts explored in the subsequent chapters, then, my thesis explores how the worldwide efflorescence of SF today can form part of that resistance, and is embedded within what Deckard and Shapiro characterise as a wider 'culture of discontent' with neoliberalism (and the world-petroculture that both sustains and is sustained by it) as the latest, and potentially last, configuration of capitalism as an ecological regime (2019, 15). If, as Deckard and Shapiro write, the 'nested' rather than 'sequential' quality of the past four decades of world-neoliberalisation have gone underrecognised, we might say that worlded SF forms are similarly "nested" (2019, 5). World-SF is the future-oriented "subset" of world-literature; (semi-)peripheral SF forms are a particular field of interest within world-SF; and, finally, Afrofuturism (however cautiously we might want to treat this term), the postapartheid speculative, and post-petro-magic futurism are the subset of those forms that my thesis examines in particular. Specifically, that subset which is invested in envisioning what futures await Black lives under (and after) neoliberal capital. In the remainder of this section, I will explain the rationale for this particular focus. Despite emerging at different times and places during the "nested" progression of world-neoliberalisation, the texts discussed in the coming chapters all demonstrate how

(semi-)peripheral SF forms can witness and contest the racialised iniquities of what Deckard calls neoliberal capital's 'political ecology of intensified extractivism' (2019, 240). At the same time, however, their efforts to envision Black futures amidst the ruins of such extractivism also manifest what we might call an aesthetics of world-ecological crisis.

As a world-historical project spanning five centuries and counting, Moore argues that capitalism's 'governing conceit' has been 'that it may do with Nature as it pleases, that Nature is external and may be coded, quantified, and rationalized to serve economic growth, social development, or some other higher good' (2015a, 2). On such terms, 'the [civilisational] projects of capitalist agencies' thus 'confront the rest of nature' as both an obstacle to be "conquered" and a source of 'wealth and power'; the "unpaid" work/energy – be it in the form of un(der)compensated human (re)productive labour, or the "work" of "natural" resources such as rivers, winds, forests, farms, and fossil fuels – upon which the accumulation of capital depends (2015a, 47). In other words, capitalism operates via a dynamic that Moore describes elsewhere as 'accumulation by appropriation' (2015b, 6). Moore differentiates his use of the term appropriation from Marx's use of it, suggesting that while Marx 'deployed the term more or less interchangeably with the exploitation of wage labor', his own formulation of accumulation by appropriation 'names those extraeconomic processes that identify, secure, and channel unpaid work outside the commodity system into the circuit of capital' (2015b, 6). 'So important is the appropriation of unpaid work,' Moore argues, 'that the rising rate of exploitation depends upon the fruits of appropriation' (2015b, 6). Such projects to put "nature" to work, however, are continually frustrated by something like Newton's Third Law, as the complexity of countervailing 'processes' within the 'unruly' web of life arise to frustrate capital's conception of "nature" as a supine object, or a bountiful receptacle filled with endless "free gifts" (2015a, 47). As Moore explains, the capacities of all manner of human and extra-human "natures" to 'resist the grim compulsions of economic equivalence' generate periodic accumulation crises as the 'world-ecological surplus', or the "unpaid" work/energy that capitalism can extract from the web of life, falls (2015a, 205, 91). The world-ecology as it exists today, Moore suggests, has not developed in spite of such crises, but because of and *through* them via the revolutionary incorporation of new resource frontiers; not just geographical spaces, 'but bodily, subterranean, and atmospheric spaces' from which conceptually "free gifts" are ruthlessly extracted, and into which wastes can be dumped at little cost or imagined consequence (2015a, 280). Such world-ecological revolutions do not only involve the incorporation of hitherto uncapitalised "natures" into the sphere of commodification, but a fundamental reorganisation, expansion, and intensification of what Moore calls capitalism's *technics*: the 'specific crystallizations of tools, nature, and power' that construct "nature" – including, via the technics of racism and sexism, many other humans – as external to capitalist civilisation and thus able

to be put to work "cheaply" or otherwise exhausted, polluted, or disposed of without consequence (2015a, 100).

World-ecological revolutions set the conditions for a new round of accumulation by restoring capital's access to 'the fruits of appropriation derived from Cheap Natures, understood primarily as the "Four Cheaps" of labor-power, food, energy, and raw materials' (Moore 2015a, 17). As Westall points out, however, one of the 'key strengths' of Moore's world-ecological reconceptualisation of capitalism is that it emphasises the 'cumulative' as well as the 'cyclical' dimensions of capitalism's recurrent crises (Westall 2017, 270; Moore 2015a, 11). Moore points out that 'every great moment of appropriating new streams of unpaid work/energy implies a disproportionately larger volume of waste' (2015b, 25). That is, each world-ecological revolution can only temporarily restore the conditions of Cheap Nature because, as Niblett explains, each one 'only resolves the contradictions of the previous regime' by re-instantiating them on an even larger scale (2012, 18). The neoliberal petrocultural revolution ongoing since roughly the 1970s is consequently, Moore writes, 'only the most recent example' in this pattern; but, crucially, he argues that it may also be the last (2015a, 1). Elsewhere, he points out that 'in contrast to the golden ages of American and British world power in the mid-20th and mid-19th centuries', the neoliberal period has thus far not been 'built atop an industrial revolution in labor productivity' (2012, 77). Neoliberal world-petroculture has instead sustained itself by inaugurating what Moore characterises as a future of 'sweatshops, surplus humanity and shock doctrines', predicated upon appropriating 'what free gifts remained for the taking', rather than the 'robot factories of the future' that had been 'widely anticipated in the 1970s' (2012, 77). Moreover, in view of the staggering carbon output of neoliberal world-petroculture today, Moore points out that now, more than ever, 'the *temporality*' of capital's treatment of "nature" as a resource 'tap' is wildly out of step with that of its treatment of "nature" as a waste 'sink' (2015a, 280; original emphasis). 'The result today', he writes, 'is a world in which every nook and cranny bears the impress of capital's toxification: from heavy metals in Arctic glaciers […], to the plastic "garbage patches" in the Atlantic and Pacific Oceans, to rising atmospheric concentrations of CO_2' (2015a, 280). Indeed, for Moore, fossil-fuelled climate change and its particular acceleration of resource 'depletion' and biospheric 'unpredictability' is the 'paradigm moment of the transition' to what he calls the conditions of 'negative-value' in the capitalist world-ecology today (2015a, 276).

"Negative-value" is a slippery concept that nonetheless underscores in rhetorical terms the increasingly apparent material contradictions between capitalism's imperative of endless accumulation, and the health and stability of the vast *but not limitless* biophysical systems that sustain

all life on earth.[16] To say that the capitalist world-ecology is today undergoing a transition from conditions of "surplus" to "negative" value thus names what is, for Moore, a systemic crisis of 'peak appropriation': the point at which the business of "doing" capitalism ceases to become "cheaper" over time because no sufficient ecological surpluses remain to offset rising socio-ecological costs (2015a, 87). Importantly, Moore notes that 'historically, the accumulation of negative value assumed a latent or potential form' (2015b, 22). The historical 'genius' of capitalism's 'manifold Cheap Nature strategies' was, he writes, 'to outrun the rising costs of production by locating, creating, mapping, and quantifying natures external to capitalism but within reach of its power' (2015b, 36). New frontiers were always available to offset the socio-ecological consequences of what Rob Nixon describes incisively as 'slow violence' – the extraction-oriented devastation of lands and lives whose effects are 'accretive and incremental' over decades or centuries (2011, 2). Now, however, the decades and centuries of this slow violence appear to have taken their toll upon the web of life's ability to deliver new streams of Cheap Nature, especially in view of planetary-scale but centuries-in-the-making problems like fossil-fuelled climate change. Moore points out that the 'latent or potential form' of negative-value production has been 'activated through late capitalism's marriage of productivism, global trade and transport, and toxification' (2015b 22). He notes the way in which the resource grabs that have so far sustained and been made possible by neoliberal world-petroculture have actually accelerated 'extant tendencies toward nutrient and resource depletion', thereby 'undermining whatever possibilities might remain' for capitalism's previously successful mechanisms of self-renewal (2015b, 21). At the same time, the accelerated climatic change driven by that world-petroculture is what Moore calls 'the decisive expression' of 'the ongoing closure' of capitalism's waste frontiers, which is today 'activating a new set of limits, swirling around nature as "sink"' (2015b, 21). Thus, the world-ecological transition from conditions of "surplus" to "negative" value describes the mounting 'torrent of unpredictable socio-ecological problems' that are bound up with *but ultimately not reducible to* climate change and the overaccumulation of greenhouse gasses in the atmosphere (Moore 2015b, 22). For example, Moore cautions that 'the combination of antibiotic resistance, climate change, and global flows of human and extrahuman nature points toward disease as a significant nexus of systemic crisis in the coming decade' (2015b, 33). In the context of covid-19, this warning seems especially instructive.

To speak of the rise of negative-value today, then, is to speak of the looming exhaustion of 'the repertoire of strategies' by which capitalism has previously resolved historical accumulation crises

[16] Indeed, Moore presents the term inconsistently, sometimes with a hyphen (as 'negative-value') and sometimes without (as 'negative value'), without a clear explanation given for the difference. Since recent work (see: Walker and Moore 2019, and Moore, 2017) uses the hyphenated form, I have followed this presentation within this thesis.

(Moore 2015b, 3). It is to recognise the ways in which, as Moore writes, 'the present conjoncture combines depletion, class struggle, and the unprecedented biospheric instability issuing from capital's transgression of "planetary boundaries"', auguring an 'epochal crisis impossible to resolve within the Cheap Nature model' (2015b, 7, 27). It is to appreciate the way in which even the advent of supposedly "renewable" resource technologies cannot be counted on to kickstart a new round of accumulation. To revitalise capitalism as an ecological regime, such technologies would not only have to completely replace fossil-fuelled ones, but significantly expand access to new streams of Cheap Nature; all while generating depletion- and waste-bound consequences, which would then require technical and organisational "fixes" of their own. Historically, 'new primary production regimes' were able to 'develop much faster than the contradictions of externalizing costs onto the backs and blood of human and extrahuman natures' (Moore 2015b, 26). In contrast, the rise of negative-value within the capitalist world-ecology today refers to all of those phenomena that imply that if, as Moore argues, 'capitalism is an "economy of unpaid costs", the bills are coming due' in ways that capitalism's typical strategies for restoring the flow of Cheap Nature are unable to resolve (2015b, 6). In sum, then, the term negative-value names the systemic condition when no resource "taps" remain that are sufficiently large enough to offset the costs prompted by now-overspilling waste "sinks"; the most spectacular example of which today is, of course, fossil-fuelled climate change.

Importantly, Moore suggests that by 'destabilizing' our ability to count on a future of endlessly rising surplus value, the rise of negative-value producing effects in the neoliberal world-ecology is also 'making possible' new imaginative horizons (2015b, 42). In this thesis, then, I take the rise of negative-value as an important context for the present rise of SF forms throughout world-systemic (semi-)peripheries, which have, of course, borne the brunt of neoliberal world-petroculture's increasingly desperate efforts to stave off the end of Cheap Nature. The North American, South African, and Nigerian texts that I will examine in the coming chapters all mobilise what we might call the irrealist aesthetics of negative-value in their efforts to imagine the future under the sign of a world-ecological crisis that, despite unfolding on a planetary scale, remains profoundly uneven.[17] As will be seen, such aesthetics index the rapidly foreshortening timescales upon which capitalism remains able to outrun the accumulation of socio-ecological costs that have typically been treated by capitalist

[17] The formulation "aesthetics of negative-value" also implies an "aesthetics of positive value", but what might that be? We might think of the aesthetics of negative-value as an aesthetics of "bust" – provided that such a bust is understood to be systemic and terminal in nature rather than a temporary decline. This would then suggest that the aesthetics of "positive value" is an aesthetics of "boom" or, more particularly, of capitalism's presumptive limitlessness. As an example of what this might look like, we need think only of 2021's spectacle of Jeff Bezos's launch into space atop a conspicuously (even comically) phallic rocket, or how, during the petro-fuelled boomtimes of SF's so-called "Golden Age", such narratives 'celebrated technology as progressive and the American future as expansive in awesome and poetic displays of graceful, glittering new machinery' (Sobchack 2005, 263–64).

agencies as "externalities." More particularly, however, the texts discussed in the chapters to come also shed light upon the way in which capitalism's historical construction of race and racial hierarchies has been crucial to the production of Cheap Nature, with lasting implications for how we must imagine equitably sustainable postcapitalist futures. Specifically, I am interested in how the texts examined by this thesis encode a recognition of how the assaults upon Black bodies and lives in the (semi-)peripheries of the neoliberal world-ecology today constitute an intensification of the historically durable pattern whereby the racial technics mobilised by capitalist agencies have always sought to construct Black bodies and lives as Cheap Nature. Much has rightly been made of 'oil's status as the dominant vector through which capitalism has remade itself since the turn of the twentieth century' (Niblett 2015, 276). What must also be emphasised in this context, however, is that the subsequent "Great Acceleration" of neoliberal world-petroculture has also been sustained by the disproportionate reconfiguration of Black lives as part of what Mike Davis (2006) calls a surplus humanity; both as Cheap Labour, and as those bodies that can, in a Foucauldian sense, be "let die" under iniquitous regimes of biospheric toxification and climatic instability (see: Foucault 2003, 241).

Racism has long been at the heart of the 'incessant reworking of the boundaries between the human and the extra-human' that is, for Moore, at the crux of capitalism's Cheap Nature strategy (2015a, 17). As he explains elsewhere with Raj Patel, a 'rule of Cheap Lives' has underpinned the 'persistent and frequent acts of chauvinism against categories of animal and human life' that have been vital to 'fixing […] in place' capitalism's systemic production of Cheap Nature (2018, 5). Viewed in the context of this long view, capitalism's historically mutating constructions of Black bodies as Cheap Labour – as part of "nature" – offer a paradigmatic example of how racism fuels the production of the Cheap Nature upon which capitalist accumulation depends. As Eric Williams forcefully argued in *Capitalism and Slavery* (1944), racism was not the cause of the slavery upon which the plantations of the New World depended, but rather its consequence; the justification, developed by and through an ostensibly "Enlightened" rationality, for the wholesale reduction of the Black body to a labouring resource found in an external "nature". As Kerstin Oloff explains further, 'the de-humanization of colonial subjects as chattel (as in the *Code noir* of 1685) or less advanced humans was inscribed into the imperialist dualism' that ensured that the subjects of empire who were coded as "non-white" were 'routinely seen as closer to nature, and opposed to the supposedly rational space of civilization' (2012, 31). Indeed, it is precisely because of the Black body's persistent status under capitalism as a "world-historical resource" no less pivotal than petroleum that my thesis begins the worlding of SF by examining efforts to imagine Black futures.[18] The particular histofuturist consciousnesses cultivated

[18] I borrow the term 'world-historical resource' from Deckard, who uses it to describe cacao as a resource whose 'commodification' has been 'indelibly associated with the origins of capitalist modernity' (2017, 343).

by the texts examined in the coming chapters all register in systemic terms how the devaluation of Black bodies and lives has been historically pivotal to maintaining what Moore calls capitalism's 'law of Cheap Nature', even as they simultaneously attest to, and imagine futures in view of, the ways in which that devaluation has been resisted by Black subjects at every turn (2015a, 53). I must emphasise, then, that I do not mean to suggest that these texts, or reading them in this way, is intended to endorse 'a "one down" relationship' or historical narrative, wherein Black life can only be conceived in relation to white life (Wabuke 2020, n.pag.). Rather, I mean to demonstrate how the texts explored in the coming chapters reveal the historical rootedness of such an imagined relationship within the systemic thrust of capitalism as an ecological regime, and, relatedly, how the imaginaries of these texts tend towards equitably sustainable futures rooted in the spiritual cosmologies and epistemo-philosophical traditions that have always existed beyond and in defiance of capitalist modernisation.

Because the (semi-)peripheries bear the brunt of capitalism's violent reorganisations of pre-existing socio-ecological formations, Niblett writes, literary forms produced under such conditions display 'a structural tendency towards not just registering a particular ecological regime, but also marking', in 'imagery, style, or form', the 'disjunctures and ruptures […] engendered by ecological revolutions' (2012, 20). That is, as WReC point out, it is upon the (semi-)peripheries of capitalist modernity where the 'pressures of combined and uneven development find their most pronounced or profound registration – including in the sphere of culture, where new forms are likely to emerge, oriented (and uniquely responsive) to these pressures' (2015, 62). Following WReC, I suggest that the aesthetic forms of the texts examined below encode the deep historical roots and forecast the long material afterlife of today's world-ecological crisis. As noted above, WReC mobilise the 'combined and uneven development' described by Trotsky in his analysis of 'the effects of the imposition of capitalism on cultures and societies hitherto un- or only sectorally capitalised' (2015, 10). In such contexts, they explain, Trotsky argued that 'the imposed capitalist forces of production and class relations tend […] to be conjoined forcibly with pre-existing forces and relations' in – and here they quote from Trotsky directly – an 'amalgam of archaic with more contemporary forms' (WReC 2015, 10-11; Trotsky 2008, 25). In this context, it is surely no coincidence that (semi-)peripheral voices in SF the world over have, as Langer points out, interrogated science fictional future-envisioning by infusing it with 'fabulism, folktale, divinity, orature, and other elements of indigenous culture or narrative' (2011, 132). Over and above the cosmopolitan "hybridity" so often celebrated by "postcolonial" approaches and touted in the literary marketplace, it will be seen that these newly energised SF voices all deploy the 'irrealist' aesthetic devices and techniques which, for WReC, are 'the determinate formal registers of (semi-)peripherality in the world-literary system' (2015, 51).

As Niblett points out, via Jameson and Michael Löwy, if literary realism 'falters when confronted by situations of ecological revolution', then the aesthetics of irrealism, 'might be expected to flourish' (2012, 21). In other words, he suggests, 'irrealism comes to the fore' in precisely those contexts wherein the violent process of capitalist ecological revolution distorts and makes seemingly *unreal* what had previously been experienced as "fixed" socio-ecological realities (2012, 23). As WReC elaborate, such 'irrealist aesthetics might then be presented as corresponding not to any depreciation of realism, but to a refinement of it', as a "truer" representation of the lived experience of capitalist socio-ecological relations 'under the specific circumstances of combined and uneven development' (WReC 2015, 70). Invested 'not merely in mapping present realities but in the revelation of possible futures and emergent social orders', such irrealist representations offer a version of what WReC call a "fighting realism", in reference to Frantz Fanon's notion of the 'fighting phase' and 'fighting literature' of African nationalist and liberation movements (WReC 2015, 77; Fanon 2001, 179). It is in this respect that the irrealist contours of world-SF texts are crucial. The texts examined in the chapters to come all demonstrate that if irrealism is the formal register of combined and uneven development, then the irrealist aesthetics in today's outpouring of (semi-)peripheral SF texts are also the aesthetics of negative-value, and thus of world-ecological crisis. WReC suggest that 'the *epistemology* of irrealist representation' can be 'historicist […] by way of recovering both the specific history of the present and the alternative histories that might have been but were not, yet that (paradoxically) still might be' (2015, 72; original emphasis). The following chapters will demonstrate how, in view of a world-ecological crisis that has the potential to devastate life as we know it, this sense of both recovered and expanded possibility is precisely what is at stake in the worlding of Black futures and other (semi-)peripheral SF forms.

Resisting the False Promise of Neoliberal Capital's "Petro-Fantasies"

The worlding of Black futures and other (semi-)peripheral SF forms is key to maintaining view of their critical valency for politically transformative projects systemwide. This seems especially important given that celebratory articles about the "rise" of "African" or other (semi-)peripheral SF forms hint at their growing potential for commodification in systemic core zones. We might foresee a parallel here with what WReC describe as 'the intense commodification of Latin American magical realism in the world-literary market' (2015, 80). Such commodification, they explain, has resulted in the 'stripping away' of magical realism's 'original radical politics' in favour of more 'reactionary forms consonant with the tastes of metropolitan cultural elites' (2015, 80). Indeed, it is in precisely this context that Smith asks 'what happens to [magical realism] once capital has saturated the world system through

the IMF and World Bank and the collapse of the Soviet bloc?' (2012, 9). To offer an answer, Smith points to the emergence of a potentially re-energised critique in the form of "postcolonial" SF, via Dominican-American writer Junot Díaz's *The Brief Wondrous Life of Oscar Wao* (2007). In that novel, we are told that the eponymous Oscar, a 'hardcore sci-fi and fantasy' fan, 'believed that that was the kind of story we were all living in. He'd ask: What more sci-fi than Santo Domingo? What more fantasy than the Antilles?' (2008, 6). Smith argues that Oscar's reformulation of Alejo Carpentier's well-known description of history in the Americas as a "chronicle of the marvellous real" can 'be read as acknowledging the decline of one historical situation, and the narrative form to which it gives birth, and signalling the recognition of a new one' and consequently the new narrative forms that it demands (2012, 9-11). Mobilising Smith's reading of Díaz and Carpentier in other contexts beyond Latin America, I suggest that Afrofuturism, the postapartheid speculative, post-petro-magic futurism, and other (semi-)peripheral SF forms constitute modes of literary response particularly well-suited to interrogate the present moment of world-ecological crisis. Such worlding can push against the potential co-option and commodification of their irrealist aesthetics within a cultural marketplace always hungry for newly "exotic" flavours of familiar forms. The ongoing rise of (semi-)peripheral SF forms does not simply reflect the increasing "globalisation" of SF as propagated by principally US-based mass-entertainment companies. Rather, this rise comprises locally specific responses to the cumulative negative-value production of neoliberal world-petroculture's oil-slicked energy regimes.

My thesis, then, is intended to demonstrate how, as a "fighting" form of future-envisioning, (semi-)peripheral world-SF narratives reveal and resist the assumptions and false promises that underpin what Szeman describes as neoliberal capital's combined and uneven 'petroculture' (2017, 278). There can be little doubt that today's world-ecological crisis is, and will remain, intimately bound up with petroleum; not petroleum in the abstract of course, but the particular ways in which petroleum and petro-saturated bodies have been mobilised and (de)valued by neoliberal capital. In this context, the Petrocultures Research Group has argued that we remain, however unevenly, 'at an impasse like no other in history' today (2016, 15). We 'must transition', they write, 'to different ways of being in the world, both with each other and in relationship to the environment' (2016, 15). This transition will require more than just swapping out petroleum for a "cleaner" energy source because, as energy humanities scholars have increasingly noted, 'today's energy and environmental dilemmas are fundamentally problems of ethics, habits, values, institutions, belief, and power' (Boyer and Szeman 2014, n.pag.). Specifically, we might add, those ethics and beliefs at the heart of the power, dynamism, and affective lure of capitalism as an ecological regime, both historically and in its present petrocultural guise. It is in recognition of this that the PRG argue that 'now is the time to […] insist on a guided energy transition that […] moves towards a future not only after oil, but after capital as well'

(2016, 56). However, world progress towards this end seems slow, to say the least! What Macdonald describes as '21st century energy-angst' seems omnipresent in a variety of global contexts, especially 'in the over-consuming Global North, where environmental membership and activism is relatively high and influential' (2013, 1, 8). Despite this consciousness, and notwithstanding recent rumblings on both sides of the Atlantic about "Green New Deals", what Szeman described in 2013 as a 'gap between knowledge and action' continues to seem vast (2013, 155). Provocatively, Szeman asks: 'might aesthetics succeed where street protests fail' in helping to close this "gap" (2013, 152)? My thesis answers in the affirmative, with reference to the irrealist crisis- and resource-bound aesthetics of world-SF from and about the (semi-)periphery.

Macdonald points out that petroleum's 'relative abundance remains central to the neoliberal era, forcing environmentalists to re-evaluate the various sites, agencies, and means sanctioning carbon's continuing extraction and consumption' under capitalism (2017a, 289). To help such a project, my thesis responds to and builds upon Macdonald's suggestion that SF may yet be 'the literary mode with the most inherently radical potential to educate and curry debate over an entirely new means of envisioning and imagining our energy futures' (2016, n.pag.). At the same time, though, the core-centric fictions of the SF "mainstream" seem more apt to affirm rather than contest neoliberal world-petroculture since, as Macdonald explains, 'oil and its refinements have been consonant with the historical movements and transitions of SF as a genre' (2016, n.pag.). Moreover, the SF mainstream's historical connections to earlier moments of imperial expansion are well-established. Kerslake writes that 'the theme of empire […] is so ingrained in SF that to discuss empire in SF is also to investigate the fundamental purposes and attributes of the genre itself' (2007, 191). Rieder similarly argues 'that the period of the most fervid imperialist expansion in the late nineteenth century is also the crucial period for the emergence of the genre' (2008, 2-3). Indeed, for Rieder, colonialism, understood in terms of the 'exploration, extraction of resources, expropriation and settlement of the land, [and the] imperial administration and competition' that fuelled the development of the capitalist world-system, forms a fundamental 'part of the genre's texture' (2008, 25, 15). Macdonald's energy-bound intervention enables us to consider how that "texture" remains active within the core-zone SF mainstream, albeit reconfigured by a particularly energy-anxious neoliberal petroculture. By presenting what Macdonald identifies as futures either 'of "powered up" excess and expenditure or of "powered down" entropy and disaster', the typically US-identified SF "mainstream" perpetuates what we might call the "petro-fantasies" of limitless "cheap" energy and abundance that sustain neoliberal imaginaries the world over (2016, n.pag.).

The past decade has seen blockbuster visions of American futures in space from the likes of *Interstellar* (dir. Nolan 2014) and *The Martian* (dir. Scott 2015). It has also seen the reinvigoration of

SF franchise juggernauts *Star Wars, Star Trek*, and *Alien*, spread across filmic and televisual iterations, as well as oddities like the 35-year-later sequel to Ridley Scott's cult classic *Blade Runner* (1982). It might be tempting to read such nostalgic reinventions of familiar stories and premises as the paroxysms of an SF imaginary that, as Clute notes, has 'for years' seemed like 'an engine which [has] nearly run out of fuel' (2003, 67). And yet, today, various "astrobusinesses" like Elon Musk's SpaceX vie for pieces of the extraterrestrial action in low Earth orbit, seemingly animated by a "common-sense" vision of the near-future cribbed from techno-optimistic visions dating back at least as far as SF's "Golden Age" and the heady days of the space race. Indeed, something of a new space race seems to have opened up in recent years, with Robin McKie noting in early 2020 that humanity seems to be 'returning to explore the heavens with renewed vigour' (2020, n.pag.). Unlike the stark polarisation of the Cold War space race, however, McKie notes that 'India, Japan and China are all planning complex programmes' that 'include missions to the moon, Mars, and the asteroids', while the US 'will inaugurate' the Artemis deep-space mission programme, and the UAE is also launching a probe to Mars in 2020 (2020, n.pag.). Such ambitions posit an expanded form of the 'astrofuturism' that De Witt Douglas Kilgore (2003) discerns in "Golden Age" US SF. In the optimistic era of the post-war period, Kilgore argues, US astrofuturism posited the extra-terrestrial frontier as a 'space of utopian desire' onto which the renewal of the mythic American West could be projected (2003, 1). In this way, he argues, the US astrofuturism of the Cold War years served to both "mirror" and "codify" the country's 'dream of its future' (2003, 2). Today, it seems that the old astrofuturist dream is not only alive and well, but also looks poised to enter a new "Golden Age."

Elsewhere, I have written that the explosion of US astrofuturism as a dominant SF tendency in the 1950s must be read as an outgrowth of capitalist petromodernity; that is, as made imaginatively possible by the expansionist and individualistic thinking lubricated by "cheap" oil, which, as Mitchell and Huber note above, also served as neoliberalism's incubator (see Lubek 2019). In the petro-soaked post-war context, an energy-angst sharply contoured by the notional "Red Threat" to a nascent US world-hegemony undergirded astrofuturist presentations of space as an 'energy frontier', whose hegemony-guaranteeing potential was 'reified in awesome rocketry, gadgetry, and infrastructure' (Lubek 2019, 4). 'If the Iron Curtain presented a barrier' to US imperial ambitions, I argued, then 'the possibility of moving upwards and outwards into space suggested an alternate route to domination' (2019, 9). Amidst an energy-angst similarly motivated by perceived "limits" to the "American Century" today, astrofuturism has mutated into a form capable of animating nationalistic future imaginaries worldwide, in which a new "Scramble for the Stars" views the solar system as the next frontier of Cheap Nature. Such optimistic visions, albeit ones that must surely be premised on the intensification of the much older scramble for material resources "earthside", represent the ratcheting up in the

neoliberal period of the way in which, as Kilgore writes, 'astrofuturism forecasts an escape from terrestrial history' (2003, 1). In the context of the Capitalocene, that history is one of capitalism as an ecological regime and its materially durable aftermaths. Thus, astrofuturist visions are steeped in a petromodern version of the typical capitalist fantasy that with each world-ecological revolution the slate of socio-ecological debts is wiped clean. A notable recent example of this narrative type is the aforementioned *Interstellar*, in which humanity's remaining food crops are afflicted by a mysterious 'blight' and are dying out one by one, after 'food wars' have decimated the world's population (Nolan 2014). Humanity finds salvation not by learning new ways to live on a materially damaged planet, but rebuilding the same agricultural monocultures in space and planting a human seed upon a distant, new world. 'Mankind was born on earth: it wasn't meant to die here', utters protagonist Joseph Cooper; 'we're not meant the save the world. We're meant to leave it' (Nolan 2014).

In a review of Nolan's film, George Monbiot writes that it and other 'movies about abandoning Earth reflect the political defeatism of our age: that adapting to climate breakdown is preferable to stopping it', positing the extraterrestrial frontier as a materially transcendent opportunity for a civilisational "restart" (2014, n.pag.). In presenting such visions, astrofuturist narratives legitimise what Szeman calls the 'bad faith of the present' that says that 'we can continue to be who we are now' in futures where miraculously 'clean' technologies can transcend or resolve the socio-ecological contradictions of capitalism, or at least replicate them on so infinite a scale that they can be discounted for good (in Yaeger et al. 2011, 325). Indeed, astrofuturist narratives like *Interstellar* offer perhaps the most extreme and instantly recognisable examples of one of the three 'dominant' discourses that Szeman identifies swirling about the imagined end of petromodernity: a 'techno-utopianism' of 'future dreamscapes and fanciful political confections' (2007, 808, 813). The move off-world represents the ultimate in the petromodern wish-fulfilment promulgated by techno-utopian optimism, in which, as Szeman explains, salvific technologies are 'figured as just around the corner', and 'never fail to come' (2007, 814). *Interstellar*, though, is a particularly instructive example because it demonstrates how such techno-utopianism intersects the other two modes of "end of oil" discourses that Szeman identifies. The film's imagined food wars highlight what he calls the 'strategic realism' that can only acknowledge 'the potential political and economic tensions […] as countries pursue their individual energy security in an era of scarcity' (2007, 810). Its depiction of a creeping agricultural "blight", meanwhile, avers an 'eco-apocalypse' discourse that, while capable of recognising the necessity of systemic change, can only see the future as 'a hell on earth, obscured by a choking carbon dioxide smog' (2007, 815).

What makes all three modes of discourse so problematic, Szeman argues, is the way in which they all 'take the current configuration of the political and economic as given', such that 'it seems

impossible from these perspectives to envision a systemic revolution' of the kind needed to inaugurate the new ways of being demanded by a damaged planet. (2007, 815). Even the well-intentioned spur to action offered by narratives of eco-apocalypse, he writes, may actually present a grim recognition that 'nothing can be done to stop the disaster from coming', so that in some ways it may even seem 'welcome' as 'a case of capitalism digging its own grave' (2007, 817). In any event, he suggests, the 'subject roaming through [the] landscape' that eco-apocalypticists envision as a utopian aftermath is often 'none other than a liberal one, motivated by [the] pleasure, convenience, and comfort' promised by the petrocultural configuration of capitalism that prompted the apocalypse in the first place (2007, 817). Visions of shattered cityscapes with impoverished humans picking over the ruined husks of buildings and automobiles, such as Cormac McCarthy's *The Road* (2006), also only seem to offer what LeMenager describes as 'petromelancholia' (2013, 16). In such texts, the proleptic grief for a vanished world of petromodern convenience overwhelms any suggestion of how to transform human-nature relationships in the present, into forms that are able to cope with the reality of life on a damaged planet in the future.

As privileged discourses of the core zone, techno-utopianism, strategic realism, eco-apocalypticism, and petromelancholia exert a powerful normative pressure, one that bespeaks the co-option of much Euro-American SF into what the British-Ghanaian writer Kodwo Eshun trenchantly describes as a "futures industry" 'that dreams of the prediction and control of tomorrow' (2003, 291).[19] My thesis, however, turns to SF by and about the Black spaces and people that have long been ignored by this futures industry at best, and figured as labouring fodder for its "utopian" continuation of the capitalist project at worst. Macdonald points out that 'the predominating spectre of supply-anxiety in late capitalism has ensured that it is rare to see an imagined future' – especially in core zones accustomed to abundance at the wider expenses of the system's racialised peripheries – 'where *less* energy is automatically "good"' (2013, 14; original emphasis). However, he writes, petromelancholic visions of a "powered down" futurity as 'a shape of things to come' also present a vision of how conditions *are* for the billions of fuel-poor' – predominantly people of colour – 'on the planet' today (2013, 14; original emphasis). It is from this perspective, then, that the following chapters examine how the irrealist aesthetics of Afrofuturism, the postapartheid speculative, and Nigerian post-petro-magic futurism reveal and resist the false promises of the petro-fantasies that sustain and are in turn sustained by the unevenly racialised extractivist violence of neoliberal capital today. The texts examined in the chapters to come all refuse to accept the increasingly unstable capitalist realism so prevalent within the SF "mainstream" of systemic cores, demonstrating its inadequacy in view of the negative-value future that has *already begun* to materialise on the racialised

[19] I will return to Eshun's reflections upon this futures industry in more detail in the next chapter.

(semi-)peripheries of the capitalist world-ecology. In doing so, they begin to supply the resourceful visions necessary to counter the prevailing capitalist 'faith in surplus' that can only assume that 'there will always be more' resources in the world and, consequently, that 'things will always be better' in the future despite any limits that seem tellingly obvious today (Szeman, in Yaeger et al. 2011, 325).

The Resourceful Futures of World-SF

Like the case studies offered by WReC in *Combined and Uneven Development*, the coming chapters are meant to 'exemplify and test' the 'plausibility and explanatory potential' of my effort to reread SF in world-literary terms, rather than to suggest world-SF's 'chronological or geographical limits' (2015, 51). Recently, Andreas Malm has criticised Moore's world-ecological account of capital's systemic negative-value production for what he perceives to be its implication 'that we should eagerly anticipate the imminent climate-induced collapse of the capitalist mode of production', when there are actually 'only a few signs of it being toppled on a global scale' any time soon (2018, 195). I am not convinced, however, that the sense that all we have to do is wait for capitalism to run down the clock and for something better to emerge inevitably follows from Moore's articulation of the problem of negative-value. Quite the opposite: the texts examined in subsequent chapters can all be read as articulating the sense of how, as Moore argues, the mounting reality of a negative-value future today *must* encourage 'an unprecedented shift towards a radical ontological politics *beyond* capital' (2015a, 276; original emphasis). Malm points out that even 'if climate change will ultimately choke the accumulation of capital' it will do so 'long after it has killed those at the greatest distance from the bourgeoise', rendering direct action and activism necessary now (2018, 194). As critical efforts to envision the future and spurs to action, the texts discussed below likewise grasp how the disproportionate consequences of a negative-value future have already begun to manifest upon the racialised (semi-)peripheries of the neoliberal world-system. In so doing, they clearly emphasise that it is not enough simply to wait for a more equitable and sustainable politics to emerge out of capitalism's ruins.

In full view of neoliberal world-petroculture's intensified assaults upon Black bodies and lives, the texts analysed in the chapters to come underscore instead that such a politics must be actively imagined and fought for; now, and in the future. They reject the sort of eco-apocalypticism that Malm unfairly attributes to Moore's position, bearing out instead Westall's argument that the worldliness of 'literary and other cultural texts' means that they can themselves be potent 'resources' for envisioning and enacting systemic transformation (2017, 267). If aesthetics *are* to succeed in re-opening a foreclosed sense of imaginative possibility for the future, then the texts examined in the

following chapters are especially instructive because of how they emphasise the socio-ecological questions of energy, race, and resource extraction that must guide that future-envisioning. Patricia Yaeger has adapted Jameson's (1981) theorisation of the "political unconscious" to describe an 'energy unconscious'; the way in which 'energy sources […] enter texts as fields of force' via the obvious 'causalities' of 'class conflicts and commodity wars' and more subtly, too, like 'the touch-a-switch-and-it's-light magic of electrical power', the petrocultural allure of the automobile, or 'the anxiety' prompted by toxic residues (in Yaeger et al. 2011, 309). If probing the energy unconscious of core-zone texts can help to demystify the crucial role that energy and other resource extractivisms play in maintaining the capitalist "faith" in surplus, then my thesis aims to further that process by turning to SF texts from and about the (semi-)periphery. As Macdonald explains, the '"everywhere-felt-but-nowhere-seen" condition' of capitalist resource extractivism in systemic cores is counterbalanced by its concealment in 'peripheral zones' where, on the contrary, its 'local presence and visibility is fairly explicit' (2013, 7). As will be seen, the texts discussed in the coming chapters can ill-afford an energy "unconscious" of the sort that Yaeger discerns in the privilege of petromodern core zones. Instead, what Niblett (2017) has recently described as "striking energies" lie much closer to the surface in these texts, making them ideal resources with which to contest the cultural fictions of energy and race that, however unevenly, continue to shape the petromodern trajectories of all life on earth.

In Chapter One, I will begin with the surge of "Afrofuturist" texts that has gathered momentum across North America and the Caribbean since the 1970s although, as will be seen, the problems with "Afrofuturism" as a framework for reading Black speculative writing have been increasingly recognised. Specifically, I will examine three novels that demonstrate how the growing momentum of what has thus far typically been called Afrofuturist writing has been broadly coincident with the "nested" arcs of neoliberal world-petroculture's emergence, consolidation, and now systemic crisis. These are Octavia E. Butler's seminal novel *Kindred* (1979), Naijamerican (Nigerian-American) Nnedi Okorafor's *The Book of Phoenix* (2015), and Jamaican-born Canadian Nalo Hopkinson's *Brown Girl in the Ring* (1998). Despite their different originary contexts, these three novels all nonetheless confront in particular ways the neoliberal intensification of the apocalyptic realities that have been iniquitously inflicted upon Black subjects under the rubric of capitalist modernisation since the time of the plantations. Jamaican writer Sylvia Wynter argued in 1971 that the brutal imposition of the plantation system had constituted 'a change of such world-historical magnitude, that we are all, without exception, still […] imprisoned […] in its bewitched reality' (1971, 95). Accordingly, Chapter One maps how Butler's, Okorafor's, and Hopkinson's novels respond to how recurrent episodes of petrocultural angst about the end of "cheap" oil in North America have prompted neoliberal reorganisations that

are inimical to Black lives in ways that overly and exacerbate much older patterns of racialised bio-extractivism and socio-ecological risk allocation. I will argue that we can discern across these novels the clear 'confrontation' that Wynter observes between the 'structure of values' represented by the plantation system, and that of the subsistence plots that grounded the 'cultural guerrilla resistance' in which enslaved people engaged (1971, 99-100). Butler's, Okorafor's, and Hopkinson's novels all mobilise what we might call "plantation futures" to prognosticate how the techno-utopian imaginaries of neoliberal capital's putatively "colourblind" futures industry actually project the plantation's devaluation of Black bodies and lives into increasingly costly and toxic futures that, consequently, seem horribly familiar. At the same time, though, these novels also re-activate the subsistence plot's resistive potential to open an imaginative terrain from which capital's presumptive colonisation of the future may yet be thwarted, and equitably sustainable ways living on a damaged planet envisioned. In so doing, these novels suggest how Black speculative writing in North America offers alternative models to the visions of a neoliberal futures industry that is seemingly blind to the unevenly mounting challenges of a negative-value future.

If such narratives reveal the falseness of neoliberal capital's "post-racial" discourses in an era of growing socio-ecological crisis, then Chapter Two turns to how recent speculative fictions in postapartheid South Africa figuratively "mine" the country's past in their future-envisioning to similarly expose the uneven foreclosure of Black futures still ongoing in the ostensibly "New" South Africa. Mining has long been pivotal to capitalist organisations of "nature" in South Africa, with the imperatives of what Ben Fine and Zavareh Rustomjee (1996) call a "Minerals-Energy Complex" determining the political ecology of capital in the country for well over a century. With such mining in mind, I will examine Neill Blomkamp's film *District 9* (2009) and a number of novels: Andrew Miller's *Dub Steps* (2015), Charlie Human's *Apocalypse Now Now* (2013), and Lauren Beukes's *Zoo City* (2010). Blomkamp's, Miller's, Human's, and Beukes's texts all present future visions of a depleted South Africa destabilised by the very mining upon which the future prosperity of the country has long been supposed to rest. By prognosticating further mining-bound assaults upon Black bodies, these texts emphasise the bankruptcy of the "clean" break with a traumatically racist past promulgated by cathartic postapartheid nation-building projects like the Truth and Reconciliation Commission of the 1990s. It will also be seen, however, that these visions offer hopeful glimpses of the newly relational – and genuinely reconciliatory – cosmologies necessitated by a damaged planet whose materially uneven challenges to survival are so clearly thrown into relief by South Africa's depleted minescapes. In this way, the postapartheid speculative stands aligned with what Jennifer Wenzel has described as an 'anti-imperialist nostalgia' that responds to the dissatisfactory material outcomes and apparently stalled momentum of decolonisation struggles in "postcolonial" contexts by centring 'the past's

promise of an alternative present: the past's future' (2006b, 8, 17). In precisely this vein, I suggest that the postapartheid speculative exhorts readers to imagine the future as it might have been; that is, before the emancipatory promise of the anti-apartheid struggle was coopted by the neoliberal ecological revolution as bound to mining in the "New" South Africa.

The search for a genuinely emancipatory form of nation-building is also at stake in Nigerian post-petro-magic futurism, but in ways that simultaneously have critical importance for imagining the future of all life in an era of capitalogenic climate change. Macdonald points out that 'any longer term study of the significant relations between energy and SF needs to confront the oil beast' (2016, n.pag.). Consequently, Chapter Three will confront that "oil beast" directly by turning to several recent novels that envision the future in view of Nigeria's petromodern wastelands; American-born Deji Bryce Olukotun's *Nigerians in Space* (2014) and *After the Flare* (2017), the aforementioned Nnedi Okorafor's *Lagoon* (2014), and British-born Tade Thompson's *Wormwood* trilogy (2016-2019). While most Nigerian SF production, at least in the novel form, has been produced by Nigerians living outside the country, Chapter Three will nonetheless show that, like the postapartheid speculative, Nigerian SF grasps that the increasing violence of neoliberal world-petroculture's regimes of extraction and toxification augurs the 'epochal exhaustion' of capital's '"enduring" scramble for African resources' (Deckard 2019, 41). Specifically, Chapter Three will explain how Nigerian SF figures such exhaustion via the devastation wrought by decades of petro-extractivism in the Niger Delta. Such devastation has already been amply registered in Nigerian fiction, via what Wenzel incisively describes as the literary mode of 'petro-magic-realism' (2014, 213; see also: 2006a). What I call the post-petro-magic futurism of Nigerian SF builds upon this literary legacy. Nigerian SF, too, confronts the iniquitous consequences and durable afterlife of 'petro-magic', a term that Wenzel borrows from Fernando Coronil's (1997) discussion of the Venezuelan petrostate to describe 'a mode of violence that mystifies through the seductions of petro-promise' (2014, 217). If petro-magic-realism's phantasmagoria register the local particularities of what Macdonald calls petroleum extraction's 'shock of transformational dispossession', Nigerian SF similarly imagines how the ecological disruptions of that shock will continue to unevenly magnify into a negative-value future (2017a, 292). This corrective to the officially sanctioned Nigerian narrative of oil as a developmental saviour is especially timely, given petro-magic's present-day resurgence in the country after new offshore discoveries in the Nigerian Gulf of Guinea.

While Chapters One and Two are less focused upon petroleum specifically than Chapter Three, both nonetheless explore how "Afrofuturist" and postapartheid speculative texts register petromodernity, or neoliberal world-petroculture, as the overall descriptive condition for life on earth today, as the latest, turbo-charged iteration of a much older capitalist energoculture that has always

viewed "nature" – including most humans – as fuel-source and/or supply depot. As vengeful figures awaken to cause havoc in the various texts discussed across these three chapters, they stage a return of the repressed in a world-ecological form. That is, all the texts discussed below witness the unevenness with which humans will inhabit – and must consequently learn *how to live in* – a future structured by what Malm characterises as 'the revenge of historicity *dressed* in nature'; an 'historicised nature' that is now 'pushing back' (2018, 219; original emphasis). Repudiating a neoliberal futures industry that hopes an escape into an infinitely appropriable cosmos can offset the accumulated consequences of centuries of extractivist violence, the narratives examined by my thesis all posit that no such "escape" is forthcoming. But neither do they succumb to an eco-apocalypticism that, as Buell points out, ultimately 'vouchsafes no saving message' for humanity or indeed life of any kind (2014, 263). As will be seen, hope remains as a viable option, however fragile it may be. Not the naïve hope of capitalism's "faith" in an endless surplus, but an altogether more radical hope that claims SF as an imaginative site from which to push back against an unrelenting capitalist realism and so re-evaluate what material resources *are* and what they are *for*. A hope that it remains possible to cultivate the newly relational ways of thinking necessary to envision a politics that recognises the actual situatedness of humanity in the wider web of life. And ultimately, then, a hope that we can push past the abstract dualism of "Society" and "Nature", beyond an understanding of "humanity" as a bounded ontological category, and into worlded and resourceful ways of being that embrace collectively emancipatory modes of postcapitalist socio-ecological organisation.

Before continuing, it must be emphasised that my prioritisation of the novel form in this thesis is not meant to delineate any conceptual boundary to world-SF, nor to imply that *only* novels can create imaginative, speculative spaces for emergent ecopolitics built on new (or reinvigorated) ways of conceptualising human-nature relationships. Future work must absolutely engage with world-SF short stories, flash fiction, speculative poetry, feature film, short film, television, visual arts, theatre, music, video games, and much more besides in more detail than I do in this thesis. I start with the novel, however, for a number of reasons. In part, I take my cue from WReC, who 'treat the novel paradigmatically, *not exemplarily*, as a literary form in which combined and uneven development is manifested with particular salience, due in no small part to [the novel's] fundamental association with the rise of capitalism and its status in peripheral and semiperipheral societies as an import' (2015, 16; my emphasis). WReC argue that the novel form is apt to register the "shock" of capitalist modernisation because

> the peculiar plasticity and hybridity of the novel form enables it to incorporate not only multiple literary levels, genres and modes, but also other non-literary and archaic cultural forms – so that, for example, realist

> elements might be mixed with more experimental modes of narration, or older literary devices might be reactivated in juxtaposition with more contemporary frames, in order to register a bifurcated or ruptured sensorium of the space-time of the (semi-)periphery. (2015, 16)

Moreover, in explicating their rationale for selecting the particular novels they spotlight in *Combined and Uneven Development*, WReC suggest that 'in one sense, our selection of texts is merely tactical and contingent: we have chosen to examine works that, by virtue of their location within a shared geography of combined and uneven development, allow – and, indeed, oblige – us to identify structural analogies between them' (2015, 57). Consequently, the partial view of the field necessitated by my selection of particular texts bears emphasising, as does the fact that my reasons for choosing them – and the novel form more generally – are similarly 'tactical and contingent' (WReC 2015, 57). These reasons are not only for those that WReC outline above, though these are important. The texts examined in the coming chapters are all bound by the shared geography of neoliberal world-petroculture's iniquitously racialised combined and uneven development, on the one hand, and, on the other, that of capitalism's much longer history of putting "natural" resources – including human beings conceptualised as such by capitalist agencies – to work. As will be seen, though, the novel form, in the depth and spread of its potential narrative sprawl, also seems especially – though we might want to be cautious about saying *exclusively* – apt to encode or encapsulate what Wallerstein calls the 'structural time' of the capitalist world-system (2004, 18). As novels – whether individually, or part of even longer novel cycles – play out over time, they allow readers to apprehend the steady accretion of negative-value producing effects that might otherwise pass unnoticed. While a good deal of SF production on the African continent has taken the form of the short story, it is for this reason that in this project I have chosen to favour the novel form. While short stories might focus on some future moment of ecological crisis, or offer vignettes of its aftermaths, I suggest that the world-SF novel has more time and space in which to unpack the cyclical and cumulative dimensions of such moments, and to speculate upon how to survive in their unevenly long-lived aftermaths.

If, as Nixon writes, 'story units have become concomitantly shorter' in the 'cultural milieu of digitally speeded up time', then 'the intergenerational aftermath' of capitalist slow violence 'becomes a harder sell' (2011, 13). In this context, he argues, it is necessary to 'plot and give figurative shape to formless threats whose fatal repercussions are dispersed across space and time' (2011, 10). 'To intervene representationally', he suggests, 'entails devising iconic symbols that embody amorphous calamities as well as narrative forms that infuse those symbols with dramatic urgency' (2011, 10). As will be seen in the following chapters, world-SF novels can help to do just that, offering "iconic symbols" in a variety of guises – alien invasions, vengeful spirits, zombies, and more – while situating

such symbolic figurations of slow-moving disasters within a narrative mode that can simultaneously explicate their deep historical roots. A number of points that LeMenager makes in *Living Oil: Petroleum Culture in the American Century* (2013) also highlight the particular capacity of the novel, or at least novelistic writing, to give narrative shape to the petromodern present and its consequences. She observes that the 'compressed space-time of fiction offers the mingling of eternity and modernity, god-time and industrial time playing out against each other, often at the molecular level of […] the interior, fleshy sites of ecological revolution' (2013, 123). Consequently, novels or novelistic forms can encourage 'interpretive response' by 'demanding a reader or listener's commitment to time with a multifaceted plot', thereby inviting what LeMenager describes as a process of 'thick narrative recovery' (2013, 193). In other words, if the challenge is, as Nixon writes, one of 'how to adjust our rapidly eroding attention spans to the slow erosions of environmental justice', then perhaps the world-SF novel – with a reading time measured in hours or days – can help to slow things down a bit while also offering what is, in Nixon's suggestive phrase, 'a preview of the aftermath' to galvanise action in the present (2011, 8, 265). Michael Watts notes 'the extended processes, sometimes consuming several decades, through which the road to "first oil" extends from exploration and development of onshore sedimentary basins through shallow offshore basins and into deep and ultra-deepwater basins today' (2014, 194). As will be seen most explicitly in the case of the Nigerian texts explored in Chapter 3, however, the world-SF novel can emphasise the much deeper roots of those "extended processes" in capital's centuries-long project to put "nature" to work, while also reckoning with what Macdonald describes as 'the fundamental endangerment the extended life of "released" oil presents on a world-ecological scale' (2017b, 64). The case studies in the coming chapters will show that world-SF novels can "speed up" the long history of slow violence that underwrites neoliberal world-petroculture's devastating environmental transformations such that it becomes legible, but not so much so that it whizzes past before the combined unevenness of that history's future can be apprehended.

A number of questions haunt what follows, however, introducing some important caveats to this admittedly large claim, which stem from my privileging of the novel form in this thesis. Firstly, while the authors of the texts below can be pegged to the (semi-)periphery in a number of ways, the proximity to core zones that some maintain – such as the white South African authors discussed in Chapter Two – means that we ought not to fall into the trap of assuming their texts to be wholly and straightforwardly representative of the contexts in which their imagining intervenes. Nigerian writer and editor Chinelo Onwualu points out that 'having lived in diaspora, I know how isolating and out of touch it can make you very, very quickly with what is happening on the ground in cities, in

neighbourhoods' (qtd. in Ryman 2018b, n.pag.). Discussing Nnedi Okorafor's work, for example, Onwualu observes that

> *Lagoon* is problematic for me precisely because having visited Lagos quite a bit and having lived there at one point in my life, I did not recognize Lagos in that book. […] It's a very good book; it's excellently written, it's a beautiful story. It just isn't a […] a Lagos story. The Nigerian spaces [Okorafor] writes about have a clinical, detached quality to them that for me speaks to the fact that she doesn't live in these places. She doesn't spend living, breathing time in these spaces and that can sometimes rob you of vitality. (qtd. in Ryman 2018b, n.pag.)

Onwualu emphasises that she does not want to 'add to the chorus of unwarranted criticism that [Okorafor] faces' over the perceived "inauthenticity" of her work set in African contexts (qtd. in Ryman 2018b, n.pag.). However, her points here stand as a useful reminder of the only partial picture to be gained from focusing only on novels that are produced in and primarily circulate within capitalist core zones, no matter how closely attuned to (semi-)peripheries they and their authors might initially seem. This leads us, then, to the second question that haunts what follows: the question of audience. Nixon places 'particular emphasis on combative writers who have deployed their imaginative agility and worldly ardor to help amplify the media-marginalized causes of the environmentally dispossessed' (2011, 4). In *Living Oil*, LeMenager writes that she is pursuing 'what it means for the middle class or the affluent' – that is, precisely those with the greatest access to the kind of novels analysed by my thesis – 'to experience radical insight' (2013, 34). Such goals seem worthy and necessary, given the argument put forward by the Nigerian writer-activist Nnimmo Bassey 'that the demand of climate justice is that those who created the climate problem must be the ones to mitigate, and in the process transform their economies and societies' (2012, 108). But neither should we fall into the trap of thinking that this kind of "teaching" to primarily white audiences (scholarly or otherwise) is all that world-SF novels have to offer or, indeed, that this ought to be viewed as their "purpose."

Earlier in this introduction, I pointed out that in view of the one and unequal capitalist world-system, literary scholars must ask how systemic positionality shapes what futures can be imagined, and by whom. In retrospect, however, another important question must follow this: who gets to carry on the conversation about those futures after they have been articulated, especially in terms of selecting which ones are then prioritised for discussion? I do not mean to suggest that the world-SF novels presented below – works which are already endowed with a higher level of international visibility – are the *only* works of consequence. As was put to me during the examination of this thesis, for example, the selection of novels that are mostly backed by Euro-American publishing houses

excludes those stories that do not circulate principally in the Global North, and/or amongst relatively privileged metropolitan audiences and scholars. This problematic of selection is compounded by the fact that all of the texts discussed in the coming chapters were written and published in English. This was partly due to my own limitations as a scholar: English is my native language, and the only language in which I am fluent. However, it should also be emphasised that the asymmetries of the world-literary system and publishing markets also play a powerful role in ensuring that the world-SF that gets published and promoted in the core zone spaces most accessible to me as a white UK-based scholar is typically that written or filmed in (or translated into) colonial languages. In a recent survey of the African SF field, Michelle Louise Clarke notes that 'Anglophone and Francophone literatures still dominate both critical discourse and publishing markets' (2019, 4). She writes that while some of this might be down to the *lingua franca* status of English and French across African regional contexts, the prioritisation of English and French is 'mainly down to publishing houses and platforms only interested in works in European languages' (2019, 4).

Sometimes, as Ugandan SF writer and filmmaker Dilman Dila points out, writing in English is a necessity driven by the material legacies of the colonial era. In an interview with *Vector*, Dila explains that 'I can only write fluently in English' because of an education system that continues to prioritise that language, and highlights the fact that in Uganda, besides English, 'there is no unifying local language, as there is Kiswahili in Kenya or Tanzania' (Vector Interviews 2019, 26-27). Onwualu similarly observes that 'the reality that we live in' is one in which 'the colonial languages' are what enable African SF writers from across the continent to engage with one another, especially as 'the number of people who can speak and read and write in a language like Igbo is fast declining' (qtd. in Ryman 2018b, n.pag.). Zimbabwean SF writer Masimba Musodza, who writes and publishes in ChiShona as well as English, likewise writes that 'the general perception among Zimbabwe's intellectual class is that indigenous languages have no place in speculative fiction' (2019, 59). He explains that the 'world in which I have opted to write speculative fiction in ChiShona' is one in which 'many readers and publishers alike do not consider ChiShona a language well-equipped to deal with subjects such as bio-technology, space exploration, AI, etc.' (2019, 61). Accordingly, Musodza writes, 'speculative fiction in ChiShona is swimming frantically in turbulent currents of a debate about the status of indigenous African languages. It's a sink or swim situation. For now, I have chosen to keep paddling' (2018, 62). In view of such difficulties, I want to reiterate that the case studies that comprise the following chapters ought not to be viewed as straightforwardly *representative* of a totality, but, more complicatedly, as only *part of* a much larger totality of world-SF production that stretches beyond English, and beyond the production of novels that circulate primarily in Global North contexts, where it is all too easy to centre the white gaze when thinking about how people imagine the future.

Indeed, in view of recent critical interventions about the status of literature and literary criticism in the neoliberal world-system today, future work on world-SF's politically transformative potential must also consider whether a focus upon "the literary" is even tenable, or if it is in other forms of cultural or imaginative production that world-SF's critical edge might be sharpest. In *UNESCO and the Fate of the Literary* (2019), for example, Sarah Brouillette cautions that 'we can be wholly on board with the opposition to capitalist globalization' at the centre of WReC's world-literary methodology 'and yet still ask: To whom is literature's countering force relevant?' (2019, 4). For Brouillette, recent 'literary scholarship celebrating the radical potential of a critical anticapitalist or counter modernity message' to be found in "world-literary" texts has underappreciated the degree to which capitalist modernisation shapes not only the form of literary texts, but 'infect[s] all literary activity, influencing who can write professionally and who has access to literary experiences that may or may not be affecting' (2019, 4). To what extent, Brouillette asks, can a high-literary culture be oppositional when, in fact, it is 'inseparable' from 'relatively high levels of wealth, a well-funded publishing infrastructure, a forceful national copyright regime, and an accessible, state-backed educational infrastructure?' (2019, 5). Might, as Brouillette suggests, a continued faith in the political efficacy of literary culture actually be a response to the 'very precariousness of English literary studies' within the neoliberal academy, prompting 'an insistence on [literature's] propitious politics and salvific social role' in view of departmental cutbacks and closures (2019, 7)? Brouillette suggests that

> literature may indeed have this kind of critical edge, may contain ecopolitical and anti-capitalist critique, and may help us glimpse other possible worlds. But we must at least consider the question of why, when work of this kind is so widely circulated and embraced by people within the literary milieu, the incorporative force of capitalism nevertheless motors on?

In a recent afterword for an issue of *Social Text*, Wenzel and Szeman ask similarly: 'just how can literary criticism have an impact on the environment', given its status as 'a professionalised practice with a very small audience composed almost exclusively of fellow professionals'? (2021, 515). How, they ask, can such an activity 'intervene in climate change and other crises with the same impact that, for instance, movements of Indigenous people or large NGOs have managed to do'? (2021, 515). In view of such questions, Wenzel and Szeman point out the necessity of 'a more rigorous and circumspect understanding of the work our work can do in the world' (2021, 506). They warn that 'despite the laudable (and necessary) ethical and political aims that underlie the literary critical interrogation of extractivism, in the very worst forms of its expression it risks becoming simply a means of making it possible for criticism to believe itself to be participating actively in environmental change' even as, 'out in the world, the digging [for fossil fuels and other resources] continues' (2021, 517). Importantly,

Wenzel and Szeman underscore that 'this is not to say that critical or pedagogical work has no effect, but to acknowledge that the site of its intervention is almost never the site of extraction' (2021, 517). Hence, 'the imperative to historicise and provincialise claims about the "we" constituted by petromodernity, so that [the] energy humanities [do] not entrench as an unexamined universalist norm what are actually bourgeois North American subjectivities shaped by "fictions of surplus," and by distance from sites of extraction' remains key (2021, 14).

These are all crucial and welcome interventions, posing searching questions about the role and capabilities of criticism on the Capitalocene's unevenly damaged planet; questions which my thesis is not yet equipped to answer. For now, what I can say is that future work on world-SF and its entanglements with world-ecological crisis must place these questions front and centre. Such work must make more space for SF forms that circulate beyond the restricted metropolitan reception contexts implied by the selection of Anglophone literary novels for analysis in this thesis: works produced in small magazines like South Africa-based Chimurenga, or pan-African platforms like *Jalada*, *Omenana*, and *Brittle Paper*; works published by small local presses, including mobile platforms like Nigeria's Okada books; bodies of work that are self-published (including speculative works uploaded to platforms like YouTube and Instagram); or the films of Nollywood and other film industries, whether in Africa or elsewhere. Future work on world-SF must also make more space for critical frameworks for imagining postcapitalist lifeworlds and epistemo-philosophical projects for understanding human-nature relationships that are not derived from white Euro-American theoretical traditions than this thesis currently does. But all of this does not mean that the novels (and one feature film) examined in the coming chapters have nothing of value to say about the long history and future of capitalism as an ecological regime, either. I began this introduction by suggesting that SF seems "bigger" than it has ever been before. But 'what happens', Szeman asks, 'when we can't have any more [literature] because the energy that has enabled petromodernity and petroculture is – or is about to be – no longer available to us?' (2017, 286). Many of the texts examined in the coming chapters imagine precisely this: disastrous futures of attenuated resources in which the mere work of survival necessitates a world with 'less literature and so fewer [cultural] resources for managing the consequences' of today's surplus-bound 'fictions' (Szeman in Yaeger et al. 2011, 325). In such futures, there seems less room not only for an uppercase "Literature" but, indeed, stories about the future of any kind. In this context, the texts discussed below emphasise that it is not enough simply to embrace an eco-apocalypticism that cheers on the imminent demise of capitalism. Rather, they recognise that if such a denouement is allowed to play out, the consequences will be ruinous for precisely those who have always borne the brunt of capitalism's socio-ecological burdens. At the same time, they underscore that the likelihood of more equitably sustainable modes of living emerging from

capitalism's ashes will only continue to diminish as its material aftermaths continue to compound into a Capitalocene future whose strange afterlife will far outlast the capitalist world-system that produced it. In response to this prospect, though rooted in the specificity of capitalism's systemic devaluation of Black bodies and lives, the futures imagined by these stories point more generally to relational ways of thinking and being that draw from traditional African cosmologies, and which stand as alternatives to capitalism's modus operandi of putting human and extra-human energies to work. And yet, as Brouillette cautions, we must not lose sight of the fact that 'literary production now takes place under conditions of decline that make it a residual rather [than] a dominant circuit within overall cultural production' (2021, 6). What follows, then, should be seen only as the beginning of a more expansive effort to "world" the ways in which humans, under the sign of neoliberal world-petroculture, think about the future using stories, and how some of those world-SF stories (perhaps those more closely aligned with newly emergent forms of storytelling) may be better equipped than others to resist the imaginative paralysis of capitalist realism today.

