Slow Resilience: Speculative Fiction in the Capitalocene

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Slow Resilience: Speculative Fiction in the Capitalocene argues that authors of contemporary speculative fiction, in writing about Capitalocenic disasters, engage their characters and readers in practices of slow resilience. I develop a theory of slow resilience as a series of survival strategies within and beyond global capitalism, allowing for both utopian critiques of and corrections to that system, and ways of coping within its lived realities. The project considers how speculative fiction novels, essays, treatises, and self-styled documentaries—"what if" narratives—are uniquely suited to grapple with imagining other futures that are based on current conditions, as they border on but do not cross into the improbable or fantastic. Attending to the difficulties of representing slowly evolving, non-spectacular crises like global climate change, *Slow Resilience* maps a spectrum of narrative and affective responses to such Capitalocenic disasters, from denial, fear, and sublime awe to utopian dreams of communal living, extra-solar travel, and inter-species coexistence. I propose that speculative fiction in the Capitalocene portrays the long, slow, monotonous business of survival under the threat of, and beyond, apocalypse, parodying Romantic ideas of a noble Last Man while also offering up counter-narratives of a Last Woman, who struggles to survive in what I call the Gothic conditions of neoliberal capitalism. Each work of speculative fiction addressed in this dissertation both participates in and seeks to challenge the conditions and consequences of global capitalism by proposing modes of individual and collective resilience.

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INTRODUCTION

Characters in contemporary environmental speculative fiction, like its readers, face a myriad of environmental problems and their underlying causes and consequences: global warming, sea level rise, methane and CO2 release, increasingly more powerful storms and weather patterns, ecological disasters caused directly (oil spills) or indirectly (attritional air, water, soil pollution) by industrial, multinational corporations; global capitalism, neoliberalism, neocolonialism, the global spread of the enclosure system, the global spread of disaster capitalism and shock economics, and racist and xenophobic responses to disaster; climate gentrification, climate refugees, and international tensions and greater threats of nuclear war. In spite of these difficulties, humanity persists. In real life, this takes the form of resistance and adaptation to new norms. Trump's 2018 travel ban, which ostensibly limited threats of terror attacks from incoming jihadists but actually limited the number of climate and war refugees who are allowed to flee to the United States, was initially met with massive resistance in the form of airport protests across that country that called attention to the Islamophobia and cruelty of the policy. The mayor of San Juan, Puerto Rico, has been outspoken in critiquing the U.S. government and corporations' response to the mass devastation caused by Hurricane Maria. In a 2017 interview with *Democracy Now!* Carmen Yulín Cruz explicitly stated that the proposed privatization of electricity, schools, and hospitals in Puerto Rico is an example of disaster

capitalism and economic shock treatment (Cruz).[1] People around the U.S. are also noticing and calling out gentrification, the advancement of middle-class tastes and businesses into poorer but now desirable neighborhoods, often previously inhabited by minority or immigrant populations. Anti-gentrification advocates in Los Angeles have gone so far now as to "rejec[t] the old, peaceful forms of resistance (discussion, dialogue, policy proposals)" in favor of a more direct approach: attacking and/or intimidating "the sorts of art galleries, craft breweries and single-origin coffee shops that tend to pave the way for more powerful invaders: the real estate agents, developers, and bankers whose arrival typically mark a neighborhood's point of no return" (Romano and Franke-Ruta). The intersectional problem of gentrification as a class and race issue becomes more complicated when climate change and sea level rise is involved; in Miami, residents of Little Haiti, just north of the ever-popular South Beach, are facing higher and higher rents as developers look to buy up properties that are near the ocean but at a higher elevation. Residents and activists are calling this "climate gentrification," and trying to call national attention to the issue (Beeler).

Unfortunately, these protests and awareness campaigns are not guaranteed to improve quality of life. Taking a pessimistic view, as Roy Scranton does in *Learning to Die in the Anthropocene: Reflections on the End of a Civilization*, protesting and writing about environmental injustice usually "exert[s] no effective pressure," as the protestors, however much noise they make, do not have "their hands on the real flows of power,

[1] This is a reference to Naomi Klein's 2007 nonfiction book *The Shock Doctrine: The Rise of Disaster Capitalism*, which outlines neoliberal economic policies championed and disastrously dispersed first to Latin America, specifically Chile, and then to developing countries throughout the world in times of environmental and economic crisis. While citizens of a developing state or nation are reeling from natural disasters or economic depressions, Milton Friedmanite economists swoop in and advise leaders to privatize their national institutions and open their state up to an unregulated free market.

because they do not help produce it" (33). Further, it is difficult to draw sustained attention to environmental and environmental justice issues, as they are not as stimulating as the spectacular violence and crises most often highlighted in news media. Rather, they exist in "unspectacular time" that is "slow-paced and open-ended, eluding the tidy closure, the containment, imposed by the visual orthodoxies of victory and defeat" (Nixon 6). Given the difficulty of representing and marketing unresolved, slowly evolving issues, it is extremely difficult for protests about these kinds of problems and other forms of resistance to gain cultural traction.

In speculative fiction, however, it is possible for the few to affect the outcomes of the many, within certain plausible and generic limits. The bounds of speculative fiction have been defined and redefined for several decades; historically, speculative fiction has been used interchangeably with science fiction. In the introduction to an early book on science fiction, *Of Worlds Beyond: The Science of Science Fiction Writing* (1947), editor Lloyd Arthur Eshbach defines science fiction as speculative fiction that has "acquired a new form and pattern, in harmony with an age in which science and its developments have had so tremendous an influence on the lives of men" (9). In the same book, famed science fiction writer Robert A. Heinlein defines speculative fiction as works that play out various "What would happen if—" scenarios, where accepted science is extrapolated into futures that "produce a new situation, a new framework for human action" (17). Later critics of science and speculative fiction have proposed contradictory meanings. Darko Suvin defines speculative fiction as "hard" or "near-future" science fiction, in which the thesis of the work has to conform to a "real possibility" (versus *all* science fiction, which must conform to an "ideal possibility" where the premise of the piece isn't

internally contradictory but is in some way estranged from reality) (*Metamorphoses of Science Fiction*). Conversely, R.B. Gill finds that speculative fiction "embraces a wider, more radical vision of alternative conditions. Transcendental interventions, idealistic and artistic creations, dreams, and the fulfillment of impossible wishes and fears come within its scope." Gill counts "Utopias, pastorals, and Gothic tales" in this category, and more broadly thinks of speculative fiction "by contrast with the operational rules of the normal world" (73). Following this broader definition, more informally and for publishing purposes, speculative fiction is often used as an umbrella term covering science fiction, fantasy, utopian and dystopian narratives, magical realism, tales of fantastic voyages, ghost stories, and the supernatural Gothic (*Internet Speculative Fiction Database*). Still others in the digital humanities wonder if speculative fiction and science fiction should even be considered genres at all: while Franco Moretti has found that many genres remain in vogue for about 25 years and then fade away or transform into newer iterations, Ted Underwood, using predictive modeling, has found that certain more amorphous genres like detective fiction, science fiction, and the Gothic have trajectories more on the order of 150 to 250 years and are less gradual consolidations or generational "rhythms" than a series of "particular moments, tropes, repeated motifs" ("The Life Cycle of Genres"). I take my definition of speculative fiction from Margaret Atwood, who agrees that generic definitions are difficult to pin down: "genres may look hard and fast from a distance, but up close it's nailing jelly to a wall." Atwood, like Suvin, differentiates science fiction from speculative fiction in terms of each one's adherence to reality. Atwood finds that the former "denotes books with things in them we can't yet do or begin to do, talking beings we can never meet [like, for example, the "talking squid of Saturn"],

and places we can't go," while the latter "employs the means already more or less to hand, and takes place on Planet Earth" ("The Handmaid's Tale and Oryx and Crake in Context" 513). This is the case in all of the environmental fiction and non-fiction I have chosen to examine, as these speculative, rather than, according to Atwood's definition, more fantastical science fictional works, bear a relative closeness to the reality of the causes and effects of climate change and other Capitalocenic global disasters, and so offer thought experiments that are directly applicable to readers grappling with practical and existential questions about the future of humanity on a climate-changed planet.

The speculative novel series and nonfiction books, articles, and documentaries I engage with in this dissertation address climate change in terms of some of its causes—neoliberal capitalism—and effects—mass suffering and human and other species extinctions—rather than looking at climate change head on. Climate fiction and film that does the latter—that is, depicts extreme weather events or temperatures—tends to be spectacular (like the 2004 blockbuster film *The Day After Tomorrow*—rapid sea level rise and global cooling—or J. G. Ballard's 1962 novel *The Drowned World*—extreme heat that causes rapid evolution of reptiles and de-evolution of humans), or, in a few cases, highly technical *and* spectacular (e.g. Kim Stanley Robinson's 2004-2007 *Science in the Capital* trilogy—scientists researching climate change witness massive flooding, freezing, and a stalled Gulf Stream). Focusing on these short-lived, visible manifestations of climate change tends to focus readers' and viewers' attention on preventing those specific symptoms of climate change, rather than giving them a more complete picture of

it as a complex set of interrelated processes that require system change rather than, for example, last-ditch scientific techno-fixes like solar geoengineering.[2]

Rather than, so to speak, stare directly at the fireworks of climate apocalypse, I have chosen to explore works that comment obliquely on climate change and other Capitalocenic disasters. Like Jason W. Moore and Andreas Malm,[3] I prefer the term 'Capitolocene' rather than 'Anthropocene' to denote human-caused climate change, as the former calls attention to and blames the capitalist system and those who perpetuate and benefit from it, rather than all people on earth, for climate change. I also specifically cite neoliberal capitalism (from when it began to pick up steam as an economic and political ideology in the 1970s) as a major cause of Capitalocenic climate change. Not only because this is what, I argue, Octavia Butler critiques in her Parable novels, but because this most recent iteration of capitalism, rather than the rise of agriculture, enclosures, or pre-1980s industry, has caused the greatest increases in CO2 emissions.[4] Therefore, the environmental speculative fiction I examine instead either traces, from a speculative remove, the history of oppression that those most vulnerable to climate change have already suffered, and that will be intensified as Capitalocenic climate change

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[2] A 2017 study showed that injecting sulphur dioxide into the atmosphere could have the effect of reflecting back some radiation into space to reduce global temperatures (Keith, Wagner, and Zabel, "Solar Geoengineering Reduces Atmospheric Carbon Burden"). This could also have the effect of putting twice the level of carbon dioxide as before industrialization into the atmosphere, placing some regions of the world at risk for adverse climate effects (Holden, "Radical Plan to Artificially Cool Earth's Climate Could Be Safe, Study Finds").

[3] See Jason W. Moore's 2016 edited collection *Anthropocene or Capitalocene? Nature, History, and the Crisis of Capitalism* (PM Press) and Andreas Malm's 2016 book *Fossil Capital: The Rise of Steam Power and the Roots of Global Warming* (Verso). As a counterpoint, in Ian Angus's article, "'Anthropocene or Capitalocene?' Misses the Point"—Angus disagrees with Moore's argument for bringing the beginning of human-induced climate change back to the beginnings of agriculture rather than the rise of GHG emissions.

[4] See "CDP Carbon Majors Report 2017," which details how just 100 fossil fuel-producing companies have caused 70 percent of recent greenhouse gas emissions, and, in only about three decades [from 1988 on], have doubled the emissions that occurred in the previous two centuries (from the birth of the industrial revolution to 1988).

continues its ravages (Octavia E. Butler's Parable novels), or assesses the ecological and biotechnological disasters that are created alongside human technological advances (Margaret Atwood's *MaddAddam* trilogy).[5] The speculative non-fiction I examine plays out these disasters millions of years into the future, past human history and into that of other species, where they are beyond the responsibility or even existence of our species.