Chapter One

Plantation and Plot Futures

Recent years have witnessed a surge in the production of, and critical and commercial interest in, what has typically been referred to as "Afrofuturism." The white USian critic Mark Dery coined the term Afrofuturism in 1994 to describe speculative fiction that examines African American 'themes' and 'concerns' in view of 'twentieth-century techno-culture' (1994, 180). Since then, many other scholars and creators have taken up and refined the label. Afrofuturism is, Lisa Yaszek writes, more than a Black 'subgenre of science fiction' (2006, 42). Rather, she suggests, it is an expressly political 'aesthetic mode' that aims to claim the 'black futures derived from Afrodiasporic experiences' that are otherwise marginalised within "mainstream", typically white-centring, futurological accounts (2006, 42). Ytasha L. Womack has highlighted how Afrofuturism consequently positions the imagination as a critical 'tool of resistance' to the normative pressures of such "mainstream" visions (2013, 9). Afrofuturism's critical horizons have also been expanded geographically to include the Caribbean, and temporally to incorporate texts far pre-dating the 1990s. Kilgore, for instance, suggests that the stories anthologised in *Dark Matter: A Century of Speculative Fiction from the African Diaspora* (ed. Thomas 2000) 'showed that the fantastic is an old and familiar register in African diasporic writing' (2014, 564). Womack, meanwhile, traces Afrofuturism across the nineteenth and early twentieth centuries in texts by W.E.B. Dubois, Martin Delany, Sutton E. Griggs, Edward A. Johnson, Francis E. W. Harper, Pauline Hopkins, and George S. Schulyer (2013, 119-124). In his seminal essay "Further Considerations on Afrofuturism", Eshun points out that Afrofuturism extends the rich tradition of historical 'countermemory' in Black writing 'by reorienting the intercultural vectors of Black Atlantic temporality towards the proleptic as much as the retrospective' (2003, 289). In other words, as Kilgore explains, Afrofuturism seeks 'to remember a past that instructs the present and can build a future' (2014, 564). In this chapter, I will explain how, in light of neoliberal capital's increasingly violent and racially iniquitous efforts to restore the conditions of Cheap Nature, such a project is more salient and urgent than ever.

In what follows, I am interested in re-situating the bind between Afrofuturist aesthetics and politics in a world-ecological frame, tracking how such aesthetics have responded to crisis-bound shifts within neoliberal world-petroculture and their iniquitous impacts upon Black lives. To do so, I will offer readings of three novels, spanning from the 1970s to the present day. Octavia E. Butler's *Kindred* (1979) and Nnedi Okorafor's more recent *The Book of Phoenix* (2015) are informed by the US context,

while Jamaican-born Canadian Nalo Hopkinson's *Brown Girl in the Ring* (1998) addresses the experience of the African Caribbean diaspora in a putatively "multicultural" Canada. Despite their different originary contexts, these three novels all bear out WReC's argument that the locally particular disorientations of capitalist modernisation are aesthetically and thematically embedded in (semi-)peripheral forms. In alignment with WReC's larger claims for world-literature, for example, Sherryl Vint points to how Butler's *Kindred* and Toni Morrison's *Beloved* (1987) demonstrate that literary realism is incapable of 'representing' transatlantic slavery's dislocations, or the extent to which they remain 'an open wound in American culture' (2007, 243, 242). Building upon Vint's observation, this chapter examines further how Afrofuturism's irrealist currents can grasp the ways in which transatlantic slavery's cultural and material wounds continue to be aggravated by neoliberal capital's efforts to extend the lifespan of capitalist petromodernity today.

In 1971, the Jamaican writer Sylvia Wynter argued that the brutal imposition of slavery and plantation monocultures in the New World had constituted 'a change of such world-historical magnitude, that we are all, without exception, still "enchanted", imprisoned, deformed, and schizophrenic in its bewitched reality' (1971, 95). Though derived from her Caribbean context, Wynter's observation could easily apply to all life enmeshed within capitalist world-making today. If decades of neoliberalisation have unevenly magnified the plantation's residual bewitchments, the rise of Black speculative writing in North America prognosticates on multiple scales the bewitched futures that such magnification implies. At the same time, however, such texts reject narratives of Black people as abject victims, constructing instead what Hope Wabuke describes as 'alternate possibilities of Blackness that can be lived in safety, creativity, and freedom' (2020, n.pag,). Wynter conceived of the 'history of Caribbean society' in terms of the 'confrontation' between the 'structure of values' represented by the plantations, and the subsistence plots that served as a ground for the 'cultural guerrilla resistance' of enslaved people 'to the plantation system' (1971, 99-100). In what follows, I will take inspiration from Michael Niblett's suggestion that the plantation and the plot have continued to serve as 'contrasting organizational modes' for Caribbean literature (2013, 152). The contrasting socio-ecological logics of plantation and plot can also be discerned within Butler's, Okorafor's, and Hopkinson's novels, such that they offer valuable insights into how Afrofuturist works can challenge the capitalist realism of life on neoliberal world-petroculture's unevenly damaged planet.

Afrofuturism, Africanfuturism, and the Histofuturism of Black Bodies Put to Work.

Before discussing Butler's, Okorafor's, and Hopkinson's novels, it is important to reflect upon the complicated critical reception of the term "Afrofuturism" and recent efforts to pin down more

accurate terminology that is not so bound up with the typically white gaze of the Euro-American academy. Although my focus in this chapter is on the novel form, it must also be emphasised that "Afrofuturism" has been used to describe work produced across a diverse range of media, given Dery's original positioning of the descriptor as a term not just for SF literature, but, more widely, 'African American signification that appropriates images of technology and a prosthetically enhanced future' (1994, 180). Writing in 2016, Reynaldo Anderson and Charles E. Jones note that 'what is presently called Afrofuturism was originally a techno-cultural perspective accompanying engagement in a form of cultural production' that originated 'in practices of black urban dwellers in North America after World War II' (2016, viii). 'Popular examples emerged,' they write, 'in the works of Jazz musician Sun Ra and artists of the Black Arts Movement like Ishmael Reed or Amiri Baraka' (2016 vii). Such examples have frequently been the response to the somewhat patronising question with which Dery opened his initial reflections upon Afrofuturism in the early 1990s: 'Why do so few African Americans write science fiction […]?' (1994, 179). At that time, Dery could identify only a handful of established Black novelists in the USA working with science fiction: Samuel R. Delany; Octavia E. Butler; Steven Barnes; and Charles R. Saunders (1994, 180). However, Sheree Renée Thomas points out that when (white) critics question the apparent 'absence' of Black SF writers,

> the answer usually is, "They exist; you just don't know them." […] There are so many other writers, and I'm sure they would have been very surprised to learn that they weren't writing science fiction. But they get left out of the conversation because publishing has a system and a politics to it. If you're not being published, are you not writing? If the ten people who decide the 55,000 books that get printed each year in English in this country, who believe there can be only one black [sci-fi] writer at a time, aren't publishing multiple authors, are other authors not writing? Do independent, small presses count? It's technologically easier and cheaper to publish on your own now, and it's not as stigmatized as it was in the 1990s. So, in these conversations, we need to consider the mechanics of these issues and how the mechanics are a part of the erasure of diverse voices. (in Barber et al. 2018, 141)

Thomas's intervention cautions against a white critical gaze that – however well-intentioned – presumes that if it cannot see much Black speculative writing, then much Black speculative writing must not exist. Thomas also highlights the only partial view of the field to be gained from the vantage point of an academy that disproportionately favours titles that have been published through "official" channels, without acknowledging and unpacking the discriminatory practices embedded within such channels. This is, to my regret, a narrowed perspective that my own work thus far has not done enough to address. It is thus necessary to acknowledge the problem with my selection of three fairly well-

known – if symbolically rich and thematically trenchant – novels for analysis in this chapter. My thesis's status as an exploratory venture into what I have always envisioned as a much larger field of cultural production – that of 'world-SF' – bears re-emphasising at this point. Future work in this area must heed more closely Thomas's exhortation that 'we have to continue to look outside of the canon to find the richness'; including outside of those works typically canonised as "Afrofuturist" by a predominantly white literary-cultural establishment that favours the novel form (qtd. in Barber et al. 2018, 141).

Nonetheless, there does seem to have been a considerable uptick in Afrofuturist publications and visibility over the past four decades. This chapter explores how that uptick has registered the disproportionate foreclosure of Black futures that has accompanied the nested emergence, consolidation, and now systemic crisis of neoliberal world-petroculture as an ecological regime. Afrofuturism's growing critical and commercial traction has repeatedly struck vital representational blows against the predominant whiteness of the SF "mainstream" that underpins the future-envisioning of that regime. Perhaps the most dramatic example of this so far has been the release in 2018 of Ryan Coogler's *Black Panther*, part of the Marvel Cinematic Universe. Shortly before the film's release, Dery expressed his concern about Afrofuturism's potential imbrication in a 'consumer capitalism [that] eviscerates meaning' by repackaging anti-systemic critique as a marketable 'transgressive' aesthetic (in Barber et al. 2018, 139, 141). As if to underline this point, the film took $1.3bn in global box office revenues, suggesting that whatever political dimensions are opened up by Afrofuturist discourses, such discourses also have the potential to be co-opted into something that makes mass-entertainment companies and their mostly white shareholders considerable profits indeed.

Black Panther follows T'Challa, the eponymous superhero, as he attempts to reclaim the throne of Wakanda from his usurper cousin Erik Killmonger. Wakanda is a fictional African nation underpinned by seemingly limitless reserves of "vibranium" – a super-hard metal and energy resource. The film makes little of vibranium's clear parallels to crude oil's role as the lynchpin of neoliberal world-petroculture, though, failing to reckon with the extractivist technics and socio-ecological consequences of its vibranium-laced vision of an Afrocentric futurity. Instead, the film offers something resembling the bourgeois nationalism that Frantz Fanon condemned in the postcolony for merely seeking 'the transfer into native hands of those advantages which are a legacy of the colonial period' (2001, 122). Actually, the film never questions capital's presumptive project of mastery over "nature" as such, but instead tacitly affirms it by imagining its reconfiguration around a newly ascendant and proudly African core. Much was made of the film's "Blackness" in promotional reviews, which noted the film's almost entirely Black cast and its emphasis upon 'African elements' in

production and costume design (Orr 2018, n.pag.; see also: Johnson 2018; Rose 2018; Wallace 2018). The aesthetic appeal to stereotypically "African" visual themes used to sell the film's rather conservative politics, then conceals the way in which the future of capitalism as an ecological regime never seems to be in any doubt within *Black Panther's* "Hollywood" – or big production house and effectively white-financed – version of Afrofuturism.[1]

Wabuke seems to have *Black Panther* in mind when she argues that it is insufficient 'to plop one Black character down into a white world – or even a whole cast of Black characters – and end our work there after congratulating ourselves for embracing Afrofuturism and diversity in literature' (2020, n.pag,). In a similarly stinging review of the film, Kenyan writer and cartoonist Patrick Gathara derided *Black Panther* as 'little more than a marvel of marketing' that ultimately 'trots out many of the same destructive myths about Africans that circulate the globe' (2018, n.pag.). In Gathara's view, 'the Wakandans, for all their technological progress, still cleanly fit into the Western molds, a dark people in a dark continent' (2018, n.pag.). Indeed, a number of Black critics and creators have argued that the term "Afrofuturism" itself is in much need of reassessment. Wabuke writes that the term remains 'married to the white Western gaze' due to its origins in the work of a white critic describing Black cultural production (2020, n.pag.). When formulating the term, Dery asked if it was possible for 'a community whose past has been deliberately rubbed out […] [to] imagine possible futures?' (1994, 180). In framing his affirmative answer to this question as "Afrofuturism," however, Wabuke argues that Dery's formulation 'lacks room to conceive of Blackness outside of the Black American diaspora *or* a Blackness independent from any relationship to whiteness', offering instead 'a Blackness that begins with 1619 and is marked solely by the ensuing 400 years of violation' (2020, n.pag.; original emphasis). Or, as the Zambian queerfuturist Masiyaleti Mbewe laments: 'Even though Africans have been producing speculative content for years, it's like we waited for a white man just to name it' (2018, n.pag.).

While some have sought to redefine and rehabilitate the term "Afrofuturism" in view of such concerns, Wabuke points out that others 'have decided the genesis of the term is too flawed to be revivified, and that we need to move away from it and toward more accurate language altogether' (2020, n.pag.). This is especially true for Black African scholars and creators frustrated with the tendency of critics, audiences, publishers, and distributors alike to 'lump all Black stories under Afrofuturism' regardless of their particular originary contexts (Wilson 2021, n.pag.). Thus, as Clarke has recently emphasised, 'much recent discourse around Afrofuturism has also asked how the experiences of Afrofuturism in the Americas can be compared to comparable aesthetics from the

[1] Here it might also be worth emphasising Kate Harlin's pointed reminder that *Black Panther* 'did not begin as an Afrofuturist text; the superhero first appeared in Marvel comics in 1966, and as the creation of white comics artist Jack Kirby' (2019, 47).

African continent' (2019, 6). Zambian author Namwali Serpell asks 'Whence the "Afro" in "Afrofuturism"?', given the term's US-centrism, and its consequently uncomfortable resonances with 'the old-school census classification, "Afro-American"' (2016, n.pag.). Moreover, Mbewe argues that 'globally, the African diaspora is having different experiences, even though we're all black.' (2018, n.pag.). South African author Mohale Mashigo writes similarly that 'Africans, living in Africa, need something entirely different from Afrofuturism' because 'we actually live on this continent, as opposed to using it as a costume or a stage to play out our ideas' (2018, n.pag.). She writes that 'Afrofuturism is an escape for those who find themselves in the minority and divorced or violently removed from their African roots, so they imagine a 'black future' where they aren't a minority and are able to marry their culture with technology' (2018, n.pag.). Mashigo acknowledges that 'that is a very important story and it means a lot to many people', but points out that her story 'as an African living in Africa' is different and that Africans more generally 'need a project' that is more specifically oriented towards envisioning Africa's future than a US-centric Afrofuturism (2018, n.pag.).

The most prominent effort to name that project thus far has been Nnedi Okorafor's coining of the term 'Africanfuturism' (2019, n.pag.). In a 2019 blog post, Okorafor – who had until that point frequently been described as an Afrofuturist writer – emphasised that she coined the word Africanfuturism because 'the most prominent [definitions of Afrofuturism] didn't describe what I was doing' and 'I needed to regain control of how I was being defined' (2019, n.pag.).[2] She explains that:

> Africanfuturism is similar to "Afrofuturism" in the way that blacks on the continent and in the Black Diaspora are all connected by blood, spirit, history, and future. The difference is that Africanfuturism is specifically and more directly rooted in African culture, history, mythology and point-of-view as it then branches into the Black Diaspora, and it does not privilege or centre the West. (2019, n.pag.)

While Okorafor conceptualises Africanfuturism as 'a sub-category of science fiction', she also uses 'Africanjujuism' as a term to describe her work as 'a subcategory of fantasy that respectfully acknowledges the seamless blend of true existing African spiritualities and cosmologies with the imaginative' (2019, n.pag.). These definitions stand as an important corrective to the problematic white gaze that some have argued is built into the term "Afrofuturism." Importantly, though, Okorafor does not reject Afrofuturism wholesale either, suggesting that 'there are grey areas, blends, and contradictions, as there are with any definition. Some works are both Africanfuturist and Afrofuturist,

[2] In view of these comments, my inclusion of Okorafor's *The Book of Phoenix* in this chapter is not meant to disregard them but, as I will explain later, *The Book of Phoenix* in particular illustrates the sometimes strong overlap between Afrofuturist and Africanfuturist fiction.

depending on how they are read' (2019 n.pag.). In view of such complexity, Wabuke argues that 'there is potential for the term "Black Speculative Literature" to become the language that encompasses Afrofuturism, Africanfuturism, and Africanjujuism for the ease of handling', creating space both for those Black speculative discourses which centre Blackness, and those which, like Afrofuturism, remain bound up with 'the Western and/or the white gaze' (2020, n.pag.). In view of such concerns, in what follows I use the term "Afrofuturism" (albeit cautiously) to describe in particular works that are specifically rooted in the New World context rather than as a totalising descriptor for all Black SF globally. Crucially, I also do not at all mean to suggest that all Black SF (in the US or otherwise, understood as "Afrofuturism" or otherwise) must consciously engage with the material legacies of slavery at all times. Rather, my project in this chapter is to probe more specifically the relationship between neoliberal world-petroculture and the emergence of a number of texts that, in Eshun's terms, *do* mobilise SF aesthetics 'as allegories for the systemic experience of post-slavery black subjects' (2003, 299).

With Butler's, Okorafor's, and Hopkinson's texts as examples, I suggest that such texts offer a trenchant and multiscalar commentary upon neoliberal developments within the biopolitical technics which, for Michel Foucault, have long been an 'indispensable element in the development of capitalism' (1978, 140-41). Foucault argued that the administration of life and reproduction at both the scale of the individual body and of the species helped to adjust 'the accumulation of men to that of capital' (1978, 141). The historical development of capitalism 'would not have been possible', he suggested, without this "biopower" to facilitate 'the controlled insertion of bodies into the machinery of production' and 'the adjustment of the phenomena of population to economic processes' (1978, 141). While in Foucault's account the emergence of capitalism and biopolitics appear as linked phenomena, Silvia Federici goes further in arguing that biopolitics must be pegged more closely still to 'the rise of capitalism' in order to demystify its origins (2014, 16). It is in this context that I suggest Butler's, Okorafor's, and Hopkinson's texts offer powerful illustrations of how racism has always worked within capitalist biopolitics to facilitate the energoculture surrounding capitalism's production, extraction, and consumption of Cheap Nature. If neoliberal world-petroculture is the latest manifestation of that energoculture, then Butler's, Okorafor's, and Hopkinson's novels index the deep historical roots of its unevenly racialised patterns of bio-extractivism and ecological risk allocation within the transformations of "nature" driven by the historical development of the plantation system and the way in which, as Bassey argues, Africans enslaved under it 'were the vital energy sources of capitalism' (2012, 10).Thus, while Dominic Boyer has demonstrated the need to re-think the way in which biopower operates through 'the twin analytics of electricity and fuel' as 'energopower', then , I intend to demonstrate how the novels discussed in this chapter can emphasise

the ways in which capitalist biopower has always been concerned with the extraction of vital energies from "nature", long before it could be 'plugged in' by fossil fuels (2014, 325-27). In other words, it will be seen that the novels discussed below show that Afrofuturism's efforts to imagine the future of capital's efforts to put Black bodies to work also present wider insights into how capitalism puts 'all life activity' to work; human or extra-human; living, non-living, or as fossilised fuels (Moore 2015a, 225).

By engaging in the *histofuturism* of capitalism's drive to put Black bodies to work, Butler's, Okorafor's, and Hopkinson's novels register the way in which the racist devaluation of Black lives has always been crucial to the systemic operation of capital's Law of Cheap Nature. My use of histofuturism is inspired by an idea articulated in Butler's unpublished papers, in which she offered the figure of the 'Histofuturist' to counter the deficiencies that she saw within typical US historical and futurist narratives (OEB 3221).[3] Butler's private comments on the histofuturist anticipate Eshun's reflections on Afrofuturism's simultaneous retrospective and proleptic impulses. Butler lamented that the efforts of many futurists to 'forecast the future' often prioritised 'technology' over humanity and lacked a deep historical consciousness (OEB 3221). At the same time, she noted the 'long-standing harm' done to people of colour and other groups marginalised by hegemonic historical accounts, in which the 'humanity' of such groups is 'denied' (OEB 3221). In contrast, Butler saw the histofuturist as 'a historian who extrapolates from the *Human* past and present as well as the technological past and present' (OEB 3221; original emphasis). While Butler does not refer explicitly to herself as a histofuturist in these notes, the figure offers a useful lens with which to consider the novels discussed below. As Shelley Streeby explains, Butler's histofuturism creates 'counter histories and alternative futures' that insist upon the 'historical and political' context of technological change that Butler found lacking in contemporary historiographies and futurisms (2018, 721). Butler's taking to task of futurists for focusing upon only the recent past in their projections also implies that a critically penetrating and transformative futurism must proceed with a much deeper historical consciousness. We can discern such a consciousness within Butler's, Okorafor's, and Hopkinson's efforts to imagine the future in view of the *longue durée* of capitalism's historical disciplining of Black bodies and lives as Cheap Nature.

As will be seen in subsequent sections, this histofuturist consciousness manifests as a tension between aesthetic reconfigurations of the plantation's particular way of ordering "nature" and the historical valency of the plot as a locus of cultural resistance to such ordering. Reading Wilson Harris's *Guyana Quartet* (1960-63), Niblett suggests that the 'tension' between the socio-ecological configurations represented by the plantation and the plot manifests as a tension between 'the

[3] Butler died in 2006, leaving her entire collection of papers, comprising tens, if not hundreds of thousands, of pages of material to the Huntington Library in San Marino, California. In-text citations for all material sourced from the Octavia E. Butler Papers will follow the Huntington's numbering system: (OEB xxxx).

aesthetics of sugar', as a key plantation cash crop, and the 'aesthetics of cassava', an important provision ground staple (2013, 152-53). Niblett explains that the aesthetics of sugar and cassava function 'metonymically' to respectively signal those socio-ecological relations demanded by 'the capitalist logic of endless commodification', and those 'geared towards the reproduction of daily life and the satisfaction of social needs' (2013, 152). As Wynter has pointed out, enslaved Africans resisted their enslavement by preserving upon plot grounds 'the structure of values that had been created by the traditional societies of Africa' (1971, 99). For Wynter, then, an 'appreciation and revaluation' of the 'folk' culture that formed the core of such resistance offered 'a focus of criticism against the impossible' and seemingly inescapable 'reality' of capitalist modernity (1971, 99). As Niblett argues, the aesthetics of cassava resist the continued material force of the capitalist imperatives that underwrote the plantation system by mobilising 'the values and structural relations' of the plot (2013, 152). Following Niblett's expansion of Wynter's observations, in speaking of the aesthetics of plantations and plots I likewise use the terms metonymically to signal contrasting possible futurities. In the "plantation futures" imagined by the texts discussed below, strangely reconfigured (post)humans and vengeful ogbanjes, soucouyants, and zombies all figure the disastrous culmination of the 'reification of nature as an alien object' historically developed through the plantation system (Niblett 2013, 152).

By imagining futures that unfold in the long shadow cast by transatlantic slavery, Butler's, Okorafor's and Hopkinson's novels look beyond the 'fossil fuel fetishism' discernible in what Moore calls the common 'Two Century Model' of capitalism, which presupposes that 'capitalism begins around 1800' with the gathering momentum of the industrial revolution (2015a, 177, 92). This model, Moore suggests, 'has obscured the revolutionary shift in environment-making' that underwrote the world-ecological integration of the Americas beginning in the long sixteenth century (2015a, 92). Consequently, I am particularly interested in how these novels can re-situate neoliberal world-petroculture in relation to capitalism's *longue durée,* as the latest and potentially terminal phase of capitalism as an ecological regime. The texts examined in this chapter are steeped in petrocultural angst prompted by the imagined end of "cheap" oil. As Streeby explains, Butler's oil shock-inflected novels of the 1970s and '80s emphasise how her 'ongoing concern' with 'the destruction of the environment' was 'intensified' by the socio-ecological assaults of Reagan-era policy (2018, 723). Okorafor's and Hopkinson's more recent texts, meanwhile, speak to what LeMenager describes as the contemporary moment of 'tough oil', wherein the diminishing returns of so-called "conventional" fossil fuel reserves have prompted increasingly costly and toxic extraction methods targeted at "unconventional" sources of hydrocarbons like shale gas and tar sands (2013, 11). Such "tough" oil may well offer a means to prolong petromodernity – but for how long, at what cost, and to whom?

It will be seen that, in view of such questions, the texts examined in this chapter point to how reckoning with the long history and future of capital's racialised energy extractivism from Black bodies through to petromodern times is pivotal to envisioning an equitably sustainable postcapitalist ecopolitics. As Sidney W. Mintz points out, the plantations were 'crucial to profit making for Europe', acting as a kind of proving ground for key elements of capitalism's Cheap Nature strategy well before the dawn of the industrial "revolution" (1986, 55). Marx memorably wrote that 'the veiled slavery of the wage-labourers in Europe' could not have proceeded without 'the unqualified slavery of the New World as its pedestal' (1990, 924-25). Indeed, he suggested, 'the conversion of Africa into a preserve for the commercial hunting of blackskins' had characterised 'the dawn of the era of capitalist production' (1990, 915). In *Capitalism and Slavery* (1944), the Trinidadian historian and first Prime Minister Eric Williams pointed out, moreover, that it had been 'the capital accumulated from the West Indian trade' that financed 'James Watt and the steam engine' (1972, 102). At the same time, newly cheapened 'sugar and kindred drug foods' from the plantations, Mintz writes, offered 'profound consolations' in European mines and factories (1986, 61). Even if Caribbean sugar's systemic importance has faded somewhat today, the plantations transformed the New World into what Niblett describes as an historically pivotal 'external nutrient supply' for the core; a bind which has persisted and continued to tighten to this day (2012, 22). Perhaps most significant, however, was the way in which the plantations and transatlantic slavery served as crucial matrices for the world-historical development of capital's destructive cheapening of "nature". If all life on earth unevenly inhabits the Capitalocene, then the histofuturism of Butler's, Okorafor's, and Hopkinson's texts recognises that the Capitalocene is also the 'Plantationocene' (Haraway 2016, passim). As Donna J Haraway explains, the Plantationocene names 'the devastating transformation of diverse kinds of human-tended farms, pastures, and forests into extractive and enclosed plantations, relying on slave labour and other forms of exploited, alienated, and usually spatially transported labour' (2016, 206n5). Echoing Wynter, Haraway emphasises that, far from an historically discrete period in the history of capitalism, 'the Plantationocene continues with ever greater ferocity' under neoliberal capital today, and can be seen in 'globalized factory meat production, monocrop agribusiness, and immense substitutions of crops like palm oil for multispecies forests' (2016, 206n5). It will be seen, then, that Butler's, Okorafor's, and Hopkinson's texts prognosticate the uneven magnification of that Plantationocene into the future under neoliberal world-petroculture's efforts to restore faltering flows of Cheap Nature.

Echoing Marx, Wynter wrote that 'with the discovery of the New World […] that process which has been termed the "reduction of Man to Labour and of Nature to Land" had its large scale beginning' (1971, 99). The development of the plantation societies in the Caribbean, she argued, overwrote the 'dual oscillatory process in which Man adapts to Nature and adapts Nature to his own needs' in favour

of a 'one way transformation of Nature', whose ongoing result has been the 'dehumanization and alienation' of those humans that capital constructs as part of "nature" (1971, 99). Moore and Raj Patel argue that while 'capitalism may have claimed the New World with guns, germs, and steel', capitalists also constructed new modes of 'organization and language' – including racism – that served to legitimate the 'use of that force' (2018, 180). The high labour intensity of sugar cane cultivation posed a bar to further profitmaking, such that capital reconfigured Africa into what Andrew Nikiforuk describes as a 'bountiful […] reservoir' of muscle power (2014, 11). The racial technics of the plantation served to construct Africans in particular not as part of "society", but as a "natural" resource by reducing them to their bodies, which were then read and valued by planters in terms of their productive capacities and ostensible "fitness" for labour in tropical climates; or, to put it another way, their energetic potential. 'Racial differences', writes Williams, 'made it easier to justify and rationalise Negro slavery' by establishing an order under which it was ostensibly "natural" for white capitalists to appropriate Black bodies as labouring resources (1972, 19). Walter Johnson notes, for example, how 'a dark complexion became a sign of an innate capacity for cutting cane', while Williams likewise asserts that slave traders valued 'red' tongues and 'broad' chests as signs of appropriable vigour (Johnson 1999, 149; Williams 1972, 38). Consequently, Williams argues, the adoption of slavery in the New World was 'not born of racism' as is commonly supposed, but the racism that codified Africans in particular as subhuman developed instead as slavery's 'consequence' (1972, 7). The 'origin' of transatlantic slavery was therefore not in 'the color of the laborer', Williams argues, but in the 'simple economic fact' that enslaved Black labour 'was cheapest' and putatively 'best' for the task of cash crop cultivation in the New World (1972, 19-20).

The productive imperatives of the plantation mandated that Black lives became the "cheap" lives upon which plantation capital depended. As Philip Morgan points out, some 350,000 of the 2.7 million enslaved people shipped to the British Caribbean alone perished on the journey, while perhaps 'one in three' died within three years after arrival (2011, 382). Williams's observations in *Capitalism and Slavery* have so far not been a critical touchstone for discussions of Afrofuturism, but they do help to explain the import of Afrofuturism's histofuturist consciousness. Even in 1944, Williams emphasised that 'the ideas' of Black "subhumanity" developed through the plantation system have continued 'to work their old mischief' long after transatlantic slavery's demise (1972, 211). He stressed the need to 'guard not only against' slavery's 'old prejudices but also against the new' racist forms of thinking that are 'constantly created' in the interests of capital (1972, 212). Williams's almost eighty-year-old exhortation is perhaps more pressingly relevant than ever in the neoliberal era. In the context of rising production costs and with no productivity revolution forthcoming, neoliberal capital has instead remade itself by cheapening labour via what Henry A. Giroux describes as its 'biopolitics of

disposability' (2006a, 175). If the re-organisation towards a precarious "surplus humanity" has been felt system-wide, however, it has nonetheless cut unevenly along the racialised divisions nurtured by the plantation system. Where, once, Black lives were "cheap", now they have become even more so. As Giroux writes, the aftermath of Hurricane Katrina in 2005 exposed how the racist contours of neoliberal capital's 'utter disregard for populations now considered disposable' constitute an 'intensification' of the American South's 'apartheid past' (2006b, 39). As the dead bodies of Hurricane Katrina's predominantly Black victims were 'left uncollected' in the flooded streets of New Orleans, he writes, they obliterated the neoliberal fiction of a 'color-blind society' (2006a, 173-74). The Bush administration's lacklustre response to the disaster threw into stark relief the 'vast inequalities of symbolic and material capital' sustaining comfortable wealthy and middle-class 'lifestyles' in the post-Civil Rights Movement era (2006b, 22). Under a biopolitics whose 'central commitment' is to 'remove or make invisible' those considered to be an impediment to neoliberal capital's free-market utopianism, such inequalities can only deepen (Giroux 2006b, 47).

For Giroux, Katrina underscored how the poor 'black and brown' citizens of deliberately 'rundown neighborhoods' across the USA have been forcibly transformed by capital into 'the waste products of the American Dream' (2006b, 25). To be rendered part of the growing mass of Zygmunt Bauman's 'wasted humans' is to be deprived of a future, given that, as Bauman writes, for such humans 'there are no obvious return paths to a fully-fledged membership' of society' (2004, 5, 16). While the disproportionate attenuation of Black futures under the aegis of capitalist modernity is hardly new, events that struck during the preparation of this thesis both in the US and across the world have suggested both an acceleration and a growing counter-movement to the way in which capital's 'order' has always been enforced 'through race, police, and profits' (Moore and Patel 2018, 180). The recent global protests and reactionary counter-protests in response to the death of George Floyd in US police custody in May 2020 have shown that it has become revolutionary even to suggest that "Black Lives Matter". This point is only thrown into starker relief by the uneven impact of the ongoing Covid-19 pandemic, with a *Washington Post* article pointing out that in the US 'Black America' has been 'ground-zero' for the disease (Patton 2020, n.pag.; see also, for example: Maqbool 2020; Zanolli 2020). In the time of Black Lives Matter and Covid-19, Afrofuturist interventions might comprise the latest iteration of the 'communal utterance' that Henry Louis Gates Jr. discerns within the corpus of narratives and autobiographies written or dictated by enslaved people in the nineteenth century (2002, 2). As Anderson points out, 'to be unfree and write about freedom', as the authors of such autobiographies did, '*was* science fiction […] even though it wasn't necessarily canonized or characterized as such' (in Barber et al. 2018, 138; original emphasis). In likewise claiming Black futures in defiance of capital's past, present, and future designs for putting Black bodies to work, the novels

discussed below participate in a literary and political project that stretches at least as far back as the nineteenth century. That is, they offer "neoslave narratives" to contest the 'practices of neo-slavery' that Madhu Dubey discerns within neoliberal capital's energy-anxious world-petroculture (2011, 23). Bernard W. Bell coined 'neoslave narrative' as a term to describe African American texts that specifically imitate the antebellum narratives of enslaved people, and so constitute 'residually oral, modern narratives of escape from bondage to freedom' (1987, 289). While not all of the novels discussed in this chapter fit this formal definition, they nonetheless attest to the neoslave narrative's evolving resistance to neoliberal capital's intensified assaults upon Black futures.

Gates argues that the antebellum narratives of enslaved people claimed Black futures via their authors' claims to human status, allowing enslaved people to '*write*' themselves 'into the human community through the act of first person narration' (1990, xiii, xxix; original emphasis). However, Robert S. Levine cautions that such a 'movement' was often 'hailed by sympathetic readers of the time' as little more than 'a raced version of Benjamin Franklin's archetypal account of the "American" rise from rags to riches' (2007, 101). The narrative residues of such a progression are discernible in *Black Panther*, as Wakanda emerges at the film's end as a vibranium-enhanced rival to the USA's global dominance. After T'Challa addresses the UN in a post-credits scene, he smirks knowingly in response to a condescending question that asks 'what can a nation of farmers have to offer the rest of the world?' (Coogler 2018). However, As Eshun reminds us, Afrofuturism must be about more than 'inserting more black actors into science-fiction narratives' that otherwise remain implicated in neoliberal capital's 'futures industry', which Eshun locates at the intersection of 'technoscience, fictional media, technological projection, and market prediction' (2003, 298, 290). It is 'naïve', he argues, to understand core-zone, and predominantly white-authored and white-financed science fiction to be simply 'a prediction into the far future' or involved in 'a Utopian project for imagining alternative social realities' (2003, 290). Rather, Eshun writes, capital today 'operates predictively as much as retrospectively' via visions of the future that 'command us to make them flesh' and so tighten the grip of existing race-bound iniquities (2003, 289, 291). 'The powerful', he observes, 'draw power' from future visions of expanded capitalist business as usual, 'thereby condemning the disempowered to live in the past' (2003, 289). By staging 'a series of enigmatic returns to the constitutive trauma of slavery in the light of science fiction', Afrofuturism offers what Eshun describes as 'the more totalizing realization that […] Afrodiasporic subjects live the estrangement that science-fiction writers envision' (2003, 298-99). In the remaining sections of this chapter, then, I want to suggest how Butler's, Okorafor's, and Hopkinson's novels push against the grim inertia of capitalist realism by revealing the disjuncture between the escapist utopics of the futures industry and the uneven foreclosure of Black futures that sustains them.

All three of these novels offer clear rejections of what Dubey describes as 'the dichotomous relation between racist past and raceless present that characterized U.S. public discourse in the late twentieth century', and persists today in the "All Lives Matter" responses to Black Lives Matter protests (2011, 21). But they do not perpetuate what Wabuke calls a "one down" relationship between Blackness and whiteness that insists on a perpetual victimhood. In a 2002 interview with Alondra Nelson, Hopkinson argued that if such narratives are 'all that's getting published, I think I'm justified in suspecting the industry was and is eroticizing black people as victims, as though that is our value to the world' (Hopkinson and Nelson 2002, 102). In drawing attention to the way in which Butler's, Okorafor's, and Hopkinson's texts imagine the future in terms of the uneven magnification of the plantation's residual aftermaths it is not my intention to suggest that this is *all* that these texts have to offer. By clearly situating the present and future moment in relation to the *longue durée* of capitalist modernity, Butler's, Okorafor's, and Hopkinson's novels are well-placed to reveal the way in which neoliberal world-petroculture is the latest and possibly terminal phase of capitalism's racially iniquitous energoculture. Even more important, however, is the way in which these novels emphasise the way in which, as Wabuke writes, that history is precisely what 'creates the possibility of imagining the free Black futures' and the 'resilience, creativity, and imagination' that is marginalised in Dery's original account of Afrofuturism (2020, n.pag.). Brimming with oppositional potential, the novels discussed in the remainder of this chapter bear out Wabuke's insistence that 'no matter what we call it […] the impetus of Afrofuturism, Africanfuturism, and Black Speculative literature is to center African and African diasporic culture, thought, mythos, philosophy, and worldviews' as world-making forces (2020, n.pag.). In 1971, Wynter acknowledged that 'there is no question of going back to a […] folk pattern whose structure has already been undermined by the pervasive market economy' (1971, 100). The texts discussed below, then, do not mourn "lost" premodern culture formations, but nonetheless draw upon them in their imagining of alternative futures to the grim trajectory implied by the Plantationocene. As will be seen, Butler's, Okorafor's, and Hopkinson's novels all evince an imaginative mobility beyond the paralysis of neoliberal capital's precarious futures industry and its petromodern iniquities by reformulating the cosmologies of resistance and defiance that enslaved people cultivated within the interstices of the plantation's brutalities.

Kindred's Petro-Shocked "Plantation Uncanny"

Published in 1979, Butler's *Kindred* is an ideal starting point from which to consider Afrofuturist challenges to neoliberal capital's increasingly strained fictions of energy and race. In it, a "liberated" African American woman named Dana Franklin recounts the story of how her slave-holding ancestor

Rufus Weylin repeatedly pulls her back from 1970s California to his plantation in early nineteenth-century Maryland. On one occasion, her white husband Kevin is also pulled back with her and, after they are separated, he is trapped in the past for five years until Dana re-appears. Dana soon learns that to guarantee her future she must save Rufus's life when he is in danger and so becomes complicit in the rape of her enslaved ancestor, Alice Greenwood. After a series of harrowing experiences that culminate in Alice committing suicide and Rufus turning his sexual interest towards Dana, Dana strikes out at Rufus, killing him. She is catapulted back to her present but is left permanently scarred, losing her left arm in the process. She and Kevin return to present-day Maryland but can find no trace of the Weylin plantation or what happened to Dana's ancestors after Rufus's death. In what Canavan describes as 'a tepid victory, at best', the novel leaves Dana and Kevin on the precipice of an uncertain future, in which they only have 'some chance' of remaining 'sane' (2016, Ch. 3, n.pag.). As Vint explains, Dana's present is in 'the future imagined by nineteenth-century slave narratives' (2007, 243). However, the novel's deployment of the neoslave narrative mode emphasises that this present is one in which emancipatory Black futures have failed to materialise. Although *Kindred* does not imagine the future directly, it contests in a histofuturist fashion what Dubey calls the 'facile assumption that credible new worlds are best imagined by simply wishing away the legacy of race' (2011, 18). As Anne Donadey writes, the novel demonstrates instead that 'a possible collective healing and national reconciliation' in the US can only be parsed through re-evaluating the country's 'repressed' histories of racialised violence (2008, 76). Given the context of a resurgent Black Lives Matter movement and a crumbling neoliberal world-petroculture, the way in which *Kindred* consequently opens out onto the future is worth re-visiting, especially in relation to the uncannily tightening grip of the plantation's racial ordering upon what are consequently "horribly familiar" systemic futures.

The lingering influence of the past upon the present – and, implicitly, the future – has been a dominant theme in readings of the novel. Marisa Parham suggests that Dana's time travelling brings an all-too-easily forgotten past 'into the present tense' (2009, 1321). A. Timothy Spaulding, meanwhile, suggests that *Kindred* emphasises the persistent 'links' of experience 'between black women across time and space' (2005, 7). Eurocentric 'claims of authenticity' implied by the privileging of realism 'as the ideal narrative form for history', he writes, are called into question by the novel's mobilisation of a fantastic aesthetic, which illustrates how the plantation's history 'intrudes upon the present with disturbing and dangerous consequences' (2005, 5, 7). Stella Setka argues similarly that *Kindred* rejects the primacy of "Western" narrative knowledge forms in order to open new ways of 'conceptualizing the relationship between historical memory and cultural trauma' (2016, 96). In particular, Setka argues that Butler 'invokes the phantasmic' in *Kindred* by presenting Dana as a reformulated version of the *ogbanje*, an Igbo term for 'the spirit child who seeks multiple rebirths with

mischievous and perhaps even malicious intent' (2016, 93, 102). As Dana is repeatedly pulled back into the past, she reiterates the 'loop of the ogbanje life cycle', which, as Setka argues, 'mirrors' the plantation's continuing 'cycle of trauma' by emphasising how it will return 'time and again' unless it is 'addressed and worked through' (2016, 115). The novel's presentation of time travel, which can be understood to be irrealist, thus, as Setka writes, 'challenges us to ask *why* Dana is physically propelled back into the past rather than how' (2016, 103; original emphasis). In doing so, Setka suggests, the novel encourages the reader to 'engage the past from a new perspective' (2016, 98). As she explains, this perspective figures the ontological aftermath of the plantation in terms of 'an American ogbanjism', in which the ogbanje's dislocated existence metonymises the past, present, and future experiences of Black Americans (2016, 95). While I broadly agree, Setka's assessment can be pushed further, and more made of the novel's adaptation of the ogbanje's cyclical symbolism. I suggest that the "new perspective" that the novel drives towards is a world-ecological one, in which the historical pattern of "American ogbanjism" that *Kindred* establishes is of the cumulative and horribly familiar consequences of capitalism's long-running devaluation of Black lives.

As well as asking *why* Dana is propelled backwards through time, we might ask what the significance is of the plantation reasserting its grip in the late 1970s moment in particular. There is, of course, the obvious symbolism of the novel's setting in 1976, the bicentennial year of US independence, which, as Donadey points out, usefully highlights the novel's status as a 'national allegory' for 'the centrality of slavery in American history' (2008, 67). But it is also not coincidental that *Kindred* and the other representative 'phantasmic trauma' narratives that Setka names trace the arc of neoliberal world-petroculture's consolidation as an ecological regime (2016, 95).[4] Emerging in the backdraught of the 1973 oil shock and the broader backdrop of US "stagflation", Dana's experiences register how neoliberal capital's petro-shocked production of "surplus" humans has been underwritten by a resurgence of the plantation's racial technics. Dana's petrocultural present – the decade of the 1970s – was a period of profound anxiety about not only the continued viability of US hegemony within the petromodern world-system but, indeed, the continued viability of petromodernity itself. Canavan points out that

> The year 1973 in general marks a striking moment of transition for postwar U.S. hegemony – it is the year of Watergate, the withdrawal from Vietnam, the collapse of the Bretton Woods monetary system, and the passage of the Endangered Species Act, among other notable benchmarks of *limit* -– but first and foremost, 1973 is the year of the oil shock, the year the reality of

[4] The texts that Setka names in addition to *Kindred* are Phyllis Alesia Perry's *A Sunday in June* (2004) and *Stigmata* (1998), Paule Marshall's *Praisesong for the Widow* (1983), Julie Dash's *Daughters of the Dust* (1991), Gloria Naylor's *Mama Day* (1988), and August Wilson's *The Piano Lesson* (1990).

> capitalism's dependence on a finite, nonrenewable energy was made inescapably clear and painfully immediate. (2014, 341-42; original emphasis)

As Canavan's summary of the decade implies, the 1970s represented a widespread period of petrocultural energy angst in the US context attendant on the possibility of "peak oil", which, as Mitchell reminds us, means 'not the exhaustion of oil, but a rate of flow that can no longer continually increase' (2011, 248). Indeed, Huber writes that in hindsight '1970 was the year of peak U.S. crude production' which, once recognised, 'vindicated petroleum geologist M. King Hubbert who predicted as much in 1956' (2013, 101). If the flood of cheap petroleum in the postwar US context had offered a means of sublimating the way in which, as Huber points out, 'the politics of fossil fuels has always anxiously confronted the materiality of exhaustibility', the rather sudden emergence of apparent limits in the 1970s 'witnessed an expansion of concerns with the finiteness of fossil fuels in the popular imagination' (2013, 101). With the petrocultural yoking together of presumed access to cheap oil and the imaginary of the "American way of life" itself at stake, the 1970s offered what Huber characterises as 'the political moment of opportunity' for the neoliberal turn (2013, xvi). He points out that 'the oil crisis provided a clear terrain through which to locate the monstrous power of government in the marketplace' (2013, 118). Accordingly, he writes, the stage was set for 'the construction of an apolitical economy wherein any visible form of power over the market – labor strikes, price controls, the redistribution of wealth – was construed as an unfair "political" attempt to capture wealth through privilege and not individual tenacity or "hard work"' (2013, 120). Consequently, Huber explains that 'the decade of stagflation and oil shocks set up the emergence of Reaganism and, more specifically, the large-scale neoliberal assault on unions, wages, and job security' (2013, 137).

Emerging at the sharp end of this petro-shocked context, *Kindred*'s time travel story and its revival of the enslaved person's narrative form bears out Deckard's suggestion, via Shapiro (2008b), that 'catachrestic literary devices' articulate the connection between 'fading and emergent' ecological regimes (2013, 181). In her present, Dana remarks that her experiences of the Weylin plantation 'had not quite settled back' and instead remained with her as 'shadowy and threatening' presences (2003, 18). In this way, *Kindred* mobilises the "plantation uncanny", in which the weight of a presumptively long-repressed past continues to bear upon the present. As in Shapiro's reading of the Gothic, *Kindred*'s plantation uncanny witnesses the simultaneous 'troubled historical recollection' and 'precognitive prolepsis' of capitalism's cyclical expansion that becomes available in moments of violent socio-ecological transformation (2008b, 34). As the plantation past seems, unsettlingly, to become Dana's future, the novel defamiliarises her petrocultural present. In so doing, the novel exposes the lie of a "colour-blind" meritocracy deployed to justify neoliberal polices that aggravate existing race-bound inequalities in their efforts to restore the flow of Cheap Nature. That is, *Kindred's*

petro-shocked plantation uncanny indexes the compounding devaluation and precaritisation of Black lives under a nascent neoliberal capital.

In naming *Kindred*'s plantation uncanny, I borrow from Deckard's coining of the 'mining uncanny' in her reading of *For What it's Worth*, a 2014 photography series by South African artist Dillon Marsh. Marsh's eerie photographs juxtapose the apocalypticism of abandoned minescapes in South Africa with uncanny CGI representations of the metals torn from them over the past century and a half. As Deckard suggests, these images remind us of deep-rooted histories of racialised mining violence in South Africa, while also pointing to capital's wider erosion of 'the very capacity for life on the planet' (2019, 151). That is, she writes, the photographs' rematerialisation of long since stolen resources underscores 'the hollowness that underlies what appears solid ground' today (2019, 151). I will return to this mining uncanny in the following chapter. For now, though, it suffices to say that *Kindred*'s plantation uncanny likewise works to reveal the hollowness at the heart of neoliberal capital's developmental imaginary. After her ordeal is over, Dana remarks that her experiences of plantation life have caused her to lose 'much of the comfort and security I had not valued until it was gone' (2003, 9). However, Dana's experiences actually strip away the veneer of a comfort and security that have in fact never been available for Black lives under capitalism, thereby revealing the illusory qualities and unevenly precarious futures of neoliberal "freedoms." When Dana shows the young Rufus a history book from her own time, the boy is incredulous that people are 'still complaining' about slavery more than a century after its official demise (2003, 140). Rufus's indignation anticipates what is, for Dubey, the 'willful historical amnesia of post-racial discourses in the decades following the Civil Rights movement' (2011, 21). By contrast, as Dana herself attests, her experiences of plantation-bound defamiliarisation force her to realise that her 'trouble' as a de-valued Black woman in the 1970s US actually began 'long before' she 'became aware of it' in the petro-shocked 1970s (2003, 12).

While the novel repudiates nostalgic visions of the South, such as *Gone With the Wind*'s 'happy darkies living in tender loving bondage', it also complicates the present-day corollaries of such stories in neoliberal fictions of "colour-blindness" (2003, 116). Kevin initially views his opportunity to witness the past with a nostalgic excitement, saying that 'I keep thinking what an experience it would be to […] go West and watch the building of the country' (2003, 97). The novel emphasises that the privileged distance that Kevin, as a white man, can feel from the past is, ironically, a product of that past's historical constructions of whiteness (as well as Blackness). After Dana chastises him for the naivety of his remark, she says that Kevin 'looked at me strangely', hinting at how their direct experience of the past unsettles the relationship between them (2003, 97). As Canavan explains, the invisible 'color line' between Dana and Kevin is 'permanently reasserted' by their time spent on the plantation, revealing the superficiality of the "colour-blind" fiction epitomised by their interracial

marriage (2016, Ch. 3, n.pag.) Dana initially rejects the past as 'diseased', illustrating the gulf that she perceives between it and her present (2003, 99). She watches, 'tired and disgusted' as a group of children stage a mock slave auction, remarking to Kevin that 'even the games they play are preparing them for their future' (2003, 99). Over the course of the narrative, though, Dana learns that capital's historical constructions of race are not so easily ignored because the blackness of her skin 'doesn't come off' (2003, 224). As Vint points out, Dana gradually becomes unable to 'maintain' the fiction of a 'distinction between herself as an emancipated black person and her ancestors as slaves' (2007, 251). By the novel's end, like the 'small slave children who […] didn't understand yet that they were slaves', Dana has undergone a similarly brutal passage from relative innocence to the experiential excess of racialised violence, both in the plantation past, and in her 1970s present: that past's future (2003, 76).

After her first trip to the past, Dana tells us that she felt 'afraid' that she may be snatched again 'at any time', perhaps even while in the shower, exposing her to the risk of injury or appearing 'naked' and 'vulnerable' in front of 'strangers' (2003, 17-18). She experiences the precariousness felt by her enslaved ancestors, with her fears of physical injury and the humiliation of appearing naked among strangers recalling the ever-present threat of disciplinary violence and the dehumanisation of the slave market. At first, Dana tries to forget the experience, rationalising that 'somehow, tomorrow would be better' (2003, 19). But she is pulled back into the past again shortly after she says this, emphasising that there can be no better tomorrow while the plantation's troubling residues remain active and unconfronted in the present. Dana is 'disturbed' by 'how easily' she and Kevin 'seemed to acclimatize' to the historical moment of the plantation (2003, 224). But perhaps it is so "easy" because, in a sense, she and Kevin have always lived in the shadow of that moment, too. As Kevin and Dana are forced to pretend to be master and slave, the novel reflects upon the intensified continuity between the past and present-day configurations of their relationship. When Dana is first pulled back in time the pair have just moved into a new house, but only Dana is 'still unpacking' while a 'loafing' Kevin stopped as soon as 'he got his office in order' (2003, 12). We learn that, earlier in their relationship, Kevin had asked Dana 'to do some typing for him three times' and 'to take care of his correspondence' (2003, 109, 136). Later in the text, the figures of Kevin and Rufus seem to blend into one another as he too asks her to write his letters for him. In this, and other moments, Dana is forced to confront the extent to which the plantation's toxic cultural residues have persisted, magnified, and continue to constrict her future, even within her apparently liberated marriage to Kevin.

Performing the work of an advertising writer 'for the price of a clerk-typist' at an aerospace company, Dana's labour is already undervalued in the 1970s (2003, 56). She finds herself devalued even further, however, when her 'whole department' is 'laid off' amid the pressures of petro-shock

(2003, 56). Afterwards, she relies on precarious work sourced through a 'casual labour agency' that she and its other regulars tellingly refer to as a 'slave market' (2003, 52). This "slave market", Robert Crossley explains, serves as a 'benign, ghostly version of institutional slavery's auction block' (2003, 268). Indeed, Nadine Flagel argues that the brutality of plantation life highlights the danger of 'rhetorical exaggeration' by forcing Dana to 'confront the situation in the casual agency as different from slavery' (2012, 234). To be sure, Dana tells us that the agency was 'just the opposite of slavery' because 'the people who ran it couldn't have cared less whether or not you showed up'; there was always a steady supply of 'nonpeople' to be 'rented for a few hours, a few days, a few weeks' at a time (2003, 52-53). Yet Flagel's reading seems to miss the key point. In a general fashion, Dana's comments grasp that, as Ivor Southwood observes, the putatively 'self-employed agency worker' actually 'personifies the unfreedom' of what is mendaciously framed by neoliberal authorities as empoweringly 'flexible' work (2011, 68). More particularly, as part of *Kindred*'s plantation uncanny, Dana's seemingly incongruous use of the slave market idiom highlights how neoliberal capital's petro-shocked projects of precaritisation have only exacerbated what is, for Sean Hill, the 'perpetual state of precarity' imposed upon Black Americans since the time of slavery (2017, 98). The accumulated weight of history deforms the present as Dana is pulled back in time, such that her comparison of temp work to slavery does not imply a false equivalence, but knowingly and ironically points to how Black lives have been further cheapened by the rise of "surplus" humanity.

Critics have often noted how, in Crossley's words, the novel's depiction of time travel 'evokes the terrifying and nauseating voyage that looms behind every American slave narrative: the Middle Passage' (2003, 268). In the context of what is, in some ways, horribly familiar, then, Dana describes the first time that she is pulled back to the Weylin plantation as being profoundly disorientating:

> I began to feel dizzy, nauseated. The room seemed to blur and darken around me. I stayed on my feet for a moment holding on to a bookcase and wondering what was wrong, then finally, I collapsed to my knees. I heard Kevin make a wordless sound of surprise, heard him ask, 'What happened?'
>
> I raised my head and discovered that I could not focus on him. 'Something is wrong with me,' I gasped.
>
> I heard him move toward me, saw a blur of grey pants and blue shirt. Then, just before he would have touched me, he vanished.
>
> The house, the books, everything vanished. Suddenly, I was outdoors kneeling on the ground beneath trees. (2003, 13)

A few pages later, she describes a similar experience:

> I sat very still, trying not to fall off my chair. The floor seemed farther away than it should have. I reached out for the table to steady myself, but before I could touch it, it was gone. And the distant floor seemed to darken and change. The linoleum tile became wood, partially carpeted. And the chair beneath me vanished. (2003, 19)

Both of these passages are richly suggestive, and point to how the earlier genre of enslaved person's autobiography clearly haunts the novel as part of its overall mobilisation of the plantation uncanny. Here, Dana's narrative very clearly references and seems to continue the 'collective tale' that Gates discerns within the corpus of enslaved persons' narratives (2002, 2). As Vint writes, Dana's dizziness 'at the moment of transfer' recalls the 'sea-sickness' of the Atlantic crossing, a point reinforced by how the claustrophobic darkness and Dana's inability to move echo the cramped, shackled, and squalid conditions of the slave ships (2007, 249). While Crossley argues that Dana 'recapitulates the dreadful, disorienting voyage of her ancestors', additional symbolic resonances are at play here (2003, 268). The sickness in these passages certainly links Dana's time travel to the Atlantic crossing as a similarly embodied experience, that, as Vint explains, forces Dana to recognise in contradistinction to normative (white-authored) liberal humanist precepts that 'her subjectivity is not something that she can separate from bodily experience' (2007, 249). 'As long as Dana envisions herself as a disembodied subject', Vint argues, 'she deludes herself that the experience of slavery is safely in the past' (2007, 249). The visceral re-iteration of the Middle Passage suggested by these passages pushes against such notions as Dana is made to feel the sickening pull of the past. But these passages also bear all the hallmarks of petro-shock and its uneven impacts upon her as an embodied subject, witnessing the dissolution of her prospects for career advancement into the drudgery and non-futurity of what she describes as 'shitwork' (2003, 54). The dizziness and the nausea attest to what Shapiro describes as the 'strongly felt but inchoately understood phagocytosis' of capitalist modernisation as Dana's vital energies are extracted and consumed in newly intensive ways (2008b, 31). The abrupt disappearance of supportive structures like the table and chair nod to the dismantling of state welfare provision under neoliberal capital. It is well-known, for example, that Ronald Reagan mobilised existing racist fears about so-called "welfare queens" during his successful presidential campaign in 1980 – just one year after *Kindred*'s publication. The growing darkness, then, seems to foreshadow the mounting political and public hostility to the welfare state that was to come, while consequently attesting to how, as Bauman writes, the ultimate and seemingly inescapable destination of "surplus" humans is the abjection of 'the waste-yard' (2004, 12). Moving between individual and systemic scales, Dana remarks that upon returning to the present she experiences a 'residual terror that took all the strength out of me' (2003, 15). This highlights the way in which the plantation's residual terrors continue to sap the strength from Black bodies and diminish the possibility of Black futures.

The growing darkness also offers a future-oriented glimpse of biophysical burnout, which is neatly underscored by how Dana's fading vision and inability to move convey a sense of inexorable exhaustion. Indeed, in one early draft fragment, Dana tells us that 'I remember being really tired the first time Rufus called me', and the familiar nausea strikes as she is on a commuter bus (OEB 1188). In another, Dana is pulled back to the past 'after being awake for about forty-eight hours' (OEB 1212). Butler further refined the connection between exhaustion and Dana's time jumps in the published version of the text. On the plantation, Dana encounters an 'old man who didn't do much work anymore' because he was 'burnt out a long time ago' (2003, 220). However, we find that the twenty-six-year-old Dana is *already* burnt out, or at least fast-approaching it. Dana remembers that when they met through the agency, Kevin 'had been surprised to learn that I was only twenty-two', having said 'you look older' (2003, 57). In order to fulfil her dream of being a fulltime writer, Dana sleeps 'for a few hours' after a day at the agency, getting up again in the middle of the night and 'working on [her] novel' (2003, 53). Reiterating the way in which, as Mintz points out, 'low cost food substitutes' from the plantations boosted the productivity of industrial workers in metropolitan cores, Dana pops caffeine pills to get her through the days (1986, 148). She is able to keep 'not very wide awake' with them, and she tells us that 'the first thing Kevin ever said to me was: "Why do you go around looking like a zombie all the time?"' (2003, 53). When confronted with the plantation's 'stark, powerful reality', Dana worries that she has become 'less than' her ancestors because she lacks their 'strength' and 'endurance' (2003, 191, 51). Her present-day zombification emphasises that this "lack" is not a product of petromodern labour-saving conveniences having made her "soft", but rather points to just how much vitality has been sapped from Dana by the near-constant demands of neoliberal capital's precarious labour regime and the way it capitalises on the production of "zombified" workers.

As Oloff explains, the figure of the zombie originated on the colonial-era sugar plantations of Haiti, encoding 'the rift between humans and their natural environment perpetuated by capitalism' (2012, 31). The uncanny return of zombification underscores the extent to which that rift has since been widened. While Dana comes to appreciate that slavery was 'a long slow process of dulling', we can detect its present-day echoes in the soporific effects of neoliberal precarity's labour demands, which cause Dana to 'sleepwalk through the day' (2003, 182, 53). Vint writes that, in the past, Dana witnesses a disciplinary regime in which 'the slaves discipline themselves because they fear reprisals to overt disobedience' (2007, 251). However, the novel also emphasises how Dana's experience of her own disposability in the present likewise demands forms of 'self-surveillance' that are potentially even more insidious for their subtlety (Southwood 2011, 11). Dana explains that the warehouse where she meets Kevin had been built in an 'industrial' section of town, 'far enough from coffee shops and hot dog stands to discourage most of us from going out to eat' (2003, 182, 53). On the plantation, Dana

encounters an enslaved man called Luke, who advises his son to never 'argue with white folks' and go ahead and 'do what you want to do' after they move out of sight (2003, 96). If 'you want it bad enough', he says, the consequent whipping, if caught, 'won't matter much' (2003, 96). It is true that Luke is eventually sold South for his insubordination, but the stakes of disobedience are similarly high for Dana in the present. When Kevin tells her to 'take a break' in the warehouse, she reminds him of 'that agency guy they sent home' after taking 'one break too many' (2003, 53). Lacking any other means of survival, Dana is forced to toe the line if she is to avoid permanent disposal because, she says, 'unfortunately, *I need this job*' (2003, 53; my emphasis). Dana also learns that she has lost the crucial survival skills upon which her ancestors based their resistance. Consequently, an escape attempt sees her recaptured 'only hours' later, forcing her to admit that 'nothing in my education or knowledge of the future had helped me to escape' (2003, 177). In another revealing episode, she berates herself for not having 'the stomach' to gouge out the eyes of a patrolman attacking her (2003, 42). All of this reinforces how, if becoming a runaway was at least an option for those enslaved on the plantations, no similar "escape" seems available to Dana, whose very ability to imagine is steeped in the capitalist realism of the neoliberal present.

Just as Dana has to wait for agency work in the present, her forward momentum through time slows to a crawl as she is forced to wait for Rufus to call her back again. 'The days passed slowly', she tells us, 'and sometimes I thought I was waiting for something that just wasn't going to happen. But I went on waiting' (2003, 116). Dana's inability to escape from the past grasps how, as Guy Standing writes, there can be 'no future' in a precarious existence (2011, 18). Dana continues to believe that the 'independence' offered by the agency is enough to sustain her while she works on completing a novel (2003, 108). As we learn, though, that Dana 'sat and sat' each day until the agency either gave her work or sent her home with 'no money', we are left to wonder just how much longer she must wait for this future to materialise (2003, 52). As the entropic drudgery of the agency's 'nearly always mindless' work is reframed as an intensified continuation of slavery, the novel points powerfully to what Southwood describes as neoliberal precarity's 'non-stop inertia', under which the time-consuming business of survival results in a constant feeling of 'revving up without getting anywhere' (2011, 11). Importantly, while Dana seems destined to a cycle of non-stop inertia, her white husband does not. Kevin, also an aspiring writer, makes 'a big paperback sale', which means that 'he could give up shitwork, hopefully forever…' (2003, 54). The elliptical sentence construction emphasises how, by contrast, Dana's ambition seems a frustratingly distant prospect at best. As Kevin is also drawn into the past, the novel throws into relief the structural gulf that exists between the future possibilities to which he and Dana have access.

As well as problematising the presumptive separation between a racist past and raceless present, Dana's and Kevin's experiences of plantation life call into question petromodern notions of "progress." Casting doubt on what Macdonald describes as the 'fiction of energy's necessity' at the heart of neoliberal world-petroculture, everyday objects and technologies become imbued with a sense of strangeness, scepticism, and even danger (2013, 1). When contrasted with the brutality of the plantation regime, Kevin is able to see an electric pencil sharpener as 'nothing but a damn toy' (2003, 194). After being trapped in the past for five years, Kevin has the most difficulty in readjusting to life under petromodernity, ironically underscoring the privileged position he held in it before. He reacts in terror to a jet passing overhead, and, revealing the hollowness of the petrocultural allure of the open road, is made 'confused' and 'nervous' by traffic when he tries driving again (2003, 244). While Dana and Kevin experience petroleum in the 1970s as 'everywhere-felt-but-nowhere seen', their return to the past facilitates their coming to energy consciousness (Macdonald 2013, 7). Szeman writes that the declining future of fossil fuels under capitalism is set to be one of 'less energy for most and no energy for some' (in Yaeger et al. 2011, 325). Dana confronts the racially uneven reality of that energy future by returning to its origins and re-living the experiences of her enslaved ancestors in a pre-fossil energy culture. The 'dystopian elements' that Flagel discerns within the novel, which include 'the isolation and lack of resources' upon the Weylin plantation, then, offer a narrative surrogate for the material pressures and unevennesses of a negative-value, post-petroleum future (2012, 228).