It is certainly easier to visualize, worry about, and attempt to prevent specific events and disruptions than to engage with an all-encompassing system with no single "identifying source or responsible agents," but rather a "multitude of sources and agents" (Horn 56). Put another way, global climate change and other Capitalocenic disasters are difficult to grasp in their entireties because they are "massively distributed in time and space" (Morton 48) Local instances of global warming are, according to Timothy Morton's *Hyperobjects* (2013), only "snapshots" of a complex system, and observing and experiencing them is like looking at a slice of the entire thing, looking at a section of a larger architectural drawing (Morton 74), or even staring at the small pieces of a Magic Eye image (49). The object in the picture—in Morton's metaphor, global warming—is "already there" in the background, but it is very difficult to see because of all of the smaller images obscuring the hidden image.[6] If you glance at it just right, you may be able to get a glimpse, but ultimately viewing climate change in its entirety "involves a

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[5] I draw this conception of the disaster being created alongside the technological advance from Paul Virilio's 2007 treatise on *The Original Accident* (Polity Press). Virilio states that "To invent the sailing ship or the steamer is to invent the shipwreck. To invent the train is to invent the rail accident of derailment. To invent the family automobile is to produce the pile-up on the highway" (Virilio 10). Further, this accident creation is due to an all-consuming preoccupation with speed over safety concerns (see also Virilio's *War and Cinema*, *Speed and Politics*, and *The Information Bomb*).

[6] The cover of Morton's book offers another metaphor for visualizing global warming: the upper third of the image is of the top of an iceberg with rays of light radiating onto it, while the remaining two thirds is of a partially transparent, much larger ice mass. This is reminiscent of Ernest Hemingway's iceberg theory of omission in writing—the larger themes and deeper meanings of a story are only implicitly discernible, with only surface details to hint at them.

massive counterintuitive perspective shift" (49). There are moments in each of the speculative texts I examine where their authors attempt to give their readers such glimpses, much in the way that having a sublime experience is a fleeting glimpse at something larger than oneself. Some of the authors I examine describe sublime experiences their characters have, particularly in coming to terms with global, Capitalocenic disasters that are broad in scope and devastating in consequence.

The sublime is traditionally understood as an experience of mingled fear and joy when encountering the immeasurable, colossal, or infinite.[7] The term has undergone many re-imaginings since the eighteenth century, when Edmund Burke defined the sublime as a transformative experience of terror, and Emmanuel Kant defined the mathematical sublime as the realization of the infinitude of powerful natural forces, and the dynamic sublime as the recognition that one could be physically destroyed by such forces. Since then, Romantic and Gothic writers largely identified large-scale natural features, like craggy mountains and vast waterfalls, as sources of the sublime.[8] Twentieth and twenty-first century writers and critics have located the origin of the sublime in nature, machines and even in brief glimpses of societal superstructures like global capitalism. Fredric Jameson and others[9] have written about a technological sublime, predicated on fear and awe of machines, electricity, and digital technologies due to the increase and normalization of technology in our daily lives. Jameson, in particular, writes about how the normalization of technology can cause "even the automobile wrecks [to]

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[7] See Thomas Weiskel's *The Romantic Sublime* (Johns Hopkins UP, 1976), and my further discussion of the sublime in Chapters One and Two.

[8] For example, early Gothic novelist Ann Radcliffe, in a short piece called "On the Supernatural in Poetry," identified "visible Nature," as well as extreme weather and venerable, ancient monuments, as the inspiration for sublime feelings.

[9] See Perry Miller (*The Life of the Mind in America*) and David Nye (*American Technological Sublime*).

gleam with some new hallucinatory splendor," and that "urban squalor can be a delight to the eyes, when expressed in commodification." This new kind of wonder at manufactured products and their decay is, he says, a "camp" or "hysterical" experience of exhilaration and terror at the sight of objects without any depth or history behind them, a vivid, hallucinatory enjoyment of a "glossy skin" obscuring reality (*Postmodernism, or The Cultural Logic of Late Capitalism* 32-33).

With a similar focus on the commodification of wonder, Bruce Robbins postulates a kind of "sweatshop sublime," based on everyday realizations of the large superstructures that power and supply the accoutrements of daily life in industrialized countries. However, a brief glimpse at "a world economic system of notoriously inconceivable magnitude and interdependence" does not lead to action on a similarly global scale, but rather a return to one's "everyday smallness" (Robbins 85). This return to the self is part of the Kantian sublime—according to Kant the real pleasure of the sublime comes from the return from infinitude to one's own reasoning.[10] In reality, this change in scale and shift in power often seems to end, as in Bruce Robbins' sweatshop example, in little to no significant change, and, though identified as the true pleasure and transformative power of the sublime, moments of return to the self are often transformed into failures of agency. In environmental speculative fiction and non-fiction, an engagement with a kind of climate change sublime is sometimes more productive.

[10] In *Critique of Judgment*, Kant describes this mental process: "The feeling of the Sublime is therefore a feeling of pain, arising from the want of accordance between the aesthetical estimation of magnitude formed by the Imagination and the estimation of the same formed by Reason. There is at the same time a pleasure excited, arising from the correspondence with rational Ideas of this very judgement of the inadequacy of our greatest faculty of Sense; in so far as it is a law for us to strive after these Ideas" (120).

In environmental speculative texts, I argue, climate change and other Capitalocenic disasters are presented as sources of sublime wonder and despair. Characters and readers get brief glimpses at hyperobjects like climate change, and some of its nearly as difficult to process causes and symptoms, like neoliberal capitalism, viral outbreaks, and mass species extinction. Sometimes these sublime insights into the larger forces ruling the characters' and our lives serve as catalysts for protagonists to form utopian societies meant as antidotes to the ills of the Capitalocene, and sometimes they produce existential fears, paralysis, and doubt that things can get better, or that utopian solutions can work out in the long term. Still other reactions are abject horror at the future of humanity and other species under climate change, and willing, blissful ignorance about the future of the planet. As I discuss in the first chapter, Octavia Butler's *Parable* series is a depiction of just how bad neoliberal capitalism can be for maintaining social cohesion and protecting the environment. Protagonist Lauren Olamina records her sublime realizations about the nature of God, the universe, and everything else (including crippling neoliberal economic and social policies) in her Earthseed verses – a book of sayings that she compiles into a religious document for her fledgling religious society, called Acorn. In the second chapter, I examine how Margaret Atwood's *MaddAddam* trilogy draws on Gothic and Romantic tropes to talk about climate change and human-caused mass extinctions and suggest inter-species coalitions as remedies. The third chapter turns to environmental speculative non-fiction that either engages with climate change head on or approach it more obliquely.

Common throughout the texts is an underlying current: the pernicious rise, spread, and dominance of neoliberal capitalism. David Harvey has defined neoliberalism as a

series of policies, based on economists Milton Friedman and Friedrich Hayek's free-market principles, that include "curb[ing] the power of labour, deregulat[ing] industry, agriculture, and resource extraction, and liberat[ing] the powers of finance both internally and on the world stage" (*A Brief History of Neoliberalism* 1). Wendy Brown traces how neoliberal economic policies have become a "governing rationality" and an "order of normative reason" that involves "extending a specific formulation of economic values, practices, and metrics to every dimension of human life" (*Undoing the Demos* 30). Following Brown's emphasis on the power neoliberal economic policies have also exerted on other areas of life, Mitchum Huehls and Rachel Greenwald Smith theorize how neoliberalism has influenced literature. They break down the infiltrations of neoliberal thought into cultural productions into four phases: "the economic, the political-ideological, the sociocultural, and the ontological" ("Four Phases of Neoliberalism and Literature" 3). In the sociocultural phase in the 1990s, after the end of the Cold War, Huehls and Greenwald Smith find that the economic and political policies rolled out in the 1970s and 1980s began to pervade literature, other artforms, and all other aspects of life (8). Finally, Melinda Cooper marks a correlation between the rise of neoliberal economic policies and neo-conservative ideas about the family in terms of a nation's economy and social forms. Cooper contends that neo-conservative ideas of the primacy of the family as the most important economic unit in American life are rooted in neoliberal ideas about individual resilience without government aid. In this dissertation I engage with all five theorists' definitions of neoliberalism—as an economic, political, cultural, *and* social force—to highlight how speculative fiction and non-fiction authors address the role of neoliberalism in causing, maintaining, and worsening global climate

change and other capitalocenic disasters and their immediate and long-term consequences. Characters in Octavia E. Butler and Margaret Atwood's novels resist neoliberal corporatization and form utopian groups to combat its worst ravages, while authors of environmental speculative non-fiction trace the rise of neoliberalism with the rise of ecological disturbances and mass extinctions due to climate change, posing questions about how human life and culture will (or will not) continue in a climate-changed world. Butler and Atwood's novels also address how even utopian solutions to neoliberal disasters are too closely bound up in neoliberal thought to be truly revolutionary, and I trace how all of the authors I discuss are bound up in neoliberal considerations of profitability for the publication of their novels as well. Ultimately, however, the focus of this dissertation is on the ways that fictional characters and non-fiction authors position themselves both within and against neoliberal thought.

In the works I examine, resistance to the causes of global capitalocenic disasters is accompanied by resilience—not mere survival in spite of or adaptation to these injustices and oppressive forces, but rather slow, determined ways of forging new ways of life amidst all of these difficulties. Humans adapt and thrive in new, sustainable communities or in cooperative teams with other species. The damage done to the planet by humans is reversed over time, and plant and animal life is not just resilient but thriving, sometimes intricately bound up in, and other times indifferent to, the fate of our species. But these texts are also highly critical of utopian solutions to climate and other global crises and are themselves tied up in the very neoliberal ideologies that have caused the problems they work through. What I call "slow resilience" is a reflection of this tension between idealism and realism, fantasy and science, and resistance to and coping strategies within

toxic systems. Slow resilience thus names the practices involved in striking an uneasy compromise between the righteousness of critique and the negotiations necessary to survive in increasingly hostile worlds.

My idea of slow resilience as a narrative strategy utilized in environmental speculative fiction was born out of Rob Nixon's 2011 book *Slow Violence and the Environmentalism of the Poor*. Nixon defines slow violence as that which "occurs gradually and out of sight, a violence of delayed destruction that is dispersed across time and space, an attritional violence that is typically not viewed as violence at all" (2). Environmental violence occurs on a longer, less visible timescale, and so it is difficult to even recognize it as violence. In discussing the political use of narrative, Nixon observed that in texts by environmental writer-activists attempting to visualize slow violence, "Writing can challenge perceptual habits that downplay the damage slow violence inflicts and bring into imaginative focus apprehensions ["trepidations, forebodings, shadows cast by the invisible"] that elude sensory corroboration" (15). As we can only care about and act on what it is possible for us to visualize, writer-activists can use narrative to help their readers see previously unseen or unthought-of vulnerable populations and slow-moving ecological problems (14-15). Likewise, slow resilience—survival strategies for capitalocenic disasters—can be difficult to imagine over long periods of time and space, but speculative fiction and non-fiction that spans multiple generations, species, and even planets can allow readers to visualize what such strategies might look like.

The slowness of "slow resilience" manifests in several ways in environmental speculative fiction. In Butler's and Atwood's novels series and trilogy, the plot unfolds not just over multiple novels, but through multiple generations, races, classes, genders,

and fictional ecological movements. It is slow in that it details the lives of many individuals, spread over years and centuries. Rather than making sense of a single event or crisis, texts that engage in slow resilience make visible the underlying, centuries-old superstructures and systems of oppression that have caused spectacular crises. Such texts do so by detailing the everyday, often monotonous struggles of those living under such systems. Some environmental speculative texts explore how humans might slowly evolve to interact positively and coexist more and more with other species, or over many, many years and through much deliberation and debate find a way to make other planets habitable. These texts force readers to think about how future generations will exist and adapt to the problems of the present, or how humans might evolve and intermix with other species, and so imagines the present and future simultaneously. They compel their readers to continue to think about environmental issues beyond the purview of their own space, time, and even the Earth. Formally, the development of environmental speculative fiction and non-fiction is slow in that it is an accretion of several literary modes, genres, and forms, brought together over time to form a new, hybrid genre. It contains, uses, and adapts science fiction, fantasy, Gothic elements, apocalyptic thinking, and the sublime; these borrowings from earlier literary modes connect speculative fiction novels and nonfiction texts to their literary lineage and the long-term co-evolution of literary and environmental thought.