Dana initially hopes that she can prevent the young Rufus from 'growing up into a red-haired version of his father', but she is unable to halt capital's runaway systemic inertia and instead has to concede that Rufus has become 'all grown up' and 'part of the system' (2003, 81, 223). Yet, by presenting the past as a site of imminent disaster, the novel hints at the Southern plantocracy's eventual demise, paralleling the way in which, as Macdonald suggests, neoliberal world-petroculture is 'consistently haunted by its eventual depletion' (2013, 13). Dana is leery of Rufus's mother, Margaret Weylin, because she 'was too much nervous energy compacted into too small a container', and 'didn't want to be around when she exploded' (2003, 70). When Dana returns years later, though, Margaret has not ended with a bang, but a whimper, finding her 'thin and pale and weak and older than her years' (2003, 217). While Buell describes the 'runaway dynamism of exuberance and catastrophe' injected into capitalist energopolitics by the advent of fossil fuels, *Kindred* reveals instead how the dynamics of exuberance and catastrophe are both racialised and have consistently worked to accelerate capitalism's systemic negative-value production (2012, 291). Dana witnesses Tom Weylin 'whirling his whip and biting his thin lips', and the novel points to how the exuberance of whiteness under capitalism has disproportionately come at the expense of Black catastrophes, for the whip elicits 'blood and screams at every blow' (2003, 92). Yet, on Dana's penultimate trip to the past,

she finds that Tom Weylin 'ran out of breath and began gasping' when angered (2003, 201). Sure enough, the old man dies of a heart attack shortly thereafter, and Rufus confides that even though his father 'was the most careful man I know with money', he still 'left debts' behind (2003, 226). The negative-value symbolism of Tom Weylin's debt-ridden death is developed further by Dana's climactic killing of Rufus. If Rufus calls Dana into the past to bail him out whenever 'he got himself into more trouble than he could handle', her resistive strike against him prognosticates the looming exhaustion of capital's way of devaluing Black bodies and lives as part of its efforts to resolve its recurrent accumulation crises (2003, 26).

At the same time, this strike also points to how Dana's experiences of plantation life have re-awakened the sense of possibility suppressed by the tightening technics of neoliberal capital in her present. At last, Dana is able to "escape" into the future, but her arm is inexplicably severed at 'the exact spot' that Rufus 'had grasped' in their final struggle (2003, 261). In an early outline of the novel that eventually became *Kindred*, from 1975, Butler envisioned a tale about 'a Douglass-Tubman type' who 'makes her harsh rocky way to freedom', at last finding 'a home of her own' and having been transformed into 'steel' by her experiences (OEB 274). The actual ending of the novel as published, however, refuses such narrative closure, cautioning us against the idea that capital's ruinations and the durable trauma of slavery can ever be fully "healed." Within the earlier outline, Butler remarked that 'this is *Not* a story of Racism or slavery' but the 'story of a woman who *must be free*' (OEB 274; original emphases). And yet, in the published version, the durable afterlife of slavery remains insistently present, and we might ponder to what degree Dana's freedom remains circumscribed in 1970s California. Elsewhere, Butler suggested that she 'couldn't let [Dana] come back whole' because slavery itself 'didn't leave people quite whole' (qtd. in Kenan 1991, 498). Similarly, though in a different context, Niblett argues that Wilson Harris's search for 'a form of literary expression' capable of mediating socio-ecological totalities in the "bewitched" Caribbean can be described as 'an impossible quest for wholeness' (2013, 149). We might say that *Kindred*'s ending gestures to a different, but related, impossible quest for wholeness. Awakening in hospital, Dana lingers uncomfortably as she describes how she 'tried to look at the empty place … the stump' where her arm used to be (2003, 10). This "empty place" serves as an uncanny reminder of both the damage inflicted in the neoliberal present and the historical mutilation of Black bodies the world over. As Flagel points out, this ending refuses the typical symbolism of the enslaved person's autobiography, in which 'scars that testify to pain are healed over' and figure 'the healing process within' (2012, 232). While her arm might eventually heal, Dana can never be made whole, subtly reaffirming her earlier statement to Rufus that 'you, Goddamnit, owe me more than you could ever pay!' (2003, 187). The disabling consequences of Dana's wounds remain active well over a century after they were inflicted, emphasising that,

ultimately, there can be no easy "escape" from capitalism's material consequences, especially those of its persistent race-bound violence. In a decade of peak oil anxiety, this gesture also seems particularly resonant in another way, underscoring the possibility of *limits* in contrast to capitalist petroculture's presumptions of limitlessness.

But, perhaps, the "impossible" quest for a sustainable "wholeness" is not quite as impossible as this ending would at first suggest. As Setka points out, *Kindred*'s apprehension of an "American ogbanjism" also gestures towards West African cosmological beliefs 'in the interconnectedness of all things and beings' that form part of a 'cosmic whole' (2016, 98-99). By navigating the plantation's "horribly familiar" traumas, the novel opens up an imaginative space for the alternative ways of being and knowing that may yet resist the uncanny return of the plantation's residual bewitchments in petro-shocked futures to come. *Kindred* leaves Dana and Kevin on the threshold of an uncertain future in 1976, but one in which, as Vint observes, a 'new model of racial community in the US' nonetheless seems possible. However, we now know that this future was actually underwritten by neoliberal capital's unevenly intensified efforts to remake the future according to the techno-utopian diktats of the futures industry that Eshun describes. While in the past, Dana discovers that Rufus's father 'won't pay for a doctor' to care for the people enslaved upon his plantation, his blatant disregard for Black lives emphasised in Butler's text by the use of the N-word (2003, 147). However, we learn later that, despite the plantation's limited resources, he is 'surprisingly extravagant with his candles and oil' (2003, 190). This brief juxtaposition of the devaluation of Black lives and "extravagant" energy expenditure points to the way in which the proleptic contours of Butler's novel might be read in relation to the moment of 1970s petro-angst, in that it invites us to consider the further injustices that await as capital strives to keep the lights on in a resource-attenuated future. I will turn now to Nnedi Okorafor's *The Book of Phoenix*, which imagines the future of such injustices and indignities in the context of our own energy-anxious moment. If *Kindred* resists the way in which, as Eshun writes, 'capital continues to function through the dissimulation of the Imperial archive' and its long history of cheapening Black lives, then Okorafor's novel instead reflects upon how the power of capital 'also functions through the envisioning, management and delivery of reliable futures' (2003, 289).

'Africanjujuism' and the Uneven Promise of "Life Beyond Limits"

The decades since *Kindred*'s publication have witnessed the gathering momentum of neoliberal capital's so-called "biotech revolution". As Nikolas Rose explains, the development of new 'technologies for decomposing, anatomizing, manipulating, amplifying, and reproducing vitality' right down to the genetic scale has forced open 'a new territory of molecular biopolitics' (2007, 14, 17).

Okorafor's novel exposes the violent unevenness of how, as Vandana Shiva observes, neoliberal capital has mobilised such technologies to open new resource frontiers within 'the interior spaces' of living bodies 'from microbes and plants to animals, including humans' (2016, Intro., n.pag.). From the outset, it must be emphasised that I do not mean to uncritically subsume *The Book of Phoenix* in the Afrofuturist paradigm by including it in this chapter, given Okorafor's aforementioned resistance to descriptions of her work as Afrofuturist. Nor do I wish to impose upon Okorafor herself by labelling her as an Afrofuturist. I include *The Book of Phoenix* in this chapter because, as will become clear, it makes for an especially salutary companion to the other two texts discussed in this chapter. Indeed, it stands as a particular salient example of the interconnectedness of "Afrofuturism" (understood as a primarily US-centric endeavour) and Africanfuturism as defined by Okorafor. As its plot moves between US, West African, and Caribbean contexts, the plantation looms large in the novel's imagined future, and, like *Kindred*, points to the horribly familiar resurgence of the plantation's racial technics under neoliberal capital. As it imagines a future of biotechnologies run "amok", Okorafor's novel forecasts the unevenly compounding negative-value production attendant on neoliberal capital's techno-utopian dream of "life beyond limits". This clearly meshes with "standard" definitions of Afrofuturism more than others of Okorafor's more clearly Africanfuturist works, such as *Lagoon* (2014), to which I will turn in Chapter Three. At the same time, though, the novel emphasises its commitment to what its protagonist calls 'the old African tools of story' (2015b, 6). In this section, then, I am interested in how Afrofuturism, Africanfuturism, and Africanjujuism, then, collide in *The Book of Phoenix* to offer a potent rebuttal to neoliberal world-petroculture's fantasies of limitless Cheap Nature.

Okorafor's novel deploys a frame narrative whose rhetorical function subtly echoes and subverts that of Joseph Conrad's *Heart of Darkness* (1899). Conrad's novella infamously used the frame narrative to juxtapose Victorian London and the Congo, positioning the ostensibly primordial "Dark Continent" as an ironic foil to the "Enlightened" centres of European modernity. Okorafor's novel uses the same device to instead reveal the hollowness of the Enlightenment project by holding it up against a vision of its actually disastrous future. Offering a view of petromodern negative-value production writ large, the novel begins hundreds of years after Earth has been transformed into a barely habitable desert planet. The lifegiving oceans have boiled away and in what was once West Africa we encounter two nomadic survivors, Sunuteel and his wife Hussaina. Their harsh world is riven by electrical storms that seldom bring the relief of rain, and we learn that the couple had 'barely survived' the previous 'dry thundery night of lightning' (2015b, 1). When the downpour eventually comes near the novel's end, 'plump clear drops' fall in 'sheets' and leave the desert 'awash', transforming water from a hoped-for life-giver into life-threatening excess (2015b, 210). The sudden

flip from desiccation to saturation indexes the way in which the irrational unevennesses of petrocultural consequences will compound into a future of extremes inimical to the conditions that most life needs to flourish. Subtly suggesting the increasingly rapid onset of this future, the second, larger storm takes Sunuteel unawares by arriving 'at least a month before it is due' (2015b, 210). As Sunuteel scrambles to a nearby cave for safety, he reaches the 'peak' of a sand dune 'faster than he anticipated' and almost falls, pointing to how capitalism's own "peak" and terminal decline as an ecological regime may be nearer than it seems (2015b, 210). *The Book of Phoenix* is a prequel to Okorafor's earlier novel, *Who Fears Death* (2010b), which is also set in this damaged world. I have chosen to focus on the prequel here, however, because it more clearly emphasises the way in which this barely survivable future is the culmination of capitalism's centuries-long patterns of environment-making, rather than simply the result of some anomalous cataclysm attendant on petroleum's particular pitfalls.

Sunuteel discovers an ancient audio diary left behind by the eponymous Phoenix. As he listens to it, Okorafor's novel, like *Kindred*, repurposes the antebellum narratives of enslaved people for neoliberal times. Phoenix recounts her life as one of a race of experimental humans called "speciMen" that were created by LifeGen, a US-based biotech company specialising in harnessing the genetic 'possibilities' of the African continent (2015b, 81). She tells the story of how she came to realise that her home, a facility called "Tower 7" in New York, is actually a 'prison' and that LifeGen are 'modern day slavers' who have kidnapped and pressed countless Africans into risky forms of experimental labour that leave their bodies 'deformed' and 'crippled' (2015b, 7, 206, 40). The speciMen refer to LifeGen as the 'Big Eye' because of how they were 'watched' continuously by the company's cameras and 'diagnostic' devices implanted in their bodies (2015b, 9). As much as this gesture projects the grim future of neoliberal capital's intensified regimes of surveillance more generally, it also references the increased penetrating disciplinary power of what Rose calls neoliberalism's 'molecular gaze' (2007, 12). In response to the Big Eye's bio-extractivist cruelty, however, Phoenix's latent abilities begin to awaken and spin out of control. Phoenix has been deliberately engineered to 'burn and then live again' like her mythological namesake. But she also manifests a number of other powers that are prompted by rage and grief at the apparent death of her lover, another speciMen called Saeed (2015b, 96). Phoenix sprouts wings and learns how to fly, discovers that she can modify her luminescence to accelerate the growth of nearby plants, and even learns how to 'slip' instantaneously through time and space (2015b, 147). She brings Tower 7 crashing to the ground and escapes by flying across the Atlantic to Ghana. LifeGen pursues her relentlessly, though, underscoring the continued grip of past materialities upon future potentialities just as surely as Dana's forced return to the Weylin plantation. After she loses everything for a second, and then a third time, Phoenix realises that her only way to

"escape" permanently is to 'wipe the slate clean' by burning so hot that she almost destroys the biosphere (2015b, 220).

Phoenix's combustive rebellion reveals the developmental falseness of how, as Kaushik Sunder Rajan writes, the rise of "biocapital" has long occupied a 'messianic space' of 'salvationary promise' in the US imaginary (2006, 123, 194). LifeGen's very name projects the successful coproduction of life and profit that has underwritten this promise into the future. 'Billions and billions of dollars' are 'poured' into LifeGen's laboratories every year, and 'even more money was earned through patents' and other 'research results' (2015b, 148). LifeGen's prosperity seems to legitimate the wider techno-utopian fantasies of neoliberal capital, wherein, as Szeman writes, 'technological solutions' to earthly problems are assumed to 'always arrive' (2007, 814). The imagined potential of biotechnologies to design newly profitable "natures" has long been at the heart of such techno-utopianism. In view of the petro-shocked 1970s and the anxious neo-Malthusianism of texts like the Club of Rome's *The Limits to Growth* (1972), biotechnological developments have promised unprecedented powers to reshape living matter. Melinda Cooper explains that it was claimed through the 1970s and 1980s that the US could 'reassert' its fading world-hegemony by developing an 'innovation-based' economy, in which human 'creativity' could function as a resource apparently 'without limits' (2008, 17-18). Emphasising LifeGen's production of newly profitable "natures", Tower 7's lobby is described as an 'earthly wonderland' of post-scarcity abundance (2015b, 8). But this vision remains haunted by the post-apocalyptic future with which the novel opens. It soon becomes clear that Phoenix's time is more like a continuation of neoliberal capital's world-petrocultural present than a transcendently utopian alternative to it. Multinational petrocapital is still king as tankers 'heavy with crude oil' ply the oceans and LifeGen's towers develop technologies for 'dealing with climate change' (2015b, 85, 98). LifeGen has also developed an immortality serum that will allow the few billionaires who can afford it to go on accumulating capital, seemingly 'forever', thus tightening present-day patterns of iniquitous wealth and power distribution (2015b, 200). Such bleak gestures begin to reveal the false utopics of what Phoenix describes as LifeGen's 'amazing science' (2015b, 98). As her narrative continues, it uncovers further what is, for Szeman, the 'bad faith' at the heart of technoscientific imaginaries today, in which the "miraculous" transition to 'clean' and 'sustainable' resource technologies need not 'threaten existing ways of life' (in Yaeger et al. 2011, 325).

As Phoenix's regenerative potential turns destructive, Okorafor's novel reveals that such "ways of life" are themselves the problem. The Big Eye's 'advanced and aggressive genetic manipulation and cloning' techniques reference the epoch-making way in which the rise of biotechnologies have typically been framed (2015b, 8). Efforts to 'relocate economic production at the genetic, microbial, and cellular scale', Cooper suggests, have made it seem as though life can, finally, be fully 'annexed

within capitalist processes of accumulation' (2008, 19). Writing in 2007, Hannah Landecker posited that 'biotechnology changes what it is to be biological' (2007, 233). New technologies of tissue culture have fostered a new understanding of life in which, Landecker suggests, 'living matter is now assumed to be stuff that can be stopped and started at will' (2007, 233). As Bronwyn Parry also points out, such new techniques of biological abstraction, extraction, and appropriation have meant that so-called 'genetic resources' can 'be rendered in a variety of progressively less corporeal' and increasingly 'informational forms' (2004, 5). The rise of biocapital has hinged upon efforts to dematerialise and deterritorialise the living material "resources" that actually support it. In times of perpetually recurrent resource anxiety, biocapital's transcendent fantasies of endless "innovation" and the presumptively limitless vitality of living matter have hence fuelled what Rajan calls neoliberalism's wider 'political economy of hype', wherein 'promise rather than pipelines' is presumed to 'create enduring value' (2006, 14, 126). Phoenix's ability to rise from the ashes neatly symbolises the regenerative ambition at the heart of this hype. The Big Eye scientists describe Phoenix's apparently limitless powers of self-renewal as 'epochal', 'monumental', and 'revolutionary' (2015b, 147). Importantly, though, Rajan cautions that the rise of biocapital 'does not signify a distinct epochal phase' that 'radically ruptures capitalism as we have known it' (2006, 10). If biotechnology has "changed" what it means to be biological, Phoenix and the speciMen attest to how this apparent "change" is actually symptomatic of today's biotech-driven intensification of capital's ceaseless imperative to 'compel nature […] to work harder and harder' (Moore 2015a, 13).

Bearing witness to this imperative, Phoenix cautions that LifeGen's public-facing benevolence is merely a façade to conceal the 'abomination' of 'lusty greed' that has 'always always always' lurked behind it (2015b, 98). The "earthly wonderland" of Tower 7's lobby presents 'a completely different picture' to the 'mutations, monsters, and mistakes' made in the parts of the Tower for which there are 'no tours' (2015b, 8). As Parry explains, the molecular shift to decoporealised and deterritorialised "genetic resources" has helped to '*speed up*', rather than fundamentally change, the way in which biological matter has long been extracted from "nature" (2004, 43, 9; original emphasis). Phoenix personifies this trend, along with how new technologies have facilitated neoliberal biocapital's growing 'manipulation of how cells live in time' (Landecker 2007, 11). Phoenix was created from a 'slurry' of genetic material taken from 'over ten' nameless individuals from 'Nigeria, Ghana, Senegal, and Benin', the use of the word "slurry" especially pointing to the devaluating impulse built into such possibilities (2015b, 146-47). Referencing neoliberal biocapital's expanded molecular biopower over biological processes, Phoenix is an 'accelerated organism', having been grown to maturity as 'a forty-year-old woman' in just 'two years' before having her aging halted so that LifeGen could experiment upon her indefinitely, 'even if [she] lived to be five hundred' (2015b, 9). In this way, Phoenix embodies

what Landecker calls the 'operationalization of biological time', under which the 'assumption' that 'biological progression' must be 'yoked to historical time in any given predictable way' no longer seems to apply (2007, 232). Phoenix undercuts the emancipatory potential of this presumptive de-coupling by explaining that LifeGen saw her as the planters 'saw the Africans made slaves during the Trans-Atlantic Slave Trade hundreds of years ago' (2015b, 136). The ability to transcend the "limit" of biological time itself actually projects the enslavement of life into eternity, while Phoenix's West African origins underscore biocapital's dubious constitution through the ratcheting up of much older patterns of racialised bio-extractivism (2006, 14).

Moore argues that while neoliberal capital continues to promise a techno-scientific productivity revolution, it has actually 'sustained itself by appropriating what free gifts remained for the taking', especially in the Global South (2012, 77). Projecting the grim magnification of this trend into the future, LifeGen's corporate logo is described as 'a hand grasping spears of lightning' that 'represented' the speciMen (2015b, 41). The symbolism of lightning spears gripped by a fist neatly registers the way in which bio- and energopower have always been entwined under capital. The company's branding points to how LifeGen is actually more invested in extracting and disciplining the apparent "free gifts" of "nature" than it is in the creative generation of life. And the lightning, too, seems to act as a marker of apparently god-like power over life common to many mythic traditions throughout the world. As LifeGen's logo leaks the violent consequences of the company's extractivist activities, then, it references the way in which, as Moore argues, the 'unusual expansiveness of neoliberalism's appropriations' of remaining ecological surpluses mean that it 'may be understood as an ecological regime premise [sic] on *taking*, first, and *making* second' (2011, 30; original emphasis). In addition to the corporate greed that Phoenix describes above, even the name that the speciMen give LifeGen – the Big Eye – subtly emphasises the seemingly insatiable appetite of neoliberal capital for such "free gifts" because, as Lorena Walsh notes, 'big-eye' is also a 'loan translation' that found its way into Atlantic creoles to mean 'greedy' (2011, 396). Walsh writes that such creoles 'also contained many proverbs that expressed a slave view of the world', including one that seems most applicable here: 'When black man tief, him tief half a bit; when backra [i.e., "white man"] tief, him tief whole estate' (2011, 396). The Big Eye project this pattern of "total" thievery into the future as their interest turns to the entire genetic codes of organisms, even if the lightning's additional symbolism as "divine" retribution nods to the rising parallel capacities of "nature" to elude such efforts at total control.

In other words, Phoenix's narrative emphasises how the intangible speculative promise of biocapital's future rewards is actually precariously underwritten by the messy materiality of what David Harvey calls 'the pillaging of the world's stockpile of genetic resources' (2005, 160). Under the sign of its grasping hand, LifeGen scours the African continent for 'unique' people to abduct and

experiment upon in its relentless quest for marketable biotechnologies, pointing to what Shiva describes as today's 'new epidemic of biopiracy' (Okorafor 2015b, 88; Shiva 2016, Intro., n.pag.). Phoenix's narrative exposes the mendacity with which such resource piracy is typically framed as 'bioprospecting', or, as Shiva explains, the ostensibly innocent 'exploration of commercially valuable genetic and biochemical resources' (2016, Ch. 3, n.pag.). In mobilising the ruggedly romantic 'metaphor' of metal and mineral 'prospecting', Shiva argues, bioprospecting revalorises the complexity of "nature" as an inert, extractable 'green gold' (2016, Ch. 3, n.pag.). In doing so, she writes, such bioprospecting rides roughshod over the 'prior uses, knowledge, and rights' of the indigenous communities whose survival depends upon the materials that are so prospected (2016, Ch. 3, n.pag.). Okorafor's novel pushes against such euphemisms by personifying these "materials" as the human speciMen, forcing readers to confront the historical residues that continue to govern their enclosure and extraction. After the Big Eye catches up to Phoenix in Ghana, she reflects upon the escalating pattern of how LifeGen were 'always taking from me. Always taking the best. Of my people. Of my world. Take take TAKE!' (2015b, 41). As much as this describes the impact of the company's extractivism upon her as an individual, it also points in more systemic terms to how the "bioprospecting" that underwrites the speculative value of the neoliberal biolab rests upon the horribly familiar intensification of Africa's world-historical configuration as capitalist resource frontier.

Just as Dana repeats the horrors of the Middle Passage each time she is pulled back into the past in *Kindred*, Phoenix baulks when she learns that LifeGen has commandeered a Nigerian oil tanker to carry her back to the US, telling them that she 'will never get on any ship' (2015b, 91). As much as this gesture projects the reverberation of that journey's residual traumas into the future, it also emphasises how such sea routes have been repurposed by neoliberal world-petroculture into the channels of an energy extractivism that is more expansive and intensive still.[5] To underscore this continuity further, Phoenix's best friend, a speciMen named Mmuo, was 'taken' from Nigeria, a crucial African petro-frontier, and had 'skin the color of, and as shiny as, crude oil' (2015b, 21-22). The symbolically resonant concatenation of stolen bodies, skin colour, and crude oil is instructive. It references the way in which, as Rajan writes, the biotechnology industry […] was initially supported by, and grew out of, the petrochemical industry' (2006, 22). It also helps to position that outgrowth within the much longer pattern of resource extractivism that has undergirded the Plantationocene's reconfiguration of African "natures" and Black bodies for centuries. In dehumanising their creations as "speciMen", LifeGen ironically reveal how the logic that collects and puts biological "specimens" to work in the biolab today also dehumanised and enslaved Africans and put them to work in the past.

[5] More intensive because, as Oloff points out, oil's high energy density means that just of one of the millions of barrels extracted from the continent on a *daily* basis in the present is 'equivalent to 25,000 hours – or 12.5 years – of human labour-power' (2017, 324).

Phoenix explains that LifeGen views and values her as little more than 'a plant they grew for the sake of harvesting' (2015b, 9). In this, she references what Moore describes as the 'deep historical roots' of today's "bioprospecting" in 'the colonializing thrust of early capitalism' as 'an era in which botany' was, 'then as now', a crucial economic activity (2015a, 210).

Indexing the intensified resurgence of this history today, Phoenix's phrasing also recalls Wynter's trenchant description of how countless Africans were seized from Africa and 'planted' in the New World, helping to tie the organisational rationality of the neoliberal biolab itself to the residual technics of the plantation as a way of organising "nature" (1971, 95). LifeGen's Tower 3 is located in New Orleans and Tower 4 is in the US Virgin Islands, symbolically tying them to the plantations of the antebellum South and what Mintz suggestively calls 'the Caribbean sugar bowl' of old (1986, 188). Tower 4 is also the 'hub' of the company's income, projecting the future continuity of how parts of the Caribbean have since been transformed into the low-regulation tax havens that, in the era of structural adjustment, help to support neoliberal capital's speculative finance regime (2015b, 148). Phoenix's narrative also repositions the biolab as the latest, high-tech iteration of what Mintz describes as the plantation's disciplinary 'synthesis of field and factory' (1986, 47). Even 'very early in its career as a form of productive organisation', he writes, the Caribbean sugar plantation 'was an industrial enterprise' reliant upon 'careful scheduling at the top, and the application of iron discipline at the base' (1986, 50). As Phoenix explains the way in which she was 'mixed, grown, and finally birthed', Okorafor's novel points to the intensification of such attempts to reduce the unruly vitalities of life to scalable industrial processes (2015b, 8). Inside the towers, a 'computerised line would appear on the floor' to instruct the speciMen where they 'were supposed to go' (2015b, 127). As much as this line references the organisational grid structure of plantation monocultures, it also points in a more systemic fashion to the constriction of imaginative and experiential possibility that awaits in the future authored by neoliberal capital's technoscientific futures industry. If *Kindred* encourages us to ask what constricted futures await Black bodies and lives under neoliberal capital's racially iniquitous biopolitics of disposability, then, Okorafor's novel offers an answer in the experimental suffering of the Black bodies that are 'spawned, sliced open, [and] bled' in LifeGen's laboratories (2015b, 184). As enslaved experimental test subjects, Phoenix and the other speciMen forecast the compounding intensification of a civilisational logic that has always viewed Black bodies merely as disposable "feedstock" for the Enlightenment project.

Phoenix's narrative cuts against neoliberal biocapital's techno-utopianism by emphasising the unevenly apocalyptic contours of how its transcendent fantasies actually depend upon the reprise of what Harriett A. Washington describes as the 'troubled history of medical experimentation' upon Black bodies in the US context (2006, 5). As Washington explains, this history began with the

plantations, where 'slave-owning physicians […] bought and hired slaves on whom to conduct experiments too painful, too risky, or otherwise too objectionable to inflict upon whites' (2006, 47). This uneven history of medical experimentation has continued to this day as what Cooper and Catherine Waldby describe as the risky 'clinical labour' whose patterns of precarity and racialised risk are 'emblematic of the conditions of twenty-first century labor' (2014, 7, 17). At the same time, Washington also writes that sub-Saharan Africa has been increasingly transformed into a 'laboratory' as 'U.S. researchers' have sought to avoid 'intense scrutiny from the FDA and the news media' while simultaneously exploiting the 'public-health vacuum' there driven by decades of structural adjustment (2006, 47). LifeGen's theft of "disposable" experimental bodies projects the nightmarish continuity, on a global scale, of what Washington describes more particularly as the durable history of 'two Americas': one that is 'healthy and white', and one 'filled with sick, disaffected people of color' (2006, 384). Perhaps the most salient example of this is in the disjuncture of experience between the immortal billionaires created by LifeGen's serum, and the speciMen named HeLa upon which that serum depends. HeLa is named after the "HeLa" cell line, derived in the 1950s via the unconsented and uncompensated extraction of apparently "immortal" cancerous cells from an African American woman called Henrietta Lacks. Phoenix explains that even though Lacks eventually succumbed to her cancer, 'her cells lived on and on and on, multiplying and multiplying' and were eventually used to create HeLa (2015b, 186). HeLa calls LifeGen 'vampires' because they repeatedly take her blood to produce their serum for the billionaires, nodding to Marx's observation that capital's prosperity depends upon 'sucking' the vitality of 'living labour' (1990, 342). The bind between HeLa's drained body and the immortal billionaires, then, underscores the grim continuity of how, under capitalism, white futures have long been paid for with Black blood, Black bodies, and Black lives. By placing that bind in the context of the neoliberal biolab, Okorafor's novel emphasises that it is not the result of some ostensibly "natural" condition, but that the transformation of Black lives into feedstock for white futures is a fundamental element of capitalism's overall Cheap Nature strategy.

If Okorafor's novel consequently points to how the neoliberal futures industry continues to exacerbate the very material histories from which it has long promised an "escape", it also points in more systemic terms to the actual reality of a crisis of negative-value production that, ultimately, no amount of 'technical, organizational, or imperial restructuring' can "fix" (Moore 2015a, 276). Cooper notes that during 'the height of the high-tech euphoria of the 1990s, the biotech industry promised to overcome hunger, pollution, the loss of biodiversity, and waste in general', even as, in reality, these problems 'only continued to worsen' (2008, 11). As the confidence of LifeGen's self-aggrandising towers appears to be increasingly at odds with Phoenix's degraded world, the novel projects the unravelling of such "euphoric" promises into a future where even a petro-financial hub like New York

seems unable to "innovate" its way out of socio-ecological crises. The promissory hype of LifeGen's petro-mitigation technologies crashes up against centuries of carbon-based consequences as Phoenix tells us that 'much of Manhattan' was actually 'underwater' (2015b, 8). Subtly underscoring the perennial problem of waste, we find that the city also has a 'drainage problem' that is annually 'exacerbated' by a 'heavy rainy season' (2015b, 43). The 'once majestic, now wobbly skyscrapers' protruding from the drowned parts of the city offer a haunting prolepsis of the ultimate fate that awaits LifeGen's own towers, while the 'dark, slow-moving' floodwater subtly indicates the faltering dynamism of what is supposed to be neoliberal capital's unstoppable acceleration into the future (2015b, 56). Even in the heart of the city, we find that genetically modified air-filtering vines are unable to mask the petro-stench of vehicles 'vomiting plumes of exhaust' that, in repeated moments of negative-value emphasis, 'smelled like suicide' and 'self-inflicted death' (2015b, 39, 33, 77).

Phoenix describes LifeGen's towers as a place where 'pathologies are created' (2015b, 98). If this gesture refers to the pathological binding of life and capital, it has gained fresh urgency and proleptic significance in the context of covid-19. LifeGen's reframing as a creator of life-threatening pathologies underscores the way in which, as Cooper suggests, the 'simultaneity of the North American-led biotech revolution and the troubling return of infectious diseases of all kinds […] is symptomatic of the intrinsic contradictions of capitalism' (2008, 58). As LifeGen's "amazing science" is recast in nightmarish terms, the novel reveals what is, for Cooper, capital's tendency to create a promissory surplus of life and an actual devastation of life in the present' (2008, 58). Emphasising this point, we learn that Phoenix has been engineered not to be a lifesaving source of solar energy, but the ultimate in renewable weaponry: an endlessly 'reoccuring small nuclear bomb' (2015b, 147). As much as this revelation draws into focus what Cooper describes as 'the growing collusion between neoliberalism's politics of life and the imposition of a permanent state of warfare' in the post-9/11 context, there is another symbolic resonance at play here, too (2008, 99). If Rajan argues that 'the magic of innovation lies in its potential to pull rabbits out of hats', then, as a sentient and newly vengeful weapon, Phoenix personifies the way in which 'that magic holds within it the fear that the rabbits might […] turn out to be demons' (2006, 208). As Phoenix turns her powers back upon LifeGen, she exemplifies the negative-value producing 'tension' that Moore discerns between 'capital's efforts to control and commensurate extra-human nature' and the 'co-evolutionary' capacity of "nature" to always 'elude and resist that control' (2015a, 273).

Like Dana in *Kindred*, Phoenix's pattern of cyclical rebirth redeploys the symbolic potential of the ogbanje. Setka suggests that Butler's use of the ogbanje figure retains the ogbanje's 'ability to move between [interconnected] worlds' as a hopeful gesture, while eschewing the figure's 'malevolence, selfishness, and mischievousness (2016, 100). After four intervening decades of

neoliberalisation, Phoenix seems to offer a complete reversal of this pattern, in which that hope seems to have faded. Christie C. Achebe writes that the ogbanje represents 'a perversion of that natural life pattern which gives hope to an auspicious life after death' (1980, 33). While Phoenix's name points to the endlessly regenerative hope at the heart of the neoliberal futures industry, her resemblance to the ogbanje cuts against this promise by suggesting that there can be no auspicious "afterward" in a future of compounding socio-ecological wreckage. Burning hotter and longer each time as 'the reaper come to reap what was sown', Phoenix cautions that capitalism's long deferred historical consequences will not so easily be confined to systemic peripheries in the future (2015b, 221). It turns out that Phoenix's creators were right to describe her as epoch-making, though not in the way that they intended. As Phoenix recounts how, finally, she 'blew across the earth', 'burned the cities', and 'turned the oceans to steam', Okorafor's novel forecasts the epochal exhaustion of capitalism's mechanisms of regulatory control implied by the intensified environment-making of neoliberal world-petroculture (2015b, 221). Despite Phoenix's explicit status as a "designed" lifeform and the Big Eye's relentless disciplinary surveillance, she eventually realises that 'they hadn't really predicted anything' when they created her (2015b, 147). Her wry statement that LifeGen had only 'let themselves think' that they had engineered her compliance, then, exposes the bankruptcy of how, as Shiva suggests, biotechnology seeks to fully 'colonize and control that which is autonomous, free, and self-regenerative' (Okorafor 2015b, 147; Shiva 2016, Ch.3, n.pag.). Phoenix emphasises instead that no such control is possible because "nature" will find ways to circumvent and resist the intensification of such efforts in turn. Projecting the expansive acceleration of this pattern into the future, Phoenix tells us that, after her escape from Tower 7, she 'ran faster. Faster. FASTER' (2015b, 42). Indeed, Phoenix's resistance also inspires other resistances elsewhere, whose consequences can only be delayed briefly, if at all.

During her escape from Tower 7, she stumbles upon a 'contained jungle' within 'an expansive room full of trees, bushes, flowers, [and] vines' (2015b, 26). As Big Eye guards pour in after her, she responds to the threat in an unexpected way:

> I heard the elevator beep then the doors open just as I felt the light burst from me. […] My skin prickled as my glow became a light green shine. The light steadily radiated from me. It bathed every plant in the room.
>
> The guards behind me in the elevator and on the far right side of the room all ducked down and for a moment it was quiet enough that you could hear it. All the plants were growing. Snapping, pulling, unfurling, creeping. Thick vines and even tree roots quickly crept, stretched and blocked the elevator door. Leaves, branches and stems grew so thick around the guards to my right that they were blocked from view. This was something they didn't know I could do. This was not something they had created.

The entire greenhouse swelled and flooded with foliage. (2015b, 27)

As Phoenix's light kicks the foliage into an accelerated mode of growth, time seems to speed up, offering a threatening vision of the potential future that actually awaits neoliberal biocapital's efforts to accelerate how life "lives in time". LifeGen's technoscientific promise of genetically enhanced abundance is reconfigured into a development-halting excess by the newly agential 'growing', 'snapping', 'unfurling' and 'creeping' vegetation (2015b, 27). As Phoenix's presence unleashes the "striking energies" of LifeGen's previously contained jungle, Okorafor's novel references the way in which, as Shiva writes, the 'transfer' of 'herbicide resistance' from GM crops to their 'wild, weedy relatives' is driving the development of so-called "superweeds" that undermine 'the very possibility of weed control' (2016, Ch.2, n.pag.). Moore posits that the rise of this 'superweed effect' underlines 'the tendency of extra-human natures to evolve more rapidly than the technological disciplines' that capital seeks to impose (2015a, 283). As 'the entire greenhouse swelled and flooded with foliage' in response to her light, Phoenix embodies this increasing failure of regulatory control, even as the words 'swelled' and 'flooded' point more obliquely to the petromodern threat of rising sea levels (2015b, 27). As the vegetation forms itself into barriers to help Phoenix escape, they point to how such regulatory failures augur the compounding magnification of further barriers to any new round of accumulation. When she reaches Tower 7's lobby, Phoenix glows yet again, causing its neat order to violently unravel as her light falls on The Backbone, a colossal tree completely enclosed by Tower 7. The tree's roots 'groaned as they shifted, coiled, [and] expanded', their accelerated mobility ripping the floor apart and revealing that what appears solid in the tower's construction is in fact precariously fragile (2015b, 31). As Phoenix burns and Tower 7 comes crashing down, The Backbone remains unscathed. We are told that 'since the tower fell, scientists say that the tree has grown another five hundred feet', and that 'a small lush jungle sprang up' around it (2015b, 35, 31). After Phoenix rematerialises a few days later, she finds that The Backbone was now 'covered with large sharp thorns' to guard against future attack (2015b, 37). She senses, too, that 'if it wanted to, it could call its roots together, pull them out of the ground and walk away', imbuing the tree with an apparent sentience that challenges the longstanding fantasy of inert, appropriable "natures" (2015b, 37).

While it may be tempting to read such threatening "otherness" as evincing an ecophobia that replicates the "Enlightened" distinction between "Nature" and "Society", later scenes rebut such a reading. A number of 'panicked' New Yorkers turn their 'chain saws, power mowers, [and] axes' against the emergent jungle, but the jungle fights back: 'people sneezed' and 'one man fell ill after chopping down a tree', while another 'was struck blind' when 'a plant burst with some kind of juice' (2015b, 196-97). Moreover, the mob succeeds in cutting down The Backbone, but as it falls it crushes parts of the city below, spectacularly forecasting the future trajectory of neoliberal capital's

increasingly ecophobic efforts to put "nature" to work (2015b, 197). When Phoenix then burns what remains of New York to the ground, she prophesies the catastrophic culmination of this historical pattern, bearing out Saeed's earlier warning that 'the core of the tower's philosophy has always been rotten. And, in due time, it will collapse on itself and everything will go down' (2015b, 127-28). At the same time, in defiance of this grim trajectory, Phoenix remarks that, while she felt 'powerful' and 'lethal', she also felt 'hopeful' (2015b, 28). She remarks that 'my light brings life', thus figuring her as an alternative, counterhegemonic force to capital's own "Enlightened" ways of life- and environment-making (2015b, 40). Phoenix tells us that, as she looks upon her glowing skin, 'it was as if I was harboring a sun deep within my body and that sun wanted to come out' (2015b, 15). Her escape coincides with a sky that 'was the deep rose of evening', counterposing her own rising sun with one that seems to be setting on the future represented by LifeGen's towers (2015b, 26). As she lights up, Phoenix describes feeling a 'warmth that started at my feet' before it 'rolled up to my chest and pulsed out with a wave of heat' (2015b, 27). She tells us that 'the light bloomed from my body' and that 'the release felt glorious and I moaned with relief' (2015b, 30). If Phoenix's existence as an embodied being remains structured by the way in which, as Angela Davis writes, the plantation coopted the Black female body into a 'breeding instrument', then this gesture works to reclaim that body as a site of erotic pleasure and enjoyment that resists such reduction to reproductive functionality (2000, 158).

While Okorafor's novel does not mention the subsistence plot directly, then, it nonetheless reactivates its ideological valency as a productive ground for apprehending and reimagining the unity of humanity with the rest of the web of life. Phoenix's body may disintegrate into ash each time she burns, but she always coalesces again from a fine mist that resembles a 'nebula', the generative site of star formation (2015b, 113). Just as Dana's missing arm underscores the "quest for wholeness" necessary to animate postcapitalist futures, the apparent impossibility of disaggregating Phoenix into a series of constituent parts emphatically rejects the dismantling of socio-ecological totalities at the heart of capital's production of Cheap Nature. As Phoenix flies across the Atlantic to Ghana, Okorafor's novel redeploys the "flying African" tale to reclaim African knowledge forms to oppose the blunt scientific rationality of neoliberal capital's futures industry. As Jason R. Young explains, 'stories of flying Africans', in which African-born slaves escaped their bondage by flying back to Africa, 'were often told and retold by Blacks throughout the plantation Americas' in ways that offered an 'imperative to imagine new epistemological worlds' (2017, 51, 55). Arguing against typical readings of such tales as 'symbolic' and 'metaphorical' only, Young posits that the belief in the possibility of human flight proposed 'not only the existence of a mythic culture hero capable of escaping from slavery and racial oppression, but also the primacy of new worlds away from the constraints of slavery' (2017, 61-62).

If, as Young argues, such tales 'helped slaves perceive futures and possibilities beyond their present conditions', then Okorafor's novel takes up the symbolism of the flying African to make similar claims in view of neoliberalism's own particular forms of capitalist realism (2017, 58). As LifeGen reappears in the village, though, the novel underscores the fragility of such possibilities in view of compounding world-petrocultural ruinations today. The blasted future inaugurated by Phoenix's final act of resistance also emphasises the pitfalls of a future in which, as Szeman cautions, there may well be 'fewer resources' of any kind – including literary ones – 'for managing the consequences' of capital's 'current fictions' (in Yaeger et al. 2011, 325). While Phoenix affirms the power of stories to 'evolve into trouble', Sunuteel rewrites Phoenix's story into a justification for the devaluation of Black bodies and lives that continues to persist in his own time (2015b, 89). As the residual technics of the plantation outlast even capitalism itself, then, Phoenix's narrative underscores that such futures must be actively imagined and fought for, both now, and in the future of capitalism's damaged aftermaths.

'Serving the Spirits', De-Zombifying the Future

> Gros-Jeanne woulda tell you that all she doing is serving the spirits. And that anybody who try to live good, who try to help people who need it, who try to have respect for life, and age, and those who go before, them all doing the same thing: serving the spirits.
>
> -- Nalo Hopkinson, *Brown Girl in the Ring*, 1998

The Book of Phoenix's ending avers that newly emancipatory and relationally-oriented ways of being and thinking cannot simply be counted upon to arise from capitalism's ashes. I want to conclude this chapter, therefore, by turning to Nalo Hopkinson's *Brown Girl in the Ring*. Set in a near-future Toronto, *Brown Girl in the Ring* registers how the residual technics and intensified material aftermaths of the plantation run no less deep in the Canadian context. While Hopkinson's novel is now more than twenty years old, its effort to grapple with the challenge of how to survive, and even thrive, in the future of neoliberal world-petroculture's devastations remains powerfully relevant in the present moment. Butler's and Okorafor's novels both take aim at the "official" fiction of colour-blindness that animates neoliberal future-making, and Hopkinson's novel likewise offers a histofuturist rebuttal to what Maureen Moynaugh calls 'the late twentieth-century Canadian political fantasy known as multiculturalism' (2018, 216). The novel imagines that, in the near future, Toronto becomes a 'doughnut hole' as the 'inner city collapses and people run to the suburbs' (1998, 10-11). Only those

who ‘couldn’t or wouldn’t leave have remained; not just the racialised poor, but also those who ‘saw the decline of authority as an opportunity’ for the exploitation and appropriation of this newly “surplus” humanity (1998, 4). Michelle Reid suggests that ‘the novel’s title evokes the many ideas of inclusion and exclusion associated with being “in the ring”’ (2005, 299). The collapse of the Torontonian metropole further reinforces this symbolism, as well as revealing the hollowness at the heart of capital’s cyclically expansive developmental fantasies. Projecting an imminent future of petrocultural decline, the novel’s version of downtown Toronto has been renamed “the Burn”. The city is presided over by Rudy Sheldon, who has made the ‘ruined city’ his ‘kingdom’ by tricking the *loa* (spirit) Papa Legbara into teaching him how to transform unsuspecting residents into his zombified servants (1998, 200). In view of such zombification, I will explain how Hopkinson’s novel emphasises the way in which the cosmology of the plot and its emphasis upon ‘serving the spirits’ may yet play a pivotal role in “de-zombifying” the inertial future-making implied by neoliberal world-petroculture’s capitalist realism (1998, 219).

Brown Girl in the Ring centres on a young woman called Ti-Jeanne and her unnamed infant son, who both live in the Burn with Gros-Jeanne, Ti-Jeanne’s grandmother. Near the beginning of the novel, Ti-Jeanne contemplates a display that consists of a number of old newspaper headlines that offers a history of the Burn. As Moynaugh points out, these headlines trace a ‘predictable’ trajectory that seems typically neoliberal, as a ‘reduction in federal transfer payments’ triggers a seemingly inexorable process of ‘job losses, the departure of the largest employers, rising crime rates, and the retreat of government’ (2018, 215). Rendered in stilted prose, lacking full stops, and in aggressive uppercase type, these headlines compress a breathless account of Toronto’s collapse into less than a page of text, forecasting the continuing acceleration of neoliberal capital’s surplus humanity production. Within this entropic account, however, is embedded a resistive claim to an otherwise foreclosed futurity. Appended to the older headlines are newer ones taken from the *New-Town Rag*, a paper started by the Burn’s residents after ‘the major Toronto papers jumped ship’ (1998, 11). The last of these reads: ‘ARMY OCCUPATION OF TORONTO ENDS: NOW WHAT?’ (1998, 11). On the one hand, the plaintive question “NOW WHAT?” could be read in terms of petromelancholia, as evincing despair in view of a “burned out” context, wherein a future of less energy and of fewer resources presumably means the end – or at least the severe attenuation – of all forms of life “worth” living. On the other hand, however, it can also be read as an imperative to critical action, reclaiming the abject Burn as a site for (re)generative future-making and rejecting the imaginative paralysis of petromelancholia. Ti-Jeanne initially dismisses the display’s narrative as an ‘old-time story’, suggesting that there can be little space for such utopian imagining in resource-poor futures where even survival seems a dubious prospect (1998, 12). Hopkinson’s novel, though, pushes against such defeatist

thinking by reactivating the imaginative potential of a different "old-time story": that of the dialectically bound socio-ecological regimes of the plantation and the plot. Eventually, Ti-Jeanne learns that she must either kill Rudy or risk being enslaved by him forever and, to fight him, she enlists the aid of the ancestral spirits that she had once dismissed as 'old-time nonsense' (1998, 37).

Indeed, Rebecca Romdhani has argued that the reclamation of a lost or suppressed 'cultural heritage' is a key thematic aspect of Hopkinson's novel (2015, 73). This point is subtly emphasised by the text's clear relationship to Derek Walcott's play *Ti-Jean and his Brothers* (1957), which itself emphasises the recovery of "lost" cultural knowledge and draws upon the folk culture of Gros Jean, a key figure in the origins of calypso music. Walcott's play sees Ti-Jean and his elder brothers Gros-Jean and Mi-Jean set a series of impossible tasks by the Devil, who appears in the guise of a white planter and warns them that if they become angry with him, he will eat them. When Gros-Jean's and Mi-Jean's efforts to complete the tasks with brawn and book-learning fail, both lose their tempers and are swiftly gobbled up by the planter-devil, recalling the brutal consumption of Black bodies and the seeming impossibility of resistance within the plantation system. Young Ti-Jean, however, is more attentive to the creatures of the forest than his elder brothers, and they warn him of the Devil's trickery. This enables Ti-Jean to triumph through trickery of his own, pointing to the ways in which the resurrection of lost folkways may yet pose a trickster-esque challenge to the continuing material legacies of the plantation. Hopkinson's novel repurposes the imaginative "moral" of Walcott's play for the neoliberal era, its gendered inversion of the characters simultaneously opening a future for the feminine agency underplayed in Walcott's earlier text and also emphasising, as Wynter and Fanon do, that a simple return to an unchanged 'folk pattern' or 'stock of particularisms' is insufficient to imagine new modes of survival in the long shadow of the plantation system (Wynter 1971, 100; Fanon 2001, 180). In agreement with Romdhani, I suggest that Hopkinson's reformulation of the zombie figure to include not just literal zombies but even characters like Ti-Jeanne is crucial to her exploration of 'the brutal history and emotional legacy' of the Transatlantic slave trade as it manifests amongst the African Caribbean diaspora in present-day Toronto (Romdhani 2015, 72). Initially, Ti-Jeanne can dream only of getting away from the Burn and her grandmother Gros-Jeanne, believing, as Romdhani argues, that her future empowerment 'lies in disconnecting herself from her family, community, ancestors, and culture' (2015, 75). But, in keeping with Butler's and Okorafor's novels, we soon find that such an "escape" from the past is materially impossible. When Ti-Jeanne discovers that Rudy is in fact her grandfather, she realises that she must embrace the heritage that she had previously disavowed in order to defeat him. In this way, Romdhani writes, Ti-Jeanne learns to overcome the 'zombifying shame' that she feels from her Caribbean heritage in the context of neoliberal capital's relentless individualism and its devaluation of Black identities (2015, 73). By the novel's end, Ti-Jeanne has

accepted Gros-Jeanne's role as a healer within the Burn, such that, for Romdhani, she becomes the novel's eponymous brown girl, 'encircled by a community made up of the living, the dead, and the spirits', thus allowing her to 'transcend the repetitive patterns of shame that were controlling her life and making her a zombie' (2018, 88).

As Oloff reminds us, the zombie has featured in 'many twentieth-century Caribbean novels' to signify 'the need to re-conceptualize the relation between humans and their environment as central to the project of decolonization' (2012, 31-32). More, however, can be made of the zombie's symbolic resonances in Hopkinson's novel, especially in view of Oloff's repositioning of the figure as 'ideal' for 'thinking through the relations between society and nature under capitalism' (2012, 31). Following Shapiro's explication of the Gothic's apparent periodicity, Oloff argues that, since the emergence of the plantation as a way of organising "nature", 'zombie effects' have registered 'recurring shifts in the socio-ecological metabolism' of capitalism in the web of life (2017, 317). The insistent intrusion of zombies and other vengeful spirits into Ti-Jeanne's lifeworld attests to how "multicultural" Canada has failed to overcome the pervasive material legacies that are now being exacerbated by neoliberal capital's unevenly racialised biopolitics of disposability. Oloff also writes that as the typical zombie has transformed from an enslaved labourer to a cannibalistic monster under the aegis of neoliberal world-petroculture, the figure has come to symbolise the systemic trajectory of 'the capitalist world-system itself' (2017, 320). While commenting on the specific iniquities of neoliberalisation in the Caribbean-Canadian context, then, Hopkinson's invocation of the zombie also forecasts the wider exhaustion of capitalism as an ecological regime, emphasising the urgency of revisiting the plot's mediation of socio-ecological totalities to open up new imaginative routes to survival in a negative-value future (1998, 37).

By returning readers to the imaginative potential of the plot, Hopkinson's novel offers a radically-oriented alternative to "colourblind" discourses that paper over actually existing inequalities. Reid explains that 'national narratives of Canada frequently celebrate the country's tolerance and diversity' in view of its early adoption of 'multiculturalism as an official government policy in 1971' (2005, 298). Published after almost three decades of subsequent neoliberalisation, Hopkinson's novel imagines the accelerating unravelling of such celebratory rhetoric as we find that Toronto's privileged suburbs 'quickly raised roadblocks at the border' to cut themselves off from the crumbling city (1998, 4). The erection of a *cordon sanitaire* between the "civilised" suburbs and the explicitly racialised inner city points to the brutal re-imposition of the Nature/Society dualism by which neoliberal capital has sought to stave off the end of Cheap Nature. Sarah Olutola argues that 'white flight represents an attempt made by society's privileged subjects to avoid' their potential incorporation into the growing "surplus" humanity that, under neoliberal world-petroculture, increasingly seems to have no future

(2018, 72). Hopkinson's novel embodies the rapidly attenuating feasibility of such privileged avoidance in Catherine Uttley, the white Ontario Premier who is simultaneously dying of heart failure and fighting a re-election campaign. Reid posits that if Uttley is 'representative' of the Canadian body politic, then her 'heart condition implies the breakdown of centralised Canadian authority' (2005, 301). Uttley's fading heart is certainly symbolic of breakdown, but there are additional, systemically orientated resonances at play. While the human heart has long been symbolically tied to empathy and kindness, Uttley's heart condition points to the growing weakness of Canada's multicultural ideal as the continuity of capitalism itself is increasingly threatened by socio-ecological breakdown. Uttley's aides look to the Burn's racialised poor as a source for a replacement heart to buy more time not just for their boss, but to revitalise the exhausted system that her increasingly enfeebled body represents. Yet this potential seems dubious at best as Uttley becomes 'exhausted […] alarmingly quickly' (1998, 37). We find that her heart has become a 'flabby, distended sack' that was 'about twice the size it should have been' and 'beat sluggishly' (1998, 168). Uttley's heart thus symbolises neoliberal world-petroculture's dialectically bound anxieties of depletion and excess, even as it implicates these anxieties within a broader trajectory whose only apparent outcome can be death.

Further emphasising the unravelling of race-blind fictions, Hopkinson's novel locates the Burn's origins in funding cuts precipitated by a logging dispute between the federal government and the Temagami First Nation. This gesture neatly points to how, for Reid, the country's "multicultural" identity remains 'implicitly founded' on the extractivist 'dispossession' of indigenous populations (2005, 299). Indeed, this reference notwithstanding, Olutola writes that 'Hopkinson's embedding of African Caribbean spirituality into the soil of Canada seems', if only tacitly, to perpetuate such dispossession by 'displac[ing] Canada's indigenous peoples from the central action of the narrative' (2018, 76). Though present in the novel's backstory, Olutola points out that 'the Temagami conflict' has disappeared by the novel's conclusion, such that the novel raises the important question of how Afrofuturist texts can 'project black bodies into the future without divesting other racially marginalized bodies of their place in that future' (2018, 78). A fuller exploration of the intersections and potential conflicts between Black and Indigenous futurisms in the Americas is beyond the scope of this (already lengthy) chapter, even if it must surely haunt the analysis that follows. For now, we might say that Rudy's Blackness subtly underscores the way in which, as Olutola writes, 'the privileging of blackness in an Afrofuturist diasporic setting runs the risk of engaging in the same violent erasure' that it is supposed to resist (2018, 78). Giselle Liza Anatol writes that Rudy's command of the Burn suggests that 'the strict black versus white, Caribbean versus European struggle of earlier independence and black nationalist movements no longer applies to Hopkinson's futuristic Canadian landscape' (2004, 36). As Rudy uses his powers to zombify the Burn from his 'leather executive's chair', though, the novel

instead emphasises how, from the time of the plantations to the neoliberal present, such racialised struggles have always been enfolded within the broader systemic thrust of capitalism as an ecological regime, and its propensity to set differently racialised groups and individuals in competition with each other for their very survival (1998, 27).

Rudy has already become a fearsome gang-leader when we first encounter him, but he tells his henchman Tony, who is also the father of Ti-Jeanne's son, that his origins were a good deal more precarious. Rudy explains that he had been 'poor all me born days' and found 'no work' in Canada before he tricked Legbara into teaching him how to manipulate spirits and make zombies (1998, 131). Rudy thus symbolises the violence wrought by neoliberal forms of governance that preclude solidarity amongst precaritised populations because, as Lois McNay argues, they configure 'the individual as the entrepreneur of his own life' and thus incapable of relating to others except as 'competitors' (2009, 63). Indeed, Hopkinson's novel emphasises how, especially for a Black "surplus" humanity, neoliberalism is consequently, as Jane Elliott writes, 'not the neutral framework for free choice it purports to be' (2013, 83). Continuing this vein and projecting its apparent perpetuity into the future, Rudy forces Tony to kill Gros-Jeanne, so that her heart can give a second chance to the dying Uttley and the system that she represents, while Rudy can expand his already considerable fortune. Uttley hopes to use the transplant to boost her 'rock bottom' poll numbers, campaigning on the slogan 'People Helping People' (1998, 38, 40). Gros-Jeanne's heart certainly "helps" Uttley, though not in the altruistic, consensual fashion that Uttley's slogan implies. As the 'Vultures' from the ironically-named 'Angel of Mercy Hospital' sweep in to steal Gros-Jeanne's heart, they emphasise the bankruptcy of such sloganeering in view of a systemic logic that continues to view Black bodies as resources to be plundered (1998, 131). The Vultures hook Gros-Jeanne's recently-deceased body up to a 'CP bypass machine' that seems more like an extractive apparatus as the novel describes the 'fat red tubes' that 'extended like claws' into Gros-Jeanne's 'neck, arms, chest, [and] thigh' (1998, 152-53). Like LifeGen's experiments upon the speciMen, this moment projects into the future the grim intensification of how the systemic continuity of capitalism has long depended upon the extraction of vital energies from devalued Black bodies, as Gros-Jeanne the individual becomes, in the Vultures' parlance, nothing more than 'a bio-material donor' (1998, 152).

As the bypass machine keeps the dead Gros-Jeanne's heart beating, she is transformed, briefly, into a zombie-like figure. The insistent recurrence of the zombie throughout the text witnesses how, under the rubric of the neoliberal futures industry, 'black bodies *are* projected into the future, but only insofar as the necropolitical deathscape they inhabit continues indefinitely' (Olutola 2018, 89; emphasis added). If, for Shapiro, the turmoil of moments of socio-ecological revolution throws open both the 'synoptic retrospection' of previous developmental cycles while also 'foreshadowing' their

'resurrection' in yet more intensive forms, then in Hopkinson's text it is the zombie that witnesses the reprise and future consequences of the plantation's regimes of extraction under neoliberal capital today (2008b, 34). Melba, one of Rudy's zombified servants, points to the inertial future of capitalism's systemic cyclicality as she is described 'meticulously wiping her dustcloth over and over' the surface of a coffee table in a pattern of 'slow circles' (1998, 6). Her withered body simultaneously underscores that even if the consequences of negative-value production will be felt system-wide, they will fall disproportionately upon racialised bodies with precious little left to give after neoliberal capital's intensified assaults. Though only 'in her mid-twenties', Melba is described as 'getting too thin' and as having 'thin, wasted arms', a face that 'had become lined and worn', and hair that 'was whitening rapidly' (1998, 5, 28). If Premier Uttley represents the Canadian body politic, then the disjuncture between the swollen excess of her moribund heart and Melba's attenuated frame underscores how that body politic has and will continue to remain supported by the disproportionate constriction of Black lives and futures. Just as Dana's body is prematurely aged in *Kindred*, Melba foreshadows the compounding exhaustion that awaits "surplus" Black bodies in the neoliberal future. But she is also situated within a much broader historical pattern, as we find that 'she wasn't the first that Rudy had used like this' (1998, 28). In this way, Melba's withering body references the neoliberal resurgence of the material conditions that, for Oloff, the Haitian zombie originally registered: namely, 'the brutal separation of an enslaved workforce from the land' and its life-sustaining resources (2017, 318). As we are told that Melba's clothes 'sagged on her body' and that 'she wouldn't last much longer', Hopkinson's novel underscores the increasing exhaustion of this historically durable pattern of bio-extractivist plunder from racialised bodies (1998, 130).

This looming exhaustion is tied to capital's unceasing appetite for the vital energies of racialised bodies as Rudy finally disposes of Melba by feeding her blood to a soucouyant that he has imprisoned in a calabash. As Melba's lifeblood flows into the bowl, 'an appalling sound came from it, like someone guzzling great amounts of liquid as fast as they could', suggesting the accelerated temporality and ever-greater totality of neoliberal capital's petro-fuelled modes of extraction (1998, 138). As a vampiric being that manifests as a blazing ball of fire, Rudy's soucouyant is a petrocultural symbol *par excellence*: the soucouyant's 'grasping, clutching hands' signify her forcible yoking to an extractivist impulse, while the liquidity of her sanguineous energy source indexes more specifically the present combination of that impulse with the imperatives of petroleum (1998, 138). This nightmarish being is in fact Mi-Jeanne, Ti-Jeanne's mother, whom Rudy has enslaved by trapping her spirit in his 'duppy bowl' (1998, 138). As much as this splitting of body and mind references neoliberal capital's brutal re-imposition of older Nature/Society dualisms, it also projects the intensified future of how, as Olutola writes, 'the absolute biopolitical control over black bodies' has always proceeded through imposed

separations of 'black flesh from subjectivity and humanity, from dreams and imagination, from past and future' (2018, 74-75). As Rudy himself explains, 'a zombie' that has been raised from the dead 'can't do nothing complicated', but splitting the spirit from a living body produces 'a servant for true' (1998, 212-213).

Just as the immortal billionaires in *The Book of Phoenix* are sustained by HeLa's blood, Rudy consumes his own daughter – or the future – to guarantee that neither 'bullets' nor 'age' nor 'death' can stop him (1998, 212). Yet, as in Okorafor's novel, the systemic continuity enabled by such intensified control is shown to be precarious at best, as equally intensified forms of resistance are produced in turn. Oloff points out that 'if the energetic labour-power' of the Haitian 'sugar-zombie' was once 'easily controlled', the same no longer seems true for the 'multiplied energies' of the ravenous hordes of 'petro-zombies' found in the more recent zombie fictions of neoliberal world-petroculture (2017, 317). To underscore the dangerously magnifying patten of cyclical excess that underpins Rudy's power and immortality, we are told that while 'terror, pain, blood, and death appeased the hunger for a little while', it was not long before the 'hunger and fury' would 'rage again' in Mi-Jeanne, 'always stronger' and always demanding more blood to be satiated (1998, 156). Later, when Ti-Jeanne smashes the duppy bowl and severs Rudy's control over her mother, we witness the sudden emergence of capital's socio-ecological contradictions as the pretence of Rudy's immortality-granting power spectacularly unravels. In a moment rife with negative-value symbolism, the debts of Rudy's past crimes catch up with him as he ages rapidly. We find that 'a network of wrinkles was stitching itself over his face. Swollen veins wormed their way over the backs of his hands', and his lips 'sank in on themselves' in a subtly implosive gesture that underscores the likewise implosive fate that awaits the intensified forms of extractivism that Rudy represents (1998, 204-205).

If Romdhani suggests that 'most characters' in Hopkinson's novel 'can be read as zombies', we might extend that to the way in which the novel describes the Burn itself (2015, 75). For Oloff, the zombie registers 'not only the human cost of alienation' under capitalism as an ecological regime, 'but also the delayed and displaced consequences of the suppression of local materials and associated exhaustion of so-called "natural" resources' (2017, 319). As she explains elsewhere, 'the introduction of sugar monocultures exhausted Caribbean soils, initiating cycles of unsustainable development' whereby the problem of exhausted soils could be offset only by the expansive colonisation of yet more lands and lives (2012, 34). Hopkinson's Toronto presents the entropic culmination of this world-historical pattern, or what we might consequently describe as the "plantation" future that awaits the neoliberal present. Projecting the intensification of the plantation's historic exhaustion of lands and bodies, Ti-Jeanne encounters a mall whose smashed up food court had 'long ago' been 'robbed' of the 'pop and fruit juice' that its now empty refrigerators had once contained (1998, 187). The lack of

sugary foodstuffs subtly hints at the eventual exhaustion of how, for centuries now, capital has artificially boosted labour productivity with cheap caloric energy. Moreover, old houses that had once lined 'elegant' streets have been totally 'gutted' and turned into 'cramped squats', and 'the stench of shit' hangs over them, emphasising a grim vision of material depletion, the material press of an ever-expanding mass of "surplus" humanity, and, finally, the compounding problems of waste and biospheric toxification (1998, 106). Tellingly, we are told that 'repeated efforts to reclaim and rebuild the Burn' have failed, such that the city seems to have reached a point of no return (1998, 4). We find that 'Toronto was in darkness now, except for the lights that picked out the malls with their independent power sources' (1998, 199). Like *The Book of Phoenix*, then, Hopkinson's novel also underscores the futility of neoliberal capital's efforts to keep the lights on in a negative-value future. As the Burn's abandoned malls continue to shine on, the novel emphasises that the cost of such efforts could well be so ruinous as to render them meaningless, producing a future in which the lights may be on, but no one is home.