The resiliency of characters and authors engaging in slow resilience in the speculative fiction and nonfiction I examine is bound up in two competing definitions of resilience: ecological (the ability of a system to “bounce back” after an environmental

shock)[11] and neoliberal (the ability of the individual to thrive on their own in trying circumstances, often brought on by neoliberal policies).[12] A neoliberal resilient subject is one who is celebrated for their "self-reliance and responsibility in an uncertain world," in which it is necessary to "become an entrepreneur of one's self, to manage one's own risks, to be innovative, adaptive and responsible" without reliance on "professionals" for help (O'Malley 504-5). Ideally, such self-supporting subjects would do so without challenging the sources of the risks they're facing. Many of the characters in the environmental speculative fiction I examine are living "in the trouble"—caught between individual survival and resistance to the large, ordering systems forcing them into this survival mode. Some chose resistance, to varying degrees of success, but all are bound up in neoliberal considerations of individual resilience within the prevailing system. The speculative non-fiction texts I examine are also themselves bound up in competing concerns of marketability and hard-hitting examinations of uncomfortable topics, such as how many of the physical artifacts of human culture can be saved after all of humanity is wiped out by its own destructive tendencies and policies, and what traits our species can adopt, from other species that have evolved to survive human-caused ecological disturbances, to save ourselves. *Slow Resilience* ultimately examines moments of sublime escape from, resistance to, and compliance with neoliberal policies that have, in reality and in fiction, caused environmental disturbances, widespread social unrest, and mass extinctions. Groups of people and species particularly vulnerable to the insecurities

[11] See C.S. Holling, "Resilience and Stability of Ecological Systems."
[12] See Jonathan Joseph, Jeremy Walker, and Melinda Cooper for more on resilience, neoliberal governance, and national security.

caused by global climate change engage in slow resilience, which takes several different forms.

In Chapter One, "Neoliberalism and Resilience in Octavia E. Butler's *Parable* novels, I examine how Butler strategically uses neoliberal concepts of resilience for her characters to survive in a hostile, not-too-distant California that has been gutted by neoliberal economic and social policies. I argue that Butler's engagements with exaggerations of then-current conditions of Southern California in the 1990s, American historical slavery and neo-slavery in the form of debt-enforced farm-working, neo-conservatism in the form of religious fanaticism and the rise of social conservatism, and utopian-minded, cult-like religious groups ultimately serve to critique both neoliberal policies *and* the utopian and extra-planetary solutions to the problems those policies generate. This tension between two modes of critique is borne out narratively and formally through the juxtaposition of the first (*Parable of the Sower*) and second (*Parable of the Talents*) novels in the series. The former tracks the spiritual and physical journey of teenage African American woman Lauren Olamina from fleeing her compromised gated neighborhood in Robledo to founding Acorn, a religious-minded cooperative commune whose members adhere to young Olamina's Earthseed verses about the great power of a larger force that she calls Change. The latter is narrated by Olamina's estranged daughter, who is highly critical of both her mother's religious endeavors and her perceived abandonment of her daughter in favor of her religious movement. These novels are haunted by the presence, in extensive writing notes Butler kept in her archives (now housed at the Huntington Library, a short drive from Pasadena, where Butler grew up), of a third novel called *God of Clay* or *Parable of the Trickster*.

While this could have resolved some of the tension between the first two novels, the fact that Butler was unable to finish the trilogy speaks to the difficulties of both narrating and personally working through the tensions between individual survival within and widespread, risky revolution against neoliberal capitalism and its environmental and social devastations.

Chapter Two, "Climate Change as Gothic Apocalypse in Margaret Atwood's *MaddAddam* Trilogy," examines another multi-novel work of environmental speculative fiction, this time focusing on a post-apocalyptic, too-hot world where the few remaining human survivors of an anthropocenic catastrophe (a deadly viral outbreak) form coalitions between themselves, the surviving genetically-altered animals created in labs to serve human purposes (like organ transplants), and a new quasi-human species built in the image of what their creator, Crake, thought would give humans 2.0 the best shot at living in a climate changed world with toxic pollution and radiation from too much global warming. In the novels, Atwood utilizes several Gothic tropes (live burial, the sublime) to define the twenty-first century, with its runaway biotechnology and too-warm sun, as an updated Gothic novel that also engages with the latest scientific advances, like Mary Shelley's *Frankenstein* (1818). In the end, I argue that Atwood's Gothic and Romantic overtones in her *MaddAddam* trilogy reflect a twenty-first century preoccupation with death and dying in the Anthropocene, while the multispecies alliances that form at the end of the third novel represent a willingness on the part of the fictional characters to rethink species paradigms and hierarchies. Only through such alliances between its members can survivors of a mass human extinction event practice slow resilience.

Chapter Three, "Beyond Apocalypse: Embracing the 'End' in Environmental Speculative Non-Fiction and Documentary," surveys a variety of speculative non-fiction texts for their engagements with three central questions about the future of the human race: what coping strategies do we have to help us with the existential dread we feel in light of accelerating global climate change; what can we do to prevent our own extinction; and how will we be remembered, as a species, by the other species that will replace us or come to occupy our position as the dominant species on Earth. Some of the texts, like David Wallace-Wells' *New York Magazine* article "The Uninhabitable Earth" and Roy Scranton's short treatise on *Learning to Die in the Anthropocene*, starkly present the imminent end of humanity due to anthropocenic climate change to force readers to confront the spectacle of their own and their species' deaths. Wallace-Wells' article aims to scare readers out of complacency and into climate action, while Scranton's piece wants us to ask ourselves about the value and role of the humanities as a record of human life and culture. Wallace Wells' article also graphically visualizes the End of humanity, as we could easily be cooked alive in our skins if warning goes about a certain threshold. By contrast, two other non-fiction texts I examine take an opposite approach, bypassing the potentially horrific end of humanity to instead jump forward millions of years to a point at which, global warming or not, other species will inevitably rise up to take our place at the top of the food chain. The effect of this temporal leap in Alan Weisman's *The World Without Us* and the BBC's "documentary" series *The Future is Wild* is to bypass the paralyzing trauma and arresting spectacle of apocalypse. Humanity's end comes and goes with little comment, so viewers are left with thoughts of how other species might be more resilient in our absence. Finally, a fifth non-fiction text by Anna Lowenhaupt Tsing—*The*

Mushroom at the End of the World—theorizes a kind of rhizomatic assemblage between humans and other species, like the matsutake mushroom, that is neither smoothly harmonious nor wholly uncooperative.

Each of these texts suggest that slow resilience must be used to help us make sense not only of our own generation's survival, but also that of our very species, and that new, uneasy coalitions must be formed in which humans, especially those people and nations most complicit in causing capitalocenic disasters, forgo a sense and a history of superiority and domination over the Earth and its millions of other inhabitants. Speculative fiction, unlike science fiction with its "talking squid" and "little green men," is only slightly removed from its authors' present realities, and so is uniquely suited to explore new ways of living and practical applications of such ideas in the real world. In the meantime, before new paradigms can be achieved, the characters that people speculative fiction in the Capitalocene can engage in the cautiously optimistic practices of slow resilience.

CHAPTER ONE
NEOLIBERALISM AND RESILIENCE IN OCTAVIA E. BUTLER'S *PARABLE* NOVELS

I'm learning to fly but I ain't got wings
Coming down is the hardest thing.
Well, the good old days may not return
And the rocks may melt and the sea may burn.
- "Learning to Fly," Tom Petty and the Heartbreakers

Just as climate change seems increasingly inevitable, despite economic proposals, international agreements, and developing technology to slow or halt it, so too is the economic superstructure that has supported the spread of climate change—neoliberal capitalism. While neoliberal policies support and implement privatization, reduced social welfare programs, and economic and environmental deregulation, these removals of these important government protections hurt those most socially, economically, and ecologically vulnerable or disadvantaged and reinforce class divides.[13] Nevertheless, politicians and industry executives who champion neoliberal policies still assert that they promote "free choice," that they will universally benefit all people who can compete, regardless of race, class, or nationality, and that market globalization and liberalization are "inevitable and irreversible, almost like some natural force such as weather or gravity."[14] Such contradictory principles, of purported universal benefits and actual social disaster, are still theorized by many as the best and only possible form of capitalism in the twenty-first century, because they appeal to a utopian sensibility.[15] At the extreme

[13] See Nevins for a discussion of those with "ecological privilege" and "ecological disadvantage." Nevins also coins the term "dys-ecologism" to describe the global institutionalization and reproduction of ecological injustice (302).
[14] Steger and Roy 52-3. These sentiments were championed by world leaders like former British Prime Minister Margaret Thatcher, who declared that her neoliberal anti-inflation policies were the only way forward in her famous TINA slogan—"There Is No Alternative." Others have not only touted neoliberalism as inevitable, but also as the best, most complete form of human progress. Francis Fukuyama's *The End of History and the Last Man* (1992) famously contended that neoliberal capitalism, when it was fully realized, would be the final iteration of human government and highest point of human ideological evolution.
[15] Huehls and Greenwald Smith, 5.

end of this are libertarians, who subscribe to the ideas of some of the founders of neoliberal economic thought: Friedrich Hayek and Milton Friedman. Beyond advocating for a non-interventionist state, libertarians want to see an end to all government structures, preferring instead a "*utopian* ideal of a loose 'society' of autonomous individuals" involved in "strictly voluntary forms of exchange" (Steger and Roy 17; emphasis added). No such economic conditions exist, and some government and/or police control of the economy will always be necessary to produce a "free" market, and yet these policies maintain a stranglehold on most domestic and foreign markets. Neoliberal policies shape most of the world, but the utopian ideals upon which they are based are contradictory to reality, as no such capitalist economy with equal opportunities for all can exist. Thomas More's original term utopia, 'u' and 'topos,' means "no place," as in, no such place does or can exist. Neoliberalism's proponents assume that there will always be boundless economic growth, that there is an equal playing field for all businesses, that it is the fault of the business owner alone (not monopolizing multi-national corporations) if their business fails, and that its policies will be enforced without any government intervention.[16]

What, then, does it mean to imagine a utopian community within a future destroyed by "utopian" neoliberal policies? Octavia E. Butler's speculative *Parable*

[16] The idea of neoliberalism as utopian can be found in many different academic fields. See, for example, Richard Horton on the effects of neoliberalism on global health and the mandates of the WHO, Navarette-Cardero and Vargas-Iglesias on neoliberal interference with the construction of utopias in videogames, Schiffer on the same with the organization of intentional communities or ecovillages, or Grossi and Pianezzi on the neoliberal ideology behind urban planning for smart cities. The latter contend that the utopian nature of a planned smart city in Genoa, Italy masks the extent to which such a city would actually benefit business elites and create problems related to the urbanization of the ancient city. For a historicization of literary entanglements with neoliberal thought, see Huehls and Greenwald Smith's *Neoliberalism and Contemporary Literary Culture* (Johns Hopkins UP, 2017); for a reading of Samuel Delany's science fiction through neoliberal finance see Rosenberg and Rusert.

series[17] does just this. Teenage protagonist Lauren Olamina dreams up and "shapes" her utopian community Earthseed into an autonomous group that operates both against and alongside the bleak neoliberalism of the (not-too-distant) future Butler creates. In the first novel, *Parable of the Sower*, characters from some of the most vulnerable populations in her semi-fictional California form independent, cooperative units made up of those most often left behind in a neoliberal state—the poor, the homeless, the physically and mentally disabled, orphans, farmworkers, and "debt slaves" (*Parable of the Sower* 264). The latter are people who are caught up in a system of neo-slavery, enforced with electric shock collars and the threat of being sold in informal, semi-legal auctions to vicious "masters"; Butler utilizes these nods to historical American slavery through a thin, speculative remove to liken the devastations of neoliberal capitalism to the ravages of chattel slavery. Despite these disadvantages, however, the members of Acorn are also self-sufficient, much like the ideal neoliberal family unit which is not dependent on assistance from government-funded social programs. Butler populates self-sufficient

[17] *Parable of the Sower* (1993) and *Parable of the Talents* (1998)—Butler planned to write four more novels in the series: *Parable of the Trickster*, *Parable of the Teacher*, *Parable of Chaos*, and *Parable of Clay*. *Trickster* was originally going to be the first novel in the series and follow the lives of the Earthseeders on other planets, but Butler found herself writing instead with the "prequel" novels *Sower* and *Talents*, in which she explored the origins of Earthseed founder Lauren Olamina. Later, *Trickster* was instead going to be "the first of four novels about life on Bow [the planet the Earthseeders settle on] and the colonists' struggle to build a better humanity (Jansma, "Now More Than Ever"). Gerry Canavan notes that the names of what would have been the first three novels are derived from Biblical parables—Sower, Talents, and Trickster (the latter parable more commonly referred to as the Parable of the Shrewd Manager) – while the last three novels' titles are based on an Earthseed verse: "God is Pliable— / Trickster / Teacher / Chaos / Clay" and "seem likely to be…drawn instead from Olamina's life" rather than a Christian tradition (Canavan, *Octavia E. Butler*, 147). Butler made extensive notes for the next four novels but was not able to work out the details to her satisfaction before her death in 2006. In some versions, each of the final four novels was going to be about four separate extrasolar colonies, while in others they would detail one colony over four generations (the same number of generations, Butler noted, between herself and her enslaved ancestors (Canavan, "Eden, Just Not Ours Yet", 63). See Canavan, "There's Nothing New Under the Sun" and his monograph, *Octavia E. Butler* (University of Illinois Press, 2016), for an extended discussion of Butler's writing notes, which are currently housed in the Huntington Library in San Marino, California.

family units that neoliberal theorists would idealize with the most vulnerable groups of people neoliberal policies most often alienate.