Thus "zombified", the Burn metonymises what Moore calls 'the limit of putting nature to work' under capitalism (2015a, 13). As Oloff points out, though, the zombie is also 'a figure […] of mass rebellion and political unrest', meaning that it can simultaneously function more hopefully as an imaginative prompt towards the possibility of systemic transformation (2012, 42). In Hopkinson's novel, that hopefulness is concentrated in the spiritual and cultural valency of the plot, which is offered as the ground upon which to imagine that the future may yet be "de-zombified." Gros-Jeanne maintains a 'balm-yard' on the ruins of Riverdale Farm, a 'working farm' that had once been a de-politicised site of historical tourism where 'Torontonians used to be able to come and watch the "farmers" milk the cows and collect eggs' (1998, 10, 34). While not exactly a plantation itself, if the old farm represents the agricultural rationality of capitalist agriculture, Gros-Jeanne reclaims the space as one for generative future-making rooted in the principle of what is referred to repeatedly as 'serving the spirits' (1998, passim). In so doing, Hopkinson's novel projects the future continuity of what Oloff characterises as the efforts of 'many Caribbean writers' to 'decolonise the form of the novel' by presenting a dialectical understanding of 'human-nature relations' that resists the zombifying effects of capital (2012, 39).

Oloff suggests that the way 'in which the extra-human world is infused with spirit' in African Caribbean cosmologies 'suggests a different relation to the extra-human environment' (2012, 40). By standing in for such cosmologies, Gros-Jeanne and her balm-yard point to alternative modes of understanding human roles in co-producing the future of planet earth as she insists that she does not 'work the dead' like Rudy but 'heal[s] the living' (1998, 58). The yard seems to be protected against Rudy's extractive machinations by 'a circle of magic stakes' as a guard against any 'dead people's

spirits' (2012, 25). In contrast to the Burn's wider degradation, Gros-Jeanne's balm-yard is filled with life, including 'basil' and 'spiky aloe plants' and all manner of others that 'could kill as well as cure' if used incorrectly (1998, 26). As the epigraph to this section makes clear, to serve the spirits means to 'live good', to 'help people who need it', and to 'have respect for life, and age, and those who go before' (1998, 219). To illustrate what this means in practice, we find that 'many times' had Ti-Jeanne seen her grandmother

> soothe wild things, get their trust. The turtles in the lower pond would take food from her hand. Harold, the irritable goat who always tried to butt Ti-Jeanne, followed Mami like a dog and would nuzzle his head against her leg. In return, Mami ate almost no meat. At most, the animals that were old or sick. She would ask them if they were ready to go, and Ti-Jeanne could swear that she had seen egg-bound hens and lame horses stagger gratefully toward the knife. (1998, 64-65)

In this description of how Gros-Jeanne tends her yard, the novel suggests that to "serve the spirits" means to live in a way that does not strive to put lives to work and cut them short like Rudy, but which is instead founded upon principles of reciprocity, relationality, and a fundamental respect for the web of life itself. While Gros-Jeanne's death may seem to underscore the fragility of such principles under the sheer weight of capitalism as an ecological regime, Hopkinson's novel emphasises the durability of their resistive potential as Gros-Jeanne's heart begins to take over Uttley's consciousness. As Romdhani points out, Uttley begins to speak in Gros-Jeanne's idiom, 'demonstrating' that the latter's resistive influence persists, even from beyond the grave (2015, 87). Olutola suggests that 'as Gros-Jeanne takes over the Premier's body and begins to put forward policies that would help the citizens of the Burn, the text gestures towards hope for the future – specifically a future that allows for the existence and prosperity of black bodies' (2018, 76). Notably, though, the reformist agenda that Uttley proposes remains typically neoliberal in orientation, consisting of 'offer[ing] interest-free loans to small enterprises' and 'resourceful people' to 'fix up' the Burn (1998, 240). While Olutola's reading consequently seems overly optimistic, neither am I fully convinced by Romdhani's suggestion that this moment offers nothing 'more positive than a case of superficial multiculturalism for white Canada' (2015, 87). Uttley and Gros-Jeanne seem to have found a symbiosis that disproportionately benefits the white Premier, but the stability of this arrangement remains unclear at the novel's end. Given what we have seen thus far of Butler's, Okorafor's, and Hopkinson's novels, it does not seem implausible to speculate that the transplant has had other consequences whose effects are yet to cohere.

In a reading of *Myal* (1988), a novel by the Jamaican writer Erna Brodber, as well as 'many other postcolonial Caribbean texts', Oloff argues that 'de-zombification lies within the realm of possibility

and requires a conscious engagement with the legacy of colonialist capitalism, including its conceptions of extra-human nature' (2012, 41). As Ti-Jeanne learns to "serve the spirits", this is precisely what is at stake in Hopkinson's novel. If she had previously sought to "escape" the Burn by finding her way to the suburbs, the novel hinges on her learning to accept, after Gros-Jeanne's death, that Papa Legbara is her 'spirit father' and that she must finish the 'work' of smashing Rudy's duppy bowl (1998, 126, 98). Romdhani explains that Legbara is 'the spirit of the crossroads, standing between the material and spiritual worlds' (2018, 76). In learning to accept him, Romdhani suggests, Ti-Jeanne learns to 'look for meaning' in ways that contest the 'realist perception of the world' that otherwise imprisons her, just as such perceptions were mobilised to justify the enslavement of her ancestors (2018, 76). Romdhani also points out, however, that 'as the Prince of Cemeteries', Papa Legbara 'carries the newly born into the world and the dead back to Guinea Land, the African ancestral spiritual home' (2018, 76). If Papa Legbara connects both the newly born and the dead, then Ti-Jeanne's connection to him is resonant in other ways, helping to identify her with a newfound sense of systemic interrelation and the explicitly histofuturist perspective that such a consciousness requires. As Ti-Jeanne assumes Gros-Jeanne's mantle, Hopkinson's novel subtly underscores the reality that the material devastations of the Plantationocene cannot simply be overcome, and that finding new ways to manage their consequences must be an intergenerational project that continues into the future. In this way, reactivating the plot as a way not of organising, but of living with and within the web of life becomes a hedge against the compounding zombification attendant on a future of capitalist business as usual.

Because Ti-Jeanne accepts the necessity of "serving the spirits", she is able to call on them to aid her when Rudy tries to restore his lost youth by trapping her in a new duppy bowl, in his lair at the top of Toronto's CN Tower. As Rudy works his magic, Ti-Jeanne recalls Gros-Jeanne's lesson that 'the centre pole' of the Haitian Vodou religion is 'the bridge between worlds', and realises that the CN Tower is '1,815 feet of the tallest centre pole in the world' (1998, 221). Recalling The Backbone in Okorafor's novel, we are told that 'like the spirit tree that the centre pole symbolised, the CN tower dug roots deep into the ground where the dead lived and pushed high into the heavens where the oldest ancestors lived', and so 'was their ladder into this world' (1998, 221). Ti-Jeanne summons the spirit of every one of Rudy's victims to help her defeat him and, in a final symbol of negative-value-producing consequence, 'Rudy screamed as the weight of every murder he had done fell on him' (1998, 226). While this moment represents the end for Rudy and the brutally extractivist violence that he represents, the novel simultaneously offers a more hopeful vision for the survivors of the Burn; one that seems more politically trenchant than the somewhat toothless vision implied by Uttley's transformation or the individualistic sloganeering of "People Helping People". In Walcott's play, the

separation of body and mind under capitalism, as a version of the Cartesian Nature/Society split, is emphasised by how the characters of Gros-Jean and Mi-Jean are respectively associated with physical brawn and the scholarly pursuit of knowledge. The ending of Hopkinson's novel, though, hints at the potential stitching back together of these things. Just as Phoenix is able to reclaim the totality of her body, the quest for a new kind of "wholeness" seems possible as Mi-Jeanne's spirit is re-integrated with the body it was stolen from and she is given a chance to re-establish her relationship with her daughter, and build a new one with her infant grandson. Indeed, in another reference to Walcott's play, Ti-Jeanne frequently calls her child "Bolom" after the aborted foetus that, in *Ti-Jean and His Brothers*, is brought back to life by the Devil after Ti-Jean's victory over him. As the novel ends, Ti-Jeanne contemplates what to name this child, pointing to the future that she can see for him and the rest of the Burn's community now that, as Romdhani suggests above, she has finally accepted that her place is to be "in the ring" rather than outside of it.

As with Butler's and Okorafor's texts, then, *Brown Girl in the Ring* concludes on the threshold of a future that may be uncertain, but which is recognisable as a liveable future, nonetheless. To "serve the spirits" or to be "in the ring", the novel seems to suggest, is to have arrived at a world-ecological consciousness rooted in the revived and reformulated folkways that can form the basis for an expanded future-envisioning in an era of world-systemic crisis. In doing so, along with Butler's and Okorafor's texts, *Brown Girl in the Ring* exemplifies how Afrofuturist works can carve out a space for Black futures in ways that simultaneously point to the ways of thinking needed to imagine survivable postcapitalist futures for all life on an unevenly devastated planet. Overall, then, this chapter has argued how Afrofuturist fictions rooted in the dialectically bound legacies of the plantation and the plot reveal with particular salience the cumulatively uneven dynamics of negative-value production, both specifically under neoliberal world-petroculture and, more broadly, under capitalism as an ecological regime. In doing so, they form potent resources with which to imagine survival in the Capitalocene. But the plantation is far from the only extractivist complex of racialised labour that has been pivotal to the historical development of capitalist modernity writ large and its latest, possibly terminal, petromodern configuration. North America and the Caribbean are far from the only frontiers upon which the power and profits of neoliberal world-petroculture continues to depend. In the next chapter, then, I will turn to how a new wave of South African writers has grappled with the world-ecological legacies of the mine and mining in their efforts to imagine the future since the "Rainbow Nation's" much-fêted transition to democracy in 1994. Although it originates from a very different material context, the rise of what has been called the 'postapartheid speculative' (see Duncan 2018a) shares many ideological concerns, thematic preoccupations, and formal and aesthetic similarities with Afrofuturist fiction. As will be seen, the postapartheid speculative, likewise emphasises that, for the

racialised poor system-wide, the attenuated future implied by the rise of negative-value effects in the capitalist world-ecology today has in fact already arrived.

Chapter Two

Mining South Africa's Past to Imagine the Future

In 2006, Roberts speculated that 'Africa may prove to be one of the most important loci for twenty-first-century SF' (2006, 345). Recent years have borne out Roberts's prediction. Geoff Ryman's continent-spanning interview series "100 African Writers of SFF" (2017), where 'SFF' refers to science fiction and fantasy, attests to a growing speculative outpouring about the continent's future in literature and film, from both African and diasporic perspectives. The recently-founded African Speculative Fiction Society (ASFS) maintains a regularly updated list of publications that, to date, runs to more than one thousand titles of published novels and short stories by African and Afrodiasporic writers, mostly from within the last decade (2020, n.pag.). As this list does not sort by location, Ryman's interview series remains the most thoroughgoing effort to date to collate a location-based list of African speculative writers, with "chapters" of several interviews each devoted to South Africa, Nigeria, Kenya, Uganda, Malawi, and Ghana. In identifying key practitioners and texts, "100 African Writers of SFF" has begun to open the way towards focusing 'more closely' on SF production in 'a single African country', or countries, which Mark Bould offers as a way past the problems of homogenisation inherent in the labelling of such SF texts as simply "African" (2015, 11). Even so, Bould offers the caveat that 'hitherto only South Africa and Nigeria have really produced enough SF in English for that to be feasible' (2015, 11). While Ryman's interview series has helped to shed light on other SF production in Africa, South Africa and Nigeria are still key locations for "African" SF. Both receive multiple lengthy chapters in comparison to single, shorter chapters for other countries within "100 African Writers of SFF", for example. From the outset, my own vantage point – an English-speaking scholar based in the UK and reliant upon translations for non-Anglophone SF – must be emphasised. From this viewpoint, it is difficult to determine whether the apparent concentration of "African" SF in South Africa and Nigeria is genuine, or symptomatic of inequalities in how South African and Nigerian SF writers and filmmakers are profiled and published versus those from elsewhere in Africa; white South Africans and predominantly diasporic Nigerians closer to Euro-American publishing centres, especially. With this caveat in mind, though, the explosion of South African and Nigerian SF remains impressive. In this and the following chapter, I will explore why it is that both contexts have proven particularly salutary for future imaginaries that experiment with the new modes of thinking necessary to push past capital's systemic reach.

While Deirdre C. Byrne could assert in 2004 that South Africa suffered from a relative 'dearth' of 'published science fiction and science fiction readers' (522), the years since have seen a growing

number of South African filmmakers and writers take up a variety of speculative modes. Ryman's interview series names over sixty South African writers, although not all of these were interviewed for the project. It is perhaps in terms of film, however, that South African SF has become most globally recognised. Neill Blomkamp's film *District 9* (2009) brought South African SF to international attention, and while no other South African SF filmmakers have received the same level of exposure, a handful of other films nonetheless point to an emergent film "scene". These include Christopher-Lee dos Santos's vampire film *Eternity* (2010), Howard James Fyvie's zombie apocalypse movie *Last Ones Out* (2016), and, most recently, Michael Matthews's *Apocalypse Now Now* (2017), a tantalising proof-of-concept short for a feature-length adaptation of Charlie Human's 2013 novel of the same name. Human is just one of a group of South African authors whose works are attaining an increasingly global reach. Lauren Beukes, for example, has garnered international success, first with her cyberpunk-inflected *Moxyland* (2008), set in a dystopian future Cape Town, and then with winning the prestigious British Arthur C. Clarke award in 2011 for *Zoo City* (2010), an SF crime thriller set in a near-future Johannesburg. To Human and Beukes, we can add, among others, Henrietta Rose-Innes, S.L. Grey (the pen-name of Sarah Lotz and Louis Greenburg), Lily Herne (Lotz again, in collaboration with her daughter Savannah), and Andrew Miller. South Africa's growing taste for the speculative is also evident in Afrikaans writing, with recent scholarship by Louise Viljoen and Joan-Mari Barendse pointing towards dystopian novels by, among others, Eben Venter, P.J. Haasbroek, and Koos Kombuis (Viljoen 2012; Barendse 2014). Few works of Afrikaans SF are available in English, however, and so for this chapter I have elected to focus on South African SF in English. While the latest wave of South African SF draws on a well-established tradition of speculative writing in South Africa, its scale is nonetheless remarkable.[1] In this chapter, I will respond to and build upon ongoing scholarly

[1] A number of scholars have traced earlier manifestations of South African SF in interventions that range from passing comments to book-length studies. Byrne's own analysis, for example, flags up the speculative elements of J.M. Coetzee's *Waiting for the Barbarians* (1980) and Michael Cope's *Spiral of Fire* (1987), and notes the longevity of Science Fiction South Africa (SFSA), a 'small but dedicated fan club that has been running for over thirty years', whose activities include an annual short story competition and a quarterly magazine called *Probe* (2004, 523). SFSA is still active as of 2018. Stephen Clingman notes how Nadine Gordimer's *July's People* (1981) is set in 'an indeterminate future moment of putative revolution' so as to suggest 'the pressure of an absent future' and, like Byrne, also notes speculative tendencies within Coetzee's work (2012, 636). Going back further than the 1980s, Michael Titlestad has suggested that 'the impulse to prophecy is intrinsic to South African colonial, apartheid, transitional and post-apartheid literature' (2015, 32). Taking a similar time-frame, in *South African Gothic: Anxiety and Creative Dissent in the Post-Apartheid Imagination and Beyond* (2018), Rebecca Duncan traces the long presence and the important signifying shifts of gothic tropes in South African writing since at least the nineteenth century. A world-ecological mapping of speculative modalities outside of (or indeed alongside) the gothic across such timescales would no doubt yield insights into how South African writers' attempts to imagine the intersections of past, present, and future have been structured by (and might affirm or contest) shifting capitalist organisations of "nature" in the country in different historical moments. Such a project, however, is beyond the scope of this chapter.

endeavours to unpack what is at stake in this SF rise, especially Rebecca Duncan's recent efforts to contextualise what she describes as South Africa's 'postapartheid speculative' (2018a, 45).

I will offer readings of several postapartheid speculative texts. These are Blomkamp's *District 9*, and a number of novels: Andrew Miller's *Dub Steps* (2015), and the aforementioned *Apocalypse Now Now* and *Zoo City*. Via these texts and Duncan's pioneering account of the postapartheid speculative's immediate origins in neoliberal organisations of "nature" in South Africa, I will examine how the postapartheid speculative holds out hope for the emancipatory future that has failed to materialise in the "New" South Africa. Blomkamp's, Beukes's, Human's, and Miller's texts all reveal the bankruptcy of the teleology of "progress" that such an ostensible newness implies via a future-historicising impulse that effectively "mines" South Africa's past. In doing so, these texts reveal how the postapartheid speculative prognosticates the worsening future that has already begun to materialise upon the country's fading metal and mineral frontiers even as, in doing so, they attest to the wider influence of neoliberal world-petroculture across even non-petrolic sectors of the extractivist economy. That is, as much as Blomkamp's, Miller's, Human's, and Beukes's texts all speak to the specific context of the country's mining frontier, they also witness more generally the exhaustion of capitalism itself under neoliberal world-petroculture (of which that mining frontier is of course part). Just as Jameson (2005) argues of SF's future-imaginaries more generally, these texts demonstrate that the postapartheid speculative does not offer programmatic visions for change. Rather, they illustrate how the postapartheid speculative historicises the present (and the future) in view of the mining extractivism that has always structured the racially iniquitous terms of South Africa's world-ecological imbrication, thereby opening imaginative spaces from which we can better apprehend the 'singular metabolism of humanity-in-nature' (Moore 2015a, 76). In the South African context, capitalist organisations of "nature" have long-proceeded through what Ben Fine and Zavareh Rustomjee (1996) call the country's "Minerals-Energy Complex" in reference to the energy-intensive mineral extractivism that has long played a pivotal role in determining the political ecology of capital in the country. In the texts discussed below, we can discern an aesthetics of mining that witnesses the resources that have been at the centre of this political ecology; the racialised coercions and appropriations of labour which have sustained their extraction; the cultivated unevenness of access to life-sustaining resources through which these coercions and appropriations have operated; the lingering and uneven toxic effects of mining's wastes and its wasting of lives; and, crucially, the resistances with which the unevenness of this extractivism and its wastages have always been (and may yet be) met. Through the lens of depletion, the mining-bound aesthetics of Blomkamp's, Beukes's, Human's, and Miller's postapartheid speculative texts envision South African pasts, presents, and futures that are unevenly devastated by the very mining upon which the prosperity of

the country was notionally guaranteed. In doing so, they highlight how, when read in a worlded fashion, the post-apartheid speculative throws into relief the systemic negative-value production of capital's ecologically ruinous Law of Cheap Nature and the urgent need for what Haraway calls the 'arts for living on a damaged planet' (2016, 69). That is, the new cosmologies in which Haraway's 'sympoiesis' or 'making-with' the web of life supersedes the centuries-long capitalist modus operandi of making "nature" work (2016, 58).

Mining-Bound Futures and "Anti-Apartheid Nostalgia"

Many commentaries have observed that the material inequalities cultivated under apartheid have remained largely intact and even been worsened by the 'extraordinary commitment' of successive ANC-led governments to further neoliberalisation in the "New" South Africa (Attwell and Harlow 2000, 3). Patrick Bond points out that even conservative figures suggest that the 'average black "African" household income fell 19 per cent from 1995-2000' (2014, 208). In 2004, Shaun Irlam argued that the racially contoured 'gulf between rich and poor' in the "New" South Africa 'gapes wider than ever', and that it seemed 'little [had] changed in the material conditions defining South African society since the end of apartheid' (697). Bond observes that the country witnessed a rapid 'transition from a popular-nationalist anti-apartheid project to official neoliberalism' and 'structural adjustment', rather than the hoped-for emancipation of post-apartheid transition (2014, 1). In this context, there is an evident disjuncture between an official and now increasingly strained utopian rhetoric and the actual uneven material outcomes of neoliberalisation in "post-transitional" times. The much-vaunted rhetoric of the "rainbow" and "New" South Africa of the 1990s has, it seems, collapsed into the capitalist realism of a globally trenchant free-market utopianism. Under such utopianism, Duncan notes how successive administrations have sought to make South Africa an attractively investable proposition by 'inviting the multinational' and 'its dispossessive strategies' into the country (2018a, 52). Consequently, promised reparations and redistributions to correct the material unevenness cultivated under apartheid failed to materialise, while the ambit of the Truth and Reconciliation Commission (TRC) set up to formulate 'a shared national past' as 'the basis for a shared national future' appears wholly inadequate (Wilson 2001, 14). In Richard A. Wilson's terms, the TRC proved more suited in actuality to 'protect perpetrators' of apartheid-era atrocities, through its prominent mechanisms of amnesty, than it was to fulfil 'victims' hopes for justice and reparation' (2001, xvii). Notwithstanding the emergence of a newly-minted and relatively small Black middle class, as well as a Black political and economic elite, the continuing lack of adequate reparations means that wealth, lands, and access to other life-sustaining resources have remained concentrated in predominantly

the same hands on both small and large scales since the end of apartheid. Indeed, as a part of the semiperiphery, South African companies have, since the end of apartheid, also become increasingly involved across Southern Africa in neo-colonial extractivist enterprises of their own. Pádraig Carmody writes that 'with the winding down of apartheid and the loosening of capital controls, South African companies began to invest heavily' in sub-Saharan Africa, propelling the country's long history of regional economic dominance to new heights, even if recent years have seen that dominance squeezed by 'the increasing Asian presence in Africa' (2016, 61,71).[2]

The disillusionment of South Africa's neoliberal turn – both internally and in view of the country's Africa-wide extractivist projects – forms the immediate context of Duncan's particularly instructive account of the postapartheid speculative, and consequently my own reading of what is at stake in its mining-bound aesthetics. The rise of South African SF may well be a response to the influx of 'globally distributed forms' that came with the lifting of apartheid-era sanctions, Duncan writes (2018a, 54-55). Equally, she suggests, it might also be understood in terms of what Ronit Frenkel and Craig MacKenzie call the country's burgeoning 'post-transitional' literature, less-shaped by notions of what constituted "serious" responses to apartheid-era atrocities (2010, 2-4). However, Duncan cautions, while both of these accounts help to situate SF within the country's 'history of genre and its politics', neither engages with the material conditions under which the South African SF boom has arisen (2018a, 55). As a corrective, and in alignment with Moore and WReC, Duncan posits that the emergence of the postapartheid speculative is 'bound up' with the locally specific material legacies of capital's colonial- and apartheid-era organisations of "nature", *and* the 'particular geopolitics' of neoliberal capital's global ecological revolution (2018a, 45). As in the ostensibly "post-racial" times skewered by North American Afrofuturism, the postapartheid speculative takes aim at how, as Duncan explains, unevenly racialised 'conditions of precarity' have been 'extrapolated' from the apartheid- and colonial-era past and 'overlaid by new obstacles to survival' in neoliberal South Africa (2018a, 53-54). Chief among these newly familiar forms of precaritisation has been 'the incorporation of those demographics already bearing the material brunt of apartheid's legacies' into the ranks of a globe-spanning "surplus" humanity (Duncan 2018a, 53-52). Under the official drive towards attracting overseas investments as a form of future-building, Black South Africans have found themselves increasingly incorporated into a demographic for whom, Duncan summarises, 'neither formal employment nor subsistence survival are tenable possibilities any longer' (2018a, 53).

[2] Carmody also points out, however, that notwithstanding this squeeze, 'the coalescence of interests with China has given South Africa's position greater force in the region in recent years' (2016, 71). While this relationship is beyond the scope of this chapter, I hope to explore further the impact of its tensions upon the postapartheid speculative as I revise my thesis for publication.

In what follows, I am interested in how the postapartheid speculative offers a critical response to the foreclosure of promised futures and attenuated means of survival that have accompanied neoliberal reorganisations towards surplus humanity in South Africa. As Duncan explains, the postapartheid speculative's irrealist vocabulary registers, in WReC's sense, the strange afterlives of earlier configurations of capital in the "New" South Africa (2018a, 53-56). In doing so, she suggests, it enacts what she calls a 'creative dissent' from the prevailing neoliberal order, maintaining that it remains possible to find a 'route' out of that order's 'ruins' by accounting for the historical materialities from which it has grown (2018b, 193). While I agree with this assessment, and also note its clear parallels to similar efforts in Butler's, Okorafor's, and Hopkinson's novels, in this chapter I want to expand upon it. I will examine how the postapartheid speculative's creative dissent is keyed towards locally specific experiences of capital's world-ecological crisis and the negative-value future to come. I am interested in how the postapartheid speculative draws attention to the unevenly attenuated futures implied by the cumulative degradations driven by the mining-bound extractivism that has long been at the heart of capitalist constructions of Cheap Nature in the country. I will demonstrate how, like the aesthetics of plantations and subsistence plots, aesthetics of mines, mining, and mineral-energy resources in the postapartheid speculative also reveal and contest in a wider sense the conceptual and material "apartheid" of the "Natural" and the "Social" that can no longer obtain in a future of negative-value. By marshalling the past to clear imaginative ground for alternative futures to those implied by intensified neoliberalisation in South Africa, the postapartheid speculative evinces something like Wenzel's anti-imperialist nostalgia; what we might call an anti-apartheid nostalgia that exhorts its audience to imagine the future as it might have been, wherein the emancipatory promise of the anti-apartheid struggle was not co-opted by the global neoliberal ecological revolution. In this way, the anti-apartheid nostalgia baked into the postapartheid speculative's mining-bound futures protests the revival and exacerbation of apartheid- and colonial-era materialities under neoliberal world-petroculture in South Africa, offering instead a way of reading the "Third World" not as some abject wasteland but still full of the anti-systemic potential of its decolonising past.

South Africa offers a particularly fruitful ground for thinking through – and beyond – capitalism's mobilisation of "natural" resources. For over a century, the country has been a key resource frontier where the web of life has been made and remade through mining. Indeed, South Africa has held the same world-systemic import that Wenzel discerns in the Congo, wherein she wonders if capitalist modernity could have been 'invented' and 'conducted' without the vast storehouse of "natural" resources appropriated to fuel imperialist imaginaries (2006b, 1-2). In South Africa, too, the discovery of diamonds in the 1860s and gold in the 1880s cemented South Africa's

'emergence' as a pivotal 'resource colony' (Sharife and Bond 2011, 287). As Shapiro reminds us, vast goldfields in the Witwatersrand offered late-nineteenth-century Britain a means to revive its 'fading' world-systemic hegemony (2008b, 41). By 1930, 'South Africa produced over 60 per cent of the gold upon which the [financial] stability' of the capitalist world-ecology depended (McCulloch 2012, 8). Even if, today, the heyday of South African gold has passed, with gold's central role in the national economy 'overtaken by the mining of manganese, chrome, coal and platinum', the country continues to provide key material inputs for neoliberal future-making (McCulloch 2012, 158). Just as Wenzel points out that the Congo today provides the conflict-bound coltan crucial for the ostensibly deterritorialised digital networks of neoliberal finance, South Africa is the world's largest producer of platinum (Wenzel 2006b, 1-2). With its primary use in the automotive industry's catalytic converters, this platinum helps to keep neoliberal capital's increasingly precarious world-petroculture "going" (Bond and Mottiar 2013, 298). Catalytic converters help to minimise some of petromodernity's ecologically harmful wastes, contributing, like Congolese coltan, to its supposed deterritorialisation and sanitisation.

The expansion of South Africa's mines would not have been possible without the systemic devaluation of a predominantly Black workforce. Profitability in the early mines hinged (and still hinges) upon constructing Black Africans in particular as Cheap Labour. Events that unfolded at a platinum mine operated by the British company Lonmin in 2012 witnessed the culmination of this de-valuation under neoliberal capital's crisis-bound drives towards surplus humanity. In what has since been dubbed the "Marikana Massacre", the South African Police Service (SAPS) opened fire on a crowd of approximately three thousand miners striking for better pay and working conditions, injuring seventy-eight and killing thirty-four. Dali Mpofu, advocate for the arrested and injured miners, argued to the Marikana Commission of Inquiry that emails exchanged the day before the massacre between Lonmin management and government ministers illustrated 'the toxic collusion between the SAPS and Lonmin at the direct level' and 'between the state and capital more broadly' to break the strike, thus ensuring the flow of Cheap Labour (qtd. in Desai 2014). Accordingly, the massacre, which was the deadliest use of police force since the apartheid-era killings at Sharpeville in 1960 and Soweto in 1976, underscored the bloodiness of worldwide attempts to restore Cheap Nature. As documentary filmmaker Rehad Desai argued in his response to the massacre, *Miners Shot Down*, Marikana demonstrated that in the "New" South Africa 'lives were now being sacrificed for money' (2014). However, the massacring of ostensibly disposable Black bodies in the interests of mining in South Africa also has deep historical roots and ample precedent in the country, and worldwide.

Just as the racism of transatlantic slavery came into being to secure labour for the burgeoning New World plantations, colonial-era administrators in South Africa drew upon this precedent to construct a racialised workforce for the mines. Like the cultivation and processing of sugar cane, mining the South African gold fields was especially labour intensive. As Jock McCulloch points out, much of the gold was found in 'low-grade' ores with poor concentrations of gold per unit, at increasingly low depths, and in narrow reefs, requiring mining activity to take place 'over a wide area' (2012, 7). Cheap labour provided by correspondingly "cheap" Black lives has always been of paramount importance to the continued profitability of the mines. Drawing on the earlier work of Harold Wolpe and Charles Feinstein, Duncan reminds us that legislation such as the Glen Grey Act of 1894 was 'instrumental' in ensuring the flow of cheap labour to the early mines by forcing indigenous populations of newly-enclosed "reserve" territories 'into the wage economy' (2018a, 46-49). From the precedent established by this act, she writes, the architects of apartheid would eventually go on to construct that regime's particular 'mechanisms for coercing a low-cost workforce' (2018a, 60). As even the TRC would later note, the South African mining industry's 'direct involvement with the state in the formulation of oppressive policies or practices' to ensure cheap mining labour is 'central to understanding the origins and nature of apartheid' (qtd. in Sharife and Bond 2011, 279-80).

Even within the mines, the division of labour was and continues to be unevenly racialised, with the burden of risk disproportionately shouldered by Black workers, either from within South Africa or elsewhere on the African continent. In the face of strong unionisation among white miners, McCulloch points out that by far the 'most obvious way for employers to guarantee profitability' in the early days of South African mining 'was to reduce the wages of black miners', precisely those doing the most physically demanding and dangerous work; so much so that their wages 'did not rise between 1910 and 1970' (2012, 9-10). In the early twentieth century, he points out, Black miners were classified merely as 'labourers', despite doing much of the actual work of mining; 'tunnelling, preparing and drilling holes for blasting […], and loading and moving the skips of ore' (2012, 10-11). In doing this work, he notes, Black "labourers" faced the much higher possibility of 'traumatic injury' and the higher probability of chronic lung diseases that came with the 'heaviest dust exposures' (2012, 11). In the decade leading up to 1912, he writes, by one estimate 'nearly fifty thousand black miners died', either as a direct result of mining activity, or the squalid conditions of the 'severely overcrowded' compounds in which they were forced to live (2012, 9). As with Wenzel's description of Congolese people, the majority of Black South Africans (and other Black migrant workers in South Africa) have 'suffered for, rather than benefitted from' the country's beneficence of "natural" resources (2006b, 2). If South Africa has been a key frontier for the resources upon which capitalism's promissory future

depends, the historic and continuing unevenness involved in their mining underscore how, as with the New World plantations, this future continues to come at the cost of countless Black futures.

With such mining in mind, the remaining sections of this chapter examine how its potential future consequences have been particularly salutary for the postapartheid speculative imaginary. While the postapartheid speculative may constitute a "new" response to the particular novelties of neoliberal extractivism in South Africa, it nonetheless emerges from, remembers, and challenges the continuing material legacies of the mining extractivism that has structured capitalist patterns of environment-making in the country for more than a century. Moreover, Blomkamp's, Miller's, Human's, and Beukes's texts are not the only examples of texts that engage consciously with the legacies of mining in the country. In S.L. Grey's trilogy of horror novels, *Downside* (2011-13), for example, a cast of protagonists from the "real" world above ground are mysteriously transported to an alternative reality hidden beneath contemporary Johannesburg, which at once recalls the racialised socio-ecological architecture of apartheid, the legacies of mining, and presents a critically parodic and exaggerated vision of postapartheid, neoliberal South Africa. Henrietta Rose-Innes's otherwise straightforwardly realist novel *Nineveh* (2011) depicts the return of repressed socio-ecological consequences as a luxury residential complex on the outskirts of Cape Town is plagued by mysterious swarms of insects that access the gated community through its subterranean drains. Eben Venter's *Horrelpoot* (2006), one of the few Afrikaans SF texts widely available in translation, as *Trencherman* (2008), meanwhile, is a retelling of Conrad's *Heart of Darkness*, in which "Marlouw", a South African expat living in Australia, is sent by his sister to a postapocalyptic South Africa to retrieve his wayward nephew Koert from the old family farm. In the context of this farm, which is now owned by its erstwhile (predominantly Black) servants and labourers and struggling in the aftermath of a country-wide ecological disaster connected to an explosion at the Koeberg nuclear power plant, Marlouw confronts the negative-value future of apartheid's pervasively uneven material legacies.[3]

From the outset, it should be noted that the selection of a group of texts by white authors, featuring predominantly white protagonists, and all written in English is not without problems, especially for a project examining figurations of Black futures in (semi-)peripheral SF forms. The authorship of the texts selected below may unintentionally replicate what Christopher Thurman identifies as the propensity of much speculative fiction – in South Africa or otherwise – to 'foreground,

[3] Indeed, while this chapter focuses on the postapartheid speculative's connection to mining, we might just as easily explore the ways in which it responds to another key vehicle of accumulation by dispossession in the South African context: farms and farming. As much Venter's novel is a retelling of Conrad's *Heart of Darkness*, for example, it also presents a speculative reconfiguration of the Afrikaans *plaasroman* (farm novel) tradition. For a helpful outline of the *plaasroman*'s specifical ideological functions vis a vis Afrikaner identity formation, see Wenzel, "The Pastoral Promise and the Political Imperative: The *Plaasroman* Tradition in an Era of Land Reform" (2000).

presuppose or underscore […] whiteness' (2015, 60). However, at the time of writing, the rise of the postapartheid speculative has been particularly concentrated among white authors and filmmakers; or at least, texts and films by white authors and filmmakers are more readily available to me in the UK.[4] The apparent concentration of the postapartheid speculative amongst a predominantly white authorship means that we should be vigilant for the vestiges of what Thurman describes as a longstanding rhetorical tradition in South Africa, wherein the interlinked notional stabilities of white identity and ascendancy are troubled by an 'apocalyptic fear' of Black uprisings (2015, 64). Could we see in these texts something that looks very close to a nostalgia *for* apartheid, as their apocalyptic scenarios tacitly present the white-coded lifeworlds of the South African core to be threatened by the return of racialised "others" abjured by neoliberal capital as "surplus" humans? In this regard, Blomkamp's film especially has attracted criticism for its portrayal of a murderous gang of Nigerian criminals, which, as Duncan points out, 'precisely reiterates the terms of xenophobic discourses in contemporary South Africa' and uncritically reduces this gang to 'primitively constructed avatars of evil' (2018a, 68-69). In the texts discussed below, the unravelling of socio-ecological fabrics is imagined in spectacularly irrealist fashion by the intrusion of aliens, exotic animals, strange insects, magical creatures, and energetic gunfights, car chases, and explosions. Just as the protagonist of *District 9* contemplates with disgust his transformation into an alien, might such gestures not simply add a locally particular frisson to the increasingly global prevalence of apocalyptic imaginaries? Or, as in WReC's positioning of irrealism's critical potential, do they have more to offer than what Szeman describes as a politically stultifying indulgence in 'the pleasures of end times' (in Yaeger et al. 2011, 325)?

Despite the notably problematic issues outlined above, the texts discussed below prompt their audiences to consider the negative-value future attendant on the now-accelerating 'slow violence' of mining extractivism in South Africa under neoliberal world-petroculture (Nixon 2011, 2). Mining, as Bauman writes, is inconceivable without '*waste*'; it is a 'one-way movement' towards the 'graveyard of used up, repudiated and abandoned lodes and shafts' (2004, 21; original emphasis). In the texts discussed below, aesthetics of mines and mining gesture towards the cumulative negative-value production of South Africa's Minerals-Energy Complex, as their "wasted" protagonists struggle to survive in materially depleted lifeworlds. These texts emphasise that to live in the "New" South Africa is actually to experience what is described in *Zoo City* as the 'mutually assured desperation' attendant upon the acceleration and intensification of mining-bound neoliberalisation (2010, 53). Against the capitalist "faith" in surplus, Blomkamp's, Miller's, Human's, and Beukes's texts all point to the racially

[4] As I note in the Epilogue to this thesis, however, the situation has begun to improve, even in the few years that it has taken to complete this project (see pages 184-85). As was pointed out to me during the examination of this thesis, the work of Black South African authors like Zakes Mda could also be approached as SF.

iniquitous bankruptcy of that faith in the South African context. In them, futures populated by exhausted mines and bodies point to the negative-value future implied by the looming end of Cheap Nature. At the same time, though, the struggles of characters against the uneven challenges to survival in their depleted lifeworlds point to how apartheid's pervasive legacies demand new ways of "making-with" that reckon with how the cumulative consequences of extractivist "slow violence" will continue to structure the future in the Capitalocene.

Mining the Past in the "New" South Africa

The symbolic resonances of mines, miners, and mining in the postapartheid speculative re-position the past as an urgent site of critical remembrance and inquiry, working, like the plantation and plot imaginaries explored in the previous chapter, to challenge the notion of a dichotomous relation between the apartheid past and postapartheid presents and futures. By cultivating a similarly histofuturist perspective, the postapartheid speculative reveals the limitations of "official" forms of historical remembrance in the "New" South Africa. As Rita Barnard has argued, 'any account of the treatment of the past in post-apartheid South African literature' must acknowledge the work and aims of the TRC in 'excavating the secrets of an ugly past with a view to healing and national unity' (2012, 658). In response to Shane Graham's *South African Literature after the Truth Commission: Mapping Loss* (2009), Barnard notes how postapartheid texts have been marked by tropes of 'the archive, the palimpsest and the excavation', or of 'digging and holes', that are 'concerned with the retrieval of what is latent and repressed' (2012, 657). For Graham, such metaphors of 'excavation, exhumation, and digging […] lead us to conclude that simplistic notions of a past that can be readily recovered wholesale are inadequate to account for the complex intersections of landscapes, bodies, and memories' in the postapartheid context (2009, 19). We might probe further, however, the way in which these metaphors intersect with the long history of racialised mining extractivism in the country, and how, in the postapartheid speculative, this intersection critiques the TRC's own efforts to "mine the past" as part of its efforts to clear ground for newly equitable futures. The postapartheid speculative's mining tropes and aesthetics challenge what Duncan characterises as the historically amnesiac 'principle' of 'the clean break' that has become hegemonic in the aftermath of the TRC's enquiry into the apartheid past (2018b, 94). That is, if Wenzel defines anti-imperialist nostalgia as a 'rededication to [the] unfinished business' of decolonisation, then the postapartheid speculative's effort to grapple with the unevenly devastating aftermath of mining in South Africa and its future consequences constitutes a similar rededication to the unfinished business of postapartheid transition (2006b, 22).

Miller's *Dub Steps* refigures the problem of navigating the traumatic history and material residues of apartheid in terms of postapocalyptic survival and reconstruction. Sometime in the twenty-first century, a now 'ninety-something' Roy Fotheringham recounts how, decades earlier, he awoke to discover that seemingly everyone else in the world had disappeared (2015, 356). He explains that the night before this strange occurrence he stormed out of a dinner party that 'could have been a reconciliation' between him and his wife (2015, 356). Though a small moment in the novel's expository framing, Roy's invocation of a failed reconciliation is particularly freighted, commenting tacitly upon the stalled momentum of the anti-apartheid struggle in the "New" South Africa. Even if the TRC recognised the centrality of mining to apartheid, Wilson points out that its 'overriding nation-building objectives' resulted in a report that concluded moralistically that apartheid's atrocities happened 'because of the evil system of apartheid. End of story' (2001, 33, 54). By contrast, Miller's *Dub Steps* literalises the TRC's figurative mining of the past to reveal that which remains repressed by the TRC's account of past, present, and future. Like Okorafor's *The Book of Phoenix*, Miller's novel imagines a postapocalyptic future in which the residual technics of capital persist even long after the apparent disintegration of capitalism itself, pushing against the affective lure of a "new" future that "escapes" from past materialities and their racially iniquitous consequences. Specifically, *Dub Steps* exposes the limitation of what Duncan describes as the TRC's wider assumption that it is possible to 'collect and compile' the 'lost truths' of the apartheid past, thereby 'correcting the record […] and moving on' (2018b, 93). Roy leaves Johannesburg and discovers another survivor, a woman called Babalwa. For a time, they live together, but eventually decide to venture back to the city and discover a small group of survivors with whom they attempt to rebuild and repopulate amid the ruins of Johannesburg, turning to abandoned studies, libraries, and technical research institutions for the 'valuable haul' of knowledge that they contain (2015, 231).

While Graham points to the potential of postapartheid literature more generally to address how to avoid 'freezing' the past into 'ossified formulae', such potential seems foreclosed by the survivors' selection and archiving process in *Dub Steps* (2009, 4). Roy admits that the survivors' mining 'favoured' collecting 'scientific' and 'mathematical' documents over 'narratives' long after the demise of the capitalist system that so valued them, because they believed that 'our kids and their kids were going to need to build up technical knowledge' (2015, 257). As the survivors break into the darkened remnants of wealthy homes or centres of scientific study and knowledge production, Roy's project unwittingly replicates the centuries-long imperial project under which the "Dark Continent" and its resources were brought into the "light" of European civilisation and set to work for the larger gain of white capitalists. Roy and his fellow survivors privilege and attempt to preserve the remnants of how, as Moore points out, 'representations, rationality, and empirical investigation found common cause

with capital accumulation in creating Nature as external' (2015a, 17). Witnessing the powerful systemic inertia of capitalism's technics, Roy and the others dedicate themselves to the preservation of "Enlightened" knowledge forms not out of any responsiveness to their own material needs, but because 'it seemed to be the right thing to do' (2015, 257). If the archiving project is to ensure that the children understand the past to be 'a binary opposite to the present', it ironically preserves the remnants of that past and allows them to begin to return (2015, 257).

In his pre-apocalyptic life as an advertising executive and co-owner of a VR-enhanced nightclub, Roy had embraced the typical techno-utopianism of the neoliberal futures industry, believing that 'we could augment and magnify and enhance forever' (2015, 5). His colleague Mongezi similarly envisioned a future in which 'labour will not be required. It's redundant. […] My mother, in Limpopo. Not required. […] They'll grow their shit in space. Automatically generating food' (2015, 7). Moreover, Roy's working environment is saturated with a typically neoliberal ethos that, in the freighted postapartheid context, invokes a nebulous notion of "community" only insofar as it intersects with the imperatives of capital. He tells us that

> All the while, the media philosophy fell like steady coastal rain. The creative directors and division heads looked over us as they spoke, their eyes locked into the mythical middle distance, where they saw community. Always community. Placing the brand at the center of the community. Developing brand equity within the new paradigm of real-world augmentation and limitless virtual possibilities for community interaction. (2015, 8)

In post-apocalyptic Johannesburg, however, he is forced to confront the inadequacy of such forms of future-envisioning in view of the accumulated consequences of capitalist slow violence. It soon transpires that 'advertising is a pretty damn useless business without a target market', for example (2015, 84). 'Limitless virtual possibilities for community interaction' takes on a cruel irony in view of the depopulated world into which Roy wakes, gesturing not only to the attenuated possibilities of community formation of any kind in a negative-value future, but also undercutting capitalism's systemic presupposition of limitlessness more generally (2015, 8). If, as Duncan notes, the "clean break" principle has hidden the ongoing ruinations 'active' beneath the 'veneer' of 'a rainbow-tinted neoliberal South Africa', then Miller's novel literalises that veneer only to strip it away (2018b, 192). The 'real-world augmentation' referenced in the passage above is made possible by something called "transmission paint", which transforms any wall surface into an internet-linked screen onto which targeted "pop-up" ads can be projected to passers-by (2015, 8). After everyone disappears and the power eventually goes offline, however, Roy and the other survivors are forced to confront a city

stripped of the glittering façade of high-energy technoculture, viewing the paint, and the city as if for the first time, in its actual degraded state:

> It had been decades since I had seen a simple painted wall, a wall without movement, without a message. The brown was bad, of course, but it was the uniformity that was so hard to digest. It stretched forever. And the closer you looked, the more alarming it was. Decay. Cracking walls. Rivers of damp, creeping, swelling. Pipes falling off the walls, cable ties and piles of bundled wiring. Slumping angles, falling arches. (2015, 22)

The bland uniformity of the "switched off" cityscape presents the spectacular unravelling of neoliberal fantasies of consumer choice and abundance while simultaneously revealing the actual decay that such fantasies paper over. Importantly, the vision of entropy visited upon Johannesburg, a local hub for ostensibly "clean" and deterritorialised finance capital, also references the city's historical connection to mining extractivism, with the 'cracking walls', 'slumping angles, [and] falling arches' of the buildings above potentially caused by the subsidence of the mined-out voids beneath them (2015, 22). In this way, the deactivation of the transmission paint exposes the decay that had always been there but, in the manner of Nixon's slow violence of 'delayed destruction', only becomes truly apparent in moments of precipitous collapse (2011, 2).

The invocation of a failed reconciliation at the beginning of the novel, however, comments tacitly upon how Roy and the others miss the opportunity to construct alternative ways of being appropriate to the post-apocalyptic world of the Capitalocene. Instead, they fall into debased versions of historically familiar patterns that preserve the capitalist binary of the "natural" and the "social" that underpinned apartheid. The survivors' compound seems dedicated to keeping "nature" out. We find that Fats, the *de facto* leader of the group, 'was obsessed by the idea of invasion', and that the arrival of Roy and Babalwa gave him 'the energy burst necessary to finalise his mission to enclose' the camp (2015, 103, 107). In view of the insistently encroaching presence of an unruly "nature", Roy explains that, for Fats, it was 'crucial […] to have a bulwark in place', and that he 'mounted a South African flag […] facing north, looking over the highway off ramp' (2015, 107). 'We've got a thing for fences', Roy explains to Lilian, an American member of the group, 'they make us feel better. Secure' (2015, 111). As well as underscoring the local continuities of apartheid in the "New" South Africa, Fats's drive to "enclose" the camp points to how the material pressures of a negative-value future will not automatically generate the conditions for equitably sustainable ways of living to emerge. Instead, the wall that Fats and the others erect around the compound smacks of the unimaginative strategic realism that Szeman (2007) describes, witnessing that discourse's brutal re-affirmation of the Nature/Society binary by which neoliberal capital has so far sustained itself, and the consequently

uneven reactivation of apartheid-era materialities within the ostensibly "new" South Africa represented by the flag. Miller's novel pushes against the myopia of such strategic realism by projecting it into an entropic future, within which there can be no triumphant "re-start" but only the repetition of familiar patterns with ever-diminishing returns. In the early days of the group's survival, Roy describes his reading as a kind of 'stocking up on South African history. Joburg history. The miners and the slaves' (2015, 200). Yet this "stocking up" seems aimless and inert, seemingly failing to act as a critical prompt for him or the others to consider how the accumulated residues of that history remain active in structuring their present reality.

Roy's archiving project transforms the past into a substance that can be mined, foreclosing the necessary development of a relational, systemic perspective of historical change. He compares the imposing façade of the Council for Scientific and Industrial Research (CSIR) as being 'made out of the stuff they protect gold with', likening the knowledge within to the precious substance of an earlier extractivism (2015, 120). An afternoon spent "mining" the abandoned knowledge of the CSIR is described in terms that recall the way in which the mines of the past violently tunnelled beneath the earth. Roy and the others devote themselves to 'breaking through doors, smashing locks', and digging 'through filing cabinets and folders and printouts (2015, 123). Roy tells us how he 'squeezed […] through' 'a tiny hole […] just big enough for a man to fit through' and 'followed the sounds of things breaking through a series of corridors', recalling both the subterranean soundscape of mining and the claustrophobia of mine tunnels (2015, 124). Roy intends for the archiving project to teach the children 'the idea of loss. Knowledge loss. History loss. The loss of culture. The loss of family. Loss as the theme of their lives' (2015, 257). Graham suggests that the recurrent postapartheid tropes of digging and holes aver that 'narrating the past must always be an inductive enterprise' of 'decoding meaning through absence' (2009, 5). Roy and the others' mode of mining the past, though, actually forecloses such an enterprise, paradoxically denying the possibility of loss even as, ironically, it is clearly animated by that same possibility.

The survivors' mining of the past replicates the capitalist "faith" in an ever-expanding surplus in ways that seem profoundly at odds with the actually devastated world that they inhabit, in that there is a seemingly inexhaustible supply of technical and scientific knowledge to be mined from the abandoned institutions. Roy concedes that, because of the sheer volume of the material gathered, although he tried 'to structure the stacking of the shelves as books were carted in from various sources', he was only able 'to roughly separate categories' (2015, 257). He reflects that 'it was going to take a lifetime […] to actually sort and index the titles', and so concerns himself merely with 'storage', remaining coy as to whether he actually manages to sort and index any of it (2015, 258). The interpretive paralysis prompted by this glut makes both local and systemic gestures. In the South

African context, it questions the purpose of what Duncan describes as the TRC's aspiration of 'total capture' in its collection of the ostensibly "lost" histories of apartheid (2018b, 92). In a more systemic register, however, it also gestures to how, as Clare Birchall points out, the 'sheer volume' of data released by state and corporate actors under the putatively benign rubric of institutional "transparency" means that much of it seems destined to remain 'unseen and unprocessed' (2011, 15-16). In *Dub Steps*, The prioritisation of information capture versus ongoing interpretation is rendered most acutely in the various hard drives that the survivors uncover. Roy remarks that 'we knew where they had come from, but not what they contained', and since sifting through their contents 'would have taken too long', they merely 'labelled the boxes and stored them like they were books', in the hopes that 'sufficiently detailed labels would provide a simple filter through which to assess and deal with the contents' (2015, 258). However, such assessment seems unforthcoming and more and more books and hard-drives pile up. As Roy and the others move their finds into a 'permanent venue for the library', they become fixed and static (2015, 257). Seemingly incapable of functioning as edifying resources, the collected material instead calls into question the presumptive goodness of abundance that animates neoliberal future-making, as well as revealing the developmental hollowness of appeals to apparent resource-abundance today.

While Roy wonders 'what kind of thinking and progress and imagination were locked into the machines on those desks', the survivors' 'trawl' and 'digging' becomes much more about retrieving hard-drives than the information contained within them (2015, 123). Comically, Roy and the others can only guess as to the contents of many of them, organising them instead by the EIW or 'Estimated Intellectual Worth' values that they assign to them (2015, 258). Much of the technical information that they retrieved is 'beyond' many of the survivors, meaning that EIW values are in part determined by the 'WTF' or "What the Fuck?" test, which reasons, absurdly, that the more unintelligible a document, the more likely it is to be of some future utility to the survivors' descendants (2015, 259). Alongside this comedic gesture, Miller's novel takes further aim at such a "total capture" methodology by subtly emphasising its limitations via the formal qualities of the novel itself. Each chapter is headed by a seemingly incomprehensible phrase, perhaps poking fun at the efficacy of Roy's labelling schema since we must assume that it is Roy himself who has labelled the chapters for us. It is only through the interpretive efforts of the reader to "dig through" the text on their own – in a way that Roy and the other survivors seemingly do not – that we discover that each one is a short word or phrase lifted from the chapter's text; though the reasons for Roy's selections remain unclear, raising the possibility that the labels in Roy's archive may be just as incomprehensible to its future users. Moreover, Roy's narrative is peppered with footnotes that point to other documents within his archive that remain inaccessible to the reader, and the survivors must make do without all the information stored in the

cloud, which went offline when the power did. Tebza, one of the survivors, remarks ruefully to Roy that he has 'no idea how much shit I had on the cloud. So much shit. My entire life on that fucking cloud' (2015, 101). As the survivors grapple with coming to terms with what has been irretrievably lost, the novel points to how the "total capture" model of mining the past is actually only a partial remembrance; one that seems to be linked to a growing amnesia as Roy and the survivors fall back into the inertia of familiar patterns that do not prioritise the communal knowledge forms that may lead to postcapitalist ways of thinking, but rather those that inhere the reassertion of the old "Enlightened" order and its extractivist bent.

As if to push against this systemic inertia, cracks and fissures appear in the survivors' efforts to rebuild the past in a depleted future. On another trip to the CSIR, Roy describes how 'we were forced into heavy manual labour', and the 'darkness of the corridor' and 'the darkness of the building' (2015, 263, 267). As Roy's white body is pressed into service in ways that ironically echo the mining work historically assigned to Black bodies, the novel leaks an entropic depletion anxiety that reveals the increasing fragility of white privilege in a future of negative-value. Moreover, before abandoning their makeshift camp and meeting up with the others, Roy and Babalwa soon realise that

> The roads are already growing over. It's going to get harder and harder to move. The animals will keep coming. It will get more dangerous. Harder to find food and, if we don't make a serious plan, harder to grow it, to hunt it. If we must stay here, if we don't build, we'll be swallowed up. (2015, 63)

There is perhaps something of an apartheid nostalgia at work here, displaced onto an increasingly unruly "nature" that threatens to overwhelm the now vulnerable survivors, even as, in more systemic terms, the overgrown roads point to capital's increasing inability to displace the worst excesses of its extractivist violence to racialised systemic peripheries. Rather than occasioning the necessary reconsideration of their relationship to the environment, however, Roy and Babalwa contemplate the encroachment of "nature" with a mixture of dismay, and a renewed determination to maintain the ostensible separation between them and it. In a darkly humorous gesture, Roy tells us that he 'stood up and pointed […] dramatically, like a settler' at the 'eight hundred square metres of land' they need to 'control' in order to survive (2015, 65). Eventually, though, the pair are forced to admit defeat and are pushed further back to Johannesburg, the old "Enlightened" centre of European "civilisation" in the ostensible "Dark" of Africa. When Roy and Babalwa reach Johannesburg, however, they find that "nature" has also "invaded" the untended city. The 'houses […] facing Jan Smuts Avenue had fallen so far back into the shrubbery they were barely recognisable', while an 'old-school billboard' has been torn down by 'vines and creepers' (2015, 75). Recalling the potent superweed symbolism of Okorafor's

The Book of Phoenix, the civilisation-choking vegetation seems imbued with something almost like a threatening agency of its own as we are told that 'plants were pushing the houses back, each millimetre of growth adding to each tendril a new triumph of organic force' (2015, 79). The forest seems resolutely and resistively alive, 'almost pulsing' because 'it was growing so fast' (2015, 82). If Roy had once felt like a settler, he tells us that now he felt like an 'explorer, previously bulletproof, suddenly lost, realising the true worth of my meagre experience and supplies' (2015, 75). As he contemplates how 'a complete fucken forest' has consumed the city he knew, the novel underscores the fragility of Nature/Society dualism in view of the accelerated temporalities of neoliberal world-petroculture's systemic negative-value production (2015, 75).

While at the CSIR, the survivors contemplate a series of 'rusted metal sculptures' that form a monument to the Marikana miners, seemingly unaware that their own project to mine the past seems more interested in memorialisation than a hedge against future socio-ecological violence (2015, 221). The rusting statues point forcefully to a mode of remembering in which the past has become fixed and that memory allowed to decay, even as their rusted bodies point to both the historically uneven impacts of mining violence upon Black mineworkers and how those same precaritised bodies will continue to bear the brunt of capitalism's unravelling into a negative-value future. Roy explains that the 'details' of the Marikana 'killings' all seemed 'quaintly out of context' in Johannesburg's postapocalyptic future (2015, 221). In doing so, though, he engages in a form of mis-remembering, using the word "killings", which, as Jane Duncan points out, was often used by state and media actors instead of "massacre" to present the SAPs in a better light (2013, 72-73). The memorialisation of the singular event leads Roy and the survivors away from the systemic interrelation required to see that the 'out of context' miners are anything but, since the world that Roy inhabits is a product of the same capitalist environment-making for which the Marikana miners were killed (2015, 221). It is only when Roy and the others come to be memorialised in the same way by their own descendants that Roy realises their error. Charles Villa-Vicenio posits that the TRC's major contribution was less its final *Report*, but rather 'a well-stocked archive', which, as Graham elaborates, might serve not to 'close the book on the past' but 'make possible the continual writing and rewriting of that book' (qtd. in Graham 2009, 3). In the future that *Dub Steps* imagines, however, this potential is foreclosed, as the elderly Roy laments that 'now there are only statues and monuments' and that the children remain 'so shaped by our story, yet somehow so completely untouched by any of it' (2015, 243). The archive that the survivors had been so careful to amass 'is old and musty', remains 'untouched', and Roy suspects that after his death the children 'will tear it down, or wipe it away, or paint it over' (2015, 325). Instead, Sthembiso, the new leader, having been captured in his youth by tales of the neoliberal world of

advertising from Roy and Fats, is more interested in fashioning a unifying origin myth, concretised in the slickly commercial form of an 'expo' (2015, 300).

Like the Marikana miners, Roy and the others become monumentalised as statues in this expo. Roy explains that 'the expo centre was our story, told again and again and again until we were living dogma, referred to reverentially, but also completely in the past tense. We […] were removed from the present' (2015, 341). As the adult Sthembiso begins 'flexing [his] considerable set of muscles' over the nascent society, Roy is forced to concede that 'things I thought had died with the old world […] have turned out to be very much alive' (2015, 335, 340). Sthembiso and the other children talk in the neoliberal idiom of 'restructuring' and 'resource control', evincing a belief in a renewal that, although proceeding in a post-capital world, remains undergirded by capital's expansionist and extractive ambitions (2015, 340). What haunts Roy's narrative is the fact that the way of being that he thought had perished in the novel's apocalypse survived not in spite of his archive project, but rather, was able to survive and repeat itself precisely because of it. As if in recognition of this, Roy emphasises in the foreword of his narrative that 'the rest is up to you', emphasising the interpretive work on the part of the reader that must follow (2015, ii). In this way, the novel points us towards a way of re-opening the door closed by Roy and the others' mode of mining the past. It suggests an alternative method of mining the past is necessary, in which – as in Duncan's explication of creative dissent – the past must be 'ceaselessly revisited and remembered' in order to negotiate the long-lived afterlives of that past in the Capitalocene (Duncan 2018b, 104). In the subsequent sections of this chapter, then, I will probe how the irrealist contours of the postapartheid speculative both participate in and encourage the development of such a histofuturist consciousness.

District 9, and the End of Cheap Nature

Blomkamp's *District 9* forms the backbone of Duncan's explanation of the political valency of the postapartheid speculative, and offers a useful starting point from which to consider how its aesthetics of mining encode a histofuturist reckoning of the looming end of Cheap Nature. The film imagines a near-future in which a private company called Multi-National United (MNU) has been contracted by the South African government to resolve brimming tensions between Johannesburg's human residents and a large group of extraterrestrial refugees. The humans derogatively refer to the aliens as 'prawns' and 'bottom feeders' in reference to their apparent predilection for trash (2009). Moreover, the name "prawn" figures the insectoid aliens as verminous because, as Gerald Gaylard explains, it connects them to the "Parktown Prawn", a large 'species of cricket […] peculiar to Johannesburg' (in Moses et al. 2010, 169). We learn that the prawns' ailing spacecraft appeared above

the city in the 1980s, pegging their arrival to the onset of neoliberalisation and the height of apartheid. Resembling the plight of countless Black South Africans and other Black migrants across the "New" South Africa today, the prawns have been ghettoised in the film's eponymous slum ever since. Many commentators have observed that newsreel footage showing violent and unsanctioned attempts by humans to eject the prawns from their communities is redolent of the waves of xenophobic violence in 2008, which swept the country as *District 9* was being filmed. Neville Hoad writes that these riots 'marked the first instances of mass violence' since the end of apartheid and 'the end of an era of constitutional triumphalism and reconciliation' (2016, 299). If this violence was an expression of what Cheryl Stobie describes as 'considerable disenchantment' with the postapartheid "settlement", then *District 9* explicitly connects such disenchantment to neoliberal reorganisations of South Africa, and the country's hard-pressed mining industry in particular (2012, 370).

Rather than "reconciling" Johannesburg's alien and human communities, MNU, which is also the 'second largest weapons manufacturer in the world', plans to forcibly evict the prawns from District 9 and resettle them in 'District 10', some two hundred kilometres from the city (2009). As an "expert" commentator in the film explains, the 'humanitarian' framing of MNU's relocation programme is little more than a 'whitewash' to cover the 'real focus' of securing MNU's access to caches of what they believe to be alien energy weapons hidden in District 9 (2009). The film's protagonist, an MNU middle-manager called Wikus van der Merwe remarks that Johannesburg's humans will 'live happily and safely' knowing that the prawns are 'very far away', neatly underscoring how the "relocation" is actually a dispossessing eviction operation (2009). As the eviction continues, Wikus is exposed to an alien chemical and begins to transform into an alien himself. He gains the ability to use the alien technology coveted by MNU, and, like Phoenix, spends the rest of the film evading dissection by MNU's R&D department. He tries to reverse his "prawnification" with the assistance of an alien called Christopher Johnson; however the film ends ambiguously, with Christopher en route to the prawns' homeworld after promising to return with a cure. Ultimately, it remains unclear if Wikus is still on the run, interned in District 10, or in pieces on a laboratory slab by the end of the film. It has often been observed that the film's title, premise, and conspicuous segregationist signage throughout proclaiming things like 'human only' recall Cape Town's District Six, from which tens of thousands were evicted after the Group Areas Act declared it a "whites only" area. Yet, as Duncan argues, to read the film as merely a retrospective apartheid allegory elides its 'apprehension of neoliberal forces' active in contemporary South Africa (2018a, 57). Building on Duncan's reading of the film, I will explain how *District 9* foreshadows the increasingly aggressive means by which neoliberal capital has sought to restore Cheap Nature in South Africa's mines, which

culminated in the violence at Marikana just three years after the film's release. Throwing into relief the historical centrality of metals and mining to the accumulation of capital in South Africa, the film's brutally attenuated future highlights the socio-ecological contradictions that are actually undermining such extractive projects.

The film's setting in Johannesburg, the former epicentre of South Africa's historic gold rush, is particularly resonant, re-casting the apartheid commentary suggested by its invocation of District Six in view of the historical legacies of the country's mining boom. Duncan flags how the film's establishing shots gesture to the formative influence of mining extractivism upon the political ecology of capital in the country. Sweeping aerial shots of the city's defunct mine dumps, she argues, situate both the prawns and Johannesburg's human residents as avatars for surplus humanity living amongst the mining-bound 'debris of colonial history' (Duncan 2018a, 59). Subsequent shots of 'officials in hard hats' drilling into the alien craft, Duncan writes further, frame the aliens as 'a resource to be appropriated', connecting them to the 'historical construction' of Black bodies as Cheap Labour for the country's mines (2018a, 59-60). Following Oloff's reading of the Zombie, Duncan argues that the film's concatenation of 'historically trenchant and contemporary images' positions the prawns as 'ecological figures' bearing witness to 'the "Nature and Society" binary that […] undergirds capitalist accumulation in all its forms' (2018a, 59, 64). These sets of images and the Johannesburg setting also leak an entropic futurity. The barriers to profit that have long been posed by low-grade ores, diminishing reserves, and mounting labour requirements mean that the Johannesburg goldfields witness the limits to capitalism's Law of Cheap Nature with particular salience. In view of the well-documented declining fortunes of these goldfields, the film's plot and *mise-en-scène* serve as ecological figures that reveal and speculate upon the unevenly racialised consequences of neoliberal efforts to restore Cheap Nature on both local and systemic scales.

In keeping with the global proliferation of crisis-language under neoliberal capital, commentators have for some time been asserting that South Africa's mining industry is in "crisis". As early as 1995, to coincide with the birth of the "New" South Africa, a tellingly-titled research article announced "The Crisis of South African Gold Mining" (Nattrass 1995). The need to compel "nature" to "work" harder and cheaper has only intensified in the years since. As more accessible deposits of gold have been exhausted, mining operations have followed the ore ever-deeper underground, culminating today in eight of the world's ten deepest mines (see van Vuuren 2018, 56). Deep mining requires huge and increasingly expensive power inputs for the 'refrigeration plants and ventilation systems' to enable humans to work in the stifling heat of such depths (Hermanus 2017, 814). The rewards of digging deeper in search of more ore have been increasingly unable to offset rising operational costs. Over a decade ago, in the same year that Blomkamp's film was released, Chris

Hartnady pointed out that the goldfields that have so long symbolised the wealth of South Africa's "natural" resources were as much as ninety-five percent exhausted (2009, 329). A more recent report suggested that fewer than a fifth of then-operational gold mines were profitable (Seccombe 2018). In response to increasing operational costs, mining houses have slashed expenditure by effecting massive layoffs of their predominantly Black workforces and weakened the bargaining positions of those that remain by creating a pool of "surplus" mineworkers. As Martin Nicol and Jean Leger write, while the gold mines employed approximately 450,000 people in 1992, by the year 2000 'employment was down to 200,000', and had fallen even further to 160,000 by 2011 (2011, 174).

The racialised contours of such efforts to restore the conditions of Cheap Nature on such fading mining frontiers haunts Blomkamp's film. In this context, the killing that unfolds as MNU forces move into District 9 has acquired a proleptic irony following the events at Marikana. South African platinum extraction has fared little better than that of gold in recent years, with two thirds of the sector declared as loss-making in 2017 (see Roelf and Macharia 2017). As Desai explains, Lonmin took particular interest in breaking the 2012 strike because it had recently 'spent large sums of money on a massive programme of expansion' and was especially vulnerable to the rock drillers' demands for increased wages (2014). As MNU forces move into District 9 with impunity, they anticipate what became clear at Marikana. That is, that neoliberal capital's biopolitics of disposability rests upon claims to Black subhumanity long-established by earlier configurations of capitalism as an ecological regime, and that Black people especially are consequently not just "let die" in a Foucauldian sense, but can be actively killed when their lives and objectives conflict with those of multinational capital. In line with this, it emerged in the Marikana Commission of Inquiry that the killings in 2012 were more premeditated than they initially seemed. On August 16th, the strikers 'were met by 648 police officers, 4000 rounds of live ammunition' and 'pre-ordered mortuary vans', suggesting that even if the killings were not planned outright, the possibility of deaths had been considered and planned for (Strauss 2016, 524).

In Blomkamp's film, MNU engages in similar logistical preparations that recast the prawns as portentous metonyms for both the Marikana miners and a racialised surplus humanity in general. Wikus's pontification about the benevolence of the "relocation" programme is intercut with shots of Kevlar-wearing MNU soldiers taking weapons from gun-filled racks. Indeed, the film ironically draws attention to just how well-armed they are in a moment in which Wikus admonishes an MNU grunt for carrying too much ammunition. Jovially described by Wikus as 'the cowboys', the soldiers are characterised as the sort of people who 'shoot first' and ask questions later, and we are unsurprised when they do exactly this later in the film (2009). Later in the film, Koobus Venter, the sadistic head "cowboy", executes an uncooperative alien at point-blank range and, near the film's climax, tells

Christopher Johnson that 'I love watching you prawns die' as he holds him at gunpoint (2009). In hindsight these gestures are especially resonant given that a number of the Marikana miners were shot at close range in what commentators have termed an 'execution' (in Desai 2014). The prawns are 'pre-emptive[ly]' characterised as 'criminal' in order to justify the use of lethal force against them, just as Helene Strauss has argued of the Marikana miners (2016, 524). The racism undergirding the construction of the miners' ostensible criminality is affirmed by contemporaneous media coverage that, as Jane Duncan notes, asserted that the miners who attacked the police had been 'made to believe by a sangoma that muti' – traditional medicine – 'smeared on their bodies had made them invulnerable to bullets' (2013, 76). Such allegations, Duncan suggests, portrayed the miners as 'predisposed to violence and superstitious beliefs, strongly suggesting a latent trope of the miners as primitive and even sub-human' (2013, 76). In the same way, Wikus's language parrots historical descriptions of Black "subhumanity" when he tells his trainee, Fundiswa, that 'the prawn doesn't really understand the concept of ownership of property' (2009). This continuity is neatly underscored by the patronising tones in which Wikus addresses his Black colleague, and blithely tells him not to worry about a mix-up that has left him without a flak jacket. At the same time, the fact that Fundiswa may not need a flak jacket reveals MNU's paramilitary build up for what it is: not a legitimate self-defence, but a coercive and disproportionate show of force like that later deployed at Marikana to keep the platinum flowing.

As Duncan suggests, the prominence in the film of the 'private security firm' and 'booming arms trade' point towards 'the increased militarisation of neoliberal contexts generally, where dissatisfaction with low wages and structural unemployment is frequently quelled by violence' (2018a, 57-58). The futuristic allure of the aliens' technology, though, also comments tacitly upon techno-utopian responses to the diminishing returns of mining in South Africa. Nicol and Leger, for example, optimistically suggest that 'hundreds of years of mining' can be sustained in the future if new methods of mining could make the returns 'sufficiently attractive' (2011, 174). Rather than reckoning with absolute depletion, arguments for 'systemic changes in goldmining methods' involving calls for increasing automation that would actually only further entrench low wages and structural unemployment are commonplace (Hermanus 2017, 815). In reality, the process of automating South Africa's mines has already begun, as, for example, at Finsch diamond mine in the Northern Cape region. Proponents of such automation emphasise its opportunities for increased safety and high-tech 'job creation' while downplaying how unlikely it seems that any new jobs can match the numbers and skillsets of displaced existing miners (Tassell 2018, n.pag.; see also: Wits University 2014; Campbell 2018). In contrast, while *District 9*'s aliens foreshadow the particular plight of the Marikana miners, they also point to what has evaded such techno-utopian responses to South Africa's mining "crisis";

namely, that it is a manifestation of a more fundamental systemic crisis that technology, at least on its own, cannot resolve.

A detail from the prawns' backstory establishes them not just as avatars for the unevenly attenuated means of survival for surplus humanity, but as displaced mineworkers in particular. Blomkamp has gone on record elsewhere that he envisaged the prawns as 'worker drones' who 'leave their planet and go and get resources from other planets' (qtd. in Mueller 2009, n.pag.). The fact that even aliens from another world engage in the typical capitalist pattern of expansion and resource extractivism points towards its systemic totality. Arriving in the 1980s and the beginning of the decline of South Africa's mines, the prawns offer an entropic vision of the future of that systemic pattern, though; one which, crucially, resonates with the unevenly racialised ways in which that future has already begun to materialise in the South African context. As refugees from a world of stalling resource extractivism, the prawns index what WReC call the 'temporal and spatial dislocations' attendant on 'the violent reorganisations of social relations engendered by cyclical crisis' (2015, 72). As Keith B. Wagner points out, with 'no obvious employment for the extraterrestrials', the aliens 'have become a wageless' or 'displaced class' (2015, 45, 51). What, in the humans' racist parlance, is characterised as a natural affinity for trash, is actually a necessity for survival driven by a lack of social provision and employment opportunities. As ciphers for displaced South African miners, then, the prawns point to the reality that neoliberal attempts to revive the increasingly moribund mining sector have disproportionately attenuated the futures and means of survival open to Black miners; a point neatly emphasised by the slender bodies and limbs of the somewhat brown-coloured aliens (see *Figure 1*).

If the prawns are indeed "surplus" miners, it is plausible that what MNU misidentifies as "weaponry" is in fact sophisticated mining equipment, whose conflation with weaponry nods towards the fundamental violence of mining itself as inflicted upon mined lands and mining bodies. The mechanical exoskeletons and gun-shaped devices that we see blasting apart structures and people would be just as applicable to mining. In an earlier short called *Alive in Joburg* (2006), from which Blomkamp developed *District 9*, the mothership's function as an extraction platform is made explicit, with huge umbilical cables tapping into the city's power and water grids. Traces of this apparent mining function also remain in the longer film, as the ship uses a powerful tractor beam to scoop up a downed drop ship and boulder-sized chunks of rock. Scenes in which hapless MNU soldiers explode in showers of gore beneath such "weapons" deflate techno-utopian claims by underscoring the horrific violence through which such a "powered-up" future must unfold under capitalism. Indeed, such scenes show that within the increasingly militarised context of resource extractivism under neoliberal capital, it is not just the racialised poor who are completely disposable, but almost anyone.

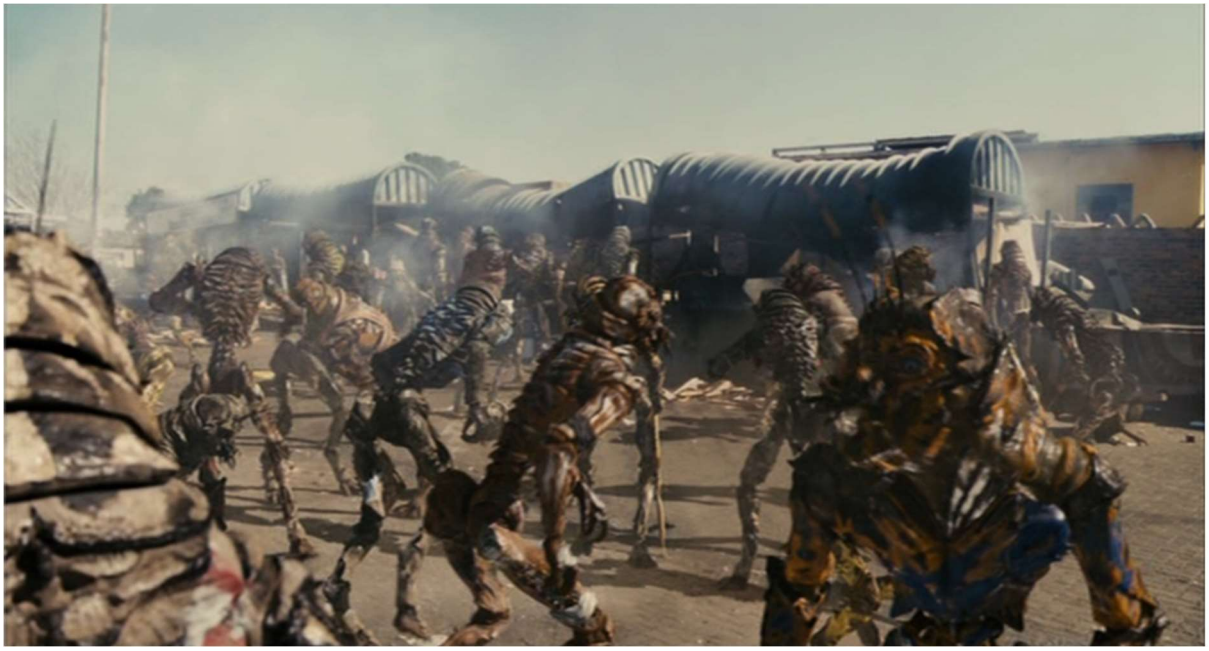

Figure 1. Blomkamp's aliens are visualised as both avatars for a racialised surplus humanity and displaced mineworkers in the particular South African context. *District 9* (2009) directed by Neill Blomkamp. South Africa, USA, New Zealand: Sony Pictures Releasing. DVD. My screenshot.

MNU seemingly cares little how many of its employees are turned into puddles of goo in its pursuit of what they believe to be alien superweapons. Piet Smit, Managing Director of MNU South Africa, is shown to have little difficulty in deciding to order the dissection of his own son-in-law, Wikus. Adding to the horror of it all, we learn that MNU's weapons project may never come to fruition. Moore points out that the supposed next 'scientific-technological revolution and its promise of a quantum leap in labor productivity' has failed to materialise after four decades of neoliberalisation (2015a, 154). Similarly, in thirty years of experimentation, MNU has been unable to even test (much less reverse-engineer) the technology because the "weapons" are genetically coded to function only with the prawns' physiology. Despite being primed with a speculative value like the biotechnologies referenced in the previous chapter, the "weapons" remain impractical and unusable at the end of the film. The continuing failure of MNU's weapons programme casts doubt upon parallel techno-utopian responses to South Africa's mining crisis. Actually, the ever-receding horizon of MNU's techno-utopianism points to the growing exhaustion of technological "fixes" for the compounding problems of capital in the wider systemic context, too.

The film's *mise-en-scène* reflects further upon the entropic future implied by such exhaustion. Gaylard argues that Blomkamp's film is 'sensationalist in its […] view of the postcolonial city', compressing its 'wide variety of areas and life-modes' into an apocalyptic vision that privileges Johannesburg's 'brown, dusty, sun-bleached, polluted' and 'ugliest side' (in Moses et al. 2010, 168-69). This '*Mad Max* […] perspective on […] the future', he suggests, solidifies 'the relations […] between "First" and "Third" Worlds' as seemingly inescapable, exacerbating 'the binaries and

conflicts in these relations rather than ameliorating them' (2010, 169). Certainly, postproduction digital manipulation can be accused of straitjacketing the film's Chiawelo shooting location into a reductive vision of what privileged audiences think the Global South "ought" to look like. As Wagner reminds us, 'the blemished and colourful shacks' of Chiawelo were 'grey[ed] down' to achieve 'maximum effect' (2015, 57). In this, the film seems implicated in perpetuating the very structural poverty that it sets out to critique. In the film's aftermath, some of Chiawelo's actual residents felt 'bitter' and 'exploited' after experiencing little of the benefit of the $90 million grossed by the film in which they and their homes had so prominently featured (Smith 2009b, n.pag.). Yet if the film mobilises a problematic monochromatic visual language of stereotypical urban abjection in the Global South, the greying down of Chiawelo's shacks also pushes the film's colour palette towards the metallicity of mining and its environmental degradations (see *Figure 2*). The deliberately dull, grey, and rusted tones retain a critical edge when juxtaposed with the gleaming white metal of MNU's petro-fuelled armoured trucks and helicopters. In their rusted state, corrugated iron shacks and metal scraps represent haunting doubles of MNU's shiny metallic accoutrements, offering an aesthetics of negative-value that glimpses the entropic future of these instruments of capitalist expansion (see *Figure 3*).

Similarly, Wagner posits that the film offers a 'dialectical play on edifices' in its movements between the 'Chiawelo labyrinth' and the 'modernist skyscraper', in which the tower-like MNU headquarters recalls the 'panoptic-like control' of apartheid, and 'the encroachment' of its 'yet to be eradicated' legacies into District 9 (2015, 57-58). We can add, however, that this interplay is focalised through the gargantuan chunk of metal that hangs over both District 9 and downtown Johannesburg; the alien spacecraft that appears multiple times in almost every exterior scene (see *Figure 4*). With its flattened and angular shape, bracketed by additional structures that resemble the setting of a diamond ring, the alien craft calls upon its audience to remember the metallic and mineral resources and the extractivist structures that continue to bind core and racialised peripheries together. The presentation of the alien vessel anticipates the images in *For What it's Worth*, a 2014 photography series by the South African photographer Dillon Marsh. The series depicts images of abandoned mining-bound landscapes populated with giant CGI spheres representing the total material excavated from them. Of particular resonance with *District 9*'s grey-coloured vessel are the six photographs representing the nationwide total of the platinum group of metals mined since 1924, all taken at the *koppie* (small hill) where the Marikana massacre took place. Describing "Rhodium – 13 million troy ounces" in particular (Marsh 2014a, see *Figure 5*), Deckard suggests that 'the glimmering sphere of rhodium' resembles 'an alien artefact' deposited upon the landscape as a 'giant lump of metal that parodies the logic of commodities made from certain metals as possessing higher aesthetic or

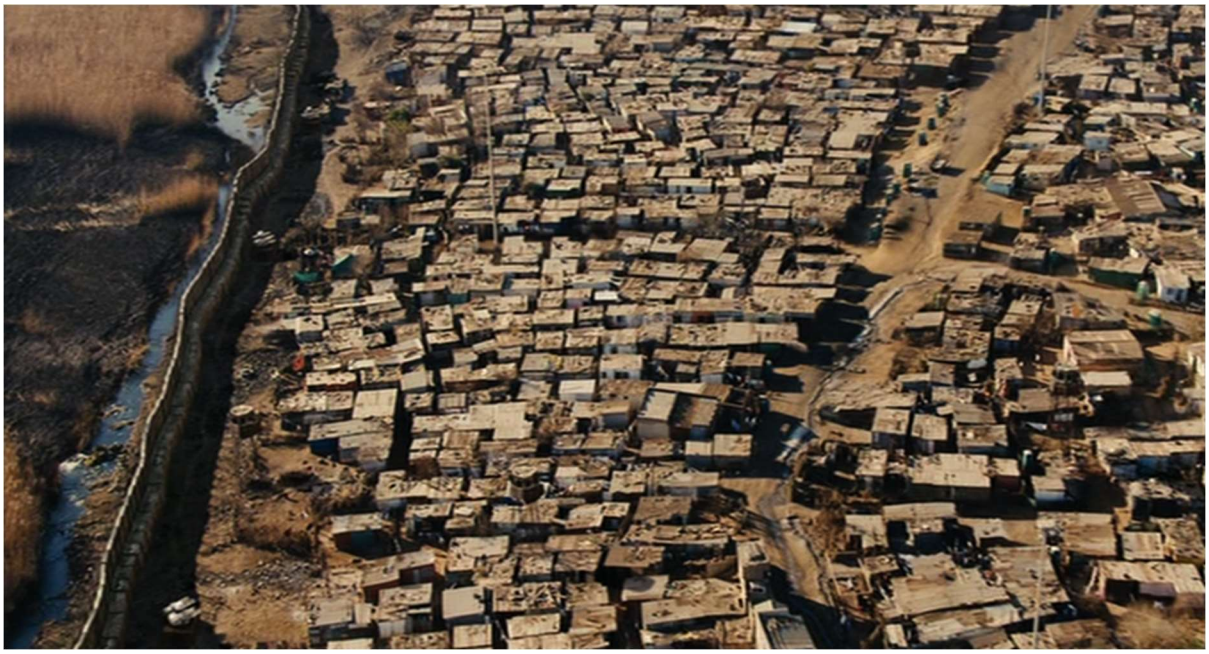

Figure 2. An aerial shot of District 9. Note the greyed-down, metallic colour palette; a stereotypical depiction of Global South poverty, to be sure. But it is also the colour palette of mining, depletion, and negative-value production. *District 9* (2009) directed by Neill Blomkamp. South Africa, USA, New Zealand: Sony Pictures Releasing. DVD. My screenshot.

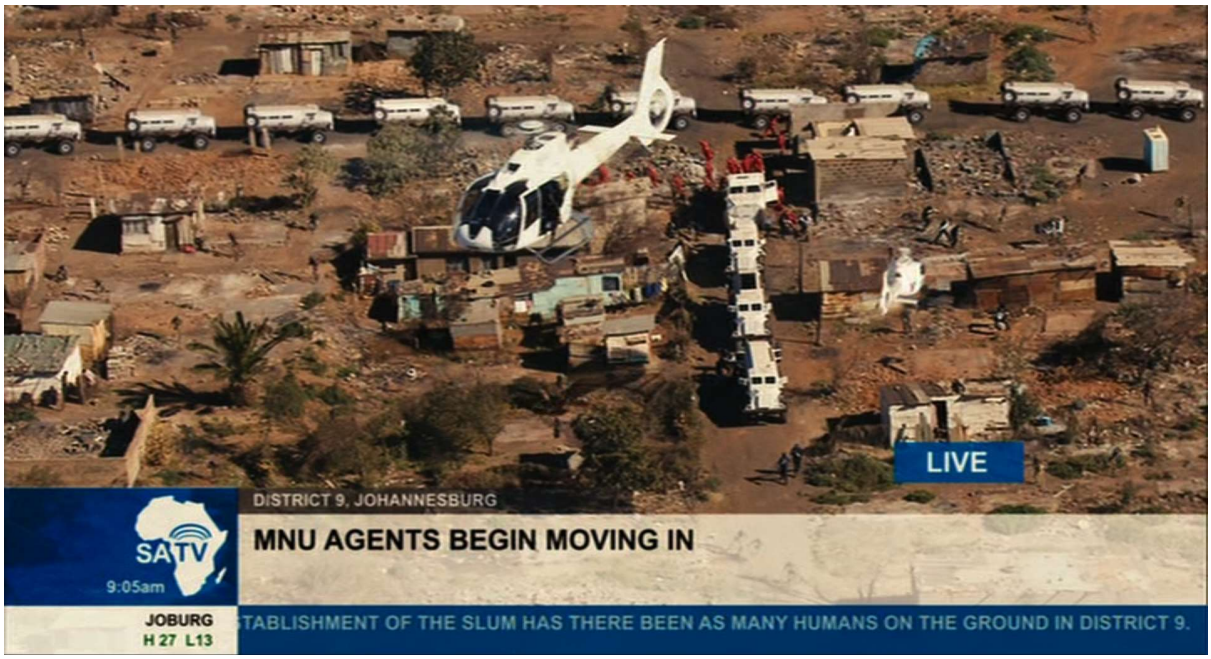

Figure 3. Another aerial shot of District 9. Note the contrast between MNU's trucks and helicopters and the rusted shacks as a vision of the future that awaits them. *District 9* (2009) directed by Neill Blomkamp. South Africa, USA, New Zealand: Sony Pictures Releasing. DVD. My screenshot.

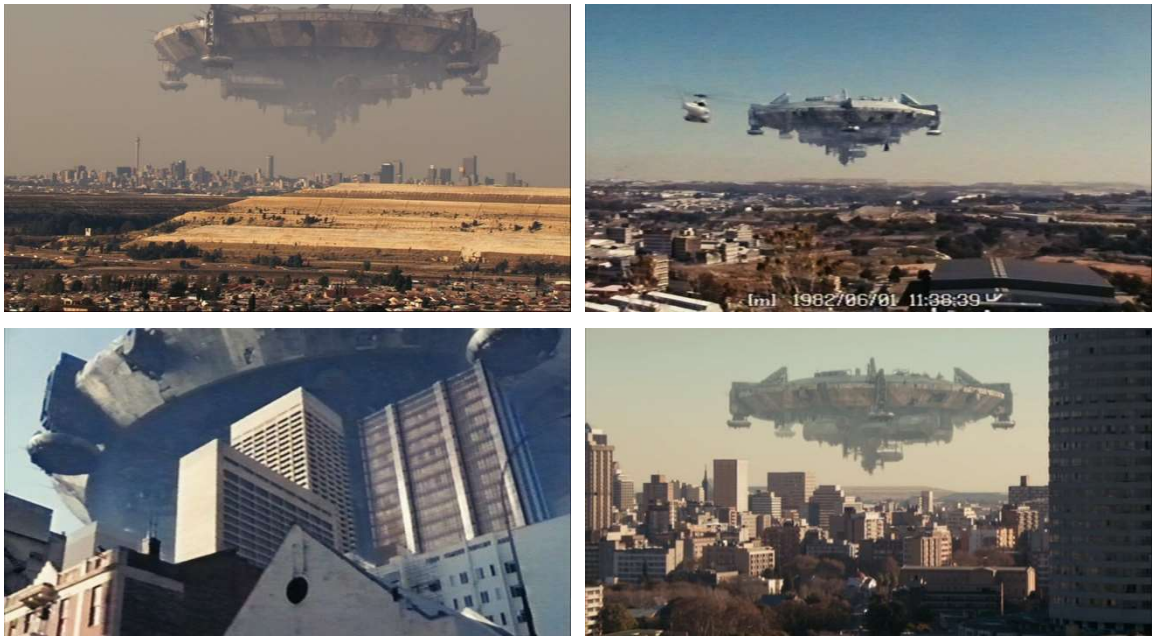

Figure 4. Various shots of the alien spacecraft over Johannesburg. District 9 (2009) directed by Neill Blomkamp. South Africa, USA, New Zealand: Sony Pictures Releasing. DVD. My Screenshots.

monetary "worth" in contrast to the devalued lives of the humans who mined or made' them (2019, 251). Marsh's photograph, she suggests, invokes what she calls the 'mining uncanny' in several ways (2019, 251). Firstly, she writes, the photograph 'rematerializes the raw materials taken from underground and transported far away' to remind us 'of the hollowness that underlies what appears solid ground' (2019, 251). Secondly, it appears uncanny because 'the human labourers who have co-produced' and 'protested' in the depicted environment have been 'forcibly erased' (2019, 251). And thirdly, Deckard argues, the photograph witnesses the capitalist world-ecology's dependence upon mining and its iniquitous regimes of 'extraction, access, and pollution' (2019, 251). This trenchant reading of Marsh's photograph could just as easily apply to the alien vessel in Blomkamp's film. As it hangs menacingly over the city, the ship, like "Rhodium", references 'the repressive force of the neoliberal state exercising its monopoly on violence to […] preserve the ecological regime of extraction' (Deckard 2019, 251).

Travelling from planet to planet, the prawns' vessel symbolically replicates the cyclically expansive 'frontier-making' that Moore argues has been the 'constitutive spatial movement' and 'lifeblood of capitalism' (2015a, 63). This movement is figured as newly threatening, however, because the vessel's apparent inertness forecasts the grinding to a halt of extractivist enterprises of any kind. While one reviewer surmises that the ship has 'run out of gas', we might read this petrocultural gesture beyond the absolute depletion of a singular resource to the systemic exhaustion of the extractivist enterprise that the mining vessel represents (Smith 2009a, n.pag.). If Deckard cautions against reading Marsh's photograph as encoding 'some ecophobic concept of a vengeful "Nature"', the alien vessel in *District 9* nonetheless deploys a similar mining uncanny to encode the

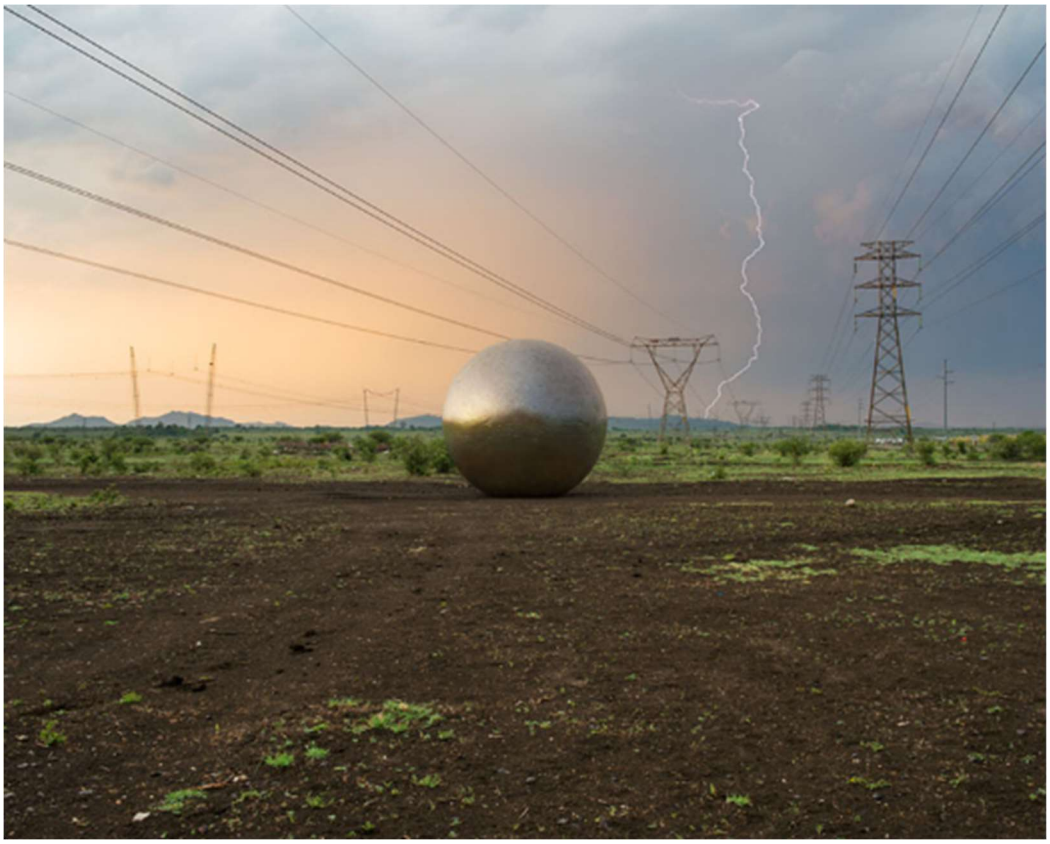

Figure 5. "Rhodium - 13 million troy ounces", Copyright © Dillon Marsh (2014a). Part of the series *For What It's Worth.* Image taken from the artist's website. Accessed 16 December 2020.

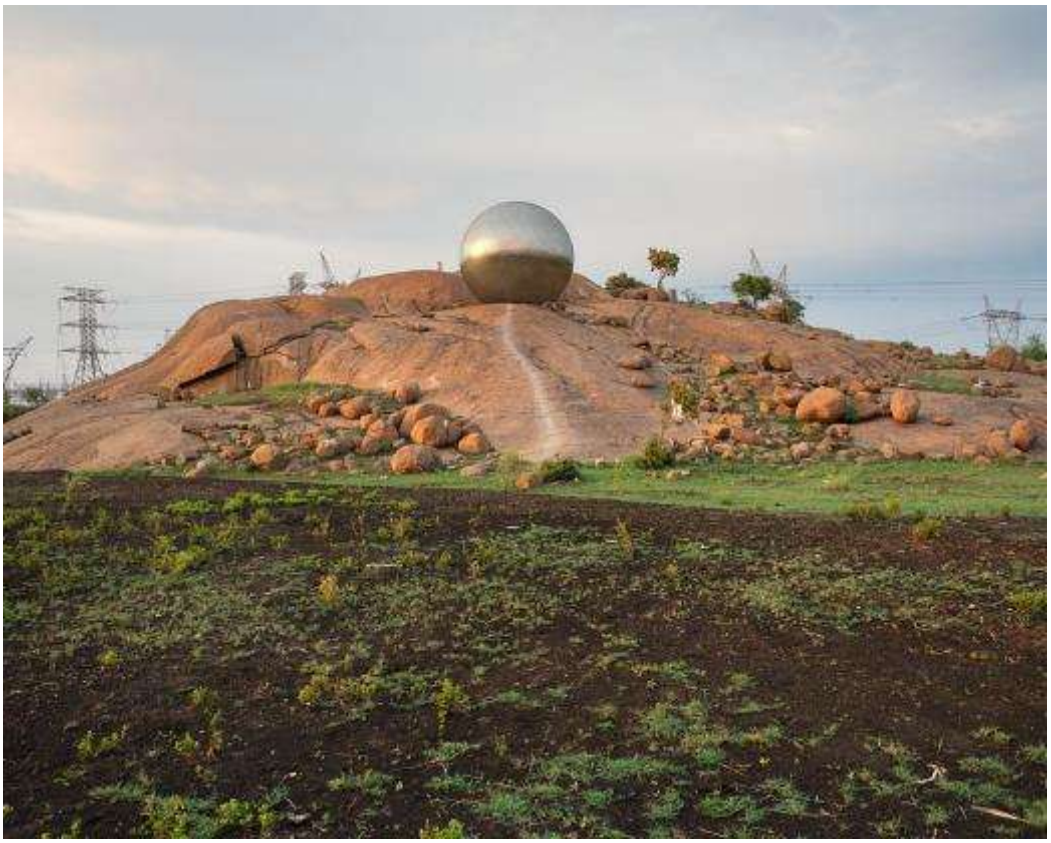

Figure 6. "Platinum - 136 million troy ounces", Copyright © Dillon Marsh (2014b). *Part of the series For What It's Worth.* Image taken from the artist's website. Accessed 16 December 2020.

imminent possibility of the exhaustion of capitalism as an ecological regime (2019, 251). Perhaps more than "Rhodium", depictions of the ship resemble another photograph in the series called "Platinum – 136 million troy ounces" (Marsh 2014b, see *Figure 6*). In that image, a sphere of platinum sits atop the Marikana koppie, with electricity pylons and cables in the background that ironically foreground the centrality of mining to neoliberal capital's densely "webbed" energy culture. As in "Rhodium", the bodies of the Marikana miners are nowhere to be seen, their lack emphasising the wider biopolitics of surplus humanity within neoliberal world-petroculture even as, in a more historical fashion, their absence recalls Black bodies "disappeared" by apartheid-era government forces, or miners that went underground never to surface again. The fact that the weighty-looking sphere looks poised to roll down and crush the observer beneath leaks a recognition that a reckoning with capitalist extractivism's local and system-wide consequences is imminently and unpredictably inbound. In the same way, the prawns' ship is extremely dilapidated and is literally falling apart; an MNU engineer complains that 'there's pieces falling off that vessel for bloody months' (2009). Indeed, the vessel seems like it could fall from the sky at any moment, and the fact that it hangs mostly above the Chiawelo slum emphasises that when capitalism "stalls" the brunt is especially borne by those configured as "disposable" by its racial ordering. As well as evincing the anxiety haunting teleological notions of capitalist "progress" (what goes up must come down), the idea of a stalled spacecraft that could unstoppably fall from the sky, or a metal sphere that could at any moment roll downhill, underscores the attenuated future attendant on capitalism's systemic inertia.

Gesturing powerfully to this inertia, after one of his 'real' and 'amazing find[s]' literally blows up in his face, Wikus retains his excitable vocabulary and way of measuring the world in terms of "finds", even in the throes of his transformation (2009). In this way, and like the survivors in *Dub Steps*, Wikus underscores the persistent 'gap' that Szeman identifies between the 'knowledge' of capitalism's socio-ecological pitfalls, and the 'action' necessary in reckoning with them (2013, 155). As Wikus transforms into an alien, his privileged life as white male Afrikaner middle-management dissolves into the racialised surplus humanity upon which such privilege depends. Instead of defamiliarising the quotidian comfort of his former life and revealing its racist foundations, however, Wikus comes to view the past as a site of nostalgic identification. Wikus continues to hold out the hope that he will be able to make 'everything the way it was' and return to his privileged, and resolutely human and "uncontaminated" existence (2009). Does this mean that Blomkamp's film leaks – however unconsciously – a nostalgia for a Nature/Society split that, in the charged South African context, leads back towards apartheid? Certainly, the film's much-condemned positioning of "The Nigerians" as a homogenous mass of criminality, violence, greed, and even cannibalistic mysticism lends credence to this idea. Without absolving the film of its problematic positioning of

race, though, I think that *District 9* ultimately offers a way into resisting such a nostalgia by leaving Wikus's de-prawnification only a distant prospect at best. In this way, Wikus's fate instead directs our attention to how the negative-value future of capitalism's systemic past has already begun to materialise in South Africa, and will likely worsen in the future to come.

The Future of Capital's Slow Apocalypse is "Now Now"

In this final section, then, I will turn to how the mining-bound aesthetics of Human's and Beukes's novels all encode the "now now" future of the slow apocalypse unevenly imposed upon South Africa through the country's mining industry, and its acceleration under the pressures of neoliberal world-petroculture. The epigraph to Human's novel explains that "now now" is 'a common South Africanism relating to the amount of time to elapse before an event occurs. In the near future; not happening presently but to happen shortly' (2013, n.pag.). The novel, which appears to be set in the present-day, evokes this temporality as its protagonist, a sixteen-year-old boy called Baxter Zevcenko, is plagued by visions of potential apocalyptic futures. When his girlfriend Esmé goes missing, Baxter recruits a supernatural bounty hunter called Jackie Ronin to help him search for her in Cape Town's 'sweaty underbelly' (2013, 122). In the process, he discovers that he is a *Siener*, an Afrikaner prophet or "seer", and that the 'knowing-eye [...] passed down from generation to generation' in his family is no superstition, but a preternatural ability to see through time and space into South Africa's past and the possible futures that remain structured by it (2013, 3). He learns that this past is 'etched in blood and death' and, pointedly, asserts that it becomes visible only in the 'abyss beneath' contemporary Cape Town and its 'supernatural underworld' (2013, 1, 215). Beukes's *Zoo City* is likewise concerned with imminent apocalyptic futures that can trace their origins to the subterranean violence of mining extractivism. In *Zoo City*, Zinzi December, whose very name points to imminent endings that may also be new beginnings, descends repeatedly into the mined-out underground beneath Johannesburg. Set in 2011, just a year after its publication, Beukes's novel reflects upon how this devastated minescape reveals the unevenly depleted future that awaits neoliberal capital's systemic extractivism.

In his reading of *Zoo City*, Graham draws upon Achille Mbembe's and Sarah Nuttall's provocative observation that 'the underground' of Johannesburg, a city which 'would not have existed' if not for 'the gold-bearing beds' beneath it, 'hold[s] the keys to unlocking the secrets of its modernity' (2008, 16, 22-23). With reference to this underground, he suggests that Beukes's novel expresses interrelated 'clusters of post-millennial anxiety' that are specific (but perhaps not unique) to postapartheid South Africa. Reading *Zoo City* alongside Henrietta Rose-Innes's *Nineveh*, Graham writes that both novels seem preoccupied with an encroaching surplus humanity that seems 'new, alien, and other', and with

the potentially dangerous 'subterranean spaces' left behind by a fading mining industry (2015, 64). Even if *Nineveh*'s Cape Town setting lacks the historical weight of a literal underground shaped and haunted by the violence of mining, Graham argues that this only emphasises the novel's apparent 'anxiety about hidden depths and alien incursions' that the novel evinces by displacing them onto a city built not on holes, but the notional 'solidity of a mountain' (2015, 76). As will be seen, I agree with Graham's assessment that such a subterranean turn is well placed to 'lay bare the structures and histories underlying the slick surfaces' of postapartheid South Africa (2015, 72). In what follows, however, I want to probe further how such a laying bare opens out onto futures to come; both in terms of how Human's and Beukes's novels in particular prognosticate the unevenly consequential afterlives of mining in South Africa, and how, like the Afrofuturist texts examined previously, they clear imaginative space for new ways of thinking and being to emerge and thus hold open the possibility of a genuinely reconciliatory futurity on both local and systemic scales.

It is perhaps in Beukes's Johannesburg-set *Zoo City* that this subterranean turn is most apparent. Like the prawns in *District 9*, or Miller's post-apocalyptic survivors, Zinzi confronts the "downward" mobility produced by neoliberal capital's technics of racialised precaritisation as she is forced to adapt to a new life as a "surplus" human. Zinzi is one of what are called, in racially-charged terms, 'zoos', 'the animalled', or 'aposymbiots'; a group of people magically bonded to animal familiars, seemingly as punishment for their participation in violent crimes. As she searches for an apartment after being released from prison, her familiar, Sloth, is 'sneered' at by upmarket rental agencies, who patronisingly direct them towards Hillbrow, a once-trendy inner-city area of Johannesburg now known for its high proportion of refugees, (typically non-white) economic migrants, and other "surplus" humans. A gathering place for many aposymbiots, Hillbrow has been rechristened as the eponymous "Zoo City". Employment opportunities for the animalled are thin on the ground, and most eke out a living in an informal magical gig economy, because animalled humans also acquire a *shavi*, the novel's term for an unusual magical ability. Zinzi's *shavi* is the ability to find 'lost things', in that she can see the magical strings which bind a person and their lost objects together, like 'rings […] lost keys, love letters, beloved toys, misplaced photographs, and missing wills' (2010, 9). Like the survivors of *Dub Steps*, then, Zinzi is also concerned with mining the past, though in ways more closely bound to the specificity of personal, or local, or "folk" memory than the "Enlightened" knowledge forms that Miller's survivors seek to preserve. As Henriette Roos explains, the 'ravaged surface' world of *Zoo City*'s Johannesburg 'mirrors the deep excavations beneath it' (2011, 52). As Zinzi navigates both of these worlds, then, Beukes's novel figures a relational consciousness of the socio-ecological webs of exploitation and appropriation that structure Johannesburg's uneven geography, since Zinzi's survival

depends on her 'figuring out which string to tug on' and then following it 'deep into the city, deep under the city' (2010, 13).

As Zinzi searches for the material embodiments of lost memories, Graham posits that her narrative 'excavates the layers of history embedded in – but often partially erased or distorted by – the city's built environments' (2015, 75). He cites a moment where Zinzi contemplates Hillbrow's High Point towers. Zinzi tells us that 'if Hillbrow was once the glamorous crown of Johannesburg, High Point was the diamond smack in the centre of the tiara' (2010, 251). For Graham, the fact that Zinzi later confuses these towers with the World Trade Centre in a vision prompted by a visit to a *sangoma* (a traditional healer) 'symbolically links the Hillbrow building to the former embodiment of global capitalism, while ultimately revealing its contemporary, derelict reality' (2015, 75). We might also say, though, that the High Point towers offer a haunting prolepsis of the depleted future to come and that Zinzi's invocation of the diamond ties that depleted future to the long aftermath of the political ecology of mining. This "faded diamond" points to a similarly fading extractivism under which few diamonds remain to be found, thus auguring an end to the luxury and affective lure that diamonds represent for privileged core-zone consumers. This is marked further when Zinzi visits another iconic Hillbrow skyscraper, the Ponte City Tower. Zinzi explains that Ponte City was 'once a glitzy apartment block' that became a 'housing project with […] garbage, and suicides piling up in the central well' and then shifted back again to 'reclaimed glitzy apartment block' (2010, 293). Ponte City's flip-flopping between privilege and abject poverty references the intensified precarity of the neoliberal context. With its cylindrical, hollow-cored shape, shaded interior, grey concrete walls, and courtyard floor of rough-hewn rock, Ponte City ties that precarity to the political ecology of mining in that it resembles a mine shaft. Ponte City also resembles an industrial smokestack, thus re-figuring mining not as a source of prosperity but of troublingly toxic wastes and other degradations. Given Zinzi's earlier remark that 'you'd be surprised by how many lost things migrate to the drains', Ponte City might also double as a drainpipe that makes the mines' historical funnelling of bodies below ground newly explicit as the rise of surplus humanity likewise reconfigures racialised bodies into waste products (2010, 13). In a more systemic register, too, this symbolic mineshaft-cum-drain points to a seemingly inescapable entropic future as the decaying architecture of the mine is symbolically transposed to the surface, for all to see.

While High Point and Ponte City offer glimpses of the future, as Zinzi descends into Johannesburg's underground, *Zoo City* deploys the mining uncanny that Deckard describes above in staging the return of the repressed mining history that casts a long shadow upon that future. Zinzi describes how the 'modern cement' of the sewer network first gives way to 'ancient brickwork […], a Victorian relic from the town's golden days', and then finally petering out into the 'scramble of pitch-

black termite holes' that may be 'the original gold diggings' (2010, 217, 221). Unlike the collected and safely "contained" artefacts in Roy's archive, these are no mere "relics", but instead show how the city's "golden days" of mining continue to intrude upon and construct Zinzi's lifeworld as, like a precaritised mineworker, she seems seemingly unable to escape the magnetic pull of the tunnels upon which her livelihood depends. As the novel begins, Zinzi is attempting to return a platinum ring that she has retrieved from the drains for a wealthy white woman called Mrs Luditsky, meaning that she reiterates the historically racialised pattern of mining work in South Africa with the added intensity of neoliberal precarity necessitating the difficult and dangerous work. Zinzi explains that it took 'three hours to find the damn thing' because it was 'deep under the city', someplace 'dark and wet' (2010, 6, 13). At another point in the narrative, highlighting the disposability of "surplus" humans under neoliberal capital, Zinzi and Sloth are washed away by the flow of sewage and end up 'kilometres' from where they started, 'battered from being hurled against the cement walls all the way down' (2010, 220). To begin her work each day, Zinzi has to descend from her apartment in the ironically named Elysium Heights building like a miner going underground. Just as Ponte City transposes the concealed architecture of the mine to the surface, Elysium heights resembles a mine, with 'all the buildings connected via officially constructed walkways or improvised bridges to form one sprawling ghetto warren' (2010, 61). Like Roy's odyssey through the abandoned technical institutions, navigating Elysium Heights is like navigating a mine but made all the more difficult by the building's dilapidated condition. She has to 'duck into number 615' and 'scramble down through a hole in the floor' into the 'gutted' apartment below, before letting Sloth guide her through 'the utter darkness' and 'claustrophobia of an unlit stairwell' (2010, 7-8). As much as these gestures highlight the continuity of experience for Black labouring bodies in the "New" South Africa, there are additional systemic resonances at play here. The darkness and the claustrophobia witness the time-space compression of neoliberalisation, and hence the apparent constriction of possibility that it brings via the ratcheting-up of socio-ecological degradation.

In addition to depletion, Beukes's novel subtly underscores the durable mining-bound toxification with which Johannesburg's "surplus" humans must disproportionately contend. Just as *District 9* foregrounds the mine dumps in its opening shots, the novel begins with Zinzi describing a 'sulfur color' sunrise that 'seeps across Johannesburg's skyline' (2010, 3). Indeed, this seems to be a regular occurrence as it reminds Zinzi 'that I really need to get curtains', the arch humour pointedly emphasising that this daily intrusion interrupts her rest such that she experiences time and work as inescapably haunted by the presence of the mine and its wastes (2010, 3). Reaching Zinzi as far away as Hillbrow, the mine-dump sunrise underscores that the 'uncanny extension of historical materialities beyond their originary legislations' by postapartheid neoliberalisation is spatial as well as temporal

(Duncan 2018a, 60). The particular choice of "seeping" seems to deliberately recall the acidic water draining from the city's now defunct mines, emphasising the delayed but now accelerating ecological costs of mining in the country. As Terence McCarthy explains, more than a century of goldmining has exposed a vast surface area of rock, accelerating the natural acidification of the water that comes into contact with exposed iron pyrite beyond the ability of 'natural neutralisation processes' to counter the acidity (2011, 1). While acid mine drainage has been ongoing for 'decades', McCarthy writes, it is 'cumulative' in its effects and is 'likely to continue for centuries', since the problem has only been exacerbated in recent years as more mines have shut down and filled with water (2011, 3-7). When this water, acidified and contaminated with toxic metals, enters local watercourses it pollutes the informal settlements clustered around the dumps that use the water for washing and cooking. By referencing this process, *Zoo City*'s toxic sunrise, like *District 9*'s ominous alien spacecraft, transposes damage otherwise hidden upon the city's racialised periphery for all to see, while simultaneously pointing to the growing inability of systemic cores to ignore it. The rising danger inhered by this rising sun is then subtly affirmed by scenes later on in the novel, in which the spaces beneath the city are often filled with rising floodwaters redolent of both acid mine drainage and the rising seas of capitalist petromodernity's warming planet.

Zinzi returns to the mine dumps later in the text as she is investigating a string of murders targeting aposymbiots, in which it transpires that someone has been murdering them in order to use their familiars in *muti* rituals. When Zinzi discovers the body of the latest victim partially buried in the dunes, Beukes's novel seems to reference the 'exhumation of dozens of bodies' whose unearthing was, for Graham, one of the most readily 'iconic' aspects of the TRC and the country's wider 'efforts to grapple with' the horrors of apartheid (2009, 20). As Zinzi contemplates the toxic 'dust embedded in every hollow and fold' of the aposymbiot corpse, however, Beuke's novel invites us to reflect upon how the unevenly distributed consequences of the country's mining past threaten to "bury" the "surplus" humans still suffering under apartheid-era technics years after their "official" demise (2010, 297). Indeed, Zinzi herself seems set to be buried if she remains in the dumps, since she describes the 'gritty yellow dust […] sandblasting [her] exposed skin' (2010, 296). Earlier, in a call-back to the novel's opening sunrise, she remarks that 'the fine yellow mineral deposits kicked up into the air by the wind' is what 'makes the Highveld sunsets so spectacular' (2010, 140). Further emphasising the spatio-temporally far-reaching (if unevenly borne) consequences of mining, the repeated motif of dust reminds us of the delayed effects of another key hazard faced disproportionately by Black miners in South Africa. As McCulloch explains, the high silica content of 'host ore' in the Witwatersrand goldfields produces much dust when processed, which can cause both silicosis and tuberculosis when breathed in (2012, 2). Silicosis is, he writes, a 'chronic disease' with a 'long latency period', meaning

that it continues to progress and may not even manifest until 'after a worker has left a dusty occupation' (2012, 5). Importantly, McCulloch points out that while the symptoms of silicosis can now be 'alleviated', the overall 'process of decline cannot' (2012, 5). *Zoo City*'s seeming nod to the problem of silicosis, which is emphasised by the claustrophobic, hard-to-breathe-in situations into which Zinzi is repeatedly forced, thus seems especially significant. The seeming omnipresence of the dust throughout the city points both to the constriction of future possibility implied by breathing difficulties, and the ultimate inability of those consequences to be "outsourced" mainly to peripheral zones.

Baxter's descent into Cape Town's supernatural underworld in *Apocalypse Now Now* likewise points to the increasing inability of privileged core zones to escape the consequences of extractivist projects by displacing their consequences to "surplus" humans on racialised peripheries. Typifying the privileged denialism of core-zone imaginaries and the relentless developmentalism of neoliberal capital, Baxter initially believes that 'there's no sense in dredging up the past' (2013, 9). As the novel progresses, however, it charts a bildungsroman-like trajectory in which the young Baxter might be said to come to world-ecological consciousness and disavow his previous, typically neoliberal modes of thinking and living. Baxter begins the novel speaking in a neoliberal idiom, explaining how he is the mastermind of a high school gang called 'the Spider' that makes a killing by distributing so-called 'creature porn' to other students, which consists of videos and images of 'guys and girls dressed in supernatural fancy dress and going at it' (2013, 22). 'We're not a gang', Baxter explains to us in a humorous parody of a slick marketing pitch (of which Roy or Fats in *Dub Steps* would no doubt be proud); rather, the Spider is 'a corporation' that is always ready to 'exploit the trend to its full potential' and doesn't just 'sell a product' but an 'experience' (2013, 11-12). With characteristic verve, Baxter boasts that the Spider offers its customers 'the Altman of anal and the Coen Brothers of the cumshot' (2013, 22). In *Zoo City*, Zinzi is made to confront how the privilege of her 'former life' as a fashion journalist and 'outrageously expensive indie boutique kinda gal' always depended upon the exploitation of the "surplus" humanity of which she has now become part (2010, 4). Baxter undergoes a similar learning experience as his sojourn into Cape Town's underbelly brings him face-to-face with the webs of exploitation and appropriation within which the Spider's seemingly consequence-free distribution of third-party content remains imbricated. As he searches for Esmé, Jackie introduces him to the world of the 'Hidden Ones', the magical creatures who have always been persecuted, exploited, and appropriated by humans, sometimes acting in an uneasy alliance with the 'Crows' or 'Feared Ones', a race of humanoid corvids that have sworn to destroy the Hidden Ones (2013, 112-14). As Baxter and Jackie descend into the 'bowels' of a nightclub called The Flesh Palace, the former is forced to confront the reality that the "creature porn" that he has been dealing in does not feature

consenting actors in fancy-dress, but the ruthless sexual exploitation of the Hidden Ones who, like the prawns and aposymbiots, are ciphers for a racialised "surplus" humanity.

The Flesh Palace is the main studio for the booming trade in creature porn, and 'each new doorway' that Baxter passes in its sprawling basement 'offers a glimpse into another nightmarish set' that 'makes [him] gag' (2013, 144). The porn studio's underground setting is particularly relevant, serving to highlight the connection between the past appropriation of vital energies from mining bodies, and the newly intensive ways in which "surplus" bodies are themselves mined in the neoliberal era of a fading, and hence increasingly desperate, extractivist petroculture. The punters at The Flesh Palace are entertained by 'naked zombies hanging in cages from the ceiling' who, in a gross parody of the strip-tease, 'peel flesh from their bones' and throw it to human customers below (2013, 143). Following Oloff's (2012) reading of the zombie as an ecological figure, we might say that the novel's transposition of that figure to the South African context re-casts its articulation of the separation between a devalued workforce and the means of subsistence in terms of the mines. With flesh that 'hangs from their decaying bodies in strips' that are gradually peeled away, the zombies re-iterate in an accelerated form the piecemeal disintegration of bodies propelled by a lifetime spent working the mines, even as they gesture to neoliberal capital's incremental ratcheting up of much older patterns of bio-extractivism (2013, 145). In one particularly revealing scene, Baxter sees 'a young guy being held down' as a zombie 'rips chunks of flesh from his thighs with its teeth' (2013, 144). 'Oh, mistress, I've been a bad boy', the young man 'groans': 'Eat me, eat me' (2013, 144). The piecemeal consumption of the living body recalls Marx's famous observation that capital 'lives only by sucking living labour' (1990, 342). At the same time, the sadomasochistic contours of this moment bring that sucking into the present-day context of neoliberal world-petroculture, subtly reminding us of the punitive contours of the "shock doctrine" famously discerned by Naomi Klein (2007), and imposed across the Global South via Structural Adjustment Programmes.

If SAPs have been deployed the world over as a pretext to further sapping the vitality of resource-rich peripheries, then this pattern is literalised by the zombies themselves, who are not literally undead but instead parasitised to exhaustion by the Anansi, a species of sentient spider who control their victims with 'venom injected into the spinal cord' (2013, 143). Permanently clamped to the host body until that body is exhausted, the 'distended, bulbous arachnid bodies' of the Anansi witness how systemic cores remain supported by the violent extraction of value from peripheralised bodies and other resource frontiers (2013, 140). If the name Anansi aligns these parasites with the trickster from West African folktales, here the association emphasises the deceitful strategies by which successive administrations of the "New" South Africa have sought to guarantee the future by securing overseas exploitation disguised as "investment". This, along with the embeddedness of the

Anansi within the upper strata of Cape Town society also references neoliberal South Africa's growing role in South-South relationships of exploitation and appropriation, even as the country's racialised peripheries continue to experience the effects of SAP-driven austerity.[5] Accordingly, we learn that the Anansi have partnered with 'Octogram', a shady multinational corporation that, like LifeGen in *The Book of Phoenix* or MNU in *District 9*, seems to be involved in the typically diversified and mutually reinforcing nexus of 'mining, pharmaceuticals, [and] weapons' (2013, 130). Like the crumbling infrastructure of *Zoo City* or the emaciated prawns and stalled spacecraft in *District 9*, the Anansi and The Flesh Palace ultimately point to the negative-value future that awaits this extractive nexus and the logic by which it violently penetrates and reorganises lands and lives. The Anansi make use of their hosts until they 'wear the body out and have to latch onto a new host', such that they seem to replicate the recurrent pattern of frontier-movement that can only delay the onset of systemic crisis (2013, 140). The novel, however, subtly underscores the eventual diminishing returns of this pattern. Baxter sees 'a man plastered to the ceiling' by Anansi webs, trying to free himself in an endeavour that seems hopeless 'because his legs look like they've been gnawed away' (2013, 145). With the image of a man trapped in 'disgusting black threads' a powerful sense of claustrophobia emerges, oriented towards the apparently inescapable onset of an entropic future (2013, 145).

If the Anansi zombies ultimately point to how, as Oloff argues of petrocultural figurations of the zombie more generally, the 'unpaid debts' of capitalist resource extractivism 'always return', we might read *Zoo City*'s aposymbiot pairs as similar ecological figures (2017, 320). In a review of the novel, Jayna Brown points out that the animals symbolise the 'lethal stickiness of the past', because, as Graham elaborates, their 'guilt-laden humans cannot leave them behind' (Brown 2013, 8; Graham 2015, 72). Indeed, the animals are a source of racially contoured disgust and anxiety that, as one online commentator in the novel opines, marks the animalled out as 'criminals' and 'scum' who 'aren't human' (2010, 78). In this way, as the aposymbiots endure racist abuse and structural inequality, Beukes's novel underscores not only the way that past events continue to structure uneven futures, but also how the material consequences of that past are inescapable. We learn that if a human partner either kills or allows their familiar to be killed, they are carried into oblivion by a mysterious phenomenon known as the Undertow. At the same time, if a familiar's human dies, the animal might linger on for months but, as Zinzi explains, 'they're never quite the same' (2010, 349). Symbolically,

[5] Nixon, for instance, notes that 'we have witnessed in the past two decades the accelerated extraction of African minerals, oil, and timber in many of the continent's least stable nations: Liberia, Gabon, Congo, Central African Republic, Nigeria, Mali, Niger, Chad, Sierra Leone, Mauritania, and Angola among them', where 'South African mining corporations, buoyed by their postapartheid legitimacy, have come to compete in this terrain against European, American, Australian, Canadian, Chinese, and Brazilian outfits' (2011, 120). To be sure, this is an aspect of South Africa's world-ecological imbrication that remains underexplored in this chapter, but is something that I intend to foreground as I revise this thesis for publication.

the portal to the Undertow appears as a 'black hole, cold and impersonal as space', at once recalling the choking petrocultural hazards of oil slicks, the subterranean voids left behind by a fading mining extractivism, and the ruthless socio-ecological atomisation driven by neoliberal capital's increasingly impersonal structures. We find that 'some eyewitness reports describe teeth grinding and ripping in the shadows' referencing the past, present, and future consumption of precaritised bodies and lives by capital's systemic extractivism, a point subtly underscored by how such 'grinding' and 'ripping' sounds also resemble the sonic violence of mining (2010, 245).

If the exact timing of the Undertow's onset remains unpredictable, the fact that it *will* happen remains a certainty, such that living in anticipation of its arrival is akin to 'waiting to be led like the proverbial lamb, duck, or llama to the divine slaughter' (2010, 188). In this way, the aposymbiot familiars embody the precarity of the racialised humans to which they are bonded, since the sometimes small, especially vulnerable animals may at any time fall victim to accident or disease in the crowded city. Moreover, it is left unclear as to whether a human's familiar retains its original lifespan, raising the possibly that, for a human, to be animalled is to quite literally have one's own life – and future – irrevocably cut short. When the Undertow arrives to claim its victims, Zinzi describes how 'the air pressure dips, like before a storm', and 'the shadows start to drop from the trees' (2010, 245). She tells us that 'the darkness pools and gathers and then seethes' before it 'rushes down the road' towards its victim, who screams for 'a few awful seconds' before being 'abruptly cut off' (2010, 245). The inescapable demise figured in terms of a claustrophobic, fast-moving darkness speaks in both local and systemic registers. It emphasises the iniquitous pattern whereby the futures of Black lives are rendered "surplus" and so disproportionately foreclosed by the racial technics of neoliberal capital. Yet the Undertow also symbolically brings with it the final, rapid, and total emergence of forestalled consequences that augur a negative-value future, and are expressed here in a petro-aesthetic idiom reminiscent of the inky blackness of crude oil and an increasingly stormy warming planet.

Ultimately, Beukes's novel points to the inability of a future of "business as usual" to escape that endpoint via the fate of its main antagonist, the reclusive Odysseus "Odi" Huron, a music magnate and nightclub owner. Initially, Huron approaches Zinzi to locate one of his acts who has gone missing, a teenage popstar called Songweza. Eventually, though, we learn that Odi was the one behind the string of *muti* murders in the novel. He is desperate to find Songweza not out of concern for her wellbeing, but because he wants to use her, her twin brother S'bu, and the animal familiars of the humans that he has had killed in a *muti* ritual to rid himself of his own dirty secret: 'an albino crocodile, six metres long' (2010, 335). As Stobie points out, the symbolic significance of this beast is clear, in that 'P.W. Botha, South African state president from 1984-1989, was known as "*die Groot Krokodil*",

or big crocodile' (2012, 377). Odi's symbolic conflation with Botha means that he figures the postapartheid continuity of white capital in the "New" South Africa, while his description as having a Midas-like 'platinum touch' highlights the connection of that continuity to the racial technics of mining extractivism (2010, 166). Odi's platinum touch thus seems to place him in the same lineage as 'Cecil John Rhodes and [the] other colonial slumlords' who, in what Zinzi calls 'Johannesburg's Wild West days', 'would sit around divvying up diamond fields and deciding on the fate of empires' (2010, 41). When Zinzi visits Odi's decaying estate, it is as if she descends into a vault, walking down a 'passage […] lined with framed plaques and awards, gold records, platinum records' (2010, 87). Replicating capital's wider pattern of, and faith in the endless possibility of, cyclical renewal, Odi is a self-confessed believer in 'second chances', but a journalistic profile of him states that, actually, 'he's already on his third or fourth go-round of chances' (2010, 163). Adopting the same regenerative symbolism so fantastically undercut by Okorafor's *The Book of Phoenix*, Odi is described as 'a man who has been dogged by controversy and tragedy through four decades of music-making, who has somehow managed to rise from the ashes again and again' (2010, 163). Significantly, the span of Odi's career traces the historical progression from 'the dark days of apartheid, right through the Rainbow Revolution and into the post-"Born Free" era' (2010, 164). Just as Johannesburg has re-invented itself as a financial hub in the neoliberal era, Odi has apparently been able to re-structure his business activities to allow him to continue to profit, even in notionally postapartheid times, from exploiting the 'musical potential' and 'commercial possibilities' of 'black artists' that are disposed of when no longer profitable (2010, 165-66).