By the second novel in her series, however, Butler complicates this form of resistance to neoliberalism from within by shifting focus and narrators—Olamina's journal entries and her religious verses that inform the principles of Earthseed make up the first text, while Olamina's estranged daughter Larkin narrates the second, expressing skepticism about and occasionally outright critique of her mother's endeavors. This tension between Olamina's utopian solution to a California laid waste to by the extremes of neoliberal policy and her daughter's ambivalence to her mother's life's work highlights Butler's career-long dedication to calling attention to and playing with ambiguity. As Gerry Canavan learned from his exhaustive study of Butler's writing and personal journals, now housed in the Huntington Library, Butler coined her own abbreviation for this: *aop*, or, "as opposed to," as in, for example, "healing *aop* killing." Canavan concludes that it "seemed very difficult for Butler to think of anything without immediately thinking also of its opposite(s) and of how all supposed opposites are dialectically intertwined," from categorical terms to the plots of her novels as a whole (*Octavia E. Butler* 3). Thus, in the Parables series Butler constructs a utopia that critiques neoliberal policy through Olamina's Acorn and Earthseed *and* critiques the utopian commune's effectiveness and good intentions through Larkin's distrust of her mother. The narrative and formal oppositions in Butler's novels also echoes the uneasy tension I would like to draw out between two definitions of resilience—ecological and neoliberal. I call this tension "slow resilience," which is a qualified embrace of utopic thinking in the Capitalocene.

BUTLER'S CALIFORNIA

In Butler's imagined version of California in 2024, about 30 years in the future from when she wrote the first novel in the series, the Golden State is a disturbingly prescient neoliberal wasteland. The "Apocalypse," shortened to the "Pox," lasted from 2015 to 2030, but, as Olamina's husband Bankole notes, it "began well before 2015, perhaps even before the turn of the millennium. It has not ended" (*Parable of the Talents* 8). The Pox was an unfortunate confluence of "climactic, economic, and sociological crises" that was "caused by our own refusal to deal with obvious problems in those areas" (8).[18] Butler's not-too-distant Southern California is a place where, due to global warming, "it rains once in six years, fires easily develop, and water and food have become the most expensive resources," and people are beset by tornadoes, blizzards, and horrible drought (Thaler 72). Further, education became a privilege for the rich and the environment was sacrificed to "convenience, profit, and inertia," so "poverty, hunger, and disease [became] inevitable for more and more people" (*Talents* 8). In the novels, many people are homeless, addicted to a drug called pyro that makes them want to set fires, or wracked by cholera or measles. Those a little better off live in fortified, gated communities, but these are still subject to raids and looting by marauding bands of the desperate. Mike Davis called the gated communities that actually existed in Los Angeles in the 1990s an "architectural policing of social boundaries" that manifested the wealthy citizens of LA's penchant for "isolat[ing] themselves behind walls" to protect their lavish ways of living (*City of Quartz* 223). Ingrid Thaler finds that Butler's gated communities are established

[18] See Ruffin, *Black on Earth: African American Ecoliterary Traditions* (U of Georgia Press, 2010) for a closer look at Butler's awareness of the "interrelatedness of ecological and social conditions"; Ruffin argues that Butler's (and Alice Walker's) writing conveys "that the phenomena of enslavement, racism, classism, and sexism have made clear the ecological burden of living on society's margins" (94).

not to defend wealth but to "desperately fight to maintain basic standards of living." Gerry Canavan categorizes the "neo-gated communities" as "rare refuge[s] from the disastrous decline of late capitalism" (133). Butler's speculative southern California is thus a representation of the "epitome of excessive US-American capitalism turning into a social and moral nightmare" (Thaler 73-4). Several members of Lauren Olamina's family, including her father, disappear or are cruelly killed in raids, and her neighborhood is ultimately burned down. As Lauren takes to the highway to escape, she meets a few like-minded travelers, as well as a series of violent spectacles of the dead, dying, and infected. Adding to this wretchedness, as Shelley Streeby notes, "Almost everything public has been eviscerated" and privatized in the novels ("Speculative Archives" 33). Gerry Canavan further notes that "global warming, economic depression, and neoliberalism's accelerative hollowing-out of the public sphere have conspired to leave America in a state of near-total collapse" (Canavan, *Octavia E. Butler* 132).

Streeby points out that this was a reflection of what Butler saw happening in the 1980s and '90s on a smaller scale in her hometown of Pasadena—the effects of "right-wing, privatizing, tax-cutting, deregulating neoliberal capitalism" ("Radical Reproduction" 726). Neoliberal policies had gained a foothold across the United States in part as a response to the economic crises of the 1970s— spiking oil prices, inflation, unemployment. Proponents of neoliberal capitalism blamed these crises on "crippling" government regulation of business, too-high public spending, and tariff barriers preventing trade and growth (Steger and Roy 10), and so proposed national and local deregulation, slashing of budgets for public projects in favor of private development, and relaxing trade barriers. By 1990, Los Angeles was feeling the local effects of this sea-

change, as well as "rises in global warming, racism, violence, prison populations, and mega-corporations" (Jansma). Los Angeles is often, Thaler points out, used as a stand-in for American dystopia writ large (73), but is also theorized, notably by urban theorist Edward Soja and writer Mike Davis, in terms of its own unique development history. Soja, in his 2014 book *My Los Angeles*, describes this shift occurring in the 1990s through an architectural lens, from the development of the metropolis to regional, suburban, and industrial urbanization, and how Los Angeles was profoundly changed, economically, architecturally, and demographically, by these new emphases.[19] Davis elaborates on the problems created for the citizens of Los Angeles in his history of the city in *City of Quartz* (1990); residential areas were allowed to be overdeveloped with massive skyscrapers "literally sprouting from the front yards of single-family homes,"[20] the downtown area was becoming gentrified, and the city faced a more general loss of high-wage jobs, skilled workers, and state government funding, leading to "street anger [which exploded in the LA uprising[21] and fires of 1992 after the use of excessive police force in the arrest of Rodney King], poverty, environmental crisis, and capital flight"

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[19] See also the BBC2's 1991 documentary *Los Angeles: City of the Future?*, in which Edward Soja was interviewed and also served as an academic consultant.

[20] This calls to mind lyrics from Tom Petty's 1989 song "Free Fallin'" ("It's a long day livin' in Reseda / There's a freeway runnin' through the yard") as well as Fredric Jameson's conceptualization of these conditions as reflecting a kind of "hysterical sublime." In *Postmodernism, or The Cultural Logic of Late Capitalism,* Jameson describes how the "urban squalor" of a city that "runs its superhighways over the older fields and vacant lots, and turns Heidegger's 'house of being' into condominiums, if not the most miserable unheated rat-infested tenement buildings" becomes a source of "new hallucinatory splendor" (76-77).

[21] Following Hee-Jung Serenity Joo's example, I use "uprising" rather than "riot" because the latter implies a spontaneous outburst of chaos rather than a community response to historical injustice. For this view, see also Kimberle Crenshaw's "Reel Time/Reel Justice." Joo also contends that Butler's *Parable of the Sower* gained popularity and acclaim in part due to its depiction of LA on fire, reflecting actual events in the city ("Old and New Slavery" 281).

(Davis 2-5).[22] As Butler summarized in her private notes, Los Angeles, California, and the US as a whole was facing a "Disintegrating economy, Deteriorating Infrastructure, Deteriorating Education <public>, Disintegrating human structures + protections, Global Warming, Ozone deterioration, Institutionalized Corruption, Newly acceptable racism" (qtd. in Streeby, "Radical Reproduction" 726). Keenly aware of the intertwining of these issues, Butler said in a 1999 interview that global warming, "something that [she'd] paid a lot of attention to," was often reported on only in terms of local events. For example,

> We might notice that, yes, sea level is rising a bit and there are some problems with beach erosion and that kind of thing, but that's all by itself over here, and, yes, we're having more violent storms and erratic weather, but that's all by itself over there, and yes, the wet season is coming earlier and earlier each year, but that's all by itself, and isn't it interesting. (qtd. in Palwick 150)

Butler explains this piecemeal accounting of the symptoms of climate change as being in the vested interests of politicians, who want to "preserve the status quo for their own reasons"; and ordinary citizens who are "seduced" into ignoring the realities of climate change because it is easier and less work to continue to overlook it (150-51).

Butler was also keenly attuned to the possible repercussions of 1980s Reaganism/Thatcherism,[23] as exemplified in the conservative Welfare Act later passed

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[22] For more on how neoliberal economic policies filtered into architecture and urban planning, see Michael Sorkin's 1992 edited collection *Variations on a Theme Park: The New American City and the End of Public Space*, and Mike Davis and Daniel Bertrand Monk's 2007 edited collection *Evil Paradises: Dreamworlds of Neoliberalism*.

[23] In Butler's letters, Streeby found more examples of her dystopian outlook on the 80s and 90s. (For more on Butler's Parable novels as a critique of 1990s America, see Andreolle ("Utopias of Old, Solutions for the New Millenium") and Carby ("Figuring the Future in Los(t) Angeles").) Butler had heavily annotated a *Los Angeles Times* article detailing Supreme Court judge William Rehnquist's decision in the *McClesky v. Zant* case, which weakened the doctrine of *habeas corpus,* or the right to challenge one's unlawful confinement. The article connected this decision to other recent judicial guttings of human rights legislation regarding civil rights, police conduct, non-majority religious observances, abortion rights, and LGBTQ rights. Butler's marginalia highlights her intersectional understanding of how Reagan and Bush-inspired "right-wing neoliberal policies" and legal decisions were also affecting "race, ecology…the expansion of imprisonment and policing, and attacks on education." Butler's final annotation reads, "It's, [sic] as I said: We will be dealing with the effects of Reagan Bush S. Court appointments for at least thirty years—and

(reluctantly) by President Clinton in 1996 (Moylan, "The Critical Dystopia" 185). Officially titled the Personal Responsibility and Work Opportunity Reconciliation Act, the law was part of the Republicans' "Contract with America," and it also addressed Clinton's campaign promise to reform the welfare state. Gerry Canavan notes that in Butler's decades-long plans for *Parable of the Trickster*, Butler variously names Newt Gingrich (in the 1990s) or George W. Bush (in the 2000s) as the "central antagonist" to the success of Earthseed ("There's Nothing New / Under the Sun"). Peter Stillman clarifies that Gingrich's 1994 "Contract with America" speech[24] revived Reagan-era anti-government sentiments (indeed it used excerpts from Reagan's 1985 State of the Union address) in apocalyptic terms: his speech promised "lower taxes, less governmental regulation and other 'interference' in the market, lower levels of aid to the poor, and a general reliance on the market to reward and penalize" ("Dystopian Critiques" 16). Consequently, the Welfare Act, authored by John Kasich and negotiated by Gingrich, restricted the length of time that people could receive welfare benefits to five years, supposedly encouraging welfare recipients to find jobs instead of relying on government assistance, getting themselves out of the "welfare trap" of not working in order to continue to receive benefits. While it did necessarily reduce the number of people on welfare, it also put more strain on single mothers (who were forced to work in order to be eligible to receive some benefits), drug felons (who were banned for life from using food stamps), and "unqualified" immigrants (who were restricted from receiving many, if not

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like the R-B harm done to the economy and the ecology, these effects will make us suffer individually and as a nation" (Streeby, "Radical Reproduction," 726).