In *Zoo City*, however, we witness this historically successful strategy come screeching to a halt. We find that although it 'used to be that Odi Huron made hits and created stars effortlessly', this is no longer the case (2010, 164). By ridding himself of the crocodile, Odi hopes to effect a 'second coming' that will re-energise his career (2010, 163). The novel's conclusion, though, pushes against Odi's faith in the possibility of a "re-start" as, finally, the consequences of his exploitative actions catch up with him. Zinzi arrives too late to prevent the successful completion of the *muti* ritual and the deaths of Songweza and her twin brother, S'bu. However, once again encoding the increasing unpredictability of an increasingly unruly "nature", Odi's crocodile seems to have some thoughts of his own about Odi's attempt to dispose of him. The crocodile lunges at Odi from the depths of his swimming pool and he 'screams like a slaughter-house pig in a PETA video' as it grabs him round the midriff (2010, 351). Odi shoots the crocodile, but struggles to free himself from its jaws as 'the monster's weight is dragging them both back into the water' (2010, 351). As 'the tangle of man and Crocodile […] sinks into the water', we see that despite Odi's best efforts to escape the Undertow, a version of it has nonetheless caught up with him in the end (2010, 352). As Odi and the Crocodile seem, for a moment,

to be reunified into a single dying being, we witness the reassertion of humanity's embeddedness in the web of life from which Odi, the personification of white capital in the "New" South Africa, had tried so hard to escape. As Odi finally sinks beneath the water, then, Beukes's novel points powerfully to the fact that, in its own words, to live in the Capitalocene is to experience the condition of 'mutually assured desperation' guaranteed by the devastated lifeworlds that are increasingly impossible to view as comfortably distant and inconsequentially "slow" (2010, 53).

Despite this grim vision, however, I want to conclude this chapter by turning to how *Zoo City* also casts a more hopeful eye towards the future. *Zoo City*'s paired aposymbiots set the scene for an emergent futurity predicated upon an active, ongoing, and evolving attentiveness to the ways in which humans are entangled in the wider web of life rather than standing apart from it. Moving beyond the performative or symbolic efforts towards "reconciliation" promulgated by official modes of historical remembrance in the "New" South Africa, *Zoo City* especially points to how the postapartheid speculative can begin to act as a matrix for the development of a genuinely reconciliatory postcapitalist ecopolitics. As Brady Smith points out, "nature" is figured as 'no mere abstraction' in Beukes's novel, but is instead 'embedded in the technological, biological, and even spiritual' lifeworlds of the text (2016, 359). That Zinzi's *shavi* enables her to see the world in terms of relational webs points figuratively to the coming to world-ecological consciousness needed to survive in the attenuated "now now" future that the novel imagines. The indelible bond forged between Zinzi and Sloth both points to the reality that our own survival depends upon the survival of countless extra-human lifeforms, and the alternative modes of interspecies sociality that may emerge when this reality is recognised. As Stobie points out, Sloth comes to behave almost like Zinzi's conscience when he repeatedly 'stops her indulging in the kind of self-destructive behaviour which resulted in him coming to her in the first place' (2012, 377). Importantly, though, *Zoo City* does not endorse a return to some mis-remembered premodern arcadia but instead emphasises the pressing task of finding new ways of living in environments so materially damaged that they cannot simply be "restored" or "returned" to some pristine state. Just as the unlikely prospect of Wikus's de-prawnification at the end of *District 9*, Zinzi understands that it is impossible to return to her 'Former Life', in the same way that, as Smith notes, Johannesburg is filled with 'displaced' animals who likewise cannot return "home" (Beukes 2010, 4; Smith 2016, 349). That a new animal may appear 'still covered in jungle mud' underscores the ongoing immediacy of such animal displacements while also tacitly commenting upon the displaced futures that increasingly await "surplus" human lives under neoliberal capital too (2010, 97).

As *Zoo City*'s pairs of humans and animal familiars must find new ways of living with each other, they seem to rehabilitate *ubuntu* as an alternative epistemo-philosophical project for understanding human-animal-planet relationships to the "apartheid" of "nature" and "society" driven by capitalist

modernisation. As Christelle Terreblanche explains, 'ubuntu is understood as an Africa-wide ethical paradigm that, notwithstanding regional variations, is practised widely across sub-Saharan Africa' albeit under different names (2018, 169). As a spiritual cosmology and relational ethical framework, ubuntu 'speaks of the very essence of being human' and, as Desmond Tutu suggests, positions that humanity as 'belong[ing] in a bundle of life' (1999, Ch.2, n.pag.). Terreblanche cautions that 'historically, ubuntu has been misappropriated and co-opted for senseless, and even violent nation-building projects and shallow corporate social responsibility ventures' (2018, 169). Yet, *Zoo City*'s pairs of animal-human familiars seem instead to recuperate ubuntu's future-building potential as 'a deeply bio- or ecocentric ethic' with the potential to unsettle the 'categories of race, gender, class and all 'others' – notably 'nature' itself – as created by Euro-modernity' (Terreblanche 2018, 181, 184).[6] Held precariously together and dependent upon each other for survival, the apparent orientation of Beukes's aposymbiots towards ubuntu-bound ways of living powerfully underscore the necessity of what Haraway describes as the 'modest possibilities of partial recuperation and getting on together' on a damaged planet (2016, 10). Odi Huron's fate anticipates Haraway's stark warning that, on such a damaged planet, 'we become-with each other or not at all' (2016, 4). While almost everyone in *Zoo City* is connected to each other and their environments by the invisible threads that Zinzi has learned to see, when she looks at Odi all she can see is 'a black tumor of lost things hanging above the big-shot producer's head, thrashing with severed stumps, like an amputated octopus' (2010, 90). It seems that a *sangoma* has tried to 'cut the threads', but this is 'one of the worst hack jobs' that Zinzi has ever seen, and only emphasises the air of entropic decay that surrounds Odi: 'in the shadow of his black halo, his skin looks sallow, his jowls sunken, his eyes bright and flat' (2010, 90). In his quasi-cancerous state of decrepitude, Odi thus figures the way in which, as Haraway writes, the relentless 'individualism' valorised as a state of being by neoliberal capital 'is not good enough figurally or scientifically', and leads only 'down deadly paths' (2016, 33). If the dark tumour hanging above Odi, which seems to be thrashing in pain, underscores the violence of abstraction that separates humans from the rest of "nature" and each other, then the aposymbiots and the community that they develop in the eponymous Zoo City point, like the re-integration of Mi-Jeanne's spirit and body in *Brown Girl in the Ring*, to the possibility that this abstraction may yet be overturned.

Smith posits that *Zoo City*'s familiars do not articulate 'nostalgia for a pastoral nature that has come undone', but are instead 'about looking toward a future that is always already defined by the

[6] It hardly needs stating that there is a rich critical literature surrounding ubuntu, debating both its meaning(s) and how, in the "postcolonial" period, it may be directed towards emancipatory and transformative ends in a variety of contexts. I do not presently have the space to do such discussions justice here; however, I intend to develop the possibility of reading the postapartheid speculative through the lens of ubuntu as I revise this thesis for publication.

complex hybrids' of human and non-human agencies represented by these figures, but we might push this explanation further to encompass what is at stake in the postapartheid speculative more widely (2016, 352). In an era of capitalogenic crisis, *Zoo City* exhorts us to grapple with how the consequences of the neoliberal revolution's 'bounded individualism' now mean that such individualism must, in Haraway's words, 'become unavailable to think with, truly no longer thinkable, technically or any other way' (2016, 5). Just as being "animalled" in *Zoo City* necessitates an 'ontological shift', in *Apocalypse Now Now* Baxter experiences what he describes as 'a shifting of paradigms' brought about by his new consciousness of his unavoidable imbrication in Cape Town's 'supernatural eco-system' (Beukes 2010, 75; Human 2013, 58, 112). If systemic thinking extends beyond the isolated nation state to regard the capitalist world-system, then Beukes's and Human's texts, or the seemingly undoable merging of Wikus's human and prawn physiology in *District 9*, underscore how, within that, we might similarly augment our understanding of individuality in view of how systemic socio-ecological relations have *and will continue* to structure the unevenness of individual experience under capitalism as an ecological regime. In this way, the texts examined by this chapter point to how the postapartheid speculative can help 'to remember a past that instructs the present and can build a future' (Kilgore 2014, 564). By revealing neoliberal capital's acceleration and intensification of centuries of mining-bound socio-ecological "slow" violence in the "New" South Africa, the postapartheid speculative emphasises the racialised iniquities that await in the country's depleted "now now" future. In doing so, though, Miller's, Blomkamp's, Human's, and Beukes's texts emphasise more expansively how, as Westall writes, 'we, the planet, and the "resources" all species need to survive […] are presently caught within capitalist modernity's systemic logic of ever more surplus and the uneven and uncontainable consequences of our present failure to rethink, re-imagine and reorganize ourselves for collective stewardship of the world' (2017, 265).

Whether through Roy's rejection of the archive project in *Dub Steps*, the disavowal of Wikus's desire to restore the status quo figured by the ending of *District 9*, Baxter's coming to supernatural consciousness, or *Zoo City*'s aposymbiots, the texts examined above remain hopeful that histofuturist ways of moving past this imaginative paralysis remain possible. That it remains possible to envision reconciliatory, equitably liveable futurities not just for Black bodies and lives in postapartheid South Africa, but for all lifeforms enmeshed within capital's wider "apartheid" of "nature" and "society." In the next, and final, chapter of this thesis, I will turn to how similar possibilities have been explored by the recent explosion of Nigerian SF texts. As will be seen, their efforts to envision the future in view of Nigeria's unevenly devastated petromodern wastelands offer a sharp rebuke to the relentless petro-developmentalism that, materially and culturally, fuels the neoliberal futures industry today.

Chapter Three

Re-Starting the "Go-Slow" with Nigerian Post-Petro-Magic Futurism

> Today, as the sun rises, there may as well be a sign on all Lagos beaches that reads: "Here There Be Monsters"
>
> -- Nnedi Okorafor, *Lagoon*, 2014

This chapter turns to Nigeria, which, like South Africa, has become a key imaginative locus for the production of African SF over the past decade. With the exception of Polina Levontin's survey of "Scientists in Nigerian Science Fiction" (2018), though, scholarly responses to individual Nigerian SF texts have so far tended to be subsumed within wider discussions of "African" SF.[1] Indeed, for Levontin, one of the 'first tasks' when approaching Nigerian SF is 'to identify a corresponding body of literature' (2018, 72). While the postapartheid speculative exists as a readily identifiable corpus produced primarily by South African residents, Nigerian SF is less easily pegged to a singular location. Consequently, throughout this chapter I follow Levontin's lead in referring to a body of "Nigerian SF" produced by authors who 'are either Nigerian citizens or first-generation Nigerians living in the diaspora who maintain links with Nigerian cultural life' (2018, 72). A good deal of recent Nigerian SF writing, especially in novel form, has been produced outside the country. As Matthew Eatough explains, the imposition of structural adjustment amidst the 1980s oil bust 'caused African book markets to collapse', such that 'the local market for African literature would not recover until well into the 2000s' (2017, 239-40). Even so, there remain few publishing houses in Nigeria today, with their limited resources meaning that, as Nigerian author Mazi Nwonwu attests, even fewer 'do speculative fiction' (qtd. in Ryman 2018a, n.pag.). The publication of SF within Nigeria has favoured the short story, as it has proven easier for Nigerians (and Africans across the continent) to create online and print opportunities for the shorter form. Nigerian writers are well-represented in *Omenana*, an online SF

[1] For examples in this vein, see Lisa Dowdall's "The Utopian Fantastic in Nnedi Okorafor's *Who Fears Death*" (2013); Hugh Charles O'Connell's "'We are change': The Novum as Event in Nnedi Okorafor's *Lagoon*" (2016); and Melody Jue's "Intimate Objectivity: On Nnedi Okorafor's Oceanic Afrofuturism" (2017). Matthew Eatough's "African Science Fiction and the Planning Imagination" (2017) also draws most heavily on Okorafor's *Lagoon* (2014), with an additional few paragraphs on Deji Bryce Olukotun's *Nigerians in Space* (2014), and mentions *Lagos_2060: Exciting Sci-Fi Stories from Nigeria* (2013), a short story collection, by name. Matthew Omelsky's "'After the End times': Postcrisis African Science Fiction" (2014) reads Efe Okogu's short novella "Proposition 23" (2012) alongside Kenyan director Wanuri Kahiu's short film, *Pumzi* (2009).

magazine founded by Nwonwu and fellow Nigerian Chinelo Onwualu in 2014. Notable print anthologies featuring Nigerian writers include *Lagos_2060: Exciting Sci-Fi Stories from Nigeria* (2013) the *AfroSF* anthology series (2012-), and *Imagine Africa 500: Speculative Fiction from Africa* (2015). Single-author collections by resident and diasporic writers include Abubakar Adam Ibrahim's *The Whispering Trees* (2012), Nnedi Okorafor's *Kabu Kabu* (2013), and T.J. Benson's *We Won't Fade into Darkness* (2018). Internationally, however, novels by diasporic authors, such as the US-based Okorafor and Deji Bryce Olukotun, or the UK-based Tade Thompson, continue to dominate what is still a relatively niche field.[2]

Despite the notably uneven circumstances attending its production, Nigerian SF is well-placed to grapple with the future implied by today's world-systemic crisis of negative-value. Levontin confines her study of Nigerian SF to 'those literary sources that are marketed as "science fiction", but, in recognition of how the growth of Nigerian SF has embraced a number of fantastic modes beyond the science fictional, I am concerned with texts in which the future is conspicuous as an interpretive horizon (2018, 72). This chapter will show that, like the postapartheid speculative, Nigerian SF texts grasp that the increasing violence of neoliberal (re)organisations of African "natures" augurs the 'epochal exhaustion of the relations' that have thus far sustained capital's '"enduring" scramble for African resources' (Deckard 2019, 41). Like South Africa, Nigeria has long been a critical systemic resource frontier, most notably today for its vast oil and gas reserves. But if petroleum has dramatically extended capital's reach, then in what follows I will explain how the rise of Nigerian SF forecasts the ultimate inability of neoliberalism's 'political ecology of intensified extractivism' to outrun the compounding negative-value of its globe-spanning consequences (Deckard 2019, 240). The postapartheid speculative registers the "now now" future of negative-value through the lens of depletion, and the accelerating exhaustion of "nature" as a perpetually de-valued resource 'tap' (Moore 2015a, 277). While a similar depletion-consciousness haunts the rise of Nigerian SF, I will approach it instead primarily via what Moore describes as the parallel exhaustion of capital's *longue durée* treatment of "nature" as a waste 'sink' (2015a, 277). Capital accumulation 'becomes more

[2] Some SF novels by resident Nigerians have secured publication with overseas presses, such as A. Igoni Barrett's *Blackass* (2015), or Odafe Atogun's *Taduno's Song* (2016). The former invokes Kafka's *The Metamorphosis* as its protagonist, Furo Wariboko, awakens to discover that he has transformed into a white man, while the latter follows a subversive folk musician (modelled on Afrobeat pioneer and political activist Fela Kuti), who returns after a period of exile to discover that, inexplicably, no-one can remember who he is. As numerous interviews within Ryman's "100 African Writers of SFF" series attest, other SF authors in Nigeria have self-published their work or worked with small local presses, though copies of many such texts are not always easy to source in the UK. The mobile-based platform Okada Books is UK-accessible, though it is not easy to determine which titles are novels, novellas, or short stories. Other, earlier Nigerian texts have been retroactively classified as SF, or at least noted as featuring SF elements (see, for example, Thompson 2018a). These include D.O. Fagunwa's Yoruba-language *Ògbójú Ọdẹ Nínú Igbó Irúnmọlẹ̀* [*Forest of a Thousand Daemons: A Hunter's Saga*] (1938), Amos Tutuola's *The Palm Wine Drinkard* (1952), Buchi Emecheta's *The Rape of Shavi* (1983), Ken Saro-Wiwa's *Sozaboy: A Novel in Rotten English* (1985), and Ben Okri's *The Famished Road* (1991).

wasteful over time', Moore argues, but it also becomes more waste-*full,* its '*general law of overpollution*' expressed as capital's 'tendency to enclose and fill up waste frontiers faster than it can locate new ones' (2015a, 98, 280; original emphasis). For Moore, capital's relentless production of wasteful(l) "natures" accelerates resource depletion, activating the conditions of negative-value by destroying the productive base from which capital historically renewed itself (2015a, 276).

Capital's tendency to overpollution is starkly evident in Nigeria's Niger Delta, which has been transformed into 'one of the most polluted places on the face of the earth' by more than sixty years of petroleum spillage and gas flaring (Watts 2012, 3). Ken Saro-Wiwa, one of the founders of MOSOP (the Movement for the Survival of the Ogoni People) wrote and spoke extensively about the destruction that decades of petro-extractivism had wrought upon his people, the Ogoni, before he was executed in 1995 on trumped up charges for doing so by the military regime of Sani Abacha. In 1992, he lamented to the United Nations Working Group on Indigenous Populations that the ancestral lands of the Ogoni and other ethnic minorities in the Delta had been iniquitously transformed into a 'waste land' (2005, 66). The continually worsening devastation of Nigerian petro-extractivism has also been amply registered in Nigerian fiction, via what Wenzel incisively describes as the literary mode of 'petro-magic-realism' (2014, 213; see also: 2006a). Wenzel's work on the intersections of Nigerian literary culture and petroleum extraction is a key touchstone for my own arguments about how Nigerian SF can help to contest the guiding assumptions of neoliberal world-petroculture. In particular, I will examine a number of short stories, Deji Bryce Olukotun's novels *Nigerians in Space* (2014) and *After the Flare* (2017), Okorafor's novel *Lagoon* (2014), and Thompson's *Wormwood* trilogy (2016-2019). These texts pick up and re-deploy the narrative and aesthetic fabulism of petro-magic-realism to encode the wasteful(l) rise of negative-value; locally and system-wide, today and in imagined futures. With the waste-bound excesses of the Nigerian petro-frontier in mind, Nigerian SF poses trenchant and multiscalar literary challenges to the resurgence of petroleum's false developmental promises, enacting what I call, after Wenzel, a *post-petro-magic futurism*. The 'petro-magic' confronted by both petro-magic-realism and post-petro-magic futurism is, Wenzel writes, 'a mode of violence that mystifies through the seductions of petro-promise' (2014, 217). My own formulation of post-petro-magic futurism, then, is intended to denote the future-envisioning for which years of iniquitous petro-magic in Nigeria have set the conditions of emergence, and describes the consequent thrust of that envisioning towards alternatives to the petro-magical mystifications by which capitalist realism colonises the future.

In *The Wretched of the Earth* (1961), Fanon described the necessity, in the postcolonial nation-making context, to 'work and fight with the same rhythm as the people to construct the future and to prepare the ground' where that future's 'vigorous shoots are already springing up' (2001, 188). In

what follows, then, I will explore how Nigerian SF's post-petro-magic futurism participates in such historical ground-preparation by emphasising the recovery of the postcolonial futures that might have been, and opening imaginative routes to new ones. In view of Fanon's exhortation to prepare the ground for an emergent national culture, this chapter will show how the efforts of Nigerian SF to contemplate the future from the country's petromodern wastelands might yet reactivate the potential of decolonisation foreclosed by the systemic pressures of neoliberal world-petroculture. If petro-magic-realism's phantasmagoria register the local particularities of petro-extractivism's socio-ecological shocks, then an aesthetic turn to monstrosity within Nigerian SF imagines how the ecological disruptions of those shocks will continue to unevenly magnify into a negative-value future. In the texts discussed below, the wasteful(l) excesses of neoliberal world-petroculture are parsed through the symbolic monstrosities that stalk through Nigeria's petromodern wastelands. Alien invaders, grotesque transmogrifications of bodies and landscapes, and the re-awakening of indigenous cosmologies long-presumed conquered by capital's technics stage a particularly waste-bound return of petroleum's world-ecologically repressed. *Lagoon*'s narrator announces that the presence of such petro-monsters in Nigeria 'has always been the truth', but 'today' – that is, amid the systemic rise of capitalism's long-deferred socio-ecological consequences – 'it is even truer' (2014, 228). Like the texts examined in the previous two chapters, then, Olukotun's, Okorafor's, Thompson's, and other Nigerian SF texts can help us imagine how we might live in a future structured by what Andreas Malm characterises not as an abstract 'revenge of nature', but rather 'the revenge of historicity *dressed* in nature'; an 'historicised nature' that is now 'pushing back' (2018, 77, 219; original emphasis).

Nigerian SF and the Negative-Value Aesthetics of Oil

The tension between what Macdonald describes as oil's 'exceptional' promises of 'unprecedented power' and its '"monstrous" [...] ramifications' could hardly be clearer than in the ongoing devastation of the Niger Delta (2017, 290). Across the world-system, Macdonald writes, such tensions manifest in 'oil-encounter fictions', in which 'peculiar admixtures' of 'the mythico-spiritual irreal', 'ethno-pastoralist threnody', 'science fictional elements', and 'eco-apocalyptic mythology' offer a 'local' means of grasping the systemic violence of capitalist petro-modernisation (2017a, 299-300). If, for Macdonald, the recurrent features of petro-texts comprise a general 'aesthetics of oil', such an aesthetics also functions within Nigerian SF's post-petro-magic futurism as an aesthetics of negative-value (2017a, 291). With reference to a number of short stories by both resident and diasporic authors, this section examines how the tension between petroleum's speculative promises and monstrous

realities has proven particularly salutary, both for Nigerian SF and the earlier petro-magic-realism upon which it draws. Exports of Nigerian oil began in 1958, two years prior to the country's independence in 1960. Since this discovery, the imperatives of petroleum extraction have structured the terms upon which Nigeria has been woven into the capitalist world-ecology. These imperatives have thus been at the heart of capital's efforts to put "nature" to work in Nigeria and, relatedly, of Nigerian national identity formation.

Eme, the protagonist of Okorafor's "Spider the Artist" (2008), refers to the inhabitants of her 'oil village' in the Delta as 'pipeline people' (2013, 102). While her comments underscore petro-extractivism's particular material force upon the Delta, they could as easily apply to the larger Nigerian polity. For Ricardo de Soares Oliveira, oil has become 'an essential part of the continuous historical processes of conflict and interaction' in Nigeria 'through which a shared state mythology and national space of politics are created' (2007, 55). The wealth and possible futures promised by petroleum have long exacerbated these conflicts. Concentrated within the Niger Delta, Nigeria's oilfields sit within a much larger Federal Republic composed of 'over 200 ethno-linguistic groups', among whom the Hausa-Fulani, Yoruba, and Igbo are the most numerous and 'politically dominant' (Falola and Heaton 2008, 4). Wenzel writes of the long-frustrated hope among the Delta's ethnic minorities that 'oil would secure their economic development and political clout within an emergent federation' that favoured the ethnic majorities (2014, 211-212). In the decades since independence, however, the country has witnessed what Michael Watts calls a long-running 'catastrophic failure of secular nationalist development' that, even in 2004, had seen little improvement in the living standards of 'most' Nigerians since 1960 (2012, 2, 2004, 251). The repeated failure of an emancipatory petro-future to materialise for the majority of Nigerians is a key prompt for Nigerian SF's post-petro-magic futurism, understood here as a response to the disillusionment attendant upon intensified neoliberalisation after Nigeria's transition from military to civilian rule in 1999.

The long and brutal bypassing of the Delta by petro-emancipatory promises looms large in "Spider the Artist". Eme describes the 'fuel pipeline' that 'ran through everyone's back yard', stressing its apparently inescapable permanence by stating that 'my mother lived in a similar village [...] as did her mother' (2013, 102). Eme's great-grandmother 'was known for lying on the pipeline' and 'wondering what magical fluids were running through the large, never-ending steel tubes' (2013, 103). The wonderous pull of the "magical" petroleum inspires a dream-like repose that is pregnant with possibilities as seemingly endless as the pipelines themselves, recalling earlier moments of Nigerian petro-optimism. Even prior to the 1970s boomtimes, petroleum had seemed to offer the nascent nation a promising future, as production jumped from 46,000 barrels per day in 1961 to 600,000 by 1967 (Falola and Heaton 2008, 163). Toyin Falola and Matthew Heaton write that Nigeria in this period

had offered a 'beacon of hope [...] for other colonized people emerging from the yoke of alien rule' (2008, 158). However, such hopes were swiftly dashed by the brutal Civil War (1967-70) that followed. The Civil War was a particularly petro-prompted conflict, fought over the attempted secession of the country's Igbo-dominated, oil-rich Eastern Region (as the Republic of Biafra). If the Civil War had been 'a battle over oil territory', it helped to determine the shape and centrality of petro-wealth within the Nigerian nation-building project (Nixon 2011, 113). So it was that even if the petro-conflict had almost torn the emergent nation apart, the influx of petro-wealth attendant on the 1973 oil shock *again* promised to propel it into a newly prosperous future. For Sarah L. Lincoln, the boomtimes prompted by soaring oil prices revivified the 'opportunity to completely re-imagine' Nigeria 'as the very representative of African modernity' that the Civil War had thrown into doubt (2012, 252). As in the "New" South Africa decades later, Lincoln suggests that the 'radical newness' at stake here was pivotal, in that oil seemed to offer a future premised 'on "clean" money elevated from the grimy world of labour [...] and thus a "magical" transcendence of materiality and historicity' (2012, 259-60). Even more so than before, oil became what Cyril Obi describes as 'the lifeblood of the Nigerian state', which, despite its fuelling of a 'volatile politics', still 'remains the glue holding Nigeria – a multi-ethnic social formation and Africa's putative hegemonic power – together in a complex but rather fractious unity' (2012, 24).

The seemingly magical developmental qualities that this "lifeblood" took on in Nigeria's optimistic boom years have often been likened to similar qualities that Fernando Coronil observed in the Venezuelan petrostate.[3] In Venezuela, Coronil argued, oil became a wellspring for the 'collective fantasies of progress' that are conjured, enacted, and perpetuated by a seemingly 'magical state' that is actually 'propped up by oil wealth' (1997, 2-5). In Nigeria, too, as Wenzel points out, this "petro-magic" offered a 'fairy tale of instant transformation', fashioning the boomtimes into a moment laden with a 'petro-promise' that offered a fantasy of 'wealth without work [...] in which every dream of infrastructure comes true' (2014, 212). However, just as 'the Devil's excrement' became a 'common expression' for oil in Venezuela, petro-extractivism brought only 'harmful waste' to the countless Nigerians whose lives were ruined in the name of petro-driven "development" (Coronil 1997, 353-54). The dramatic unravelling of Nigerian petro-utopianism amid the 1980s oil bust underscored the way in which, as Bassey writes, 'the wheels of progress often roll forward, but unevenly with bursts of speed and then periods of stagnation, and as we see in Africa, sometimes they roll backwards' (2012, 46). What Wenzel calls this 'peculiar dynamic' of 'de-development' is marked in "Spider the Artist", where the almost idyllic memory of Eme's great-grandmother's pipeline dreaming is sharply punctured by the reality that turned out to be that dream's future (2014, 212). In Eme's present, the

[3] See, for example, Watts (2004), Apter (2005), Wenzel (2006, 2014), and Lincoln (2012).

stream from which she drinks has been turned 'rank and filthy' by petro-pollution and the 'cassava and yam fields yielded less and less each year', underscoring the waste-bound attenuation of local means of survival (2013, 101). To further emphasise the uneven foreclosure of the old petro-dream, to even touch the pipelines now risks 'bringing the wrath of the Zombies', which are sophisticated robots introduced to guard against 'pipeline bunkering' (2013, 106, 104). As Eme laments the injustice by which 'the government and the oil people destroyed our land and dug up our oil' and 'keep us from taking it back', the story projects into the future the longstanding historical pattern in Nigeria whereby the inhabitants of oil-bearing lands have been systematically excluded from the Nigerian national petro-future (2013, 104).

In response to this exclusion, the Civil War's enduring legacy can be seen in the continuing efforts of Delta residents to 'fight', both peacefully and violently, 'against the degradation of their lands and for greater access to oil revenues' (Falola and Heaton 2008, 235). Trapped in 'anger' and 'helplessness', Eme and the "pipeline people" register how the relentless pace of neoliberalisation since 1999 has exacerbated the material effects of petro-extractivism's previous failures to inaugurate the emancipatory future that had been 'promised' by 'anti-colonial movements' across Africa (Lincoln 2012, 264). Framed in monstrous terms as 'terrible creatures', Okorafor's Zombies resemble 'super fast' spiders that are 'always running up and down the pipeline' (2013, 104). The robots are actually named for Fela Kuti's "Zombie" (1976), a song in which the afrobeat musician condemned Nigerian soldiers as the unthinking instruments of the governing military regime's violence. As they are faster and stronger than their historical human counterparts, Okorafor's relentless Zombies witness the intensification of the capitalist technics of petro-violence in the notionally post-militarised times of civilian rule. Watts points out that by 2009, just a year after "Spider the Artist" was published, 'oil revenues [had fallen] by 40 percent' of what they were in 2007 due to 'audacious and well-organised attacks' carried out by 'insurgents and self-proclaimed militants' (2014, 197). Okorafor's story projects the conflict-bound deterioration of the Delta into the future, as oil thieves like Eme's husband 'still bunkered' despite the threat of Zombie retaliation (2013, 106). If the lyrics of Fela Kuti's song pointed out in 1976 that the "zombies" of political violence won't stop 'unless you tell am to stop', the relentlessness of the robot spiders envisions a future in which the possibility of transformative resistance has come to seem even more remote (1976, n.pag.). Beyond the robotic spiders, there is little to distinguish Eme's life in the future from the present-day, underscoring the comparison that Wendy Griswold made – as early as 2000 – between "post-transitional" Nigeria and the 'go-slow' traffic jams for which Lagos has become 'infamous' (2000, 269). "Spider the Artist" imagines that, even some years hence, little progress towards clearing that "go-slow" has been made.

The sense of Nigeria's future being stuck in "go-slow" has become even more apparent in the years since Griswold's comparison, not least because two of the four presidents elected since 1999 were both military leaders in the past; Olesegun Obasanjo and the present incumbent, Muhammadu Buhari. As Watts points out, Obasanjo's election in 1999 'held much promise' after the dark days of Abacha (2004, 252). In reality, however, Falola and Heaton explain that Obasanjo-era economic policy merely continued 'the SAP measures introduced in the 1980s' (2008, 235). Just as in postapartheid South Africa, the priorities in Nigeria post-1999 were 'courting foreign investment, reducing external debt, and continuing the privatisation of Nigerian business and industry' begun in the military years (Falola and Heaton 2008, 235). Also as in postapartheid South Africa, such policies benefitted already wealthy elites while leaving common development indicators such as electricity supply, pipe-borne water, and roads respectively 'erratic', 'nearly non-existent', and 'poorly maintained' for many Nigerians (Falola and Heaton 2008, 238). By 2011, eighty-five percent of Nigeria's oil wealth was concentrated amongst just one percent of the population, reflecting the systemic "outcome" of capital's combined and uneven environment-making worldwide (Nixon 2011, 106-107). The irony of Griswold's description of "post-transitional" Nigeria as an endless traffic jam is all the more salient now, given that the intervening years have been attended by a renewed emphasis on petroleum's developmental potential. While most Nigerians today remain stuck in the go-slow, African oil like Nigeria's has proven attractive to core-zone strategic realism in the aftermath of 9/11 and mounting geopolitical pressures in the Persian Gulf.[4] Since the early 2000s, a revived petro-utopianism prompted by large offshore discoveries in the Gulf of Guinea has again served to mask the intensifying and uneven violence upon which capitalist petro-extractivism depends. Jesse Salah Ovadia, for example, has argued that the renewed interest in African oil can be made to 'work' locally 'for development' in a 'petro-developmental state', wherein 'good policy' ensures that petroleum's 'developmental benefit is implemented' (2016, 2, 193). We might question this petro-developmental optimism, however, for the way in which it fails to account for the unevenness that is, as WReC points out, always produced 'systematically and as a matter of course' by capitalist modernisation (WReC 2015, 12).

As Watts explains, the Niger Delta's 'vertiginous descent [...] into a strange and terrifying shadow-world of armed insurgency' since 1999 continues to cast 'a long shadow' over the 'purportedly rosy oil future' implied by a resurgent petro-promise (2014, 197). Positing 'how to make oil work' through policy "fixes" replicates the core premise of the resource "curse" often invoked as an explanation for Nigeria's petro-bound iniquities, despite Ovadia's rejection of it as an 'overly deterministic' hypothesis (2016, 8-9). As Wenzel observes, the resource "curse" posits that 'bad

[4] See, for example, Watts (2004, 251), Oliveira (2007, 2-3), and Ovadia (2016, 5).

government and violent conflict' are 'inevitable' in the nation states "cursed" with large deposits of the "natural" resources 'coveted by industrial capitalism' (2014, 220). This, however, as Bassey points out, misses the way in which 'the so-called resource curse' originates in 'neo-colonial relations' (2012, 12). In a stinging rebuttal of the "resource curse", Bassey argues that

> Blaming a resource curse purely on dictators, as do some Western politicians, is a refusal to admit that the colonial pillage of Africa continues, driven on the same tracks that were set in those dark days by transnational corporations, trade rules, bilateral and multilateral arrangements, powerful international agencies such as the World Bank and the International Monetary Fund (IMF). These forces retain a vice-grip on Africa, impose structural adjustment programmes that stifle development and then drop a few coins in the form of aid into the hands of a devastated continent. (2012, 12)

In other words, Bassey writes, what is presented by the "resource curse" as a seemingly "natural" law is in fact 'located firmly in the social structure of the world' (2012, ix). Obi writes similarly that the 'deterministic' hypothesis is 'based on spurious and ahistoric grounds', and that 'we cannot conceive of oil as a curse or a blessing outside of those forces that control it and thereby shape the structure of global economic and military power' (2012, 25). Or, as Wenzel suggests, the imagining of 'eternally poor and backward' resource-cursed 'victims' constitutes an 'unimagining' of 'the multiscalar relations that join the local oil enclave to the petrostate and the global oil market' and thus, of the continuing role of global capitalism in ratcheting-up ongoing 'histories of immiseration' (2014, 213). In view of these trenchant criticisms of the so-called "resource curse", then, I am interested in how Nigerian SF texts might push against the imaginative paralysis that such shallow determinism implies. That is, I am interested in how Nigerian SF texts might help us to contemplate how capital's past and present mobilisations of the web of life in Nigeria will continue to reverberate unevenly into the future .

Nigerian "natural" resources have played pivotal roles within capitalist modernity and its imagined futures for centuries. Ibaba Samuel Ibaba, Okechukwu Ukaga, and Ukoha O. Ukiwo point out that oil and gas production in the Niger Delta today is only 'the most recent phase' in the region's intensifying incorporation into the modern capitalist world-system, although they use the less specific word 'globalization' to describe this process (2012, 15). Indeed, Obi writes that the Niger Delta was 'one of the earliest parts of Nigeria to be integrated into the global economic system' (2012, 22). Even before the existence of Nigeria itself, the region had witnessed the theft of countless enslaved Africans to the New World, while palm oil – 'an ingredient in the manufacture of lubricants for industrial machines' and 'a raw material for a range of household soaps and confectionaries' – 'marked a new phase' of extractivist integration after abolition in the nineteenth century (Obi 2012, 23). Riffing on

Benedict Anderson's *Imagined Communities* (1983), Griswold suggests that the Nigerian state was (and still is) 'about as imaginary' a community 'as they come', given that it had been 'cobbled together' from several 'colonial administrative regions' by the British in 1914 (2000, 6-8). The re-drawing of the colonial-era map radically simplified administratively awkward "natures", running roughshod over pre-existing interethnic animosities. In 1990, Saro-Wiwa argued that this imposition of 'alien administrative structures' had 'herded' the Ogoni and other ethnic minorities in the Delta into the 'cruel, unfeeling and monstrous' 'domestic colonialism' of post-independence petro-extractivism (2005, 50). Not only had 'the people who live on oil-bearing land' been among the Civil War's 'main victims', as Saro-Wiwa argued, but also long after the conflict, the racial technics by which capital historically justified the subjugation of African "natures" have continued to be re-deployed to keep the oil flowing (2005, 44). Andrew H. Apter notes, for example, how the Ogoni were constructed as being 'of a lower evolutionary order' by the Nigerian popular press in response to their struggle for resource autonomy (2005, 259-60). In contradistinction to the essential backwardness posited by the resource "curse", Saro-Wiwa emphasised that it had been the arbitrary pushing together of peoples in the colonial-era that had inflicted a 'backwardness' upon the Ogoni that they were 'still struggling to escape' (2005, 50).

It is in this context that Wenzel argues that Nigerian petro-magic-realism grasps 'the nexus of local/specific idiom and global economy' that is otherwise flattened out by the resource "curse" (Wenzel qtd. in Potter 2017, 385). Such specificity then helps petro-magic-realism to push against what Wenzel describes as the 'empty globalism of the label (or even "brand") *magical realism*' (Wenzel 2014, 220; original emphasis). Eatough explains that the imposition of SAPs during the 1980s had 'eroded confidence' in African literature's 'realist consensus' as authors across the continent grappled with the widening gap between the "official" realities promoted by national governments and everyday lived experience (2017, 240). Thus, Wenzel argues, petro-magic-realism emerged in the Nigerian petro-context to challenge the "official" petro-promise by wedding its 'illusions of sweet surplus' with the literary mode of magical realism in order to make visible its future-conjuring 'tricks' (2014, 213-14, 217). Like the general aesthetics of oil that Macdonald describes above, petro-magic-realism melds the local specificity of Yoruba folktales and the fabulism of earlier Nigerian writers like Amos Tutuola and D.O. Fagunwa with less specific magical realist elements to register what Wenzel calls 'the monstrous-but-mundane violence of oil extraction' in Nigeria (2014, 217-19). In view of this context, Helen Kapstein suggests that "Spider the Artist" and other Nigerian short stories (though not exclusively SF ones) 'cannot afford' the energy unconscious that Yaeger (in Yaeger et al. 2011) discerns within core-zone cultural texts (2016, 14). Rather, Kapstein argues, such stories are 'utterly and completely energy conscious' as they reckon with the country's past, present, and future petro-

despoliation (2016, 14). We might press further, however, to explore how the energy consciousness of Nigerian SF's post-petro-magic futurism is, of necessity, also a world-ecological consciousness that contests the "official" reality of capitalist realism. If petro-magic-realism registers the monstrous effects of petroleum under capitalism as an ecological regime, post-petro-magic futurism builds upon it, projecting forward to imagine how petroleum may yet become more monstrous still in the wasteful(l) future implied by the rise of negative-value under neoliberal world-petroculture.

As an example of how recent Nigerian SF texts re-orient the petro-critique of earlier Nigerian texts towards a negative-value future, Chinelo Onwualu's "The Wish Box" (2015) recalls Amos Tutuola's *The Palm-Wine Drinkard* (1952). In Tutuola's text, the eponymous drinkard receives a magical egg with the ability 'to give [him] anything that [he] wanted' (1993, 279). The egg's petroleum-esque "magical" promise of wealth without work proves felicitous when a famine strikes the drinkard's village. Eventually, however, after the villagers become too greedy, the egg gets broken, and conjures up a bevy of magical whips, which the drinkard turns upon the starving crowds; the whips beat the villagers to death before vanishing again (Tutuola 1993, 301). For Wenzel, this tale from just a few years before petro-discovery and flag independence effectively foreshadows 'the Nigerian neo-colonial petrofuture' and the unevenly destructive aftermath of what turned out to be its false developmental promises(2006a, 451). In Onwualu's story, the latent future-projection of *The Palm-Wine Drinkard* is picked up again and made explicit, as the eponymous Wish Box offers its users visions of the future. Abiye, the story's protagonist, is a teacher at a struggling school. She intends to reward her students with 'an afternoon in the leisure suite of her father's house on Eko' and purchases the Wish Box to enhance the experience (2015, n.pag.). Tutuola's egg offers the semblance of developmental provision before its deception is violently revealed. In contrast, "The Wish Box" emphasises from the outset the petro-developmental falseness that has become all-too apparent in the decades since Tutuola's novel, in that it can provide only the *image* 'of your deepest wish' (2015, n.pag.). The Wish Box reveals nothing to Abiye, who is already living the long-awaited petro-future in Eko Atlantic City, a real-world luxury land-reclamation project currently under construction in the Gulf of Guinea. However, when one of Abiye's students, Amara, asks to 'see my future', the Wish Box offers a grim vision of Amara's actual non-future: 'endlessly' 'washing clothes by hand' – in particular, 'specialty underwear' – as 'time seemed to accelerate [...] showing the hands growing older, more gnarled' (2015, n.pag.).

The future that Amara sees in The Wish Box witnesses the way in which capital's petro-promise of wealth without work has instead manifested as a nightmarish reality of *no* wealth, *no* work, and apparently *no future* for many Nigerians. Just as the falling yields of South Africa's fading mines have driven the racialised transformation of Africans into "surplus" humans, capitalist petro-de-

development in Nigeria has likewise resulted in millions of "wasted" Nigerian lives. The Marikana Massacre in South Africa underscored the reality that "surplus" Black bodies have become actively killable when they threaten the systemic continuity of Cheap Nature, and similarities have long abounded in the Niger Delta context. In the 1990s, 'the "scorched earth" campaigns of military death squads' – the so-called "Kill and Go" Mobile Police – amounted to 'over two thousand Ogoni deaths' (Apter 2005, 271). In a move that provoked international condemnation, Saro-Wiwa and eight other Ogoni were juridically murdered by the Abacha regime. Deaths continue today as armed insurgents in the Delta struggle for resource autonomy. Governmental reliance upon oil rents has resulted in what Oliveira characterises as a 'pattern of concentration upon "useful" industry enclaves and urban centres' to the detriment of those spaces where, supposedly 'no economic imperative exists' (2007, 65). Thus, countless Nigerians have been 'deemed expendable' with respect to the oilfields beneath their ancestral lands (2007, 102). Oliveira explains that initial construction booms soon fade as new oil ventures rely in the longer term upon imported 'highly skilled' workers, such that, ultimately, 'people no longer count in most circumstances' within the petro-state's calculations, with entire communities consequently afforded minimal 'resources or attention' at best and effectively, in the Foucauldian sense, "let die" (2007, 77, 101-102).

That Amara's future is tied specifically to dirty underwear neatly attests to what Lincoln describes as the 'excremental logic' that was extended to much of the country in the aftermath of the 1980s oil bust (2012, 262). Under this logic, the same racial technics deployed to "tame" African "natures" have also served to transform them into dumping grounds for the capitalist waste products that, as Lincoln points out, continue to be 'geographically allocated' in racially contoured ways (2008, 3). The contamination of the Delta saliently illustrates the always-intensifying ways in which 'ordinary Africans' continue to be 'made into garbage' under the aegis of world-petroculture (Lincoln 2008, 23, 19). Just like Amara's endless washing of dirty underwear, in "Spider the Artist", Eme projects the durability of this racialised garbage-making into the future when she remarks that both 'my village' and 'my life' are 'shit' (2013, 101, 108). Such excremental gestures reference what Saro-Wiwa excoriated as the 'ecological genocide' inflicted upon the Niger Delta (qtd. in Nixon 2011, 235). Indeed, Eme's words parallel Saro-Wiwa's own, when he lamented that Ogoni 'lands, streams, and creeks are totally and continually polluted', such that 'all wildlife is dead, marine life is gone, [and] the farmlands have been rendered infertile by acid rain' (2005, 66). "Spider the Artist" imagines a future where the destruction that Saro-Wiwa condemned in the 1990s remains ongoing, even as it is overlain with the intensified violence of being 'torn limb from limb' by the Zombies (2013, 104). That is to say, the story imagines the nightmarish perpetuity of the iniquitous relations whereby the Delta's "pipeline people" receive nothing but violence in exchange for the oil beneath their lands.

Far from offering a transcendence of historicity, then, the brute force of capitalist petro-de-developmentalism in Nigeria has enforced a powerful historical continuity of unevenly experienced destruction. Such continuity affirms the pervasive durability of the 'world divided into compartments' marked by Fanon in the distinction between the 'well-fed' settler towns and their "native" counterparts 'wallowing in the mire' (2001, 29-30). In Onwualu's story, Eko Atlantic is sealed off within a dome and sanitised by 'industrial-strength air purifiers', such that its 'greenery', 'immaculately clean' roads, and 'vaguely sweet' air are shielded from Lagos's creeping entropy and 'smog' (2015, n.pag.). Matthew Omelsky notes how the world similarly 'divided between habitable and uninhabitable zones' in Efe Okogu's "Proposition 23" (2012) resembles 'Fanon's colonial world', effectively projecting its grim certainty into the future (2014, 40, 44). Set in 2161, or the rough bicentennial of Nigerian independence, Okogu's novella presents a high-energy future in which 'Lagos was a patchwork of amber, fluorescence, and neon as far as the eye can see' (2012, 361). Far from triumphant petro-utopianism, however, the domed city remains as one of the last outposts of humanity in a world that has been rendered a 'barren wasteland of subzero temperatures and deadly radiation' (2012, 362). Okogu's novella re-situates the cyberpunk dystopianism of a text like Scott's *Blade Runner* in the postcolony, emphasising the postcolonial intensification of divisions into "clean" and "dirty" or "useful" and "useless" under neoliberal drives towards surplus humanity.

In Scott's film, "retirement" euphemistically masks the systemic disposal of no-longer productive members of the labour force. Likewise, in "Proposition 23", citizens are 'retired' at the age of sixty, banished to the uninhabitable zone unless they can afford a 'life extension credit' (2012, 364). For those who cannot, retirement means a certain death that attests to the increasingly desperate efforts of capital to extract the last scraps of value from rapidly depleting resource frontiers. All citizens in "Proposition 23" are equipped with a cybernetic "neuro", which, as Omelsky explains, 'numbs the human to the traumas of a postcrisis world' by regulating their perceptions (2014, 41). The government takes 'direct control' of the retired through the neuros, enslaving them and putting them to work a second time 'as miners beyond the habitable zones until they dropped dead from exhaustion and radiation poisoning' (2012, 364). Moreover, we learn that 'everything [...] is neuro-linked', such that those without neuros effectively 'don't exist', and 'starve or freeze to death within days' of their neuros being de-activated, which is the major form of punishment within the dome (2012, 359). To be punished in this way is described as being made 'undead', and the post-scarcity imaginary of twenty-second-century Lagos depends upon the ever-widening construction of so-called 'undesirables' as surplus humans (2012, 359). For every citizen who receives 'minimum credit', we find that 'three others must be made undead', while the capitalist elite remains 'immune from the cull' (2012, 388). In juxtaposing the nightmarish plight of the "undead" and the "retired" with the sensory attractions

of the neuro, “Proposition 23” highlights Nigeria’s ongoing transformation into a ‘major receptacle’ for e-waste; that is, ‘unwanted electronics’ broken down for their precious metals by precaritised “surplus” humans, often in highly toxic and environmentally damaging ways (Sullivan 2014, 91). Continually “upgraded” e-technologies like the neuro offer their predominantly core zone users an apparent escape from petrocultural materialities in the digital realms of cyberspace. Okogu’s novella emphasises that such escapist fantasies rest upon the systemic repression of “wasted” miners and devastated landscapes, and ironically manifest as a toxic *excess* of materiality in the broken and/or “obsolete” devices upon Nigerian and other e-waste frontiers.

For Lincoln, if Fanon’s distinction between the “clean” settler and “dirty” native towns describes ‘the colonial body politic’, then the native town is ‘surely its anus, or, more accurately still, its toilet’ (2008, 24). Recent comments made by Donald Trump, in which he disparaged ‘shithole’ countries in the “Third World” point to the further anxious concretisation of ostensibly “Black” spaces especially as threatening waste-dumps in notionally postcolonial times (Gambino 2018, n.pag.). The “cheap” lives of Nigerians in the Delta and beyond are disproportionally threatened by the outsourced consequences of predominantly core zone petrocultural wastes. Consequently, the waste-bound predicaments of world-petroculture and their imbrication in the racial *technics* of surplus humanity percolate through Nigerian SF texts. Taken together, the stories within TJ Benson’s *We Won’t Fade into Darkness*, for example, move adroitly between the local and systemic as they speculate upon the interconnected futures of Nigeria’s petromodern wastelands and all life on earth. ‘Nigerium’, which is described in the story “Jidenna” as a ‘gaseous’ toxic ‘element’ particular to ‘regions of the country over-explored for crude oil’, functions like Eme’s invocation of “pipeline people” to grasp the locally specific contours of petro-magical ruination (2018, 37). At the same time, though, Nigerium’s gaseous form references how, as Moore writes, ‘every nook and cranny’ of the world today ‘bears the impress of capital’s toxification’ (2015a, 280). Benson’s “Alarinka”, meanwhile, speculates upon the combustive end-point of such toxification. The story offers an instructive image in which ‘the emissions of companies still tapping oil’ were ‘pulling the earth even closer to the sun’ (2018, 101-102). How this might actually be possible is less important than the way in which the Earth spiralling into the sun figures the systemic tightening of capital’s negative-value production as it spirals into a fiery future in which no survival seems possible.

Stories such as “Spider the Artist”, Ayodele Arigbabu’s “Cold Fusion” (2013), Adebola Rayo’s “Coming Home” (2013), and Benson’s “Pretty Bird” project that unravelling of petropromise in Nigeria into the future, depicting both the build-ups towards and aftermaths of energy-bound conflicts that threaten the integrity of the nation. Wole Talabi’s “The Last Lagosian” (2016) similarly offers an entropic vision of national unimagining as its eponymous protagonist finds himself the apparent sole

survivor in a Lagos so hostile to life it seems 'like some ancient alien moon' (n.pag.). The desiccated milieu of Talabi's story, in which 'it had been years since rain had fallen in Lagos', emphasises the actual unravelling of the future fostered by capitalist de-development by pointing to the creeping desertification already ongoing on the Capitalocene's warming planet (2016, n.pag.). Within a 'few minutes' and in the midst of an 'unnatural light', all of the water surrounding Lagos disappeared 'from the oceans, the rivers, and the lakes' in a sharp, sudden state change (2016, n.pag.). This accelerated desertification emphasises how the world-ecological rise of negative-value marks a disruption within 'conditions of biospheric stability [...] that have obtained for centuries, even millennia' (Moore 2015a, 278). Other stories, too, imagine the sudden "revenge" of wasteful(l) natures. Neatly avowing the inescapable consequences of petro-extractivism's "excremental" logic, the future Lagos imagined by Afolabi Muheez Ashiru in "Amphibian Attack" (2013), for example, is beset by carnivorous frogs that emerge from the city's toilets and drains. Mazi Nwonwu's "Annihilation" (2013) imagines a near future in which Lagos is battered by a tsunami, while Onwualu's "The Wish Box" ends with Amara pushing Abiye into a swimming pool. Though ultimately comedic, the story's final gesture alludes to the threat posed even to the privileged inhabitants of Eko Atlantic by petro-prompted rises in sea level.

Crucially, when Amara pushes Abiye into the swimming pool, Onwualu's story reclaims the ontological status of "waste" assigned by capital to "surplus" humans like Amara as an agential site for resistive future-envisioning, bearing witness to the way in which, as Bassey writes, 'there was never a time when Africa was plundered without some form of resistance' (2012 131). If the national unravelling fuelled by petro-de-developmentalism in Nigeria constitutes the unravelling of the emancipatory futures that seemed possible at independence, then post-petro-magic futurism is about reclaiming them. The undead of Okogu's "Proposition 23" witness the brutal attenuation of the future under neoliberal precarity, but the novella also affirms that 'the undead shall rise' (2012, 376). On the one hand, as in Oloff's reading of the zombie, such a rising attests to the potentially world-ending "pushback" of negative-value. But, on the other hand, "Proposition 23" ends with an opening out of possibility as the undead are poised to disable the neuro network forever. In "Spider the Artist", too, Okorafor's Zombies become 'unpredictable', attacking soldiers and civilians alike, rejecting the role assigned to them by multinational capital (2013, 110). However, at the same time, Eme forms an unlikely friendship with a Zombie called Udide Okwanka, whose name means "spider the artist" in Igbo. Taking broken and disparate 'fragments of things' and transforming them 'into something else', the web-weaving spider figure of Udide Okwanka embodies an emergent world-ecological consciousness of the web of life; a gesture whose recurrence in Okorafor's *Lagoon* I will examine later (2013, 111). For now, it suffices to say that "Spider the Artist" ultimately remains hopeful about the

new political-ecological relationships that may yet emerge to enable humans and extra-humans alike to collaboratively carve out survivable futures in the Capitalocene to come.

As noted in Chapter One, Niblett discerns both 'an aesthetics of sugar' and an 'ecological aesthetic' of cassava within the work of Guyanese author Wilson Harris (2013, 149). The spider gesture in Okorafor's story begins to show how Nigerian SF's post-petro-magic futurism can help to cultivate similar aesthetic forms rooted in a return to long-repressed folkways. By invoking this notion of a return, I do not mean to suggest a naïve pre-petrolapsarian nostalgia. Rather, following Niblett, I mean to point to how, Nigerian SF texts offer an 'optic' that 'allows one to imagine the possibility of reorganizing the ruling structures of existence' around the 'social needs' of all life (2013, 158). The short stories discussed so far offer "vignettes" of both kinds of future. In the remainder of this chapter, however, I will turn to the novel form which, as noted in the Introduction to this thesis, is better able to grapple with how the *longue durée* of capitalist modernity's cumulative consequences undergirds the rise of negative-value effects under neoliberal world-petroculture today. Under Ovadia's renewed petro-developmentalism, 'to sit back and wait for an anti-capitalist solution' to petro-devastation 'is not a viable option' (2016, 194). By contrast, the remainder of this chapter will demonstrate how Nigerian SF's post-petro-magic futurism recognises that it is not a matter of "sitting back and waiting" for postcapitalist alternatives to emerge, but that they must be actively imagined and fought for against the powerful systemic inertia of neoliberal world-petroculture.

419'ing the Future: the Imaginative Pitfalls of Petro-Nostalgia

Olukotun's *Nigerians in Space* exposes how such petrocultural inertia can manifest in the form of a nostalgia for "missed" petro-opportunities, as it imagines long-running efforts to establish a Nigerian space programme between 1993 and the present day. In the novel's sequel, *After the Flare*, which opens in the near-future as a solar flare devastates the Global North, this space programme becomes pivotal, both in the high-stakes rescue of an astronaut trapped on the International Space Station, and, more significantly, to put Nigeria in pole position at the start of a new round of off-world accumulation. Neither novel explicitly disavows this typical astrofuturist fantasy, or the petro-nostalgia at the heart of its adaptation to the Nigerian context. I am nonetheless interested in how both novels leak the ways in which such a fantasy might be complicated by the world-ecological rise of negative-value. The 1970s oil boom had inculcated what Apter calls a 'seeing-is-believing ontology', wherein the infrastructural spectacles of petro-modernisation offered merely the 'signs of material development' while concealing the degradation of the country's existing 'productive base' (2005, 14). By the late 1980s the post-boom context of 'frustrated expectations' had given rise to 'a new kind of

crime' that, as Apter explains, was 'referred to colloquially as the "419," after the relevant section of the Nigerian criminal code', covering 'impersonation and forgery for fraudulent gain' (2005, 226). This con-artistry reached new heights in what Apter describes as the 'Big Con of June 12, 1993', when military leader Ibrahim Babangida halted the long-promised handover to civilian rule by annulling the result of the first Nigerian Presidential elections since 1983 (2005, 236). As a *New York Times* op-ed penned by Wole Soyinka lamented, the cancellation of these elections had 'robbed the Nigerian people of their nationhood' (Soyinka qtd in Apter 2005, 237). Partially set in the same year, *Nigerians in Space* picks up from this moment of nationwide 419 to reconfigure core-zone astrofuturism via the 419's illusory promise. In so doing, both it and the novel's sequel expose the way in which capital's petro-developmentalist fantasies continue to "419" the future.

Olukotun's novel also responds to the way in which the draining away of the Nigerian petrofuture has also been attended by what Eatough describes as 'the great "brain drain" of African intellectuals' prompted by the SAP-induced devastation of higher education sectors across the continent (2017, 245). With 'intellectual labour [...] increasingly located' overseas, Eatough writes, 'many writers have struggled to imagine how this new global class might be harnessed to the project of national development', especially through stories that 'fantasize about a repatriation of intellectual labour' (2017, 255). In this vein, *Nigerians in Space* is explicitly concerned with 'returning the minds, giving back what had been stolen'; not simply drained intellectual resources as a surrogate for drained petroleum, but the purloined petro-future of Nigeria itself (2014, 25). The potential return of its protagonist, Wale Olufunmi, an émigré lunar geologist in the US, comes to stand for the imagined return of Nigeria's lost petro-future (2014, 13). In 1993, Nurudeen Bello, an adjunct to a Nigerian Government Minister, exploits Wale's dream of walking on the moon to convince him to 'return home' and participate in a Nigerian space programme called "Brain Gain" (2014, 12-13). To ensure his commitment, Bello tasks Wale with stealing a moon rock from a US lab, but falls ominously silent during the political turmoil of June 12th. An international game of cat-and-mouse then ensues, as Wale, left holding the hot moon rock, attempts to track Bello down and revive the astrofuturist dream, while evading government assassins sent after the other Brain Gain scientists. As Eatough points out, the novel, which sees Wale spend much of the next two decades as a bitter exile in postapartheid South Africa, 'rigorously keeps its characters outside of the Nigerian nation', thereby problematically distancing them from the horrors of its petromodern wastelands (2017, 257). Nonetheless, the structural impossibility of the "Nigerian dream" that Bello offers is emphasised by the difficulty that Wale has in actually returning to Nigeria, inviting us to reflect upon the inability of an imaginary of petro-developmental "catch up" to repair a national community made "unimaginable" by decades of unfulfilled petro-promise.

Recalling Fanon's statement that 'in these days of sputniks it is ridiculous to die of hunger', a postscript to *Nigerians in Space* explains that Nigeria actually 'launched its first satellite in 2003' (Fanon 2001, 58; Olukotun 2014, 293). In this way, the novel underscores the continuity between the 1993 moment of nationwide 419 and the expensive and energetic "prestige project" that the country's present-day space programme represents. Bello frames Brain Gain in terms of a nostalgic petro-developmentalism. Not only does the project announce an ambition to reverse an ongoing decline in which Brain Drain becomes Brain Gain, but Bello also insists that it represents 'our turn to leapfrog the [Global] North' (2014, 111). Just as petro-wealth once offered an ostensible escape from the aftermaths of colonial rule and Civil War petro-strife, Brain Gain is positioned in terms of a techno-utopian "clean break" from their iniquitous aftermaths. Bello pontificates that

> Oil has ruined us, smeared our Deltas with smog, poisoned our creeks and marshes, lined the pockets of the few. For us to leap, we must find another source, clean of the blood of our ancestors. It is not more oil that we need. Not gold, not diamonds. We can't swap blood for blood. What we need are minds. (2014, 111)

Bello's assertion that oil has ruined Nigeria locates the developmental problems that the country faces *within oil itself* as opposed to the particular logic of capitalist resource extractivism. His invocation of minds as a replacement for oil's "blood" represents an intensification rather than a developmental move away from already ongoing extractivist projects. The repositioning of Black minds as central to Nigeria's future prosperity resembles the triumphalist ending of *Black Panther*, in that while it implies a putatively emancipatory rejection of Black bodies as labouring bodies, it nonetheless replicates the capitalist cartesian split of body and mind that enabled those bodies and minds to be so "cheapened" in the first place. As in the Afrofuturist film, then, the fundamental trajectories and assumptions of capitalism as an ecological regime remain intact. Bello's framing of Black minds as a 'clean' resource recalls neoliberal pushes towards 'an innovation-based economy' under which, as we saw in Chapter One, 'creativity', as a resource supposedly 'without limits' could 'replace the mass-production of tangible commodities' (Cooper 2008, 17-18). Nigerian creativity thus remains at the heart of an extractivist paradigm that presupposes 'millions of eager young minds, waiting to be tapped', as if little more than a "clean" petroleum (2014, 89). Far from an historical "leap", then, Brain Gain seeks to intensify the earlier processes by which a once similarly "limitless" petroleum had 'replaced labour as the basis of national development', moving from the symbolic blood or body of the nation to its imagination, or even its soul (Apter 2005, 201).

Brain Gain's intensification of the older petro-extractivist paradigm is emphasised further in *After the Flare*, when we learn that Bello clandestinely funded the project with embezzled funds 'that

were tied to oil revenues' (2017, 161). As an outgrowth of Nigerian petro-modernisation's iniquities rather than a serious attempt to remediate them, Brain Gain appears set up to recapture the lost future of the petro-boom years. As Bello talks of how Nigeria's 'brightest' will return 'to feed the river' and 'the palm wine tapper will climb down from the palm tree', a nostalgia for a vanished precolonial past and for an unfulfilled petro-promise somehow made clean become one and the same (2014, 56-57). This nostalgic appeal to the future attempts to revive the 'euphoric marriage of oil and culture' that Apter discerns within the African Festival of Arts and Culture (FESTAC) held in the country in 1977 (2005, 278). Apter argues that during FESTAC '77, 'cultural and national "traditions"' were 'evacuated of historical specificity to become tokens of a singular black heritage and civilization', within which the Nigerian petro-state could emerge 'as the unequivocal leader of the new black world' (2005, 278, 54). In other words, as Brouillette points out, FESTAC '77 was 'funded mainly by petrodollars', and 'used culture, especially spectacularized folk traditions, to sell Nigeria as the petrol-rich king of African nations: open for business' (2019, 16). If, by now, capitalist petro-extractivism's de-developmental effects in Nigeria have cast serious doubts upon this vision, Bello's Brain Gain project appears to be trying to re-legitimate its lofty aims by offering Nigerian minds up to multinational capital as an oil replacement. The rhetorical move to an ostensibly de-materialised information economy, however, masks the intensified material extraction upon which this putatively "clean" future of innovation actually depends. Bello asks Wale to steal the so-called lunar 'Contingency Sample' collected by Neil Armstrong 'right after he took his first steps' on the moon (2014, 64). Bello plans for Nigeria to symbolically return the moon to a precolonial state by returning the sample "stolen" during mankind's "Giant Leap" to the lunar surface. However, the resistive and restorative symbolism of 'the colonized returning the cultural patrimony of all mankind' to its "proper" place is tempered by the fact that Bello wants 'to plant a Nigerian flag' at the same time (2014, 64). Wale's theft of the Contingency Sample is thus less about claiming an alternative futurity as it is about claiming one that remains problematically tied by the sample itself to resource extraction. At the end of *After the Flare*, we learn that Bello's ambition for Brain Gain was, all along, about enabling Nigeria to 'mine the cosmos', an ambition for which Nigeria is well-placed, he argues, because the country has historically 'thrived on extraction' (2017, 281-82). It hardly needs stating that millions of Nigerians in the Delta and elsewhere might disagree.