[24] See *Contract with America: The Bold Plan* (NY Times 1994) for a Republican explanation and defense of the speech; see *A Contract with the Earth* (Johns Hopkins UP 2007) for a somewhat contradictory "contract" written by Gingrich with Terry L. Maple and E.O. Wilson that advocates for green consumerism to solve planetary environmental crises. (A year later Gingrich published a pro-drilling book, *Drill Here, Drill Now, Pay Less*.)

all, government entitlements.[25] Hee-Jung Serenity Joo notes that the logic behind the Welfare Act was backwards, *and* utopian: "From this viewpoint, the state, through welfare assistance, was the one responsible for keeping its less-privileged citizens from obtaining better socio-economic conditions." This view was based on the "'utopian' goals of a neoliberal, free-market economy that regarded state support as state interference." Butler's Parable novels, Joo argues, reverse these assumptions, painting the end of the welfare state as the reason for the failure of the American economy and for the resulting dystopian conditions outlined in the novels (284). For example, in *Parable of the Sower* Olamina describes the new president Christopher Charles Morpeth Donner's plan for decreasing unemployment. First, he promises to privatize and sell off the "'wasteful, pointless, unnecessary' moon and Mars programs," then, more pressingly, to change laws to "suspend 'overly restrictive' minimum wage, environmental, and worker protection laws for those employers willing to take on homeless employees" and give them "adequate" room and board rather than an income (*Parable of the Sower* 26). This is, Terry Phillips notes, an explicit nod to neoliberalism, which "promotes the demands of capital over the needs of labor, reveal[ing] one aspect of Butler's understanding of modern dystopia: the reduction of community to market economy" (Phillips 304). Ingrid Thaler and Tom Moylan also contend that in *Parable of the Sower*, with its corporate towns that reduce the state to "powerless[ness] and helpless[ness]," Butler is ultimately "mourn[ing] the end of the social welfare state" (Moylan "The Moment is Here" 138 qtd. in Thaler 75).

[25] "Qualified" immigrants who could receive benefits were people with green cards, refugees and asylum seekers, Cuban and Haitian immigrants, and survivors of domestic abuse or trafficking (Broder, Moussavian, and Blazer, "Overview of Immigrant Eligibility for Federal Programs").

In using an only slightly exaggerated version of Los Angeles as the setting for several of her novels, or, as Mike Davis puts it, "tak[ing] existing helter skelter and turn[ing] up the volume a few notches" (*Ecology of Fear* 362), Butler was engaging in a larger literary trend in the late 80s and early 90s of extrapolating from the dire conditions of Los Angeles to construct fictional neoliberal dystopias with "utopian possibilities" (Stillman 15). Such novels were called "critical dystopias" and were motivated by the "trauma of the Reagan era" (Thaler 72). For example, Neal Stephenson's *Snow Crash* (1992), which was published a year before Butler's *Parable of the Sower*, takes existing neoliberal policies to their logical, but dangerous, conclusions: each gated neighborhood has its own rules of membership and security checks; those who can't afford to live in gated communities live in slum housing made out of old storage units; and anyone can be surveilled and have their data collected at any time. Further, the highways, jails, police force, and most government services, divisions, and branches are privatized. Similarly, in *Parable of the Sower*, the police, formerly part of public services and paid for with taxpayer dollars, are now only available for a fee and their services are extremely unreliable. After a robbery occurs in their gated neighborhood, protagonist Lauren Olamina's stepmother and father debate the merits of calling the police for protection, concluding that the privatized police force will be of no help to them:

> "But…couldn't we just call the police?"
> "For what? We can't afford their fees, and anyway, they're not interested until after a crime has been committed. Even then, if you call them, they won't show up for hours—maybe not for two or three days." (*Parable of the Sower* 65)

Later, when Olamina and a few others from her old neighborhood take to the freeway to head north, they see, among the masses of others fleeing Southern California, people "armed with sheathed knives, rifles, and of course, visible holstered handguns," but the

"occasional passing cop paid no attention" (161). Something that would generally elicit immediate police attention—very visibly armed people in public—has no effect on the few remaining police officers also trying to stay alive by the end of the day.

Thaler, building on Elisabeth Schäfer-Wünsche's analysis of works by T.C. Boyle and Mike Davis, contends that Butler's *Parable of the Sower* exaggerates the actual conditions of 1990s Los Angeles in a purposefully non-ironic way, while other novelists (and theorists) of the time "debun[k] Southern California's self-advertising capitalism (Schäfer-Wünsche 403) through satire and absurdity" (73). Fredric Jameson, in his seminal *Postmodernism, or The Cultural Logic of Late Capitalism* (1991), famously critiques LA's Bonaventure Hotel, a representation of a turn in architecture toward postmodernism, for its capitalistic incompatibilities. The hotel, rather like the huge, interconnected shopping and entertainment malls today in Las Vegas, is physically disorienting for visitors (who have to enter through an elevated garden or the second story, and then have to take stairs and/or an elevator to reach the lobby), and it is nearly impossible for shoppers to locate stores placed haphazardly on various balconies (Jameson 39; 44).[26] In the speculative novel *Snow Crash* (1992), more absurdities abound. In the novel, most labor has been outsourced and services privatized, extending even to the pizza delivery industry, which is now controlled by the Mafia. This is made absurd when Hiro, a "Deliverator," has to race against the clock to deliver a pizza; if he

[26] As Jameson concludes, the perplexing architecture of the building reflects "the incapacity of our minds, at least at present, to map the great global multinational and decentered communicational network in which we find ourselves caught as individual subjects" (44). The building is a monument to beauty and luxury and an impediment to actual commerce, or, as Jason Berger puts it, a "confluence of 'high art' and 'commercial forms'" that is a "distinctive trait of postmodernism" (Berger 2). Jameson's quintessentially postmodern critique of the building points out its absurdities while also arguing that these very incongruities reflect a new way of thinking at the end of the twentieth century.

fails, not only will he lose his job, but he'll also be in trouble with the mob. Hiro is given ten minutes to deliver a pizza twelve miles away; he tries to take a shortcut and ends up with his car stuck in an empty pool. Rather than describing all the ways privatization has ruined the economy and negatively affected people's lives, Stephenson opens his speculative novel about Los Angeles with this cartoonish scene. Like Jameson, Stephenson uses satire to point out absurdity and incongruity in (post)modern times.

By contrast, Butler's first Parable novel is "dead-serious," and, as it is "immersed in the utopian tradition," it uses hyperbole, rather than satire, "as a didactic strategy" (Thaler 72-74) to warn readers of a very possible future for Los Angeles.[27] For example, early on in *Parable of the Sower*, Olamina describes an expedition to visit a church outside of her community's gated walls:

> We rode past people stretched out, sleeping on the sidewalks, and a few just waking up, but they paid no attention to us. I saw at least three people who weren't going to wake up again, ever. *One of them was headless*. I caught myself looking around for the head. After that, I tried not to look around at all. A woman, young, naked, and filthy stumbled along past us. I got a look at her slack expression and realized she was dazed or drunk or something. Maybe she had been raped so much that she was crazy. I'd heard stories of that happening. Or maybe she was just high on drugs. The boys in our group almost fell off their bikes, staring at her. What wonderful religious thoughts they would be having for a while. (*Parable of the Sower* 9; emphasis added)

In order to highlight the extreme social and economic inequalities Butler was seeing in the 1990s, she chooses to (only slightly) exaggerate the horrible conditions in which many people were living rather than to satirize, for example, the lifestyles of the few remaining wealthy people in her imagined Southern California. In detailing homeless people camped out on the sidewalk, Butler could be describing Skid Row or any number

[27] See also Outterson, "Diversity, Change, Violence: Octavia Butler's Pedagogical Philosophy" for a reading of the Parable novels as a series of lessons about the violence of the dystopian, violent "dominant culture" that Olamina and her new religion Earthseed sets itself against.

of poorer areas in Los Angeles and its surrounding neighborhoods, but she adds a headless dead person for heightened effect. She also has Olamina relate the plight of an unfortunate young woman, and her fellow travelers' unabashed interest in the woman's nakedness, in a detached, deadpan tone: "What wonderful religious thoughts they would be having." Butler's dystopian project with the Parables is closer, then, to what Jameson called the "Utopian 'high seriousness' of the great modernisms" rather than to postmodern satire,[28] in that it is still invested in "seek[ing] actively to intervene in history" and believes in a "practical sense of the future and of the collective project" (Jameson 46). That is, in *Parable of the Sower* at least (*Parable of the Talents* is less straightforwardly utopian), Butler's use of didactic hyperbole signifies that she wants her readers to take the plight of those left in her imagined Southern California as a solemn warning, and to seriously consider ways in which such a future could be prevented.

In a 1998 interview at MIT,[29] Butler said that *Sower* is an "if-this-goes-on" story. An avid science fiction fan from when she was a young girl, Butler once read that prolific SF writer Robert Heinlein thought of SF as being divided into three categories: "The what-if category; the if-only category; and the if-this-goes-on category" (qtd. in Jansma). Having written many other novels in the first two categories, she decided that *Sower* would be a "starkly realist novel" about what America might turn itself into in the near future, if the conditions of the 1990s were to go on, adding that if her story turned out to be "true, if it's anywhere near true, we're all in trouble" (qtd. in Canavan, *Octavia E.*

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[28] Mathias Nilges categorizes the Parables as "not pomo but post-Fordist novels," drawing on the conditions arising after the decline of the postwar American economy ("'We Need the Stars': Change, Community, and the Absent Father" 1333).

[29] Called "'The Devil Girl from Mars': Why I Write Science Fiction"—the first part of the title is a reference to a terrible science fiction movie Butler watched as a girl. She realized then that she could write a story at least as good as that, and probably better, and so decided to become a science fiction writer.

Butler 132). Many have commented on this figuration of the Parables series: Madhu Dubey says the novels create "a shock of familiarity rather than estrangement" (106); Gerry Canavan calls it "prophecy rather than fantasy, prediction rather than escapism," or "mundane SF" (*Octavia E. Butler* 132), which Ingrid Thaler identifies as "extrapolation" (73). This is "an extension or exaggeration of social, political, and economic tendencies perceived in the present," as a "classic strategy of white utopian and science fiction writings" (72) that Butler was consciously engaging in.[30] Similarly, mundane SF, Canavan explains, denotes stories that "remain in accordance with the laws of physics as we understand them."[31] Butler's other series—Patternist, Xenogenesis—feature shapeshifting, telepathic superhumans and gene-editing aliens, while in the Parable series the only non-realistic element is Olamina and others' "hyperempathy," which allows them to physically experience others' pain (Canavan, *Octavia E. Butler* 132). Instead, the Parable novels are warnings about what will happen "if there are no broad-based and consistent sociopolitical interventions that will dramatically alter our ways of being." If no change is made, we will be forced to "confront our mindless repetition of a profoundly injurious set of compulsions" that are part of human nature (Papke 80) but are also of the institutions we have invented and perpetuated.

[30] See below for a discussion of Butler's complicated feelings about being identified as a "black writer" of SF.

[31] Of *Star Wars*, Harrison Ford said in a 1977 interview that it was "about people, it's finally about people and not finally about science. So the energy of the movie goes toward exploring these human relationships, and I think that's what makes it so accessible to people" (Ford). Butler's novels are partially focused on the people (Olamina and her daughter Larkin), but, like Olamina, are ultimately focused on utopian alternatives to an imagined future, rather than on scientific innovations.

ON THE MARKET: NEOLIBERALISM, NEO-SLAVERY, AND THE NOVEL

Butler chose, in her Parables, to deliver a warning about the future through an exaggeration of the actual conditions of life in a Southern California that was beginning to feel the effects of neoliberal policies put into place starting in the 1970s. While being part of a growing trend of dystopian fiction critical of the swerve toward neoliberal thought, Butler's novels were also themselves bound up in an internalization of neoliberalism that subjected all cultural productions in the 1990s to a "rigorous economic calculus committed to efficient profit maximization." As Mitchum Huehls and Rachel Greenwald Smith elaborate, other authors writing novels in the 1990s adapted their own styles and experimented with form in a way that they believed would be received well in the literary marketplace. While many writers wish to be successful and see their words in print, Huehls and Greenwald Smith detail how neoliberal thought, focused on "bottom-line values" and "for-profit rationalities of commerce and consumerism," slowly filtered into the artistic process of many high-profile novelists in the 1990s. David Foster Wallace, Dave Eggers, and Jonathan Franzen, for example, "saw their time as a moment of scarcity, leading them to treat formal literary innovation as a matter of competition, market assessment, and entrepreneurial risk-taking." This was, according to Huehls and Greenwald Smith, the third, sociocultural phase of neoliberalism in which the economic and political policies rolled out in the first two phases in the 1970s and 1980s begin to pervade and be absorbed into literature and other artforms, as well as "community, education, romance, entertainment, health, technology, law, and nature" ("Four Phases of Neoliberalism and Literature" 8).

Butler, too, was caught up in this pervasive neoliberal way of thinking about marketable storylines. As Gerry Canavan gathers from her personal notes, Butler divided her novels (published and unpublished) into two categories: "YES-BOOKS" and "NO-BOOKS." YES books were more optimistic and so more likely, in her view, to become bestsellers, while NO books more closely reflected her ideas about what the future would be like: extremely violent and much less positive. Butler struggled, in her written plans for all of her novels, to balance the YES elements and storylines that she thought would bring her money and fame with the NO ideas that she felt more fully represented the realities of life (in her actual present and in her imagined futures). Canavan concludes that many of her published novels end up being "MAYBE" books, somewhere in between her conceptions of YES and NO, while many of her unpublished or discarded drafts are NO books that were only "allowed to flower fully" in private (*Octavia E. Butler* 8). Her plans for the Parable sequels included more fantastical elements, notably a sentient, extrasolar planet that would reject Earthseed colonists like a dog shaking off a tick, but Butler ultimately became more interested in, and perhaps thought it would be more marketable, to write "prequels" to her original planned novel, *Parable of the Trickster* or *God of Clay*, which would focus instead on the founder of Earthseed, Lauren Olamina. *Parable of the Sower* and *Parable of the Talents* did well, perhaps in part due to their (ultimately) more hopeful nature than the hard, long decades off planet that Butler had planned for her characters. Yet while Butler was bound up in neoliberal considerations of profit margins by keeping her novels marketable and publishing more YES than NO storylines, her Parable novels do still offer a prescient and incisive critique

of the devastating environmental and social effects of neoliberal economic and political policies and the neoconservatism that arose hand in hand with them.

In *Parable of the Sower*, Lauren Olamina begins to get a broader understanding of the devastations of neoliberal policies in California with the rise of corporation-run towns and through her encounters on California's coastal highways with other northbound people who have escaped modern-day slavery as prostitutes, farmworkers, and "debt slaves." One corporation-run town, Olivar, is a coastal community facing rising sea levels due to climate change and a rising population of the poor seeking opportunities (and water) along the coast. Or, as Olamina puts it, the town is "getting an influx of salt water from one direction and desperate poor people from the other" (*Parable of the Sower* 109). Struggling ecologically and economically, the town is ultimately bought out by a (literally) multinational corporation called Kagimoto (Japanese), Stamm (German), Frampton (Canadian), or KSF, which, teenage Lauren Olamina is quick to point out, institutes all the trappings of an old company town. KSF is looking to hire skilled professionals, but they will be working for room and board only. Olamina wisely intuits that new recruits would likely quickly become in debt to the company: "That's an old company-town trick—get people into debt, hang on to them, and work them harder. Debt slavery" (111). More insidious, perhaps, and reflective of the (imagined) twenty-first century setting of the novel, is the fact that Olivar, though clearly resembling a company town, is perceived by many as a benign safe haven: "But this is to be different. The people of Olivar aren't frightened, impoverished victims. They're able to look after themselves, their rights and their property" (110). Olamina's stepmother and brothers are excited about the possibility of secure, though low-paying, jobs, and are dismissive of

Olamina's assessment of working in the town as being akin to slavery; her brother Marcus says that "Olivar doesn't sound like slavery…Those rich people would never let themselves be slaves" (111). But Olamina's father agrees with her, and warns his wife, Cory, and sons not to willingly sign away their freedom by applying for work there: "No. I mean it. This business sounds half antebellum revival and half science fiction [much like Butler's novel *Kindred*]. I don't trust it. Freedom is dangerous, Cory, but it's precious, too. You can't just throw it away or let it slip away. You can't sell it for bread and pottage" (112). It is important to note here that the slavery Olamina reads onto the company town's policies is not race-specific. Olamina and her family (with the exception of her stepmother, Cory—short for Corazon—who is Hispanic) are African American, but her neighbors and friends who decide to try for exploitative jobs in Olivar are of all races. Under neoliberal capitalism, everyone, regardless of skin color, is subjected to, or rather, has the no-win option to willingly work for little to no wages. As Hee-Jung Serenity Joo argues, Butler "attempt[s] to critique a specific historical moment in the development of late capitalism, when the category of race is no longer tied to biology or blood" (Joo 280), but instead to financial solvency. Those (of all races) who chose to become debt slaves in Olivar, due to lack of other options, are "self-enslav[ing]," complying with neoliberal governance and reinscribing its rationality.[32] As much as she can in the rest of the two novels, Olamina resists this logic and instead tries to hold onto her freedom. Rather than having to work for a very meagre living in a town like Olivar,

[32] See Weinbaum, "The Afterlife of Slavery and the Problem of Reproductive Freedom," for an analysis of Butler's novel *Kindred* and short story "Bloodchild" as narratives that trace historical continuities and residual systems of oppression from forced surrogacy under slavery to similar conditions under neoliberal capitalism. Weinbaum argues that, from a neoliberal rationality, all humans, rather than just enslaved black women, in Butler's science fiction become subject to a residual *and* updated form of slavery (61).

or staying in her gated neighborhood and eking out a living as a teacher or caregiver (which becomes impossible after her neighborhood is broken into, burned, and looted), Olamina is able to escape this particular form of neoliberal slavery.

As Butler explained in a 2000 interview with Charlie Rose, she enjoys writing science fiction because of the kinds of freedom—like Olamina's ability to escape debt slavery—that it gives her characters. She said that in science fiction there are "no closed doors, no walls…You can look at, examine, play with anything, absolutely anything." In the case of Olivar, Butler plays with the idea that it is possible, through sheer force of will, for Olamina to intuitively reject and escape debt slavery and instead pursue her dream of founding Earthseed and trying to get to the stars. In another interview from the same year, Butler explains her feelings about science fiction further; she thinks that, in writing her stories as works of science fiction, she can "behave as though the world were a little bit more as you wish it were in some way." Specifically, science fiction allows her to write her protagonists as people who "behave as if they have no limitations" ("Octavia Butler Interview – Transcending Barriers").[33] Olamina is able to achieve things the rest of her family and most of their neighbors cannot begin to imagine. Several people in Olamina's neighborhood consider and even actively pursue employment in Olivar, but Olamina sets out on her own (after the destruction of her neighborhood) to follow a different path, free of limitations beyond food and water scarcity and a lack of personal safety.

[33] Building on this characterization, Gerry Canavan suggests that her black, female characters are "more nimble and adaptable than white male heroes would be, because of their lifelong experiences of marginalization and struggle," and so "would be the rare figures who would at least have a *chance* to find some new path away from fruitless, doomed war on their new home" (*Octavia E. Butler* 125).

While the town of Olivar is the first explicit connection Butler makes in her Parable novels between the effects of neoliberal policies (in the form of an updated return to privatized, company towns) and slavery, it is not the last. As others have noted, Olamina's journey *north*, to get away from awful living conditions in *Southern* California, more directly echoes African American history by calling to mind strong, talented individuals like Harriet Tubman leading herself and others out of slavery to freedom in the North.[34] Like those lucky few enslaved people who did make it to the North, however, Olamina and her fledgling Earthseed followers find that "freedom" does not come without its difficulties,[35] and there is a very real possibility of being dragged back into slavery—this plays out in *Parable of the Talents* when a fringe fanatical Christian America sect turns Olamina's first Earthseed community, Acorn, into a "reeducation"/slave camp.[36] Further solidifying Butler's characters' connections to the past, Gerry Canavan notes that, in her original plans for what would have been the first novel in the Parables series, Butler had explicitly connected her main characters to antebellum and civil rights era African American leaders in a character list: "Oya (Harriet) Marcus, Dominic (Malcolm) Gage, Nari (Douglass) Shinizu, Mateo (Martin) Olivara…Vera (Sojourner) Chang Alexander" (*Octavia E. Butler* 125). In the published

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[34] See Thaler, *Black Atlantic Speculative Fictions* (Routledge, 2010). I am also grateful to fellow MELUS 2018 panelist Fiona Maurissette for first introducing me to this connection between Olamina and Tubman.

[35] See Gamber, "Failing Economies and Tortured Ecologies" for a reading of Olamina's move North as a failed reversal of "historical moves by African American individuals and communities seeking freedom and opportunity" through a "rural (or pastoral) to urban shift" (26).

[36] For other accounts of free African Americans being pulled back into Southern slavery, see Solomon Northrup's slave narrative *Twelve Years a Slave*, and Colson Whitehead's 2016 speculative novel *The Underground Railroad*. In the former, Northrup recounts how he was kidnapped and sold into slavery, though he was a free man with a free family living in New York; in Whitehead's fictional retelling of the Underground Railroad as an actual railroad as well as a network of people willing to risk their lives to help enslaved people escape slavery, main character Cora is constantly worried about being retaken by slave catchers or turned in by Northerners under the Fugitive Slave Law of 1850 (this required, by law, all escaped enslaved persons to be returned to their masters, and that citizens in Northern states had to cooperate with this project).

version of *Parable of the Talents*, Olamina rescues several people from debt slavery, sexual slavery, and farm-working, at times even helping them rid themselves of their shackles—electrified shock collars used by their "employers" to keep them in their place. Also called "slave collars, dog collars, and choke chains" (the latter two, or really all three, meant to dehumanize their wearers as much as possible), these devices deliver both electric shocks as punishment and releases of endorphins as rewards for good behavior.

A few days after learning about the new shock collar technology that imprisons people both physically and mentally, Olamina finds her long-lost, presumed dead, younger brother Marcus at a meeting where she is attempting to buy the freedom of the sister of a member of Acorn, her first Earthseed community. This scene is reminiscent of nineteenth century slave auctions, with the added science-fictional element of the technologically advanced shock collars. Olamina and other members of Acorn meet with a slaver/pimp named Cougar, a "livestock man, specializing in lamb and chicken" (*Parable of the Talents* 94), as the euphemism goes, who is selling kids and teenagers as sexual slaves. Next to the stump of a large redwood tree (similar to a wooden stage at a nineteenth-century slave auction) appear several children, ages 10 and up, who are paraded in front of Olamina as goods to be bought. In typical Butler fashion, this scene critiques the neoliberal conditions—lawlessness due to deregulation of law enforcement and most other stabilizing social services—that have allowed for slavery to flourish again.[37] It also warns readers about how women and girls have been and could continue

[37] Sandra Govan details the conditions under neoliberal-induced chaos in which "the poor and the vulnerable could easily be subjected to a quasi-slavery system": "means (powerful aggregate industrial interests lacking government oversight); motive (profit, control of assets or resources and their distribution); and opportunity (weakened or absent federal and state regulatory authority; a massive unprotected and unorganized labor pool)" ("The *Parable of the Sower* as Rendered by Octavia Butler: Lessons for Our Changing Times" 256).

to be particularly persecuted in such a world. One young girl who resembles the person they came to find has had her tongue cut out as punishment for an unnamed offense—the slaver assumes it was for saying something a previous owner didn't like and adds that the girl, who "Can't talk…Can't write either," is the "Best kind of female" (101). The girl's punishment is reminiscent of historical accounts of runaway slaves having their ears cut off or being otherwise branded by their owners, as well as a cruel practice, dating back to

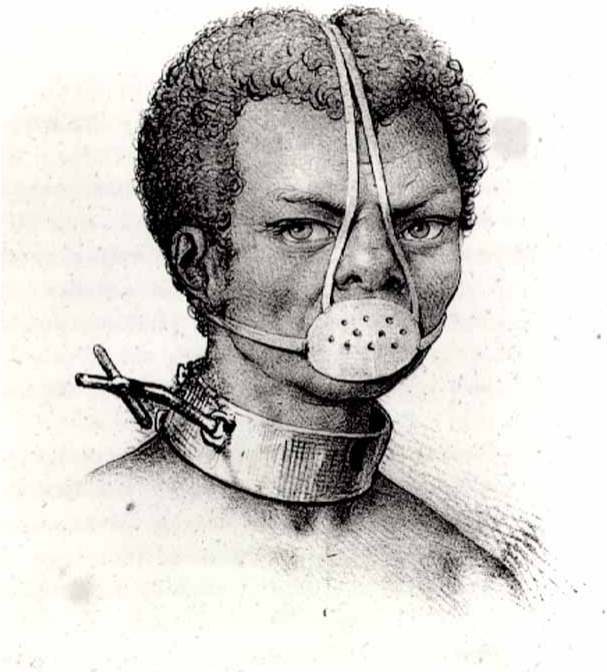

Fig. 1. Slave with Iron Muzzle. 1839. The holes punched in the mouthpiece allowed for saliva to leave the mouth. The spikes on the collar were meant to prevent runaways from being able to lay down to rest. *PBS Online,* https://www.pbs.org/wgbh/aia/part1/1h308.html.