Despite his public condemnation in 1993 of oil extraction as having 'ruined' Nigeria, Bello comes to extol the dubious virtue of the Nigerian 'expertise in monetizing the extraction process' by the near-future of *After the Flare* (2017, 282). This seems less a case of Bello "selling out" than his revealing the profit-driven intentions of Brain Gain's rhetorical re-invigoration of the discredited petro-future. This claiming of a particularly Nigerian astrofuturist fantasy that continues to materially exclude the

majority of Nigerians represents the ongoing intensification in neoliberal times of what Fanon condemned as 'the nationalization and Africanization of the ruling classes' promulgated by the 'native bourgeoisie' in the postcolony (2001, 125). Towards the end of *Nigerians in Space*, Wale reflects that Bello's promises of Brain Gain's 'innumerable benefits', including 'communications satellites' and other 'trickle-down technology', 'came out sounding shallow' (2014, 259). This moment cuts against the wider "trickle-down" promises of neoliberal capital that have served only to redistribute national wealth to small indigenous elites in postcolonial times. Notwithstanding the problematic conclusions to both novels, in which Bello's vision seems to be vindicated, the hollowness of that vision's petrocultural future-envisioning and the unevenness of its outcome is exposed by its structural similarities to the con-artistry of the 419. As Apter explains, the 419 is 'a skilful cultural performance with costumes, props, and a mobile stage of suspended disbelief' that draws in its prospective marks 'deeper and deeper until the illusion pops and the game is up' (2005, 13, 234).[5] Amidst the attenuation of other means of survival driven by the pressure of structural adjustment and petro-bust, he writes, 'illusion became the very basis of survival' (2005, 250). This is dramatised by *Nigerians in Space*'s noirish plot, with Brain Gain itself constituting such a high-stakes cultural performance. For Wale, the stakes become quite literally life and death as he follows a path of dissimulation that takes him from the United States, to Sweden, to Switzerland, and finally to South Africa in search of Bello, while simultaneously concealing from his increasingly concerned wife and son the danger that they are in.

It might be tempting to read the two novels' presentations of Bello, who is 'a master of PR' with 'words and gestures' that are equally as 'slippery' as petroleum, as merely a condemnation of the apparent grip upon the future of the "natural" political corruption assumed by the "resource curse" thesis (2017, 145, 2014, 88). Certainly, as another scientist approached by Bello reflects in *Nigerians in Space*, Bello is an untrustworthy 'praise singer' who 'had been trained in persuasion since birth' and was merely peddling 'a very dangerous scam' (2014, 200). Wale's realisation that Bello had 'shot an arrow into the sky and covered his head with a mortar bowl', however, also encodes a recognition of the asymmetrical ecological burdens of the nationwide 419 perpetrated by the "official" forms of future-envisioning supported by capitalist petro-extractivism (2014, 97). Bello serves as a cipher for capitalist actors and agencies in general who remain disproportionately able to shield themselves from the material effects of their violent profit-making. Just as Saro-Wiwa lamented in 1992 that the Ogoni had 'received nothing' but ecological devastation in return for the 'US 100 billion dollars' worth of oil and gas [...] carted away from Ogoni land', Wale 'never received' the money promised to him by Brain Gain, despite taking on all the material risks involved in stealing the Contingency Sample (Saro-Wiwa

[5] We might be reminded here of the political economy of hype that Rajan (2006) discerns in the biotech industry, for example, or, in even broader terms, the political and economic future-envisioning promulgated by the neoliberal futures industry.

2005 66, Olukotun 2014, 262). As he desperately searches for any trace of Bello while evading the assassins of another faction within the governing military regime, Wale's life unravels into a chaos that leaves him a broken exile in suburban Cape Town. In this way, Wale's personal downward spiral glimpses a future in which petroleum's illusory promises can no longer conceal the actual harm its extraction inflicts upon human and extra-human natures.

By the end of *Nigerians in Space*, Nigeria's petroleum-saturated, extraterrestrial future appears to have become just another petro-promissory future that could never have been, but which remains no less affectively charged. Even years later, Wale reflects that what Bello had offered was 'no scam', but that he had been a 'dreamer' that he would 'probably believe' again (2014, 259). Rather than acknowledging the possibility that the astrofuturist dream itself may be deficient, the novel blames its failure upon the brutal crackdown of a corrupt military government that viewed Brain Gain as nothing more than 'a coup d'état of the intelligentsia' (2014, 285). If, as Apter points out above, the success of the 419 rests upon a persistent suspension of disbelief, the novel ultimately supports the suspended disbelief in a petro-prosperity whose realisation has been continually deferred for the nation at large. Instead of maintaining its cautionary critique of the imaginative paralysis of a nostalgia for missed petro-opportunities, the novel concludes with the frustrating insistence that, as in Ovadia's suggestion that oil can yet be made to "work" in Nigeria, similar opportunities remain there for the taking. On the novel's final page, we learn that Bello has 'escaped house arrest' (2014, 291). He appears on television, reviving the dream of a Nigerian space programme by 'calling for nothing less than to mark a new era' in Nigerian history 'with the launch of the country's first home-grown rocket' (2014, 291). Lincoln writes that 'the realization of the dream of postcolonial independence, of human dignity and economic self-determination [...] has in almost every instance come to seem a reality that is infinitely deferred' (2012, 262). Evincing the hope for the imminent achievement of this long-deferred dream, *Nigerians in Space* concludes with Wale's son, Dayo, imagining a near future in which he can tell his father that 'it's happening. You can go there now. You can go up' (2014, 291). What bears emphasising, however, is that although Wale might live to see the realisation of his long-cherished dream of 'walking on the moon with his countrymen', this dream remains profoundly uneven, and scarcely acknowledges the millions of those countrymen living in Nigeria's petro-modern wastelands who hardly feature in the novel at all (2014, 26).

At stake in *After the Flare*, then, is the extent to which it accepts or rejects the imaginative paralysis endorsed by the ending of *Nigerians in Space*. Does it project forwards from the Nigerian petro-context to imagine an epochal crisis within capital's particular way of imagining the future? Or does it effectively continue *Nigerians in Space*'s 419'ing of the future, positing an extraterrestrial frontier as the basis for the simultaneous renewal of the Nigerian nation and of capitalism as an

ecological regime? As will become clear in the remainder of this section, the text's broad allegiance appears to be to the latter. However, a number of cautionary gestures throughout the text that leak the "pushback" of an increasingly insurgent "nature" suggest how dubious a proposition this is. As if to foreground this from the outset, the novel opens with a description of a catastrophic solar flare. As the Earth is 'wrapped' in 'colours like glowing sheets of cellophane', we receive a particularly petroleum-inflected sense of disaster, both in terms of the symbolism of a planet wrapped in plastic and the flare's more obvious correspondence to gas flares in the Delta (2017, 8). While the aesthetics of darkness and voids in the postapartheid speculative offered a depletion-bound glimpse of capitalist extractivism's entropic end point, this trope returns in *After the Flare*. Astronauts trapped on the ISS watch helplessly as 'the entire hemisphere' below them 'fell dark', such that 'Moscow and Berlin were gone, extinguished' (2017, 8). Indexing the 'combination of depletion and unpredictability' that is, for Moore, 'the hallmark of the ongoing transition from "surplus" to "negative" value', the astronauts learn from ground control that 'we weren't prepared for a coronal mass ejection of this intensity' (Moore 2015a, 276; Olukotun 2017, 10). The impossible-to-predict flare references the increasingly unpredictable weather patterns of a capitalogenically warming planet, and the corresponding attenuation of life-sustaining resources. Mission control in Paris has 'about two hours of emergency power left', but the problem is 'global'; the Earth has 'gone dark' and '*nothing* is working', for capital or otherwise, it seems (2017, 10-11; original emphasis).

In this world, the astrofuturist dream threatens to come crashing back to Earth not with the immediate bang of an anxious eco-apocalypticism, but rather in the International Space Station's incrementally accelerating de-orbiting; a protracted collapse that figures the 'brutal consequences of a future of slow decline' (Szeman in Yaeger et al. 2011, 325). Both the French 'Arianes' and 'all of the North American rockets are fried', meaning that 'no-one else' has a means of launching a rescue mission to save the trapped astronauts; one of whom, Masha Kornokova, must remain aboard since the station's Soyuz capsule can only fit three of the four crew members (2017, 11). Like *District 9*'s stalled spacecraft, 'both engines on the station have been damaged', worsening the problem of 'orbital decay' since, simultaneously, the flare has expanded the Earth's atmosphere, 'increasing drag on the station' (2017, 10). Along with the ISS, space powers around the world 'expect to lose thousands of low Earth orbit satellites' (2017, 10). Just as the prawns' vessel in *District 9* forecasts the potentially destructive return of extractivist consequences, the wreckage of petromodernity's astrofuturist outposts threatens the survival of millions. The 'deorbital footprint landing on Mumbai' of the ISS emphasises the continuing unevenness by which such consequences are displaced to world-ecological (semi-)peripheries (2017, 12). However, only a year later, we learn that such displacements are increasingly untenable as survivors in the US have started to 'run emergency drills for the satellites

when' – not if – 'they begin to fall' (2017, 136). Trapped aboard the ever-faster falling ISS and constantly threatened by 'space debris', Kornokova's plight witnesses the increasing precarity of life in a negative-value future that is both increasingly waste-full and stripped of life-sustaining resources (2017, 45). Aboard the station, we find that 'conditions [...] were deteriorating rapidly' (2017, 114). A container of food is 'contaminated', forcing Kornokova to 'lower her rations to subsistence levels' and to 'sleep as much as possible', inverting the triumphantly energetic upward thrust of space exploration into an image of slow-down and gradual starvation (2017, 114). Her body begins to atrophy from both the lack of gravity and food, with 'hollowed' cheeks making 'her eyes bulge' (2017, 167). At the same time, she is reminded that, like Nigeria's petro-economy, she too will burn "hot and then out" in the Earth's atmosphere. Spiralling inwards, reminding us of the destructive tightening of capital's own systemic reach, 'distinct features' on the surface 'sharpen' ominously with every pass (2017, 166).

Yet, within this darkened world, 'Africa pulsed with a bright yellow eminence', wherein, apparently, Bello's petro-nostalgic imaginary of developmental "leapfrog" can again flourish (2017, 166). We learn that 'a narrow band along the equator – including West Africa' has been shielded from the effects of the flare, leaving Nigeria with 'the only remaining space program' in the world (2017, 22-23). Bello's old ambition of returning the Contingency Sample to the moon was to serve as a potent PR exercise to emphasise the attainment, at last, of the post-independence future of resource-bound pre-eminence that petroleum was once supposed to have offered. Masha Kornokova is likewise, for Bello, 'the beacon that will guide Nigeria to our ambitions', the importance of her rescue less about saving her life than to 'help convince people to invest in Nigeria's future' (2017, 89). This rescue mission, then, is perhaps not so much about the saving of a single astronaut, as it is the symbolic saving of the astrofuturist imaginary that is threatened in a future of negative-value. The troubling gender politics of the rescue's rehashing of the "damsel in distress" plot may also seem to tie the astrofuturist dream to the reassertion of a particularly heteronormative (and hence capitalist-oriented) mode of reproductive futurity. However, the rescue of Masha Kornokova also leaks a more radical potential, too. We learn that Kornokova is in a lesbian relationship with Josephine Gautier, the French-Guadeloupian rescue mission director. The rescue of Kornokova, then, might also offer a potential opening for a postcapitalist "queering" of (re)productive futures, but this imaginative avenue is left frustratingly underexplored in Olukotun's novel. As Bello articulates his long-term ambitions for the program, it becomes clear that what it offers is merely an intensified form of petro-developmentalism funded by multinational capital. While, as has already been noted, these ambitions are nothing less than to see Nigeria at the head of a new wave of off-world extractivism, we learn also that 'the real money will be made' at first by contracting out a large weightlessness simulation pool at the newly-built Kano Spaceport, which will 'pay for this facility' (2017, 88). Underscoring just how much this

ostensibly “new” industry is no more than an outgrowth of what Watts calls Nigeria’s existing ‘oil complex’, the first of these contracts have gone ‘to the oil rigs, so their welders can practice deep-sea repairs’ (Watts 2004, 256; Olukotun 2017, 88).

Echoing the infrastructural spectacle of the boom years, or, more recently, the Eko Atlantic development in Lagos, the presence of the spaceport transforms Kano ‘into a boomtown’, with ‘garish behemoths of glass and steel [...] rising above the city’ (2017, 152). Though far from the Delta, the installation of the fenced-off spaceport ‘about ten kilometres from the city’ replicates the division of the Delta into petro-enclaves (2017, 51). In this way, the majority of Nigerians, whether in Kano or across the country, remain excluded from participating in the Nigerian space future, despite bearing most of its material costs. Located in the desert, the weightlessness pool requires vast amounts of water that are diverted from the people of Kano, ‘lowering the water pressure throughout the city’ and hinting at the creeping desertification prompted by fossil-fuel burning, both in the Nigerian Sahel and the world over (2017, 152). Just as Apter notes that within FESTAC ’77’s ‘spectacle of culture, the contradictions of the oil economy were nowhere to be seen’, Bello’s numerous appeals to the entire Nigerian people obscure the intensified unravelling of national interethnic unity at the heart of his petro-nostalgia-soaked space vision (2005, 9). Despite the clear projection of already-existing unevenness into the future, the intensified space programme proceeds under the assumption that, as Bello announces in a public speech, ‘the Flare [...] has given *us* an opportunity to prove our ingenuity and to right the wrongs of the past’ (2017, 43-44; my emphasis). The infrastructural spectacle of the Kano spaceport thus recalls the way in which, as Falola and Heaton write, FESTAC’s state-of-the-art facilities – including the 23,000 square metre National Theatre constructed in Lagos – ‘were apparently meant to inculcate national pride in Nigerians and to show the rest of the world Nigeria’s great wealth and power, as well as its ability to modernize along the lines of Western countries’ (2008, 194). This spectacle, and the events staged at the National Theatre were, as Falola and Heaton explain, supposed ‘to bring Nigerians together by promoting collective pride in Nigeria’s diverse and varied traditions and histories’ (2008, 194). In reality, though, as Apter points out, this ‘master narrative of national culture’ served instead to subsume ‘ethnic difference and class formation’ in the Nigerian petro-state under ‘the inclusive horizons of blackness’ (2005, 48, 9). By presenting its own version of FESTAC ’77, *After the Flare* projects the entropy of that illusion into the near future.

Falola and Heaton explain that ‘in many ways, FESTAC was as much an illustration of the extravagance and corruption of the “rentier” state as it was a symbol of national pride and unity’, with its spiralling costs symbolic of ‘the growing socio-economic rift between those with access to state

resources and those whom the state ignored' (2008, 194-95).[6] In a similar vein in *After the Flare*, the vessel of Nigeria's first foray into space is ironically named the *Masquerade*, referencing both Igbo masquerades and the cultural 419 that such a reference supports. In *The Wretched of the Earth*, Fanon argued that a post-independence 'nationalism' that 'is not enriched and deepened by a very rapid transformation into a consciousness of social and political needs [...] leads up a blind alley', giving rise to a 'national consciousness' that cannot be 'the all-embracing crystallization of the innermost hopes of the whole people', but rather a 'fragile travesty of what might have been' (2001, 165, 119). While the design of the *Masquerade* and the celebrations that attend its launch are supposed to offer, as Apter writes of FESTAC '77, a 'unifying expression of the Nigerian people', it offers instead what Fanon condemned as 'the stock of particularisms' that is 'strangely reminiscent of [the] exoticism' of the colonial era (Apter 2005, 123; Fanon 2001, 180). In the centre of the Kano spaceport stands a ten-metre 'stylized replica' of the *Masquerade*, which is 'festooned with black-painted ziggurats and Gelede masks', representing 'the cultural heritage of Nigeria forged into a colossal sculptural vision of the future' (2017, 16). This collective bronze casting, however, arbitrarily abuts elements abstracted from their proper contexts, such as the 'geometry of traditional masks', the shape of canoes from 'the floating villages of Makoko', and a 'crocodile skin' pattern in place of heat-resistant re-entry tiles (2017, 44). Moreover, while 'the jingling dresses of Ijaw priestesses and the intricately carved masks of the Ogoni' from the Delta are displayed in the spaceport's 'central auditorium', the devastated communities that they represent remain conspicuously absent (2017, 42). As if the goal of a space mission can somehow offer the shared future that failed to materialise with petroleum, the weightlessness pool is christened the "Naijapool", while the Nigerian astronauts are re-branded as 'Naijanauts' and 'outfitted in green-and-white tracksuits, the colors of the Nigerian flag' (2017, 25). Continuing this theme of international promotion, the Naijapool features prominently in a slick video

[6] It is important to note that despite such criticism, FESTAC '77's legacy is too complicated to be dismissed solely as a petro-state propaganda exercise. As Alice Aterianus-Owanga explains, FESTAC '77 'is often considered as the ending point' of the 'era of the Pan-African ideal' (2020, 252). However, she points out that Pan-African festivals like FESTAC '77 have since 'become the object of a new archival impulse, with a visible will to rehabilitate this cultural phenomenon, whether it be from artists, scholars, or African states themselves' (2020, 254). More specifically, Aterianus-Owanga details the case of the South Africa-based platform Chimurenga, which maintains an extensive archive of FESTAC-related materials in Cape Town. She explains that 'the Chimurenga team started in 2010 to collect, produce and exhibit a large series of archival materials in order to generate memory and knowledge about FESTAC' (2020, 255). Importantly, though, their aim was to contradict 'political nation states' recuperations of Pan-African legacy', instead 'using materials from the past to invent popular performances manifesting Pan-Africanism, and to spread new Pan-African utopias' (2020, 255-56). In this way, Aterianus-Owanga writes, Chimurenga 'conceives of its exhibitions as a "low tech time-travelling machine" to the past and for the production of memory' – including that of 'alternative conceptions of Pan-Africanism' to the version 'promoted by the Nigerian military state' (2020, 263). In 'cutting, selecting, and sampling' from 'broader collections', Chimurenga's "time-travellers" thus 'create new pieces, performances and arenas of discussion about Pan-Africanism' (2020, 264). I would suggest that it is to precisely this kind of non-novelistic speculative work that future research on world-SF production ought to turn.

presentation delivered to a room 'packed to the brim with scientists from Nigeria, India, and all across the African diaspora' (2017, 142). Spiritual leaders 'from all over the country' are flown into the spaceport 'at great expense for the consecration of the bronze replica of the *Masquerade*' (2017, 42). The ceremony concludes with a formal dinner consisting of local food, before 'loudspeakers erupted with highlife music, and everyone set down their plates to dance' (2017, 48).

We are hardly surprised, then, when later, despite a few technical hitches in the actual rescue mission, its success, Kornokova's survival, and the future of the Nigerian space programme seems guaranteed. However, brief moments within *After the Flare* also cut against the false developmental consciousness emblematised by the *Masquerade*. The sense of a future that is actually stuck in "go-slow" is emphasised by the fact that 'from the very beginning, there had been countless obstacles at the spaceport' that encode the resistive potential of the Capitalocene's increasingly unpredictable "nature" (2017, 27). A weather report announces that an early Harmattan wind might fill the then-empty Naijapool with sand before it can be completed. Kwesi Bracket, supervisor of the Naijapool, discovers 'the interior of his trailer coated in a fine layer of silt', and the winds bring ominously 'otherworldly sounds' (2017, 75, 77). The next day, in a brief glimpse of a negative-value future, he discovers that 'the wind from the previous night's storm had swept the landscape bare' of any life-sustaining resources (2017, 79). Later, he sees a 'cluster of huts' that seem to have been abandoned to the ever-encroaching desert (2017, 176). The actual ecological consequences of the *Masquerade*'s fiery exhaust are hinted at by the 'flat plain that soaked up the heat' upon which the Kano spaceport is built, and the 'wilted bushes' that surround it (2017, 51). The approach of the Harmattan seems also to have an irresistible agency of its own that threatens to de-rail the launch schedule, as 'gusting winds' presage its arrival 'in the coming weeks' (2017, 223). As a future threat, the approach of the Harmattan hangs ominously over the narrative, vested with a similar symbolic power to that of the flare with which the novel opens. In passages reminiscent of the dusty electrical storms in the future of Okorafor's *The Book of Phoenix*, the swirling dust creates a 'bloody moon' that 'portended' a 'reckoning' and, sure enough, Kwesi later sees 'a black cloud surging towards them, the lightning flaring within it' (2017, 231, 234).

As the onslaught of the Harmattan gains momentum, Kwesi also finds construction of the Naijapool stymied by 'some kind of electrical discharge that the onsite technicians couldn't explain', which causes his equipment to produce 'inaccurate or unreliable data' (2017, 27). Significantly, 'the failure rate of his equipment seemed to increase the further they dug into the ground', such that each developmental step "forwards" sees the intensified pushback of historical consequences, because to dig deeper into the ground is actually to dig deeper into the past (2017, 28). Eventually, we learn that the disruptions are caused by mysterious artefacts known as "songstones", which have been

appearing around the dig-site. The stones formerly belonged to the Nok, an 'Iron Age culture' spread 'over northern Nigeria', which 'suddenly collapsed' for reasons unknown (2017, 179-80). Symbolically aligned again with the past developmental potential of fossilised carbon, one of the stones is described as 'a dark rock like a lump of coal' (2017, 15). Meteorites whose power was activated by an ancient solar flare, the songstones transformed the Nok 'within a few decades' into an 'advanced' civilisation 'that once possessed technologies as great as our own' (2017, 189). As with the renewal of petro-promise in the Nigerian Gulf of Guinea today, the novel's epilogue imagines ten years after Kornokova's successful rescue to a future in which the songstones' ancient promise has been intensified by astrofuturist 'Noktech' (2017, 292). It seems that Bello's nostalgic vision has finally been realised in a Noktech-powered 'mining machine' in space called 'The River', where 'chunks of asteroids' are processed into 'usable materials' by miners re-branded as 'cometsmiths' (2017, 292-93). As at the end of *Nigerians in Space*, we are left to wonder at exactly how many benefits might "trickle down" from this particular river to the majority of Nigerians who remain on Earth. As with Nolan's *Interstellar*, this triumphant ending appears to imagine the beginnings of a new developmental cycle premised upon the expansion of capitalist extractivism's "business as usual" into space. It remains haunted, however, by the precipitous historical collapse of the ancient Nok. Skeletons discovered with the songstones are 'warped' and display other 'abnormal' growths (2017, 275). The Nok 'didn't just disappear', we find, but the songstone technology 'killed them' by exposing its users to the 'radioactive isotopes' that give the stones their power (2017, 275). Ultimately, then, we are left with a sense that even if a technological escape from capitalist petro-magic's earthbound consequences is possible, such an escape will have hidden, possibly terminal, costs of its own.

Refuelling the Future? *Lagoon*'s False Promise of Petro-Utopianism

While Olukotun's novels hint at the negative-value future that awaits capitalist petro-developmentalism, Okorafor's *Lagoon* is more decisively invested in clearing an imaginative ground for alternative futurities to the false utopics of capitalist petro-promise. With three "acts" entitled 'Welcome', 'Awakening', and 'Symbiosis', *Lagoon*'s narrative arc proceeds from the seductions of such petro-promise to the awakening of world-historical consequences, and then, finally, to the newly relational ways of being that may yet emerge from Nigeria's petromodern wastelands. The novel recalls the long history of capital's resource-bound incursions into Nigeria and speculates upon their waste-bound future by imagining an alien invasion of Lagos. Referring to themselves as the embodiment of 'change' and 'technology', a group of aliens land off the Lagosian coast and purport to offer a techno-utopian, post-petroleum future (2014, 39, 220). They choose three humans to

convey their 'ambassador', Ayodele, to Nigeria's president so that she can open negotiations for the aliens' settlement in Lagos: a marine biologist called Adaora, a soldier named Agu, and Anthony "dey Craze", a world-famous rapper (2014, 37). Ayodele, Adaora, Agu, and Anthony navigate the febrile climate that results from the aliens' insistence that oil 'could no longer be Nigeria's top commodity. It could no longer be a commodity at all' (2014, 273). Instead, Ayodele promises to 'BRING YOU TOGETHER AND REFUEL YOUR FUTURE', (2014, 112). The president accepts the aliens' terms and offers an energy-charged vision of Nigerian futurity in a triumphant speech. In a nostalgic re-statement of historic petro-utopianism, he explains that 'the land would be pure and palm nuts, cocoa and other crops would grow as they never had before. Extinct creatures would return, and new ones would appear. Nigeria would have much to give the world – and to show it' (2014, 279). Ultimately, however, the intensifying "revenge" of historical "petro-natures" confounds such a petro-promissory resurgence.

If, for Melody Jue, *Lagoon* is a petrofiction that asks 'how to transition off of oil', we might probe how the novel's presentation of socio-ecological cause and effect re-frames this question vis-à-vis the systemic rise of negative-value (2017, 172). Hugh Charles O'Connell argues that *Lagoon* opens 'a condition of radical possibility that breaks with the conditions of capitalist realism' by 'rethinking the alien encounter narrative within the framework of neoliberal globalisation' (2016, 292-93). At issue, he writes, is whether the alien encounter narrative can be 'refashioned' to sever its 'long-recognised relationship [...] to colonial and neocolonial conquest' (2016, 292-93). In view of this, I want to explore how *Lagoon*'s aliens prompt reconsiderations of the patterns of environment-making that have long underwritten such conquests. Given that *Lagoon* is set in 2010, the *past* of the novel's publication context, it is as if the novel emphasises that the dangerous and unpredictable futurity metonymised by the aliens is already underway. While they cleanse the 'dirty and dead' sea, these aliens simultaneously transform local marine life into monstrously vengeful versions of their former selves (2014, 68). Sea levels rise uncontrollably. Slumbering figures from long-suppressed cosmologies are awakened, and then unpredictably intervene in the material life of Lagos. In the panic caused by these resistive awakenings, 'wealthy and influential' Lagosians are unable to "escape" because, in a particularly petro-anxious gesture, 'planes everywhere were grounded indefinitely' (2014, 58). In Okorafor's novel, it eventually becomes clear that petro-promise can no longer be counted upon, even for the few Nigerians (and wealthy elites the world over) who have historically captured many of its material benefits.

O'Connell posits that *Lagoon's* aliens 'present themselves in the guise of a civilizing mission, as modernizers and saviours', functioning as analogies for both historical colonisers and the vicissitudes of 'neoliberal development' (2016, 292-93). We might also say that while the aliens themselves evince

a desire to help humans move past petroleum, they nonetheless function aesthetically as imaginative petro-developmental surrogates. Given that they land offshore and emerge from the sea, *Lagoon* functions metonymically as what Macdonald calls a 'coming-of-oil' narrative, resonant with the Gulf of Guinea oil boom (2017a, 294). The aesthetics of petroleum leak through depictions of the aliens' slippery potential as a quasi-magical source of near-instantaneous transformation. They have 'fluid mannerisms' reminiscent of oil, and are named as 'shape shifters', 'witches', and 'warlocks' (2014, 17, 29). Moreover, the radical newness that the aliens seem to offer actually feeds into a nostalgia for petro-promissory futures that have historically failed to materialise. This is affirmed by the aliens' healing of the ailing Nigerian president, who is undergoing treatment for pericarditis in Saudi Arabia when the aliens arrive. Petroleum serves as a 'lifeline for very weak governments', Oliveira suggests, because of the 'international networks of complicity' between states and multinational capital that conspire to keep the oil flowing (2007, 57, 59). It also sustains capital's particularly energy-hungry and "officially" sanctioned future-envisioning, which, in *Lagoon*, is tied to the presidential heart in a similar fashion to Premier Uttley in *Brown Girl in the Ring*. The president's initial treatment in another key petro-state underscores the international networks of complicity supporting petro-violence and the intersections between petroleum, politics, and imagined national futures. If oil became the symbolic lifeblood of an ascendant post-independence Nigeria, the moribund president's diseased heart witnesses how this vision has unravelled as he is 'half carried, half dragged' to his first meeting with Ayodele (2014, 217). The aliens' healing intervention, then, points towards the persistence of a petrocultural insistence that such a vision can be "refuelled".

Prior to the aliens' arrival, the president is troubled by nightmarish 'images of his heart encased in a sack of vile yellow diseased fluid' that represents the cumulative petro-wastes threatening the forms of future-making over which he presides (2014, 83). With the heart's symbolic ties to the affective pull of nostalgia, the aliens' techno-utopian ability to repair otherwise irreparable damage allows an unabashed petro-nostalgic futurism to flourish within the newly energised president. As he revives from his 'weak and semi-conscious state', he supposes that he can finally enact the old petro-dream (2014, 217). Anticipating Donald Trump's fossil-fuelled "MAGA" rhetoric, the Nigerian president reflects that 'we will be powerful again, o!' (2014, 278). As *Lagoon*'s glossary asserts, 'o' serves in Nigerian pidgin as 'a terminal intensifier' (2014, 279). The hollowness of the letter "o" itself, however, leaks the emptiness of its intensification of petro-nostalgia, exemplifying Fanon's caution against the shortcomings of 'nationalist parties' that only 'mobilize the people with slogans of independence, and for the rest leave it to future events' (2001, 121). In *Lagoon*, the president 'pacifies the people' in precisely this vein, seeming to ask 'the people to fall back into the past and to become drunk on the remembrance of the epoch which led up to independence' (Fanon 2001, 135-36). He

announces that 'solid programs' will deliver a 'change' that 'will be both gradual and swift', endorsing such programs as 'an important milestone in our march towards a maturing democracy', rather than elucidating their details and timetable of implementation (2014, 279, 277).

The president's performative energy masks the continuity tacitly affirmed by the aliens' restoration of his heart. As Eatough elaborates, the president's proclamation aligns the aliens with 'new forms of developmentalist logic that surfaced in the early 2000s', when even the IMF and World bank recognised the devastation wrought by structural adjustment (2017, 251). Within such visions, Eatough writes, it was presupposed that the establishment of durable institutions in otherwise "weak" recipient states 'would organically lead to a just and more equitable distribution of resources', as opposed to the 'expensive welfare programs' anathema to neoliberal doctrine, which, it was argued, 'dealt with the symptoms of poverty rather than its underlying causes' (2017, 247). Such forms of developmentalism consequently served only to '[adapt] notions of social and economic justice to the logic of structural adjustment', via the so-called 'long term visions' of 'poverty reduction strategies' (Eatough 2017, 246). The ludicrousness of such visions finds expression in Ovadia's suggestion that making oil "work" in Nigeria is a matter of 'better policy' to 'discipline market forces', given that efforts to do the same have evidently not worked for the past six decades (2016, 7). It is also built into the hollowness of the president's declarative "o!" in *Lagoon*, such that, while we wonder how much longer ordinary Nigerians will have to wait for the "better policy" of his "solid programs", the sense of post-transitional "go-slow" identified by Griswold returns. Just as Bello's ambitions for a Nigerian space programme and its "trickle-down" technologies take decades to materialise in Olukotun's novels, the president's nebulous rhetoric of change defers its actual achievement to some unspecified future.

Lagoon's narrator comments that 'old outdated ways of thinking don't die easily', avowing a scepticism towards the president's developmental assumptions (2014, 278). O'Connell writes that the aliens figure change and technology as 'an inseparable pairing', repairing the president's heart, rehabilitating polluted oceans, and promising that they will go about 'restructuring' Nigerian society along more egalitarian lines (2016, 29). Jue likewise suggests that Ayodele's promise to "refuel" Nigeria's future introduces the aliens 'as the antidote to dependence on fossil fuels', offering a 'clean ocean purged of leaky oil-drilling operations' (2017, 272-73). However, even if Ayodele tells all of Nigeria that 'YOUR LAND IS FULL OF A FUEL THAT IS TEARING YOU APART', the aliens offer a technocratic, top-down solution to what is, essentially, Ayodele's re-statement of the resource "curse" thesis (2014, 113). Just as Moore points out that the 'robot factories of the future' predicted by 1970s techno-utopianism materialised instead as 'a world of sweatshops, surplus humanity, and shock doctrines', the aliens' techno-institutional "fixes" exacerbate the material unevenness that their utopianism purports to smooth out (2012, 34). Despite her claims that the aliens will undo the petro-

fuelled unimagining of national community by bringing people 'TOGETHER', Ayodele's promise that the aliens 'ARE HERE TO NURTURE YOUR WORLD' remains profoundly uneven (2014, 113). She first appears to a privileged scientist, a soldier, and a world-famous musician. Adaora ironically understates that she and her husband Chris 'do okay', given that Chris was 'wealthy' enough to build her a private basement lab, including 'a brand new computer', 'giant' television, and fish tank (2014, 21-22). Even more tellingly, two other people witness Ayodele's first appearance to Adaora, Agu, and Anthony, but are both excluded from this metonymic oil-encounter. A 'mute and mentally handicapped' boy is unable to 'speak or even process' what he sees, while Fisayo, who supplements her meagre secretarial income via prostitution, imagines that she sees Ayodele release 'something black and evil into the air like a poison', emphasising the potentially toxic effects of the aliens' arrival (2014, 14). Later, Fisayo swims out into the ocean, begging the aliens to 'TAKE ME!', but although the water temporarily 'embraced her' like a nurturing 'hand' or 'womb', she is unceremoniously 'washed back onto the beach' (2014, 130). The brief embrace followed by the swift, crushing rejection recalls the opening out and then brutal foreclosure of petro-hopes.

We also encounter Moziz, 'a struggling medical student forced to take the year off' by strikes within an under-resourced university system – itself an artefact of earlier neoliberal restructuring – and thereby denied his chosen future (2014, 49).[7] When the aliens arrive, he sees them as an opportunity, though one resting upon a petro-illusory influx of wealth and destined to go unfulfilled. Referencing what Lincoln describes as the 'inflationary character of the petrodollar culture' that had characterised the 1970s petro-boom, Moziz speculates that, with the aliens' shapeshifting ability, 'De first thing we go ask am to do na print money for us. Naira notes, American dollar notes, euro, even sef, pound sterling! My people, nobody go rich like us!' (Lincoln 2012, 254; Okorafor 2014, 56). His enthusiasm resembles the president's, but Moziz's heavy use of pidgin subtly reinforces the structural gulf that remains between the two men's ambitions. Emphasising the slipperiness of petro-wealth's promises for the majority of Nigerians, Moziz and a group of his friends try to kidnap Ayodele, but she transforms into a lizard and scuttles away. Ultimately, while the president is healed, the unnamed boy, Fisayo, and Moziz are all violently killed. Moziz is torn apart by another of the aliens after he points a gun at her. The mute boy is shot by Fisayo after she mistakenly believes him to be an alien, and Ayodele

[7] As Eatough explains, the "brain drain" that constrains Moziz's opportunities in *Lagoon* was a consequence of SAP-induced budgetary constraints across the African continent. Eatough notes that representatives of the World Bank had argued that African universities were best 'restructured into technical colleges that would jettison expensive postgraduate programs and redirect funding away from arts and humanities courses' (2017, 244). While this rarely happened in formally expressed terms, he writes, 'the realities of austerity economics by and large produced the same result' (2017, 245). While those students who could afford to sought education in better-resourced institutions overseas, few such opportunities were and are available to structurally disadvantaged students like Moziz.

tears Fisayo apart in retaliation. All of this emphasises that the "surplus" humans who might gain most from the aliens' interventions are harmed most by them; just as remains the case with petroleum extraction in the country today.

While the president feels 'damn good' after his alien encounter, Fisayo looks upon the aliens' 'black and undulating' spacecraft with hostility as 'the devil's *danfo*' (2014, 279, 129-30). *Lagoon*'s glossary explains that *danfos* are commercial minibuses which are typically 'very old, beaten up and have been repaired a million times' (2014, 296). The "devil's *danfo*" thus encapsulates the way in which the aliens offer a "patched" or "repaired" version of petro-promissory imagining rather than a decisive break from it. Just as *District 9*'s alien vessel references the mining-bound accumulation of socio-ecological debts in South Africa, the "devil's danfo" in *Lagoon* resembles a threatening blob of oil, and brings to mind its de-developmental significance as the "devil's excrement". The ship is described as an 'undulating black and brown mass' as it hangs above the sea (2014, 241). Its 'shifting oily black spires and spirals and brown and yellow lights' cause it to resemble an oil rig, while, more sinisterly still, it 'swallowed up the darkening horizon with its girth', like an oil slick (2014, 116). Encoding further a sense of petro-inflected danger, the vessel's undulations appear as 'peaks rising and melting and rising again', simultaneously associating the aesthetic presentation of the spacecraft with the ruinous boom-bust trajectory of petro-financial fluctuations, as well as glacial melting and rising sea levels (2014, 143). The appearance of the alien spacecraft at the conclusion of "Welcome", then, begins to emphasise the inability of neoliberal petro-developmentalism to grasp the rapidly foreshortening timescales of action prompted by the accelerating rise of negative-value.

Petro-prompted sea level rises also offer a particularly dramatic example of the intersecting stories of oil and water under capital, an intersection which seems especially salient given the context of offshore drilling in the Gulf of Guinea. In *Lagoon,* even if a cup of seawater cleansed by the aliens 'will heal the worst human illnesses', it also threatens to 'cause a hundred more illnesses not yet known to humankind', projecting the snowballing consequences of the aliens' intervention, like petroleum's, far into the future (2014, 187). If Adaora reflects near the beginning of *Lagoon* that 'water is life', then alien-driven transformations highlight how neoliberal reorganisations will continue to invert this most fundamental relation (2014, 241). In *Lagoon*, water *itself* becomes monstrous, bearing witnesses to the consequences of petroleum and water's entanglement under capital. Heather Swanson, Anna Tsing, Nils Bubandt, and Elaine Gan offer monsters as useful thought-figures for 'threats of ecological disruption', pointing towards the increasing regularity of jellyfish blooms made possible by 'the entanglements of jellyfish and humans' (2017, M1-M2). Blooms 'overwhelm' the 'richness of earlier marine assemblages', Swanson et al. write, re-casting the formerly innocuous jellyfish as 'nightmare creatures of a future in which only monsters can survive' damaged conditions

incapable of supporting more fragile forms of life (2017, M1). Driven by 'shipping, overfishing, pollution, and global warming', such blooms might be described as a particular product of capitalist petro-modernity, and they consequently offer glimpses of its future, in which life-sustaining resources can no longer be depended upon (2017, M1). Likewise, the arrival of aliens in Lagos as petro-promissory surrogates turbo-charges the flooding effects already in progress, with the petromodern rise of negative-value manifesting quite literally as a rising ocean.

The novel's setting in the recent past emphasises that sea level rises have already begun to disproportionately affect world-systemic (semi-)peripheries, with the alien presence infusing these rising waters with a resistive agency of their own. The sea appears to grab Adaora, Agu, and Anthony with a sense of intention that dramatically foreshortens the slower advance of normal tides: 'The waves were roiling irregularly. Each time the waves broke on the beach, they reached further and further up the sand' (2014, 11). We are told that a preternatural wave 'was heading right for them', swelling in height from four to ten feet, again encoding the insurmountable excess of runaway "natures" that lurks behind the rise of negative-value (2014, 11). The wave chases Adaora, Agu, and Anthony, and, although 'the three of them turned and ran', the 'fist of water' that grabs them 'was faster' (2014, 11).[8] In this moment, the ocean itself is transformed into a monster embodying the past, present, and future consequences of consumptive excess: it 'was as if the ocean had opened its great maw' and swallowed Adaora, Agu and Anthony (2014, 11). This moment calls upon us to recall the enslaved bodies abducted from African shores and "swallowed" by the Middle Passage, the Nigerians whose homes are today threatened by coastal flooding, and, finally, the rapidly closing jaws of capital's terminal crisis and the future "revenge" of historical "natures". More than a cyclical crisis with a definitive resolution, rapidly rising coastal waters remain a source of anxiety throughout the novel, since they continue to rise long after the displacement wave from the aliens' spacecraft ought to have dissipated.

In "Awakening", an alien affirms that 'we are doing what is already happening', emphasising the deep historical roots of the present and future that they symbolise (Okorafor 2014, 179). As O'Connell points out, *Lagoon*'s aliens are symbolically connected with historical waves of colonisation via 'their arrival through the sea' (O'Connell 2016, 298). Akin to Oloff's petro-zombies, they operate as ecological figures, drawing attention to how the cumulative consequences of those earlier waves have the potential to 'bring life as we know it to a halt' (2017, 320). The transition between "Welcome" and "Awakening" is marked by a scene where the aliens stage the return of other extraction-bound consequences:

[8] Like LifeGen's logo in *The Book of Phoenix*, this watery fist also emphasises both the grasping hand of capitalist commodification that historically stole innumerable Black bodies from the West African coast, and the potential violence of newly unpredictable "natures" in the Capitalocene.

> As [Agu] sat he saw shapes in the water, illuminated by the last rays of the setting sun, moving toward the land. They grew, rising out of the waves, coalescing into recognizable shapes. Human shapes. They were people, hundreds of people, walking straight out of the ocean onto Bar Beach. (2014, 116)

The setting sun here clashes with the optimistic beginning presupposed by the president's petro-nostalgic future envisioning. Across capital's developmental cycles, each ending is supposed *always* to be a new beginning as one developmental cycle leads to the next via world-ecological revolutions. *Lagoon*, by contrast, forecasts the exhaustion of this pattern: the end point of negative-value in which there can be no new beginnings for capital's systemic environment-making. As with the wave that claims Adaora, Agu, and Anthony, there is a sense of increasing excess at play as the shapes in the water grow, and then multiply into 'hundreds' (2014, 116). Later, we learn that the aliens emerging from the water 'reminded Agu of zombies' and might signify the very end of "nature" itself: 'the death of something. The death of Lagos. The death of Nigeria. Africa. Everything?' (2014, 143). The fact that 'most' of the bodies emerging from the water 'were African, a small few Asian, one white' aligns them predominantly with the returning bodies of enslaved Africans, while also underscoring that the bodies drowned by the floods of climate change, now and in the future, are disproportionately non-white (2014, 116). As they flood onto the beach like an oil slick and an embodied extension of the unpredictable rising waters that bring them there, they present the return of these "wasted" lives in a newly-energised, threatening form.

The aliens also reconfigure indigenous oceanic life into sea monsters, whose systemic threat is exemplified by a 'great swordfish' (2014, 6). Even before the aliens arrive, the swordfish is 'on a mission' to destroy the infrastructure of oil extraction in the Nigerian Gulf of Guinea, to make the humans drilling for oil 'leave for good' (2014, 3). If this seems fanciful, Okorafor's personal blog points to the real-world 'environmentalist swordfish' that are 'immortalized and empowered' by *Lagoon*'s swordfish (2015a, n.pag.). In the same year as *Lagoon*'s narrative, Reuters reported that 'swordfish punctured part of an oil loading pipe in Angola, causing a three-day delay to tanker shipments' (Kurahone 2010, n.pag.). One of the key putative advantages to offshore fields in Nigeria is that they are 'less prone to [the] sabotage and the threat of civil strife' that have increasingly stymied production in the Delta (Ovadia 2016, 6). *Lagoon*'s prologue, however, emphasises that moving offshore is no guarantee against the increasingly unpredictable resistance of commodified "natures". The swordfish attacks a pipeline that 'burns her gills' with 'black ooze' (2014, 3). Unlike the "enlightening" made possible by petro-technology, the swordfish imagines herself to be 'a deadly beam of black light' that brings darkness instead (2014, 3). She 'increases her speed', 'swims even faster', and is described as

'closing in fast' upon the pipeline, attesting to the accelerating temporalities likewise flagged by the postapartheid speculative's "now now" imaginary (2014, 3-4). Importantly, grasping that what is closing in fast are the conditions of negative-value, the swordfish's resistance to the ocean's petro-colonisation intensifies, rather than ends, the destruction, as the 'dead snake' pipeline 'blows its black blood into the ocean' (2014, 3-4). After this moment, the aliens arrive, and transform the swordfish in ways that make her capable of fighting back harder still against petro-interlopers.

Within the aliens' transformation of the swordfish, we can discern a similar critique to that which Treasa De Loughry reads in the magical realism of Karen Tei Yamashita's *Through the Arc of the Rainforest* (1990). In Yamashita's novel, the discovery of a new "natural" form of plastic in the Brazilian Amazon generates a speculative future that dissolves as co-evolutionary extra-human "natures" 'ruin the socio-ecological bases upon which the novel's export capital is premised' (2017, 339). In *Lagoon*, transformed flying fish 'zip from the water like poison darts' and cut a boatful of oil workers and soldiers to ribbons (2014, 97). Later, a 'three-tentacled sea beast' almost prevents Adaora, Agu, and Anthony from escorting Ayodele and the president to meet the alien elders, and the swordfish, too, harries their boat (2014, 241). Agu reflects that 'it seemed the entire ocean had decided to come after them. Large fish, armored fish, spiked fish, monstrous sharks, a giant swordfish' and even 'something that looked like a whale' (2014, 245). As Jue points out, 'the aliens of *Lagoon* give wealth (or wishes) to their followers' in keeping with the auspices of petro-promise (2017, 178). Importantly, though, after giving the sea creatures 'whatever they want', Ayodele makes clear that 'they do as they wish', underscoring the unpredictability of the transformations they set in motion (2014, 24, 240). The way in which the swordfish and other sea creatures are transformed resembles petro-promissory renewal and enhancement. The swordfish is given 'impenetrable skin' and her 'sword-like spear' made longer and sharper (2014, 6). 'Spikes of cartilage jut out along her spine' and she is made 'three times her size and twice her weight' (2014, 6). As much as there is a sense of petro-developmental "improvement" here, there is also a parallel, petro-de-developmental analogy at work as the swordfish is "de-evolved" into an 'ancestral creature from the deepest ocean caves of old' (2014, 6). Here again is the sense of a historically repressed "nature" returning to exact "revenge", as the aliens' (de-)developmental intervention only further intensifies the resistance of oceanic life to the imperatives of offshore petro-extractivism.

While the aliens' emergence from the water is accompanied by a sunset that promises no new beginning for capitalist environment-making, this gesture is complemented by the sunrise over the changed Lagos, wherein, as the epigraph to this chapter attests, 'Here There Be Monsters' (2014, 228). The phrase "here there be monsters" references the limits to the modes of seeing and knowing the world that have long served to 'map' and 'code human and extra-human natures in service to capital

accumulation' (Moore 2015a, 194). *Lagoon*'s petro-monsters emphasise how the petro-promissory mode of future-mapping supported by these ways of seeing and knowing is no longer tenable under the conditions of negative-value. The as-yet-uncharted nature of this future, though, opens up possibilities for alternatives to the diktats of capitalist realism. As Swanson et al. point out, monsters can also highlight how 'symbiosis is essential to life on earth', positing the relational ethos necessary to make liveable futures in the Capitalocene (2017, M2). Swanson et al. again turn to the ocean, explaining how, in coral formations, 'animal[s], plant[s], and more [...] hang together in fragile entanglements' (2017, M2). In such formations, they write, the 'necessity of working together' is what 'makes coral life possible' (2017, M2). While *Lagoon*'s aliens embody the technocratic interventionism of neoliberal developmentalism, they also embody coral's symbolically resistive potential. Ayodele explains that 'we are a collective. Every part of us, every tiny universe within us is conscious. [...] You people need help on the outside, but also within' (2014, 268). Even if this reiterates the aliens' apparent "civilising mission", what happens immediately after this statement suggests an alternative possibility. In "Symbiosis", Ayodele transforms herself into a 'white mist', which in turn transforms the people that breathe it in (2014, 268).

Ashleigh Harris interprets this moment via Stacey Alaimo's formulation of 'trans-corporeality' (2019, 155). For Alaimo, a 'transcorporeal environmental politics' represents 'a new materialist and posthumanist sense of the human as substantially and perpetually interconnected with the flows of substances and the agencies of environments' (2012, 488, 476). Such trans-corporeality is particularly discernible in the 'strange jumbling of scale' that occurs in oceanic environments, she notes, wherein 'a tiny bit of plastic can wreak havoc on the ecologies of the vast, vast seas' (2012, 487-88). For Harris, Ayodele's transformation into a breathable mist draws attention to such trans-corporeal entanglements, functioning as 'a mnemonic' for the 'toxic consumption' of petro-residues 'forced upon those living near – and off – the Gulf of Guinea' (2019, 158). Yet at the same time, Harris suggests that the aliens' apparent 'ability to survive and cleanse this environment' offers them as 'avatars' of an 'ambivalent hope' (2019, 158). Jue also references Alaimo to read Ayodele's self-sacrifice as a symbolic 'coral reproduction event', in which the trans-corporeal alien particles 'sow the seeds of open-mindedness and acceptance of difference in the broader public' (2017, 183). Jue's and Harris's readings notwithstanding, *Lagoon* does not quite cultivate a 'politics of the possible' predicated upon a 'tectonic shift *away* from petroleum and its residues', given the symbolic connection between the aliens and petro-promissory envisioning (Jue 2017, 184, 175; my emphasis). Rather, it seems to me that the sense of trans-corporeality noted by Harris and Jue emphasises the *persistence* of petro-cultural residues, stressing that genuinely liveable futurities will depend upon humans and extra-

humans collaboratively negotiating the long-lasting (and yet-to-fully-manifest) consequences of capitalist environment-making.

As figures from long-repressed indigenous cosmologies are awakened by the aliens' presence in Lagos, they re-open the imaginative possibilities of the decolonising past and clear an imaginative ground upon which to construct sympoietic futures proper to the Capitalocene. Towards the end of "Awakening" and in "Symbiosis", *Lagoon* offers a post-petro-magic futurism which, like Niblett's aesthetics of cassava, coheres around the co-productive fulfilment of local socio-ecological needs. The floods set in motion by the aliens bring with them Mami Wata, 'the goddess of all marine witches', who figures the resistive power of long-suppressed indigenous cosmologies to emphasise the complex entanglements denied by capital's relentless Nature/Society binarism (2014, 235). As Jue points out, Ayodele and the rest of the aliens also resemble Mami Wata, both in 'visual terms' and in their 'actions and intentions', priming us for Mami Wata's later emergence in the narrative (2017, 178). Across African cosmologies, Jue writes, Mami Wata figures 'were part of cultural and environmental ecologies' that regulated the flows of water that make life possible and brought 'devastating floods when taboos were violated' (2017, 178). As she confronts Father Oke, a corrupt bishop, this second function in particular is reactivated by *Lagoon's* Mami Wata to contest capital's longstanding faith in surplus. Father Oke, who is explicitly positioned as 'the worst kind of charlatan', conjoins the dubious, unevenly realised faith in capitalist petro-promise with a religious faith that is itself an artefact of earlier colonising missions (2014, 46). As Apter points out, as the post-bust 'desperation' of the 1990s set in, 'a rash of born-again Christian prophets swept the country' as 'another manifestation of the "419"', and promised 'profit through prayer while extracting from their followers what little surplus they were able to muster' (2005, 250-51). Like the historical bankruptcy of such petro-prompted con artistry, Oke promises his congregation salvation but actually only 'sponge[s] plenty of naira' from them (2014, 49).

As with Rudy's 'elegant, predatory Bentley' in Hopkinson's *Brown Girl in the Ring*, Oke is intimately associated with petrocultural imaginaries by his love of flashy cars (1998, 23). We learn that his 'shiny silver Mercedes' 'gleamed like a diamond', conveying a sense of material spectacle as purloined mineral wealth, and thus represents only a 'fading dream' for ordinary Nigerians like Oke's gateman (2014, 41). Akin to the president and Moziz, Oke views the alien arrival as a way to increase his wealth, conceptualising Ayodele in resource-bound terms as 'untilled alien soil' ripe for conversion (2014, 37). However, he encounters Mami Wata after his expansionist ambitions have failed, as the congregation from which he draws his power has fled from the alien invaders. Given that Mami Wata appears outside a bank that is 'always flooding' because it 'attracts the sea', and that she 'spoke like she was from the Niger Delta region', her emergence encodes the inexorable return of long-suppressed

petro-consequences (2014, 234-35). While this may be another negative-value moment, Oke's encounter with Mami Wata causes him to realise 'for the first time in his life' that 'he lived in a glass palace' and 'others around him lived in a ghetto' (2014, 235). After she asks him to 'come', Oke gives in, and the pair walk towards the beach, never to be seen again (2014, 235). While we might read this moment as a symbolic "comeuppance", with Mami Wata's seduction and presumptive drowning of father Oke figuring the world-ending potential of climate change, it also opens onto the new forms of sympoietic being that may yet emerge from the material devastation of capitalist petro-extractivism. Perhaps Father Oke is not so much excised from the world of the story as he is re-integrated into the socio-ecological totality represented by Mami Wata.

Emphasising this totality, *Lagoon*'s aliens must also contend with 'other things inhabiting Lagos besides carbon-based creatures' (2014, 120). Another being awakened by the aliens is a 'stretch of highway' that has 'named itself the Bone Collector' after its appetite for 'human bones, and the bones of human vehicles' (2014, 120). As Harris points out, the 'agency and animacy' of *Lagoon*'s Bone Collector reactivates 'a trope explored by Wole Soyinka in his poem "Of the Road" (1967), and developed more fully in his drama *The Road* (1965)' (2019, 160). Later picked up again by Ben Okri's petro-magic-realist novel, *The Famished Road* (1991), this trope concerns a sentient 'hungry road', who must be placated with sacrifices to prevent his feeding 'on humans, by killing them in car accidents' (Harris 2019, 160). *Lagoon*'s Bone Collector redirects this trope towards an aesthetic registration of the rise of negative-value, striking as hapless Lagosians are 'stuck in the go-slow' prompted by 'people trying to escape the slowly rising water' (2014, 202-203). The sights and smells of petro-wastes and a warming planet come rushing to the fore as we are told that the road 'began to stretch like hot plastic' (2014, 206). A witness explains how the 'air stank of tar' and that 'I felt a blast of heat on my face', reminiscent of the Niger Delta's relentless gas flares (2014, 206). People are left unable 'to drive out of the gridlock' and escape from the 'monstrosity' that rises up 'in a huge snake-like slab of concrete' (2014, 206-207).

Harris reads the emergence of the Bone Collector, Mami Wata, and other figures in *Lagoon* via what Harry Garuba describes as an 'animist realism', or 'the cultural practice of according a physical, often animate material aspect to what others may consider an abstract idea' (2003, 274). In so doing, Harris points out, the animate road 'becomes a conduit for a spiritual [...] meaning' in which otherwise inanimate 'things' take on lives of their own (2019, 161). As the road, both as tarry petro-object and conduit for petro-violence, becomes animate, it symbolises how, as Moore points out, material resources can become 'real' – indeed, life-threatening – 'historical actors' under capital (2015a, 36). To "manage" this threat, like the merging of Father Oke and Mami Wata, another of the aliens allows the Bone Collector to consume and merge with her, thereby satisfying its hunger (2014, 208). For

Harris, figures like Mami Wata and the Bone Collector comment 'specifically on both colonial history and its economic and environmental aftermaths', with the 'mutant forms' that result from encounters between them, humans, and aliens in *Lagoon* signifying the possibility of 'adaptation to and survival of the crisis of calamitous environmental destruction' (2019, 162). We might frame such "adaptation" more precisely in view of world-ecology and the rise of negative-value. Even as these figures emerge to witness the return of capitalist petro-extractivism's long-repressed socio-ecological consequences, it is precisely that return which may yet occasion the new apprehension of socio-ecological totalities necessary to survive in a negative-value future.

This post-petro-magic possibility is made most explicit by the figure of Udide Okwanka, the 'Great Spider' and 'story weaver' revealed to be the novel's narrator in *Lagoon*'s final act (2014, 228). Despite the obvious comparison with Anansi that Udide Okwanka may invite, her explicit positioning as a storyteller reads as a striking claim for the possibilities of the world-ecologically inflected narrative and aesthetic modes with which *Lagoon* experiments. At the end of the novel, Udide Okwanka announces that 'I will leave my web. I will become part of the story' (2014, 293). For O'Connell, Udide Okwanka's intrusion into the narrative marks the moment at which she 'moves from writing history [...] to entering it fully and properly' (2016, 311). Her determination to intervene now, he suggests, constitutes an 'awakening' of the 'memory' of 'what could have been', which 'gives form to the desire for a new form of anticolonial and socialist collectivity' (2016, 311). This movement from the "what could have been" to the "what must yet be" bears out Fanon's exhortation that 'the colonized man who writes for his people ought to use the past with the intention of opening the future', rather than enacting a backwards-looking nostalgia for 'mummified fragments' (2001, 187, 180). As Okorafor affirms elsewhere, Udide Okwanka 'possesses the power to gather fragments of any object and shape them into a *new* object' (2010a, n.pag.; my emphasis). This kind of gathering is woven into the form of Okorafor's novel itself. Each of the novel's three "acts" begins with a prologue narrated from the point of view of one of Lagos's non-human residents; the aforementioned swordfish, a tarantula, and a bat. These prologues create space for the extra-human subjectivities otherwise elided by capitalist constructions of "nature" as an appropriable object. At the same time, these prologues also emphasise the precarity of such non-human subjectivities in view of petromodernity; the swordfish battles against the offshore oil drillers, while the tarantula and bat are both killed by a car and plane respectively while their human pilots remain oblivious to the death that they bring. By bringing these narrative fragments together, Udide Okwanka re-activates the potential for a Fanonian sense of revolutionary 'national culture', wherein 'the storytellers who used to relate inert episodes now bring them alive and introduce into them modifications which are increasingly fundamental' to new ways of thinking and being (Fanon 2001, 193). The story-weaving spider tells us how she has seen capital's historic

deformations of Nigerian "natures", from the 'people who [came] across the ocean' to 'sell people' to the 'crude webs' of petro-promise now unravelling (2014, 291). Having been a witness to the *longue durée* of Nigerian socio-ecological history, she now points us towards the necessity of recognising the petroleum-driven unravelling of Nigerian national community as it affects both the human and extra-human residents of the country. As a world-weaving spider, Udide Okwanka also points us towards the larger relational totality of the web of life. Perhaps her resemblance to Anansi should not be discounted entirely, then. Emily Zobel Marshall points out that Anansi tales offered 'parables of survival, [...] in which the weak can – and do – prevail against the strong', with Anansi himself symbolising 'creative chaos and longed for freedom' under the 'tyrannical and coercive order' of the plantations (2007, 40). Udide Okwanka's final warning that 'we spiders play dirty', then, ultimately offers a trickster-oriented challenge or warning to the powerful agencies of neoliberal world-petroculture (2014, 293).

Breaking the Cycles of a Future Stuck in "Go-Slow"

Udide Okwanka's playing 'dirty' also alludes to the future of capital's own "dirty tricks" unravelling under the cumulative weight of petro-residues. Where *Lagoon* ends upon the cusp of this unravelling, Tade Thompson's *Wormwood* trilogy ruminates more expansively upon it. Set between the 2050s and 2060s, Thompson's novels project the durability of Nigerian petro-problems into a symbolically resonant century after the discovery of oil in the Niger Delta. Echoing *Lagoon*'s three act structure, *Rosewater* (2016), *The Rosewater Insurrection* (2019), and *The Rosewater Redemption* (2019) ultimately alight upon the potentially "redemptive" and newly relational ways of being that must arise from the socio-ecological wreckages of petroleum extraction. While *Lagoon* metonymises the precarious renewal of petro-promise in the Gulf of Guinea, Rosewater, the eponymous setting of the *Wormwood* novels, is a cipher for petro-de-developmentalism in the Niger Delta. The city has sprung up around an impenetrable, thirty-mile-wide "biodome" erected in rural Nigeria by an alien 'footholder' that the humans name 'Wormwood'; a semi-sentient "ark" sent to Earth by the "Homians", a dying alien race, to transform it into a replacement for their climatologically devastated homeworld (2018b, 348).[9] If Blomkamp's prawns present the entropy of a stalling extractivist enterprise, Thompson's Homians offer a yet more entropic vision of that future. Their native planet, "Home", projects the devastated future hinted at by life in the Niger Delta onto a planetary scale. Home has been rendered 'uninhabitable for centuries' by 'uncontrolled industry'; 'the soil yields no

[9] *Rosewater* was first published in 2016 by Apex, before the trilogy was picked up by Orbit. All citations in this chapter follow the 2018 Orbit edition.

crops', the 'rain is toxic', and the only lifeforms remaining are 'extremophiles' that can survive off 'long-chain hydrocarbons and radiation' (2019a, 42-43). The Homians' colonising efforts re-iterate the normative techno-utopianism of "mainstream" SF narratives of extraterrestrial colonisation. As in *Lagoon,* however, when both human and Homian efforts to make Nigerian "natures" work collapse, Thompson's novels imagine how, as one dying character remarks, 'entropy catches up with us all' under what we might call the wasteful(l) cycles of a capitalist future stuck in "go-slow" (2018b, 276).

Rosewater is described as a 'spare' and 'lawless' 'frontier town', invoking what Watts describes as the mythic American West's 'canonical view of frontiers' as 'zones of pioneer settlement' and the 'battle between wilderness and rugged individualism' (Thompson 2018b, 137; Watts 2014, 190). Wormwood's imposition of an alien order upon Rosewater's hapless residents also re-figures the disastrous historical "petroforming" of the Niger Delta as an alien terraforming project, thus cutting against the nostalgic frontierism animating more conventional astrofuturist fantasies. Underscoring capital's sense of precariously delayed consequences, we learn that 'it took decades for us humans to find out' that, from the moment of its arrival, Wormwood began to release "xenoforms"; alien microbes that genetically modify human bodies to serve as hosts for the Homians' digitally stored consciousnesses (2018b, 75). Unaware, humans flock to Rosewater, ironically lured by the xenoforms' curative properties. Kaaro, one of the trilogy's main protagonists, is a so-called "sensitive" able to tap into the 'xenosphere', a shared 'worldmind' of physical and psychic connections between Wormwood and xenoform-infected humans (2018b, 76, 16). In 2055, he is recruited by 'an obscure branch' of the Nigerian government called Section-Forty-Five (S45), and later tasked to 'unfuck' the 'fuckup' of Wormwood sealing itself within the biodome (2018b, 16, 71). The main narrative begins a decade later, as Kaaro investigates why he and the rest of the sensitives are dying of a mysterious wasting disease. In time, as the Homians' colonial ambitions become clear, Kaaro and his S45 handler, Femi Alaagomeji, investigate instead how to prevent humanity's extinction by killing Wormwood, even as Rosewater's ambitious mayor, Jack Jacques, hopes to use the footholder as resource-bound leverage for Rosewater's independence from the Federal Republic. As intensified versions of historic petro-violences play out, Kaaro realises that the "fuckup" cannot be "unfucked". Instead, he concludes, 'for this disaster we will all be present', shifting the trilogy's allegorical emphasis onto imagining what liveable futures might be salvaged in a world irreparably damaged by petro-violence (2018b, 390).