the sixteenth century, of muzzling women who were considered to be talking or gossiping too much. Such "scolds" would have a muzzle with an iron bit placed in their mouths to depress their tongues and thereby prevent them from speaking. The iron muzzle was also used in Southern American slavery, along with iron thumbscrews, as a means of

punishment; the locked muzzle could be used to prevent slaves from running away as it prevented them not only from speaking but also from eating and salivating normally.[38]

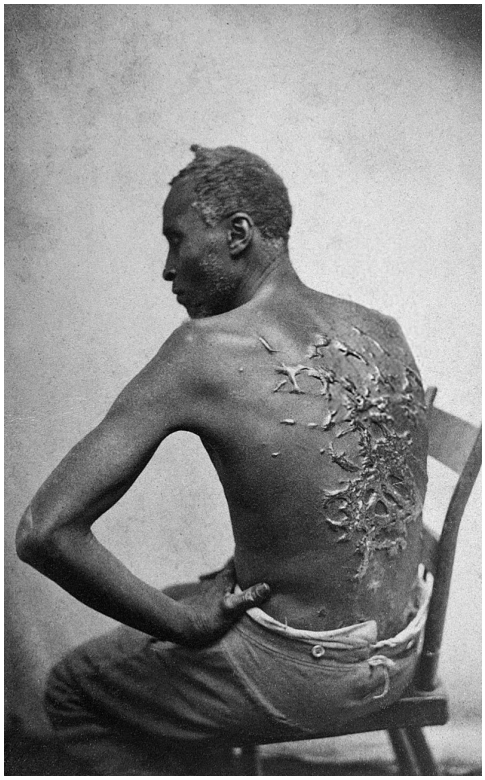

Fig. 2. Scourged Back. 1863. Mathew Grady. *Wikipedia*, https://en.wikipedia.org/wiki/Gordon(slave) #/media/ File:Scourged_back_by_McPherson_&_Oliver,_1863,_retouched.jpg.

Adding to the similarities to nineteenth-century slavery in this scene, when Olamina identifies her brother Marcus among the underage sex slaves, she plays along with the role of slave-buyer. Keenly aware that failing to perform convincingly could mean having to leave her brother in the charge of a slaver, Olamina haggles with Cougar for over an hour, to the shock, anger, and disgust of the other members of Acorn, who are not aware that Marcus is her brother. In a final gesture back to the antebellum slave trade, there is also a scene where Marcus is physically examined to determine the extent of his

[38] For an account of the use of iron muzzles, see "The Life of Olaudah Equiano" in *The Classic Slave Narratives* (Signet Classic 2002), edited by Henry Louis Gates, Jr, as well as Toni Morrison's 1987 novel *Beloved*. For a nineteenth-century illustration of a slave muzzle, see figure 1 above.

wounds from his previous "owners." He has several STIs, a gunshot wound, and a "network of old burn scars" on his back, shoulders, and legs (*Parable of the Talents* 104). The latter is reminiscent of the famous photo (see fig. 2) distributed by abolitionists of "Whipped Peter," aka Gordon, an enslaved person deeply scarred with keloids. However, rather than his "defects" being part of the negotiation for his sale price, he is examined after he is bought by Olamina's husband Bankole, a doctor by profession. After drawing several other parallels between antebellum slavery and the sale of child sex slaves at an open-air trading post in twenty-first century California, Butler rewrites this last scene as one of diagnosis for healing rather than for assessing the enslaved person's ability to continue to perform manual labor.

A further estrangement from historical slavery in Butler's Parable novels is the kinds of work that desperate, poor people in Southern California are forced into. Those who aren't sold into sexual slavery, or who do not give up some of their freedoms to work as skilled laborers in a corporate-run company town, have the choice of farm, factory, or domestic work. In some ways, this work echoes the degradations of forced agricultural labor during slavery: workers are barely paid, if at all, or get severely into debt and have to work it off, never quite getting ahead of it. Some growers hold people against their will and force workers, or their children, to stay and work off their debts, sometimes selling children into sexual slavery if their parents can't repay them (*Parable of the Sower* 268). Female domestic workers are subjected to unwanted sexual advances from their "masters." While Olamina exaggerates for effect here—their employers are not literally their masters—elsewhere there are mentions of actual slave drivers in factories; debt slaves are "driven" to work harder by drivers who are "Making them work. Pushing

them to work faster. Making them do…whatever the owner says" (291). In another explicit reference to conditions under slavery, two early Earthseed converts, husband and wife Travis and Natividad, relate to Olamina the reason they left their domestic jobs and started travelling north, up the coast. Travis's mother had to resort to working as a live-in cook after her husband died, so Travis became a gardener-handyman at their employers' house and met Natividad, one of the maids. Travis's mother used to sneak him books out of their employers' library, much like, Olamina notes to herself, "Slaves did […] two hundred years ago. They sneaked around and educated themselves as best they could, sometimes suffering whipping, sale, or mutilation for their efforts" (201). While Travis and his mother avoided such punishments, Natividad did face difficulties with their employer; he was clearly desirous of her, watching while she breastfed her child, so she and Travis eventually decided to leave so that Travis wouldn't "have to kill the guy" if he tried something. Olamina also draws connections to slavery with this part of their story: "In slavery when that happened, there was nothing the slaves could do about it—or nothing that wouldn't get them killed, sold, or beaten" (201).

Beyond these direct connections to slavery in the domestic setting, the factory work of Butler's imagined future is both a reflection of harsh working conditions (akin to those during slavery), and a comment on the state of labor under neoliberal capitalism in the United States at the end of the twentieth century (akin to that of unprotected factory work in the nineteenth century, with globalization added in). In "borderworks"—factories on the Canadian border built to employ some of the "northward -flowing river of people" from the West Coast seeking better living conditions up north—because there is such a large labor pool of easily replaceable workers, factory owners can pay their employees as

little as they like (encouraging more debt slavery), and can cut corners on safety and living conditions as much as possible:

> …[the workers] don't get paid much, so they get into debt. They get hurt or sick, too. Their drinking water's not clean and the factories are dangerous—full of poisons and machines that crush or cut you…The workers are more throwaways than slaves. They breathe toxic fumes or drink contaminated water or get caught in unshielded machinery. (*Parable of the Sower* 295)

While Butler did not, in her Parable novels, predict the rise of automation in factory work that made factory workers even more dispensable at the end of the twentieth century, she did predict out-sourcing, but in reverse. In Butler's future United States, workers produce goods for other countries in foreign-run factories located in America, rather than the other way around. As Ingrid Thaler astutely observes, this reversal has the effect of calling to readers' attention the plight of migrant workers in 1990s California and sweatshop and factory workers abroad producing goods for American consumption by re-projecting "contemporary power structures onto the United States." That is, by making fictional Americans of the future face the degradations of factory work as it was (and is) currently deployed abroad, Butler's novel thus "reads the present through its future setting" (Thaler 75).[39] Butler's fictional portrayal of debt slavery serves as another example of her Parable novels drawing parallels *and* creating distance between past enslavement and current neo-slavery in the form of neoliberal, globalized capitalism.

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[39] Reading this setup through the lens of African American gothic fiction, where, according to Teresa Goddu, the gothic "haunts back…the ghosts of America's racial history" (Goddu 131-32),[39] Thaler concludes that the United States is thus "'haunted back' by the 'ghosts' of the unrestrained free-market capitalism that it has significantly helped to create and from which it has profited." Even further, Thaler reads the United States as the "master capitalist" and the Global South, where much of American goods are currently factory-made, as its slave states (Thaler 75-6),

NEO-CONSERVATISM AND RELIGIOUS FANATICISM IN THE FUTURE

After establishing and critiquing the effects of neoliberal capitalism on a future Southern California through direct and indirect allusions to historical American slavery in *Parable of the Sower*, Butler continues to highlight connections between American neoliberal, global capitalism and the United States' long history of oppression in *Parable of the Talents*, drawing in, this time, the social and religious conservatism that often goes hand in hand with the implementation of neoliberal economic and political policies. Questioning "traditional" (read: conservative) ideas of the family and its role in supporting the US economy, Butler's second novel sets Olamina's fledgling utopian religious commune in opposition to radicalized, fundamentalist "Christian American" sects that threaten the stability of Olamina's vision and make members of Acorn perform forced labor in a slave camp, even separating them from their children and spouses. *Parable of the Talents* is narrated by Olamina and Bankole's estranged daughter, Larkin, who is taken from them and placed with a Christian American family; she intersperses her commentary on her and her mother's lives with excerpts from her parents' journals documenting how Acorn was formed and what happened to it. This second novel in the series continues to critique the wide-ranging influence of neoliberal economic and social policies and their infiltration into the American psyche, as well as begins to critique Olamina and her utopian vision.

At the beginning of *Parable of the Talents*, a new, scarier president, Andrew Steele Jarret, has been elected. This president "insists on being a throwback to some earlier, 'simpler' time"; Jarret's vision for implementing this includes supporting a new version of Christianity, the Church of Christian America. At its extremes, the new church

forms mobs and burns “witches,” which variously include Muslims, Jews, Hindus, Buddhists, Mormons, Jehovah’s Witnesses, Catholics, Unitarians, and more. Jarret, as the head of the Church of Christian America (and a former Baptist minister), has the power to stop his supporters from literally burning those who do not belong to their faith, but only goes so far as to condemn the burnings “in such mild language that his people are free to hear what they want to hear” (*Parable of the Talents* 19-20). This sounds eerily similar to President Trump’s reaction to the killing of protester Heather Heyer at a neo-Nazi rally in Charlottesville, VA in August 2017. Rather than condemning white supremacy, the rally, and its violent aftermath outright, President Trump declared that there had been “some very fine people on both sides” (Gray, “Trump Defends White-Nationalist Protesters”), which many saw as excusing the presence of, if not openly supporting, the neo-Nazis who marched near the campus of the University of Virginia. Butler’s fictional, bigotry-excusing president now has a historical counterpart.

Even President Trump and President Jarret’s rhetoric is similar. For example, Butler takes Reagan’s 1980 campaign slogan—"Let’s Make America Great Again” (which has also famously been adopted by President Trump)—and changes it slightly—“Help us to make America great again”—in an entry from Olamina’s journals that highlights President Jarret’s mobilization of his supporters on the religious right. Further, Jarret’s inauguration speech is described as “fire-and-brimstone,” with “Plenty of…patriotism, law, order, sacred honor, flags everywhere, Bibles everywhere,” and a quote from Isaiah Chapter One: “Your country is desolate, your cities are burned with fire: your land, strangers devour it in your presence, and it is desolate as overthrown by strangers” (*Parable of the Talents* 147). In comparison, Trump’s inaugural address

discussed “This American carnage” with “rusted-out factories scattered like tombstones across the landscape of our nation,” and the enrichment of “foreign industry at the expense of American industry” (Trump, “The Inaugural Address”). Finally, President Jarret is described by his political rivals as a “demagogue, a rabble-rouser, and a hypocrite” (*Parable of the Talents* 20), echoing sentiments of many of President Trump’s vocal opponents. As Gloria Steinem said in a speech at the celebration of the 25th anniversary of the *Parable* novels, “If there is one thing scarier than a dystopian novel about the future, it’s one written in the past that has already begun to come true” (qtd. in Jansma). Coincidences like these between a fictional, future president and our current commander-in-chief speak to Butler’s ability to predict not only civil unrest due to economic, social, and environmental disasters, but also the rise of demagogue politicians who would take advantage of this unrest and use apocalyptic rhetoric to allow more and more economic and religious conservatism to leak into American policy.