Like *Lagoon*'s aliens, or *After the Flare's* songstones, Wormwood is not an oilfield itself, but its arrival is figured in petro-promissory aesthetic and energetic terms. Echoing the empty rhetoric of Bello and *Lagoon*'s President, Femi scrambles to reframe the biodome as 'an experiment in sustainable energy and clean living' that shows 'how Nigeria is leading the world' (2018b, 71). Petroleum becomes a residual energy form within Rosewater. In *The Rosewater Insurrection*, for

example, we learn that Kaaro 'barely remembers how to drive an internal combustion engine', with the prevalence of 'electric' cars hinting at an ongoing energy transition (2019a, 241, 276). Just as *Lagoon*'s aliens promise to "refuel" Nigeria's future, Wormwood provides the energy for this transition via its sensory ganglia, 'two pylons of nervous tissue' that protrude beyond the dome (2018b, 216). As a narrative surrogate for petro-promise, Wormwood witnesses the way in which, as Watts writes, apparently "exhausted" oilfields are repeatedly 're-invigorated' as new technologies and fluctuating prices make them newly profitable (2014, 193). In the 2050s, Wormwood emerges in Nigeria just in time to preserve the developmental imaginary historically supported by the petroleum reserves which, by then, may well be running out.

Within the post-petroleum milieu of ganglial energy and electric cars, Wormwood accelerates the old petro-developmental teleology of "progress" and endlessly increasing energy expenditure. In less than a decade, Rosewater is transformed from a 'touch and go shantytown in the mud and shit around the biodome' into Nigeria's 'most advanced city' (2019a, 105, 170). In this way, Wormwood seems to allow the long-hoped for developmental "catch-up" in which Rosewater comes to resemble Fanon's 'brightly lit' 'stone and steel' colonial town with 'asphalt' roads (2001, 30). Rosewater is, in fact, described in exactly these terms. 'Footpaths' cede to 'paved roads' and 'tents and shacks' give way to 'cement-block walls' (2019a, 243). Kaaro explains that the 'blue glow' given off by the biodome means that 'there are no streetlights', the constant illumination recalling petroleum's historical promises of limitless abundance (Thompson 2018b, 7). Re-playing the infrastructural spectacle of the 1970s boomtimes, the roads are 'tarred and graded' and the 'skyline [...] is spiked with cranes and the occasional skyscraper. The multinationals have finally moved in and all day [...] the sound of construction rings out' (2018b, 168). As 'The City of the Future', then, Rosewater seems oriented towards a future that retains petroleum's developmental "benefits" while apparently sidestepping its toxic problems (2019a, 90).

Within this future, Wormwood's electricity ends 'the din of petrol and diesel generators' that had previously troubled the town, which is later described in *The Rosewater Insurrection* as having 'excellent air' (2018b, 216, 2019a, 151). Nonetheless, this "clean" future remains haunted by petroleum. Like oil, the mostly-buried Wormwood is a subterranean energy-giver that has 'burst through' the earth's surface, and is thus vested with the 'catastrophic-exuberant energetics' that Buell discerns in the iconography of gushing oil wells (Thompson 2018b, 313; Buell 2012, 289). Recalling the tight geographical concentration of Nigeria's present-day energy reserves, Wormwood's electricity has implications for "development" at the national scale, given that it is plugged in to 'the national grid', serendipitously at the 'right voltage' and 'right frequency' (2018b, 217). Any signs of material improvement in Rosewater mask the iniquitous systemic continuities undergirding what are actually

materially worsened versions of present-day petrolic landscapes. Someone claims he is cured 'by breathing the "fumes"' that are actually clouds of xenoforms (2018b, 84). These oxymoronic healing "fumes" align the xenoforms with petrolic residues, especially since they are released from a 'dark spot' that 'grows' like an oil slick upon the biodome (2018b, 14). The occasionally 'orange hue' of the dome more closely resembles the hellish perpetual daylight of flaring gas (2018b, 127). Referencing the infrastructural danger already present in the Delta, one of the ganglia 'crackles and throws off thunder' (2018b, 139). This inversion of the dome's earlier emancipatory image of thickly satisfying 'creamy blue electric light' underscores how, as Moore points out, 'value and waste are dialectically bound' under capital (Thompson 2018b, 11; Moore 2015a, 297).

Like *Lagoon*'s president, or Bello, Rosewater's charismatic mayor offers an essentially neoliberal vision of Rosewater's future, inviting in 'the multinationals to build infrastructure' (2019a, 206). In his mayoral campaign, he remarks that Wormwood offers 'an opportunity' for 'a new society, a new beginning' and, in a re-statement of 1970s petro-promise, 'to be a beacon for the rest of the country, hell, the world' (2019a, 11). He declares Rosewater's independence in 2067, a symbolically resonant century after the Civil War. Rather than offering a decisive break with the resource-bound future envisioning of the post-independence moment and the Civil War that followed, then, Jack Jacques's vision re-treads it. As the "insurrection" drags on, he promises that a 'swift rebuild' will be funded by the private 'investors lining up to work in Rosewater' (2019a, 300). However, the hyperbole of his assertion that 'his phone is constantly ringing' acts similarly to the hollowness of the Nigerian president's declarative "o!" in *Lagoon*, or the dissimulation of Bello's version of the 419 scam in *Nigerians in Space* (2019a, 300). If, as Wenzel points out, oil (in Nigeria and elsewhere) has functioned as a developmental 'deus ex machina', Wormwood, like the songstones, is a similarly transformative "free gift" from space to the extractivist agencies that eye what they call Wormwood's 'exploitation potential' (Wenzel 2014, 212; Thompson 2018b, 317). Emphasising how the logic of Cheap Nature is alive and well decades hence, Kaaro explains that 'we like to pretend' that Wormwood is a natural formation', speculating that it 'wants us to exploit the electricity the way we are now' (2018b, 32, 216).

Indeed, the *Wormwood* novels project Nigeria's post-transitional "go-slow" another half-century into the future, with the sense of a speculative promise that actually leads nowhere encapsulated by the 'doughnut shaped' city, whose developmental vision is consequently hollow in the middle (2018b, 9). Hugging the biodome's perimeter, the town's annular shape reconfigures the "forward" momentum of capital's developmental cycles as going round in circles, cutting against the linear progression implied by petro-magical fantasies. To emphasise this point, Rosewater is served by a circular rail system, the invocation of trains resonating both nationally and systemically. Rosewater's

train recalls Saro-Wiwa's condemnation of the 1993 debacle as being like a train that 'is rusty and stands in the station', with its 'passengers [...] suffering and hungry' (2005, 58). More widely, Deckard points to comments by Congolese author Fiston Mwanza Mujila to explain how 'the train haunts African resource fiction with a symbolic magnetism drawn from its centrality to the infrastructure of resource extraction' (2019, 245). In the interview from which Deckard quotes, Mujila avows that 'you could write a [...] history of colonization based on railroads', given how they 'symbolized the taming of African nature, deportation, forced labor, exploitation, the transport of minerals, looting etc.' (qtd. in Samatar 2015, n.pag.). Rosewater's train, though, projects the future of that historical "taming" vis-à-vis the rise of negative value: an extractivist enterprise that is, to trope further on the train, running out of steam.

On one occasion, Rosewater's train has been delayed for 'twenty-five minutes due to a power failure from the North Ganglion', pointing to the similar deferral of petromodern energy futures for most Nigerians (2018b, 8). Referencing the train's historical significance as an instrument of resource extractivism, a character in *The Rosewater Insurrection* named Bewon 'feels depleted' after using it (2019a, 64). As with *District 9*'s stalled spacecraft, this depletion is less about fuel than the exhaustion of the modernising projects that the train itself represents. The endlessly circling train accentuates the systemic entropy that *Zoo City*'s Zinzi December similarly observes in Johannesburg's 'self-cannibalizing' mine dumps (Beukes 2010, 296). Unlike the railways that historically penetrated the "Dark Continent", Rosewater's train chases itself in a circle around the impenetrable biodome like a self-devouring Ouroboros. Initially, Rosewater's rolling stock consists of 'old', probably 'World War II era', 'trains imported from Italy' that would be over a century old by the 2050s, confirming their intimate connection with the long-lasting materialities of core-zone wastes exported to racialised peripheries (2018b, 32). Even when they are replaced, the 'brown faux leather seats' of the new carriages smell 'stale' (Thompson 2018b, 32). The falseness of the leather seats underscores the falseness of petro-developmentalist projects, precisely because the stale newness of the train's interior foregrounds the negative-value future by which the promise of such projects is always-already foreclosed. If much of the city's population has 'come for the healing' effects of the xenoforms, Kaaro is at a loss as to why they remain, beyond the speculative 'lure of the alien' (2018b, 217). In 2066, this potential continues to go unrealised, as Kaaro points out that 'in its eleven years of existence the dome has not taken in a single outsider' (2018b, 9). Thus, the biodome and the extractivist promise that it represents remains stubbornly impenetrable at the hollow centre of Rosewater's petro-nostalgic future-envisioning.

If, as Apter suggests, the petro-fuelled 'engine of development that [had] burned so brightly in the seventies and early eighties' had 'degenerate[d] [...] into a self-consuming, predatory regime by

the 1990s', Rosewater's train pulls the continuity of that degeneration through the present-day disillusionments of the "post-transitional" go-slow and projects it into the future (2005, 267). The train's forward momentum cannot mask the entropic cyclicality of its course, a systemic tightening heightened by the claustrophobic crush of 'carriages [...] full to bursting, and hot [...] from body heat and exhalations of despair' (2018b, 8). Referencing the physical pressures of life on a warming planet, this moment demonstrates that petromodern "progress" has actually resulted in a development-halting excess noted in the text by the go-slow dystopianism of 'traffic curving sluggishly around the dome' (2018b, 1). In contrast to the romanticised "Wild West" frontier town, Rosewater projects the durability of Nigeria's energy-infrastructural unevenness far into the future. Rosewater's techno-utopianism is swiftly blunted by regulatory, profit-taking discipline. Cutting against the city's infrastructural pleasures are the 'road signs' and 'parking fines' that have accompanied them (2018b, 202). Rosewater's residents are also subjected to what Nixon describes as the 'displacement without moving' in which, as Macdonald adds, the political ecology of oil the world over has always been 'deeply invested' (Nixon 2011, 19; Macdonald 2017a, 293). Wormwood's connection to the national grid siphons away energy-bound use-values, erecting barriers between the locals and Wormwood's potential as a means of subsistence. The Federal Government imposes taxes upon visitors to the town, but Rosewater itself 'gets none of that revenue' (2018b, 217, 143). As in *Lagoon*, the energy imaginary flowing through Wormwood thus bypasses the people that it could benefit the most, as most residents can 'still see' the North Ganglion but no longer approach it, since it is "enclosed" by a building and 'security forces' (2018b, 217).

Akin to Father Oke's petro-inflected charlatanry, the material falseness of Rosewater's utopian promises is tied to the pseudo-religious faith under which the city becomes an 'instant Mecca-Lourdes hybrid' (2019, 11). Recalling petro-magic's older mystifications, 'there are those who believe the dome is a magical phenomenon' (2018b, 13). On "Opening Day", Wormwood releases clouds of "healing" xenoforms in what has become a quasi-religious holiday, as 'thousands of people' gather to 'sing and pray' to bring on the 'blessings from the biodome' (2018b, 11-12). Other Nigerians refer to Rosewater's residents, many of whom are seeking treatment for 'AIDS and terminal cancers', as 'supplicants' (2018b, 88-89). Like the president in *Lagoon*, the desperate hope of supplicants to stave off their terminal conditions resonates with capital's own efforts to "buy more time" via increasingly extreme resource grabbing. Rather than a mythic frontier town, Rosewater seems more accurately to be a "Last Chance Saloon" for 'desperate' people left with 'nowhere else to go' after the decades-long gouging of welfare provision instantiated by neoliberal structural adjustment (2019a, 11). Supplicants comprise both the surplus 'bedraggled masses' and the 'sick rich [...] who had tried everything' and 'needed a miracle' (2019a, 206). Rather than always offering their recipients a second chance,

however, Kaaro cautions that the dome's healing efforts frequently 'go wrong' (2018b, 9). Kaaro explains that Femi's positioning of Rosewater as world-leading in "clean" living, therefore, is 'a lie that will not last past the first Opening Day', re-positioning the historical petro-boom imaginary of continental pre-eminence as having always been little more than a cynical PR exercise for capitalist petro-extractivism in Nigeria (2018b, 71).

Wormwood's very name encodes catastrophe, referencing the 'great star' that falls 'from the sky on a third of the rivers and on the springs of water', turning them 'bitter' (Rev. 8:10-11). Wormwood's symbolic bitterness offers the toxic material counterpoint to the city's cynical "branding" as "Rosewater", seemingly in an effort to cover up the stench of the city's unsavoury wastes. In Rosewater's early days, Kaaro reflects that it 'stank' of 'shit', and both *Rosewater* and *The Rosewater Insurrection* are punctuated by narrative analepses to the city's 'feculent' origins (2018b, 89). As we repeatedly return to the stench of 'animal stuff' and 'dysentery and diarrhoea outbreaks', the techno-utopianism of Rosewater's "clean" energy future is revealed to be both literally and figuratively built on bullshit (2018b, 89). To emphasise what are consequently figured as petro-developmentalism's "bullshit" promises, the *Wormwood* novels deploy what Lincoln discerns as an 'excremental texture' within postcolonial African writing more generally; an 'aesthetics of shit' that registers Africa's world-historical relegation to the role of 'receptacle' for core-zone wastes (2008, 9, 29, 2). Prefiguring Trump's "shithole country" invective, a character in *Rosewater* ironically refers to the Nigerian bush as 'the arsehole of history' (2018b, 78). All three novels are peppered with a scatological idiom, in which the words "shit", "shitting", and "shitty" appear one hundred and twenty-six times.[10] Just as Udide Okwanka casts doubt on the president's words, Kaaro describes Jack Jacques sarcastically as a 'convincing little shit', equating the deliberate falseness of his developmental sales pitch with the excremental conditions to which its actual realisation must tend (2018b, 143).

While the trilogy is mainly set in the 2060s, we learn that Wormwood originally landed in London in 2012. After the British tried to expel it, Wormwood was "swallowed" by the Earth and "excreted" again decades later in rural Nigeria, for the locals to bear the consequences of 'rising levels of xenoforms' (2018b, 312-313). The lag between Wormwood's expulsion from the core and its problematic reappearance on the periphery captures both the uneven geography and elongated aftermaths of capitalist petro-violence. This violence is scatologically encoded by alien creatures known as "floaters", which underscore a waste-bound sense of troublesome return by punning on the British slang term for an un-flushable stool. Floaters are ceaselessly 'starving', carnivorous creatures, 'pale like a white man drained of all blood', that fly suspended beneath a 'gasbag' (2018b, 130). The floater's hunger, whiteness, and gas-powered flight gesture powerfully to the historically-rooted,

[10] This figure was arrived at using the search function in the Kindle editions of all three novels.

racialised dynamics of Nigerian petro-extractivism, while its 'concave' belly highlights the increasingly desperate future of exhausted "cheap" resources (2018b, 130). Shesan, the jealous ex-husband of Kaaro's girlfriend (a fellow S45 agent named Aminat), attempts to feed Kaaro to a floater in the old 'slave quarters' of his compound, further affirming the link between its ravenous hunger and the historic scramble for African resources, bodies, and lives (2018b, 131). Just like its seemingly un-expellable namesake, though, the floater sets upon Shesan and his bodyguard instead, thwarting their efforts to "dispose" of Kaaro. As the floater breaks loose, Kaaro escapes by grabbing onto its legs and floating with it over the compound's fence before it is shot down by another S45 agent. After being shot, 'the floater shits' a shower of feculence illustrating how increasingly toxic and violent "disposals" will result in yet more wastes (2018b, 132). Continuing this pattern, the floaters return with even more force in the trilogy's final instalment, after the biodome that contains most of them collapses. In one scene, a swarm of 'over a hundred of them' appears ominously over Rosewater, priming us for when, in the final climactic confrontation between Wormwood and the humans, 'swarming' floaters descend 'in a feeding frenzy' (2019b, 79, 354).

If the "seeing-is-believing" ontology of petro-developmentalism 'ratified' the 'credibility of oil-rich Nigeria' through 'signs of material development masquerading as its substance', the *Wormwood* novels, like the other texts examined in this chapter, enable us to see what has previously been posited as *un*believable by capital's Cheap Nature regime; the long-overdue return of its repressed socio-ecological consequences (Apter 2005, 14). Against seductive infrastructural spectacles, a tragicomic 'parade' of poorly 'reconstructed' supplicants offers a de-developmental counter-spectacle that underscores the terminal trajectory of capital's cyclical renewal (2018b, 123-24). The xenoforms' side-effects point to the way in which capital's increasingly 'short-run fixes' are 'progressively more toxic' (Moore 2015a, 274). As they penetrate into human bodies, the xenoforms reconfigure them into 'grotesque' parodies of petro-developmental progress (2018b, 124). One of the "reconstructed" has 'two mouths' and others have 'multiple and displaced orifices' pointing towards the monstrous end-point of petro-funded conspicuous consumption (2018b, 124). Like the de-evolutionary transformation of *Lagoon*'s sea creatures, an unfortunate man has 'a gigantic goitre' that has been 'rebuilt bigger and better' (2018b, 124). This tumescence points to cancers caused by carcinogenic petrolic residues, aligning the xenoforms themselves with metastatic cancerous cells. The presence of this potentially cancerous swelling on the victim's throat also highlights the future-threatening potential of petromodern residues via difficulties in swallowing life-sustaining food and water. The deformed supplicants explain why Rosewater's future is actually stuck in go-slow by highlighting that which is anathema under a resurgent petro-promise: death, destruction, and total collapse, as distinct from capital's cyclical pattern of crisis and renewal. 'What's left' of another supplicant is merely an

unidentifiable ‘fleshy mass’ with ‘too many limbs’ and a ‘single, desperate eye’, such that it is hard to see what future can await but one of further decline (2018b, 124).

The sense of irrecuperable decline is also exemplified by “reanimates”, recently-deceased corpses that are “recycled”, by the xenoforms. It is not coincidental that the first time we meet one is when Kaaro is attacked by a reanimate on Rosewater’s endlessly cycling train. As Jennifer Gabrys points out, ‘recycling does not remove remainder or wastage’, but only defers the problem of having to deal with it by transforming it into new objects which themselves will eventually become waste (2011, 138). As monstrosities that are described as less ‘like Lazarus’ than they are merely ‘reanimated flesh’, which the authorities had ‘to kill [...] all over again’, Wormwood’s reanimates imbue the waste that haunts recycling’s more typically celebratory rhetoric with a terrifying ambulatory power (2018b, 87). The fact that ‘death didn’t come easy’ to the reanimates underscores the toxifying effects of capital’s increasingly violent efforts to put a correspondingly recalcitrant “nature” to work (2018b, 87). The ‘never-ending, cannibalistic hunger’ of Oloff’s petro-zombies points towards how the ‘unpaid debts’ of capital’s systemic de-valuation of “nature” will ‘always return’ (2017, 319). Yet, as much as Wormwood’s reanimates make similar gestures, they seem more unpredictable, and hence more entropic still, given that ‘scientists haven’t worked out’ why sometimes a reanimated body ‘drools’ harmlessly, while at others ‘it wakes up angry’ (2018b, 33). Kaaro’s own speculation that it has to do with ‘how they die’ pegs their unpredictability to the long-overdue “revenge” of commodified “natures” (2018b, 31). Just as the aliens rising from the sea in *Lagoon* encode the vengeful return of “wasted” African lives, the bodies that return to trouble Rosewater after experiencing violent deaths encode the systemic “revenge” of the Black bodies killed or allowed to die in the name of petro-extractivism.

The accelerating entropy figured by the reanimates is furthered by the mysterious wasting disease killing off sensitives, such that, by the end of *Rosewater*, Kaaro is the only one left. While we later learn that the sensitives are being killed by the Homians due to the threat their access to the xenosphere poses, Femi and the rest of S45 are unable to determine whether the sensitives’ ailment is ‘a natural disease’ or the result of ‘enemy action’ (2018b, 181). The initial inexplicability of the dying sensitives resembles the ‘mysterious’ collapse of honeybee colonies that is, for Moore, no less ‘portentous’ than other ‘movement[s] of destruction’ today (2015a, 284). If dying honeybees are ‘an unpredictable, unruly, unknown vector of a crisis that everybody sees but no one (not yet, not fully) really understands’, the dying sensitives similarly project the yet-to-materialise consequences of capitalist petro-magic into an increasingly unruly future (Moore 2015a, 284). The disease rapidly progresses from a cough reminiscent of pollution-prompted respiratory problems into a bodily attenuation that re-iterates the historical course of petro-de-developmentalism. When Kaaro visits

Aminat's sensitive cousin, Bola, he reflects that the disease has caused her to miscarry, cutting off the hopeful futurity implied by her pregnancy. Her skin is 'hanging loose on her frame', she 'seems older', and her 'bonhomie is all gone', replaced by a grim sense of atrophy (2018b, 153). When Kaaro enters her mind through the xenosphere, waste is foregrounded as he discovers a scene echoing Saro-Wiwa's description of total destruction in the Delta, in which Bola's mind is represented as 'a decaying temple' made of 'putrefying meat' that is 'wet' with 'spit, mucus, and pus' (2018b, 154).

Bola sits with a psychic representation of her deceased husband, Dominic, whose jaws are 'attached to the middle of her back', and Kaaro believes her to be 'caught up' in a 'thought loop' of unresolved grief (2018b, 155-56). Equally, however, as the life is drained from Bola's body, this tableau gestures powerfully to the far-reaching aftermaths of capitalist petro-modernisation in Nigeria, under which, as Saro-Wiwa observed, pipelines 'metaphorically drain the lifeblood of the Ogoni people' (1992, 82). In an attempt to break the thought loop, Kaaro kills the image of Dominic as an 'exorcism', symbolically of both Bola's grief and the past injustices of the state vampirism described by Saro-Wiwa. If, however, the radical "newness" of petro-wealth in Nigeria had once offered the presumptive exorcism of colonialism's material legacies, Bola's "recovery" is likewise only temporary. Although Bola arises 'briefly' after Kaaro's visit, Aminat receives a message that she 'didn't wake up' the next day (2018b, 212). Bola's precipitous collapse emphasises the impossibility of such historical "exorcisms" in a negative-value future structured by the socio-ecological debts of capital's previously wasteful(l) cycles. In *The Rosewater Insurrection*, Femi and Aminat watch as a machine designed to filter the microscopic xenoforms from a human body actually 'disintegrates' the test subject into a 'human shit stain', emphasising doomed efforts to evade the material histories (and futures) of human-nature entanglements (2019a, 31, 37). Bola's death, then, emphasises that petro-extractivism's toxic residues in Nigeria cannot simply be "dealt with" or "moved on" from; a realisation that must surely be at the centre of any project to imagine what survivable futures might be salvaged from the Capitalocene's irreparably damaged lifeworlds.

In *The Mushroom at the End of the World: On the Possibility of Life in Capitalist Ruins* (2015), Tsing examines the 'alternative politics of more-than-human entanglements' intimated by the mycorrhizal networks of fungal and non-fungal species that work sympoietically to create and sustain liveable environments in the aftermath of violent socio-ecological disruptions (2015, 28). In Thompson's trilogy, similarly generative entanglements are encoded by the alien xenosphere, which encompasses 'every environment on the Earth' as a literal web of life made up of alien fungal filaments (2018b, 76). The *Ascomycetes xenosphericus* fungus makes 'multiple links with the natural fungi on human skin' and human 'nerve endings' (2018b, 76). Like Tsing's sympoietic mycorrhiza, and akin to the transcorporeal possibilities underscored by *Lagoon*'s "Symbiosis", the relational symbolism of the

xenosphere evinces the world-ecological consciousness of the past, present, and future human-nature relationships needed to construct livable futures in the Capitalocene. The 'lattice of interconnected xenoforms' extends through 'the past and the future' and into 'alternate versions of our planet', thereby re-opening the post-petro-magical possibilities foreclosed by post-independence structural adjustment (2018b, 223). Like Udide Okwanka's web-weaving, the 'detritus of the nation's communal consciousness' becomes navigable to Kaaro, as he witnesses the 'blood and sweat of slaves', 'the prolonged pain of colonisation', 'the civil war', 'the bloody coups, the rampant avarice' and 'oil, the dark blood of the country' (2018b, 225). Wenzel suggests that petro-magical realist texts are aligned with 'the vantage of the fabled palmwine tapster' as they map 'the wreckage of petroleum's progress from the treetops' (2014, 219). In the xenosphere, Kaaro likewise occupies a tapster-esque vantage, enabling him to see and apprehend the significance of the past in shaping Nigeria's present and to negotiate its "prologued pain" in the future, rather than attempting to move on from it *tout court* (2018b, 225).

All three novels are haunted by the presence of Oyin Da, an anti-systemic activist who 'takes willing people with her to a new society that she has formed' in a 'travelling village' called 'The Lijad' (2018b, 105). Finally, in *The Rosewater Redemption*, we learn that Oyin Da resides wholly within the xenosphere itself, her psychic pattern having entered it after her physical body was destroyed in an accidental explosion. Like the reanimates, as a 'xenosphere ghost', Oyin Da emphasises that a reckoning with the unevenly racialised historical "wasting" of precarious lives must be at the heart of imagined postcarbon, postcapitalist futures (2019b, 87). Back in 2055, Kaaro and Oyin Da ensure that Wormwood will protect the Lijad from the machinations of S45 by sealing it within the biodome along with itself. As the Lijad merges with the footholder, Thompson's novels glimpse the kind of sympoietic commitment necessary to maintain a postcapitalist ecopolitics. The Lijad, like petro-magic-realism, draws upon the 'liminal space' represented by the forest in 'Yoruba narrative tradition' (Wenzel 2014, 218). Within the dome is a verdant space filled with 'something akin to moss' and 'trees', where, importantly, the people 'all seem to be connected' via the xenosphere (2018b, 352-53). These people gesture hopefully towards an alternative energy culture in which the fulfilment of local socio-ecological needs is emphasised by the newly collaborative environment-making that enables the humans to 'photosynthesise' for survival via the 'thick xenoform layers' encrusting their skin (2018b, 354). However, tumorous 'extrusions from Wormwood isolating toxins that the xenoforms cannot neutralise' emphasise that the future envisioned within the Lijad is more a necessary response to the material pressures of petroleum's long-lived residues than a nostalgic, pre-petrolapsarian arcadia (2018b, 355). In view of its slow but apparently inevitable transformation by the xenoforms, Anthony, the human avatar created by Wormwood to interact with humans, warns Kaaro that 'the human race

is finished' (2018b, 357). Similarly to Father Oke's re-integration with the socio-ecological totality represented by Mami Wata in *Lagoon*, however, we might say that the Lijad signals perhaps not the absolute end of humanity but the replacement of capital's distinction between "the human" and "the natural" with the relational and reciprocal understanding of 'humanity-in-nature' for which Moore calls (2015a, 76).

Ultimately, though, the threat of being consumed by the Homian terraforming project emphasises the fragility and fast-fading potential of such an emergent politics under the cumulative weight of petro-extractivist consequences. Kaaro enters the dome a second time in *The Rosewater Insurrection*, this time through a hole that smells of 'stagnation and rot' (2019a, 315). He finds that 'all of the dome-dwellers are dead' and that their bodies 'lie about in clumps', eerily illuminated by 'flares' in the 'pervasive darkness' (2019a, 316). We find that the biodome has become like 'a massive deformed soap bubble' and, just like the inevitable popping of the petro-financial bubble it recalls, physical changes suggest a creeping, but accelerating collapse (2019a, 91). The dome now has 'dark spots across the surface' and has 'recently [...] developed extrusions, spikes with sharp and blunt tips'; ominous signs which are ignored for 'as long as there's uninterrupted electricity' (2019a, 33, 38). Later, we find that the 'mottled grey and black' dome has lost its 'inner glow', auguring the imminent death of Wormwood and the energy imaginary it supports (2019a, 270). An increasingly alarmed Anthony discovers that the dome has become 'thinner' where it is in proximity to an unidentified 'weed', which is also killing xenoforms and creating 'blank spot[s]' in the xenosphere (2019a, 117-119). This weed, named 'Strain-516', is actually a 'controlling species' sent with the footholders by the Homians, because earlier terraforming attempts showed that footholders 'can take over entire planets unchecked' (2019a, 161). As well as being responsible for the devastation that Kaaro encounters, the plant makes Anthony 'weak', exerting a proximity 'field effect' of 'attenuation' that echoes the far-reaching effects of petro-pollution (2019a, 120). Bringing to mind the depleted subterranean hollows examined in the previous chapter, the origin point of the weed is a complete 'void' in the xenosphere from which no future seems imaginatively possible: 'no mentation escapes, no feelings, no vague intuitions' (2019a, 193). Instead, a 'black cloud' resembling the suffocating onslaught of an oil slick 'spreads over the psychoscape' (2019a, 191).

Just as the hyper-aggressive plant growth in *The Book of Phoenix* points to the negative-value future of (bio)techno-utopian fantasies, Strain-516 spirals out of control, manifesting a life-threatening excess like that of the "superweeds" increasingly resistant to capitalist agricultural discipline today. For all their technical knowhow, the Homians are at a loss as to how to combat Strain-516's, though Anthony speculates that 'perhaps there is something about Earth's environment that promotes 516's growth' (2019a, 232). Strain-516 actually thrives upon the wastes of the humans that

the Homians have sought to concentrate in Rosewater, emphasising how, under capital, waste begets more waste. Amid a 'smell of putrefaction', Bewon notices 'something growing out of the drain' in his kitchen, reconfiguring a space associated with the life-sustaining value of food to one associated instead with the negative-value of waste (2019a, 66). Though he pinches out 'the shoot of a plant', it returns later the same day 'two or three inches taller', now with 'spines' that prick him as he tries to pull it out (2019a, 66-67). He attempts to tame its growth more aggressively still, and 'saws it free' with a knife (2019a, 68). Again, the plant returns. Recalling the symbolism of The Backbone in *The Book of Phoenix*, Bewon 'cannot believe his eyes' as he contemplates the 'lush growth projecting from his sink to a height of about six or seven feet' (2019a, 96). When he attacks it even more aggressively with a 'cutlass', it releases spores that incapacitate him and he awakens to find that 'his right foot is gone, replaced by a complex root system' (2019a, 97). Bewon is fully integrated into Strain-516, transformed into a kind of 'emaciated' and 'cadaverous' plant-monster, 'punctured by roots and vines' (2019a, 195). He 'feels his memory draining', underscoring that his entanglement with Strain-516 offers a waste-bound inverse of the Lijad's collaborative life-making (2019a, 98).

Moore points out that rising atmospheric concentrations of carbon dioxide prompted by aggressive fossil fuel burning 'strongly favour invasive weeds, above and beyond rising temperature' (2015a, 273). If, following this, we might suppose that the conditions for such "superweeds" will become only more favourable under the consequences of capitalist business as usual, Strain-516 prognosticates the rapidly proliferating threats to life of any kind that will ensue. Moreover, the associations of petrocultural waste, co-evolutionary resistance, and the physical pressures of a warming planet coalesce in 'rumours and whispers of spontaneous human combustion' in Rosewater (2019a, 289). Offering another negative-value-tinged inversion of the collaborative life-making of humans and photosynthetic xenoforms in the Lijad, alien insect larvae 'burrow into the subdermal fat', with their waste products causing 'host cells to generate heat and combust' (2019a, 290). Victims appear 'to have burned from the inside out', such that these fiery deaths bespeak the hollowness of petro-developmentalism's combustive visions (2019a, 290). With Wormwood 'incapacitated' by Strain-516, these insects become 'bolder and stronger', ever more resistant to the discipline of humans and Homians alike (2019a, 290). The breakdown of such discipline manifests nightmarishly as a grim inversion of petroleum's "magical" promises of instantaneous development, with people 'bursting into flame' unexpectedly and collapsing into 'ashes' (2019a, 289). If Strain-516 produces lifeless voids from which no future seems imaginable, these combustive insects encode a similar sense of exhausted futurity, emphasising the imminent future in which the problem of negative-value can no longer be sidestepped through 'technical, organizational, or imperial restructuring' (Moore 2015a, 276).

As their redoubled efforts continue to provoke even more wasteful(l) resistance in *The Rosewater Redemption*, the Homians emphasise the entropic end point of a petro-developmental inertia. In another reference to the "Devil's Excrement", we learn in the final novel that 'oil-well-type things' have been built 'just outside the city limits' to mine 'Wormwood's waste products' (2019b, 113). If Home represents a vision of a negative-value future that the Homians are attempting to escape, their astrofuturist efforts to terraform Earth run up against a no less intensely resistive "nature". After 'more than a year', Wormwood's 'accumulated waste' is drained into 'empty chambers [...] beneath the mine', before a 'monstrous pile-driver' stabs into 'the flesh of the alien', creating a 'jet injector' that forces all of Wormwood's waste back upon itself at once (2019b, 350). Simultaneously, while the sleeping Homians are confident that 'someone is coming to revive them', it is instead Kaaro who travels to them through the xenosphere and 'feasts' upon them, acting as an embodiment of capital's internal contradictions finally made manifest by devouring the Homian computer systems from within and activating their 'self-destruct sequences' (2019b, 362-63). Having been transformed into a xenosphere "ghost" like Oyin Da, Kaaro's last words offer a trickster-esque challenge to the Homians reminiscent of Udide Okwanka's idiom in *Lagoon.* 'I am the Rat, the Termite, the Eater of Wealth [...] and I have come for you', he tells them defiantly as he destroys what remains of them (2019b, 362). Finally, the charred remains of Rosewater are 'cordoned off' by the Federal Government 'as beyond salvage' (2019b, 365). Despite the passing of Wormwood, however, 'hellish carnivores' remain, along with 'hybrid creatures that defy description, sentient greenslime, and chemical contamination at every turn' (2019b, 365). The remains of Rosewater, then, present an animate, monstrous vision at the trilogy's end; not an inert wasteland but one in which worsening effects must continue to be reckoned with far into the future. As a final hopeful gesture, though, we learn that the xenosphere did not perish with Wormwood and, so, the world-ecological consciousness embedded within it remains a potential way of negotiating that reckoning.

Epilogue

Imagining Resourceful Futures in the Capitalocene

Through identifying and interrogating world-SF as an analytic category, my thesis begins the work of "worlding" the efflorescence of SF, especially from world-systemic (semi-)peripheries, that continues to gather momentum across the world today. With particular reference to North American and Caribbean Afrofuturism, South Africa's postapartheid speculative, and Nigerian post-petro-magic futurism, the preceding chapters have read such newly energised (and energetically conscious) SF forms as bound up with the locally particular materialities of neoliberalism and its organisational projects and processes. With particular reference to the world-SF novel, these chapters demonstrated how all three SF forms are oriented towards the challenge of envisioning Black futures under neoliberal capital's intensified assaults upon Black bodies and lives in ways that also, in a wider sense, defamiliarise the petromodern present via an irrealist aesthetics of negative-value, or world-ecological crisis. Each chapter explored the locally particular ways in which such aesthetics encode a histofuturist, world-ecological consciousness well-placed to reveal and prognosticate the ways in which neoliberalism constitutes the latest, and potentially last, configuration of capitalism as an ecological regime. In doing so, my thesis has sought to push against "postcolonial" readings of "global", or "global South", or an un-hyphenated "world SF" that replicate the disciplinary blindspots of postcolonial theory and may even feed into the reduction of (semi-)peripheral SF forms to the marketability of their aesthetics, as "exotic" or "hybridised" versions of SF from and about systemic core zones. Instead, I argue that such SF forms are expressly political, in that they can reveal and contest the ways in which, as Deckard and Shapiro write, 'culture plays a constitutive role in generating and stabilizing the socioeconomic relations on which neoliberal hegemony depends' (2019, 3). Specifically, the texts examined by my thesis show how worlded SF readings can resist the "petro-fantasies" and the other cultural fictions of race and resource extractivism that are sustained by the neoliberal futures industry. The Afrofuturist, Africanfuturist, postapartheid speculative, and post-petro-magic futurist texts examined by my thesis all point forcefully towards the racialised iniquities underpinning the techno-optimism of that futures industry, and its consequent dismissal of the cyclical and cumulative dimensions of capital's socio-ecological consequences. I have argued, however, that,

far from succumbing to an eco-apocalypticism, such narratives instead provide fertile imaginative ground for the envisioning of worldly, resourceful, and equitable postcapitalist futures amid the biospheric wreckage of the Capitalocene.

This task remains pressing, given that the long-lived aftermaths of such wreckage, the centuries or even millennia-long denouement of capitalogenic climate change, will likely far outlast capitalism itself. I say likely because, as even Moore admits, it remains an 'open question as to whether we are facing a *developmental crisis* of capitalism – one open to resolution through new rounds of primitive accumulation and commodification – or an *epochal crisis*, one marked by an irreversible decline in capital's capacity to restructure its way out of great crises' (2015a, 27; original emphasis). The introduction to this thesis noted what I take to be Malm's (2018) somewhat unfair characterisation of Moore's indulgence in something like the eco-apocalypticism described by Szeman (2007). Nonetheless, even if, as Moore writes, the mounting negative-value production of capital today is 'encouraging an unprecedented shift towards a radical ontological politics *beyond capital*', I do not mean to suggest we lose sight of the fact that this is far from certain (2015a, 276; original emphasis). This caution is perhaps more important today than ever, given that many states the world over face the prospect of post-pandemic "recovery" projects that may well involve the savage reaffirmation of neoliberal lifeworlds, instead of changing course. Moreover, can capitalist agencies be prevented from moving into the new Arctic and Antarctic frontiers opened up by a warming planet? What if the techno-utopianism of "geoengineering" and "clean" energy technologies finally materialises? What if the astrofuturist "scramble for the stars" actually gets off the ground? The possibility that capital may succeed in coming decades to find new ways of constructing and putting "nature" to work should not be discounted. Even if the more outlandish techno-utopian fantasies fail to materialise, a future of what Haraway, after Tsing, calls 'salvage accumulation' or 'patchy capitalism' remains more than possible, characterised by forms of extractivism or "putting to work" that 'can no longer promise progress' but nonetheless 'extend devastation and make precarity the name of our systematicity' (2016, 37). Recall, now, that the climactic conclusion to Okorafor's *The Book of Phoenix* certainly bears out Malm's warning that 'if capital is allowed to continue what it is doing to the earth, it will leave it utterly scorched to anyone who comes after' (2018, 195).

Okorafor's novel imagines that technologies of petro-mitigation and biological enhancement may eke out a few more decades or even centuries of "business as usual", but in ways that will surely prompt the even more intense resistance of unruly human and extra-human "natures" whose "striking energies" ultimately cannot be deferred. 'As long as there are only a few signs of [capital] being toppled on a global scale,' Malm argues, 'there is reason to be pessimistic – and correspondingly intransigent in militancy and negativity' (2018, 195). Here, Malm's "negativity" invokes Terry

Eagleton's *Hope Without Optimism* (2015), which argues for a hope that abandons the optimism that animates typically modern assumptions of a teleological progress to a "better" future, and instead 'acknowledges the realities of failure and defeat', refuses to 'capitulate to them', and thereby maintains 'an unspecified, non-purposive openness to the future' (2017, 65). Precisely such a cautious yet open-ended hope is cultivated across the texts examined by this thesis, and can be held open through the worlding of SF texts more generally. Across such texts, there seems little possibility of returning to a mis-remembered "premodern" existence in some kind of pre-petrolapsarian idyll; rather, they confront the pressing necessity of cultivating what Haraway calls, again via Tsing, relational 'arts of living on a damaged planet' (2016, 37). What is striking about the texts examined by this thesis is their eschewal of triumphally utopian or "optimistic" visions of the future in favour of more subtle hints at a sense of expanded possibility that stands opposed to the capitalist realism of neoliberal world-petroculture: the uncertain future that Dana and Kevin face in *Kindred*, or the vision of Ti-Jeanne and her baby at the end of *Brown Girl in the Ring*; the possibilities, however circumscribed, of Wikus's unresolved prawnification in *District 9*, or the new human-nature relationships implied by *Zoo City*'s paired aposymbiots; the transformative possibility of Ayodele's sacrifice at the end of *Lagoon*, or the relational, reciprocal potential underscored by the against-all-odds survival of Wormwood's xenosphere.

Echoing the possibilities of Butler's "histofuturism", Haraway argues that SF 'is storytelling and fact telling; it is the patterning of possible worlds and possible times, material-semiotic worlds gone, here, and yet to come' (2016, 31).[1] When it comes to the possibility of times to come, Haraway rejects the idea that today's 'trouble' be addressed 'in terms of making an imagined future safe' by 'clearing away the present and the past in order to make futures for coming generations' (2016, 1). Along with Jameson's (2005) reflections on SF's inability to offer programmatic roadmaps, the histofuturist, world-ecological consciousness embedded in the texts examined in this thesis affirms that the past materialities and configurations of capitalism as an ecological regime must be attended to because of how their uneven consequences have structured and will continue to structure future potentialities. The worlded readings that I have offered point to how such texts participate in what Deckard and Shapiro call the wider 'culture of discontent that seeks to imagine an exit from the neoliberal era', and bear out their insistence that 'cultural forms register, imagine, and make-history-from-below' (2019, 26, 14). The texts examined in this thesis all underscore that more equitably liveable futures cannot

[1] Though it is worth noting here that Haraway's definition of SF is even more expansive than the one primarily taken up by my thesis. Haraway uses the label not only to denote 'science fiction, speculative fabulation' and 'speculative feminism', but also, more metaphorically, to describe the 'string figures' that all life forms on earth must form with each other, as well as the possibility of an alternative afterwards implied by the phrase 'so far' (2016, 2).

simply be counted upon to arise organically from capitalism's ashes, but must be actively cultivated, protected, and fought for, now, and always. That is, as a literary corollary to the "militant intransigency" that Malm invokes above, they offer the potent imaginative resources needed for what Haraway calls 'staying with the trouble' (2016, 3).

For Haraway, to "stay with the trouble" means to be 'deeply committed to the more modest possibilities of partial recuperation and getting on together' in socio-ecologically damaged lifeworlds rather than grand projects of 'reconciliation or restoration' (2016, 10). In this, she anticipates Moore and Patel who, in their vision for a 'reparation ecology' that 'can undo the violence of abstraction that capitalism makes us perform every day', likewise reject the 'backward looking' notion 'of a nature that can be restored' to some imagined 'pristine' state (2018, 43, 207). The texts examined by this thesis remain fully cognisant of how, actually, it may not be possible to "repair" much of the damage wrought by capitalism as an ecological regime. But, importantly, they do not fall back into the "defeatism" that says that all we can do now is "adapt" to the nightmare ahead without fundamentally altering the "how" and the "why" of petrocultural modes of living. Instead, they grapple with how capital's long-running consequences will continue to unevenly reverberate into the future, cutting along the lines of class-bound precaritisation in ways that are nonetheless warped by how race, gender, and even species are, as Federici argues of gender specifically, 'specification[s] of class relations' rather than part of a 'cultural reality' separate from them (2014, 14). Nor do they relinquish hope that equitably sustainable ways of living within such aftermaths can be found. In doing so, they demonstrate that (semi-)peripheral SF forms are an ideal matrix within which the newly relational modes of thinking and being proper to the Capitalocene may be discerned and further nurtured. If SF is indeed to be, as Macdonald argues, 'the literary mode with the most inherently radical potential to educate and curry debate' over future resource cultures, then, my project has begun to explore the ways in which (semi-)peripheral forms dealing with futures long marginalised by the SF petrocultural "mainstream" are especially well-suited to this task (2016, n.pag.). The previous chapters have sought to demonstrate that worlded SF forms engage in what Deckard and Shapiro characterise more widely as 'the semi-peripheral recalibration of peripheral and folkloric materials', specifically via a future-oriented idiom that redirects the relational cosmologies long suppressed by capitalism as an ecological regime to novel purposes (2019, 11). From this vantage point, they resist neoliberal mantras of "no alternatives" and "resource curses" in ways that grasp that humanity is not a bounded ontological category but, as Moore writes, a pivotal 'species-environment relation' within the wider web of life on Earth and, perhaps, beyond (2015a, 11).

What Next for World-SF?

In this thesis, my intention was to test the critical potential of world-SF rather than to set any geographical or chronological limits to it, and this is just as true of my efforts to "world" Afrofuturism, the postapartheid speculative, and Nigerian post-petro-magic futurism. These case studies represent only a partial view of what is surely a much larger field: the combined and uneven world-systemic field that consists of the stories that we humans tell ourselves about the future. In this final section, then, I want to suggest some future lines of enquiry, not only for these three clusters of SF production, but also for the diverse range of texts and contexts that could not be included in this thesis for reasons of space, but which can also offer key resources for imagining liveable futures in the Capitalocene.

My thesis has focused in particular upon how SF texts respond to the way in which the iniquitous consequences of capitalism's racial technics have been intensified by efforts to restore the flow of Cheap Nature under neoliberal world-petroculture. However, future work on world-SF must also pay equal attention to how the same is true for capitalism's technics of gender and sexuality and, indeed, the intersections between these and race in the process of class formation and the production of "Cheap Lives" across the *longue durée* of capitalist modernity. Additionally, my thesis focused on the novel form because of its particular ability – via its depth and breadth – to give shape to the cyclical and cumulative dimensions of the present moment of systemic crisis under neoliberal world-petroculture. This does not mean, though, that other SF forms should not be read as world-SF or even that the novel form is the only form capable of mapping and registering world-ecological crisis and the rise of long-suppressed negative-value effects today. Given the pointed questions about the circulation and political efficacy of literary texts and literary criticism raised by Brouillette (2019) and Wenzel and Szeman (2021), in future work I intend to look to texts that circulate outside the privileged academic spaces of the Global North and, indeed, to non-literary forms of imagining or envisioning the future. In other words, while my thesis has focused particularly on the *content* of the texts examined in the preceding chapters, we might also look more closely at the question of *form* in relation to the rise of negative-value effects under neoliberal world-petroculture today, and how (semi-)peripheral SF works – literary or otherwise – contest or subvert the generic conventions of the SF "mainstream". Future work on world-SF should not fall into the trap of 'substituting words for politics, no matter how powerful those words might be' (Wenzel and Szeman 2012, 520). That is, it might look also to how SF forms can inform and intersect with political activism, and the ways in which politically activist movements themselves construct narratives and tell stories about how to construct in the present the material and imaginative substrates to nurture emancipatory postcapitalist futures can develop. In this vein, future enquiries into world-SF must also prioritise critical frameworks for

postcapitalist lifeworlds that are not derived from Euro-American theoretical traditions that (actively or tacitly) centre the white (and often male) gaze. And of course, in order to do so, future work on world-SF must look beyond works that are published and circulate predominantly in English to begin to build up a fuller picture of the field.

Chapter One argued that plantation- and plot-bound aesthetics in Afrofuturist novels expose the intensifications of the plantation's racial technics under neoliberal capital, while simultaneously pointing to the reciprocal "wholeness" inhered by the subsistence plot as a means of "de-zombifying" the negative-value future that such intensifications imply. Specifically, I explored Butler's *Kindred*, Okorafor's *The Book of Phoenix*, and Hopkinson's *Brown Girl in the Ring*. However, many texts remain to explore and unpack. Butler's oeuvre in particular is rich with world-ecological potential, not only in terms of her published work, but also the vast mycorrhizal network of notes, drafts, unpublished writings, correspondence, and personal reflections contained in the papers that she bequeathed to the Huntington Library. We might probe how the futures that Butler ultimately found unwritable are structured by the iniquities of petropromise in Los Angeles, and how these unpublished writings negotiate the city's status as a fading petro-extractivist hub and its consequent reconfiguration, via Hollywood, into a key node in the neoliberal futures industry. From this perspective, we might then explore the ways in which Butler's unpublished writings bring new insights to bear upon how her published work strives to cultivate the very same 'tentacular thinking' that Haraway argues is most urgently needed in the Capitalocene (2016, 5). In this way, we might position Butler's work as not only key to the historical development of Black SF, but also to an emergent world-ecological literary consciousness today.

We might also further unpack how SF writers have responded to the particular pressures of neoliberalisation as they have manifested within the Caribbean, alongside the diasporic experience so incisively depicted by Hopkinson's *Brown Girl in the Ring*. For example, the novels *The Best of All Possible Worlds* (2013) and *The Galaxy Game* (2015) by Barbadian author Karen Lord envision futures in which Caribbean peoples have colonised new worlds beyond Earth, potentially offering imaginative routes to a postcapitalist astrofuturism. More generally speaking, the Caribbean has a thriving SF scene, with texts in English, French, and Spanish. Tobias S. Buckell, a Grenadian author now living in Ohio, has published several novels and numerous short stories. Alain Bidard's French-language film *Battledream Chronicle* (2015) imagines a plantation-bound future in which the people of Martinique are put to work by a malevolent computer virus that has invaded a cyber-realm originally intended as a digital refuge from the toxified Earth. Spanish-language writers include the Cuban author Yoss, though only four of his books have so far been translated into English, as *Red Dust* (2020), *Condomnauts* (2018), *Super Extra Grande* (2016), and *A Planet for Rent* (2015). Moreover, a recent

book chapter by Oloff also identifies Puerto Rico as a particularly fruitful ground for Hispanophone SF writing in the Caribbean, noting that 'we might refer to a number of zombie texts (by writers including Pedro Cabiya, John Torres, Angel Rivera and Josué Montijo), to sci-fi and cyberpunk narratives (by writers including Rafael Acevedo, Alexandra Pagán Vélez, and José Santos) or to works written in the Gothic mode (by writers such as Ana María Fuster Lavín and Marta Ponte Alsina)', though only some of these are available in English (2019, 79). Indeed, we can and should examine how efforts to imagine Black futures in North America and the Caribbean intersect with or exist in productive tension with the imaginaries and thematic concerns of Latinx and Indigenous SF producers across the Americas.

In Chapter One, we saw how Afrofuturist and Africanjujuist visions push against the "colour-blind" fictions promulgated by neoliberal agencies in US and Canadian contexts by emphasising how such nation-building narratives conceal the actual ratcheting up of capital's unevenly racialised patterns of bio-extractivism, socio-ecological precarity, and waste disposal. Chapters Two and Three, meanwhile, examined how similar fictions abound in the neoliberal nation-building contexts of South Africa and Nigeria. They demonstrated how such fictions have likewise been contested by the histofuturist visions offered by SF writers and filmmakers in those two countries. Chapter Two examined how the postapartheid speculative "mines" the past of mining in South Africa to expose the bankruptcy of neoliberal future-making in the post-TRC "Rainbow Nation." It explained how the postapartheid speculative consequently evinces an anti-apartheid nostalgia that, in the manner of Wenzel's anti-imperialist nostalgia, reopens the space of imaginative possibility foreclosed in the postapartheid moment by the uneven pressures of neoliberalisation and its resultant tragedies, like the Marikana Massacre in 2012 or the slowly-unfolding and iniquitously racialised devastation inflicted by acid mine drainage and toxic mine dumps. Notably though, even if Blomkamp's, Miller's, Human's, and Beukes's texts are all deeply invested in imagining racial (in)justice in a negative-value future, their white authorship and predominantly white protagonists means that they may tacitly participate in the same erasures at which they take aim. Any future enquiries into the postapartheid speculative, then, must place texts by Black and other South Africans of colour at the forefront of such endeavours. While few such texts were available internationally when I began this project (at least as far as I could determine), a steady stream has begun to emerge, including Unathi Magubeni's *Nwelezelanga the Star Child* (2016), Nikhil Singh's *Taty Went West* (2015) and *Club Ded* (2020), Masande Ntshanga's *Triangulum* (2019), and Imran Coovadia's *A Spy in Time* (2018). While in this thesis I concentrated on the postapartheid speculative's mining-bound aesthetics, we might also explore what other extractivism-bound negative-value concerns are embedded in the form, and how these respond to the racialised dynamics of the country's Minerals-Energy Complex.

Chapter Three confronted what Macdonald (2016) calls the petrocultural "oil beast" as it manifests in Nigerian SF, the other key – but by no means only – node of SF production in Africa. It explained how the rise of Nigerian post-petro-magic futurism in the post-millennial moment indexes the renewed petro-developmentalist hopes in the Nigerian Gulf of Guinea and forecasts their violent unravelling in a negative-value future. The chapter showed that, in doing so, Nigerian SF texts build on the legacy of petro-magic realism that Wenzel (2006a, 2014) discerns in earlier literary responses to the devastating socio-ecological consequences attendant on petroleum's seemingly "magical" promises. Taking up such petro-magic-realism and redirecting it towards the future, Nigerian post-petro-magic futurism denotes the forms of future-envisioning that come after such promises have unravelled, and looks to re-open the possibility of liveable futures seemingly foreclosed in a world that seems destined to become ever more like the country's petromodern wastelands. Though manifesting in specific forms, however, the material devastations of capitalist petro-magic are not unique to Nigeria. We might ask, then, is post-petro-magic futurism particular to Nigeria, or are other forms of it discernible within other pivotal petro-extractivist contexts?

To begin to answer this question, we might turn to SF from and about the Persian Gulf. As in Nigeria, the imagined potential of petro-wealth has long been tied to "postcolonial" nation-building projects in Gulf states. The petro-fuelled spectacle of Dubai's (in)famous "Palm" and Burj Khalifa, or plans for a vast "smart" city called Neom in north-western Saudi Arabia stand as highly visible examples of "Gulf Futurism", a term coined by the American-Qatari artist Sophia Al-Maria and her Kuwaiti collaborator, the musician Fatima Al Qadiri. As Erika Balsom explains in a recent interview-cum-profile with Al-Maria, Gulf Futurism 'encompasses both gleaming skyscrapers and the harsh conditions faced by the migrant laborers who build them' (2020, n.pag.). As even this brief *précis* suggests, the glamorous excess and the racialised exploitation that underpins it makes Gulf Futurism an excellent candidate to be read in terms of combined and uneven development. Alongside the "official" future-envisioning mandated by state projects, however, the Gulf has also seen a growing outpouring of SF both locally and in diaspora that may yet be a powerful locus of resistance to Gulf Futurism's potentially catastrophic petro-fantasies. To what extent can we discern a critical post-petro-magic futurism in texts like *Cyclonopedia: complicity with anonymous materials* (2008), by Iranian writer Reza Negarestani, or *A Girl Walks Home Alone at Night* (2014), a Persian-language vampire film shot in the USA by Iranian-American director Ana Lily Amirpour? What to make of the Iraqi novel *Frankenstein in Baghdad* (2013) by Ahmed Saadawi, which transposes Mary Shelley's resonant tale of a vengeful reanimated corpse to the aftermath of the US invasion? Or the short stories collected in *Iraq+100: Stories from a century after the invasion* (2016), an anthology edited by Hassan Blasim in which the writers were tasked with imagining the country in the year 2103. Or *Aerials* (2016),

an Emirati film that imagines an alien invasion of Dubai? Widening the field to take in other SF forms in Arabic beyond the Gulf itself, we might look to Egypt, also an oil and gas producer. In a recent article for *Strange Horizons*, Sinéad Murphy (2017) has already begun to interrogate how Egyptian SF texts have responded to or seemed to anticipate the Arab Spring and its aftermaths, examining Ahmed Khaled Towfik's *Utopia* (2008), Mohammed Rabie's *Otared* (2014), and Basma Abdel Aziz's *The Queue* (2013). Moving further afield still, we might contemplate the resourceful dimensions of a growing number of Palestinian SF texts; the stories collected in *Palestine +100: Stories from a century after the Nakba* (2019), or the short films and installation art of Larissa Sansour.

Or maybe, given the worlded aspirations of such a project, we might turn instead to SF from and about another important petro-context; that which imagines the future in view of neoliberal resource extractivism in post-Soviet Russia. The strength of Russian SF production before and during the Cold War era has been widely noted, but an increasing number of texts has also emerged since the collapse of the USSR ostensibly solidified the grip of capitalist realism over the future. In an analysis of Olga Slavnikova's *2017* (2006), Deckard has already begun to examine how post-Soviet fiction registers 'the intersecting legacies of pre-Soviet imperialism, Soviet Communism, and neoliberalization that underlie contemporary Russia's quest for resource sovereignty' via a turn to the 'ecogothic' (2015, 287). Such fiction is, Deckard argues, 'haunted by the ecogothic specters of ecological disaster past and present, teeming with post-catastrophic scenarios and swarming with monstrous, mutant or ghostly characters', and marks an 'explosion of literary novels mixing the aesthetics of science fiction, speculative fiction, horror, and magical realism' (2015, 288). If, as Deckard posits, such texts register the slow violence of 'compound crisis' in ways that also 'prognosticate future crises' heralded by neoliberal patterns of extraction, then they are ideal candidates to be read as world-SF (2015, 289). Do the same kinds of monster that stalk Nigeria's petro-modern wastelands reappear in reconfigured forms in the post-Soviet context? In what ways does a text like Dmitry Glukhovsky's *Metro 2033* (2002) – and its sequels and associated video game spin-offs – recall the postapartheid speculative's aesthetics of mines and mining? Glukhovsky's novel imagines that a handful of Muscovites have survived a nuclear catastrophe in their city's underground metro system. Taking clear inspiration from Andrei Tarkovsky's Soviet-era film *Stalker* (1979), however, the survivors of the apocalypse are troubled by inexplicable spatial and psychic anomalies in the darkened tunnels, as well as horrifically mutated creatures including one that notably resembles a malevolent puddle of crude oil. Following Deckard's lead, we might examine how other texts such as Tatyana Tolstaya's *The Slynx* (2003), Vladimir Sorokin's *Day of the Oprichnik* (2006), Victor Pelevin's *Empire V* (2006), Dmitry Bykov's *Living Souls* (2006), or Anna Starobinets's *The Living* (2011), prognosticate the negative-value future that awaits the intersecting extractivisms of mining, hydrocarbons, and nuclear energy in the

post-Soviet neoliberal context. Do the irrealist contours of texts like these, written in the long shadows cast by Chernobyl, reject the official techno-utopianism of any "nuclear option" presented as a means of decarbonising capital? At the same time, how do they clear imaginative ground for new ways of thinking and being in the Capitalocene?

An enquiry into post-Soviet Russian SF may be especially fruitful because, as Deckard points out, 'as one of the "BRICS" nations seeking dominance as a world power and nursing resurgent imperial ambitions, the Russian Federation has been an aggressive participant' in the latest phase of capital's enduring scramble for Cheap Nature, 'competing to secure materials and energy resources in Africa and the Arctic, and fighting against the release of its former imperial possessions' (2015, 287). Moreover, as she writes elsewhere with Shapiro, 'our current moment of "late" neoliberalism may also mark the movement of capitalist core hegemony outside of the dominant states of Western Europe and North America towards East and South Asia, meaning that for the first time in about 500 years, capitalism's lodestar will no longer be easily conflated with Anglo-European primacy' (2019, 6). In this context, and in view of the recent successes of Chinese and Indian space programmes, we might turn, then, to the burgeoning SF scenes in both of these countries. Do the SF novels of Chinese authors such as Cixin Liu's *Remembrance of Earth's Past* trilogy (2006, 2008, 2010) and Chen Qiufan's *Waste Tide* (2013), or of Indian authors such as Anil Menon's *The Beast with Nine Billion Feet* (2009) and Samit Basu's *Chosen Spirits* (2020), legitimate or contest the state-endorsed astrofuturism that places their respective countries at the centre of a new "scramble for the stars"? How cognisant are they of the uneven patterns of resource extractivism, accumulation by dispossession, and socio-ecological wreckage that must support such a vision? Do they, too, grapple with the potential end of Cheap Nature, or, in the vein of less imaginative core zone SF, do they imagine instead that capitalism will survive into the future by escaping earth and finding newly cheap "natures" on what Gerard K. O'Neill famously called "the High Frontier"? That is, do they contest in a worlded fashion a space-bound version of the bourgeois nationalism condemned by Fanon and satirised (if softly) in Olukotun's *Nigerians in Space*, or merely uncritically replicate it in locally specific idioms?

At this point, then, it is worth remembering that 'neoliberalization is differently experienced and mediated in cores, semiperipheries, and peripheries of the world-system' (Deckard and Shapiro 2019, 4). While the combined and uneven futures of capitalism as an ecological regime and neoliberal patterns of environment-making today may reveal themselves most saliently in (semi-)peripheral SF forms, they will also, of necessity, be embedded in core-zone production. As Macdonald points out, after all, 'the next task' to help us imagine postcapitalist, postcarbon lifeworlds 'is to connect and compare resource texts from all points, or links, in oil's value chain, from (semi-)periphery to core, (refined) pipeline liquid to [the] global stock liquidity' upon which floats neoliberal world-petroculture

(2017a, 300). By bringing a world-systemic reading to bear upon parts of the contemporary outpouring of SF around the globe, my thesis has begun to contribute to that task, and the examples sketched above are intended as suggestions for how it may be continued. Within this, however, we should not lose sight of the "worldly" potential of core-zone SF texts, too. My focus on (semi-)peripheral forms as imaginative resources for postcapitalist ecopolitics does not mean to imply a dichotomy between those forms as "good" and the SF of world-systemic cores as wholly and irredeemably "bad" forms of future-envisioning. Quite the contrary, we might explore how world-SF readings can be just as invested in the ecological consciousness embedded in much of Margaret Atwood's recent writing, for example, or the "left utopian" strand of SF writing that is perhaps most obviously represented today by the US-based Kim Stanley Robinson. Even in texts less overtly critical of neoliberal petro-fantasies, might we also discern an uneasy resource or energy unconscious that threatens to burst through, and force open the cracks and fissures in the capitalist realism that sustains them? (Semi-)peripheral texts like the ones examined in the preceding chapters may well most obviously resist the cultural fictions that enable neoliberal capital's material acts of extractive violence, but we should not underestimate the extent to which core-zone visions of the future can also function as critical resources when read in worlded and resourceful ways. It seems fitting to conclude, though, by reiterating Szeman's cautionary question: 'What happens to literature when we can't have any more, because the energy that has enabled petromodernity and petroculture is – or is about to be – no longer available to us?' (2017, 286). This thesis has examined the ways in which SF texts can force open the imaginative possibility foreclosed by the ratcheting up of capitalist realism under neoliberal petromodernity. But as capital's world-historical consequences continue to unevenly compound into the future, the possibility of constructing equitable and recuperative ways of living on a damaged planet will likely attenuate with them. Offering systemic accounts of how cultural forms register and point to potential exits from the cyclical, cumulative, combined, and uneven dynamics of capitalism as an ecological regime, then, is an increasingly pressing task that literary-cultural scholars must confront; now, and in the future.

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