To twenty-first century readers of Butler’s novels, it is impossible not to make these connections between President Jarret and President Trump. At the time Butler was writing her novels, however, she was extrapolating President Jarret’s support for fundamentalist religious beliefs from President Reagan’s support for the Moral Majority in the 1970s and 80s. The Moral Majority, a coalition of religious conservatives, largely evangelicals, felt, like their leader, Jerry Falwell, Sr., that it was finally time for the religious right to get involved in politics. Falwell, then a Baptist minister, went on a tour of “I Love America” rallies starting in 1976, where he addressed social issues and what he perceived as the “decay of the nation’s morality” (Allitt 152); this kickstarted a movement called the New Christian Right (NCR) that targeted the roughly 50 million

evangelicals in America in the early 1980s, with a particular focus on recruiting fundamentalists. People who supported the Moral Majority tended, by far, to be white, evangelical, and Republican, and believed that their religious values should influence political policy decisions (Wilcox 403). Causes championed by the Moral Majority (what Falwell believed the "majority" of people in America wanted to see happen in the country) included promoting "traditional" family values, opposing abortion rights and the Equal Rights Amendment, supporting Christian prayers in school, preventing state recognition of homosexual rights, and converting non-Christians to evangelical Christianity.

Butler's fictional Church of Christian America is likewise concerned about the state of the nation, and with proselytizing. Rather than working toward better living conditions for the poor and homeless, ensuring adequate and accessible food and water sources, or reducing the lawlessness in the streets, however, Jarret and members of CA churches take on traditionally conservative moral issues they see as corrupting influences. For example, they punish those who drink or take drugs, even more mild ones like marijuana (versus the more extreme ones like pyro that induce hallucinations that are particularly intensified when the user is looking at fire, thus encouraging its users to set fires), which they see as "Satan's tools" (*Parable of the Talents* 20). For example, CA radicals viciously attack and burn the crops of a community called Dovetree, which specializes in growing and selling marijuana. Beyond this concern for morality in the form of violent policing, Olamina notes in her journals that President Jarret wants to take the country "back to some magical time when everyone believed in the same God, worshipped him in the same way, and understood that their safety in the universe

depended on completing the same religious rituals and stomping anyone who was different. There was never such a time in this country" (19). This radical denunciation of other religious beliefs takes various forms in Butler's imagined future: Olamina's brother Marcus, who she rescued from sexual slavery, becomes a Christian American minister and finds peace in that role; more extreme believers use their religious fervor as an excuse to burn non-Christian "witches"; and a fanatical splinter group, the Crusaders, throws such "devil-worshippers" into religious "reeducation" camps.

Butler takes the most liberty here in her exaggeration of the 1980s trend toward conservatism, but her projection of Moral Majority-type religious, political, and ethnonationalist fervor has precedents in some of the worst episodes in European and American history. The Crusaders (their name a direct nod to medieval Christians who invaded Arab-held lands under the guise of a religious quest) establish "reeducation" camps for non-Christians, which are horrifying composites of the Spanish Inquisition, Native American boarding schools, Southern slavery, Nazi concentration camps, and American camps of internment for Japanese Americans. The Crusaders dress like a militarized version of Jesuit priests: long black tunics over black or camouflage pants, with large, white crosses on their chests. When they take over Olamina's Acorn community, they institute slave labor laced with biblical recitations and lessons, focusing on biblical passages about the subjugation of women, and punishing members of Earthseed mercilessly and often randomly with shocks through their collars for their "wickedness." Further echoing the Spanish Inquisition, Olamina and her followers, who are considered a heathen cult of tree worshippers because they bury their dead beneath oak trees, are subjected to torture and forced performances of religious fervor. Like the

"reeducation" of Native American children in English-language boarding schools (e.g. the infamous Carlisle School in Pennsylvania, where young Native children were forced to speak only in English and adopt American names and dress), their children have all been taken away from their parents, deliberately separated from their siblings (otherwise "they might support each other in secret heathen practices or beliefs" [*Parable of the Talents* 262]), and placed with Christian American families, where "Parent pressure, peer pressure, and time would remake them as good Christian Americans" (263). According to CA, they will be "on the pathway to good, useful American citizenship here on Earth, and to a place in heaven when they die" (208), rather than growing up following the "heathen" Earthseed faith. Reminiscent of Southern slavery, husbands and wives are kept apart, each group is forced into agricultural labor to feed their "slavers," the women are subjected to rape and are permanently separated from their children, and insubordination is punished with public lashings (of pain from the shock collars). For example, when one woman from Acorn, Emery Mora, kills two Crusaders in revenge for raping her, taking her children away, and killing her husband, the rest of the women in the slave camp are brought out in front of the men and lashed for hours while being forced to "kneel and pray, to scream out our sins, to beg for forgiveness, and quote Bible verses on command…This was an orgy of abuse and humiliation" (211). These punishments are particularly horrible for Olamina, who is a sharer who can feel others' pain. Like Nazi concentration camps, food and water are withheld, even after intense manual labor, and more and more people, even from outside of Acorn, are crowded into buildings meant to house only a few. Finally, like American internment of Japanese Americans, a specific group, Acorn, is rounded up and kept away from the rest of society "for the latter's

protection," as the Crusaders are concerned about the "heathenish" ways of Acorn infecting other people and the children they take in.

While Acorn had become known in the surrounding area for taking in orphans, the Crusaders twist this into nasty rumors about the "devil-worshipping hill heathens who take in children. *And what do you suppose they do with them*?" (*Parable of the Talents* 20; emphasis original). While Olamina's journals detail that the children they rescue, often siblings or family members of members of Acorn, are adopted and loved and cared for like the biological children in the group, the children who are removed from Acorn, like Larkin, fare far worse. Not to mention the anguish that members of Acorn feel when they realize their children have been stolen. Olamina, whose daughter Larkin is only a few months old when the Crusaders take over, describes her feelings after realizing that her baby may have died in the attack: "My baby was dead. She must be. If I could have killed myself, just then I would have. I would have been glad to do it" (197). Still unsure if Larkin is dead or just taken away, Olamina starts to feel a physical need for her child that every breastfeeding mother knows: "My breasts ached and leaked and I felt sick…I wanted my child, my husband, my home" (198). In another connection Butler makes between historical and neo(liberal)-slavery, the mental and physical anguish Olamina feels after the loss of her infant daughter is similar but also amplified in *Kindred*, where the enslaved Alice, whose children (fathered by Rufus, the plantation owner's son) are sold to another slaver, hangs herself in despair.

Other critics have theorized Butler's preoccupation in in her novels and short stories with mothers being separated from their children in terms of surrogacy, tracing black women's sexual and procreative exploitation from slavery through to contemporary

neoliberalism. Weinbaum specifically calls this exploitation surrogacy, as black enslaved women were "Forced to reproduce property, to serve as wet nurses, nurturers of children, and sexual partners for white men…surrogat[ing] on multiple fronts" (Weinbaum, "The Afterlife of Slavery" 59). As Weinbaum, building on the work of black feminist scholar Delores Williams, explains, though no longer enslaved, black women after the Civil War were fulfilling similar roles as domestic workers in white homes. Even today, the disproportionate poverty levels black women face lead them, in greater numbers than women in other demographics, to serve as surrogates for (mostly) white women who are unable to have children of their own but are able to pay for the reproductive work to be for them by someone else. Williams makes the connection between surrogacy and forced reproduction under slavery through the language used to describe black women: "the language associated with commercial surrogacy today is a throw-back to American slavery, when certain slave women were set apart to function as 'breeder women'" (Williams 82).[40] Even in modern times, Weinbaum argues, black women are more or less forced into reproductive surrogacy.[41]

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[40] See also Angela Davis's article "Surrogates and Outcast Mothers: Racism and Reproductive Politics in the Nineties" and Weinbaum's "Gendering the General Strike: W.E.B. DuBois's *Black Reconstruction* and Black Feminism's 'Propaganda of History'."

[41] While Weinbaum makes connections in Butler's fiction between the surrogacy Alice in *Kindred* is forced, through rape, into performing—her children are ultimately property to be sold to someone else, not hers to nurture to maturity—similar connections can be also made between Alice in *Kindred* and Olamina and the other Acorn mothers in *Parable of the Talents*. In *Kindred*, Dana, the protagonist who unwillingly flits in between her present life in 1970s Los Angeles and early 1800s antebellum Maryland, is complicit in enslaved Alice's forced surrogacy. Dana believes that Alice is one of her own ancestors, and that Alice must procreate with Rufus, the white plantation owner's son, to produce a daughter, Hagar, who will go on to have children, grandchildren, and great grandchildren, eventually leading to Dana's birth a century and a half later. As Weinbaum points out, Dana could have helped spare her ancestor Alice from repeated rape and the misery of seeing her children sold away, but instead she tries to ensure her own birth by convincing Alice to willingly have sex with Rufus. Thus, Dana is complicit with the biopower that drives forward the continuation of the institution of slavery through reproduction, subjecting, or, in the language of neoliberalism, governing herself and Alice, and "participat[ing] in another woman's reproductive bondage" (Weinbaum 56). Put in the impossible situation of choosing between her ancestor's bodily autonomy and what she believes to be her very existence, Dana chooses to give in to the biopolitical imperative for life at all costs, and as a result subjects Alice to further physical and mental anguish to the point of suicide.

By contrast, in *Parable of the Talents*, Olamina and the other mothers of Acorn whose children are stolen from them are forced, indirectly, into serving as surrogates for childless Christian American families. Olamina's Larkin, for example, is ripped away from her mother (and her father, who dies in the Crusader attack) to a holding facility (formerly a prison, but it still "reeked of suffering") where she is cared for in a nursery for a few months before being "adopted" by a black Christian American couple. Christian Americans believe that the children in the Pelican Bay Christian Reeducation Camp are from "squatter settlements and heathen cults," and so must be rescued from the depravity they would have lived in with their biological parents (*Parable of the Talents* 220). Ostensibly, according to the logic of the Church of Christian America, the couples who adopt orphaned "heathen" and homeless children are doing their duty as good Christian Americans to raise good Christian American children. But, in reality, they are receiving children without having done the "work" of reproduction, effectively turning the children's biological parents, like Olamina and Bankole, into their surrogates. Olamina and Bankole set up Acorn and made a safe haven for themselves and other families to raise their children in, and Olamina carried and gave birth to Larkin, just to have her be stolen and placed instead with a couple who cannot have their own child. In *Parable of the Talents*, rather than the burden of surrogacy falling along racial lines (Larkin's biological and adoptive parents are both African American), it falls along a religious-based hierarchy: Christian Americans have the power, authority, and resources to, in effect, steal children with impunity from their non-Christian American mothers, who have done the reproductive work, and who very much want to raise their own children.

Due to neoconservative President Jarret's tacit support for all Christian American practices, however radical, and the general chaos and lawlessness that neoliberal economic and social policies have wrought in Butler's imagined future, the CA church gets away with robbing less fortunate families of their most cherished possessions—their children.

Ultimately, Butler accurately predicted that black women and poor women of all races would continue to bear the burden of forced reproduction and child separation while the nation is under the control of the religious right. Her Parable novels suggest that another way forward is possible, however; Butler uses Olamina's Earthseed religion as a counterweight to the oppression of the religious right and to the social, economic, and environmental devastation that the neoliberal governments of President Donner, President Jarret, and several of their predecessors have wrought.

EARTHSEED: GOD IS CHANGE

In answer to this apocalyptic and unsettlingly prophetic future, Butler gives us Lauren Olamina's new religion, Earthseed. As Philip Jos argues, Butler is very aware that "fear is a dominant shaper of human thought and behavior," so it is "No wonder, then, that religion is at the center of her concerns" (Jos 409). As Butler related in an interview, "Religion is everywhere. There are no human societies without it, whether they acknowledge it as a religion or not. So I thought religion might be an answer, as well as, in some cases, a problem." Butler goes on to describe the Church of Christian America as "a kind of fascism, because their religion is the only one they're willing to tolerate," versus Earthseed, which is based on "some verses that can help us think in a different

way" (qtd. in Jos 409). At the beginning of *Parable of the Sower*, teenage Olamina narrates, through journal entries, how she comes to conceptualize Earthseed, her survivalist belief system. For several years Olamina had been gathering and writing down her thoughts about what God is and what it means to believe in something greater than oneself (in opposition to her minister father's more traditional Baptist beliefs) in verse form. She had also been putting together an emergency pack with essential items, as well as gathering knowledge about how to survive off the land, reading books and finding information on the internet about shooting guns, dealing with medical emergencies, using plants native to California, building log cabins, raising livestock, making soap, and more (*Parable of the Sower* 55). Today, ironically, Olamina's survivalist tendencies would be appreciated by conservative rightwing talk- and radio-show hosts and conspiracy theorists like Alex Jones, who has a line of "preparedness" survivalist products like freeze dried foods, radios, water filtration systems, and a seed packet called "Patriot Seeds: Survival Seed Vault" ("Preparedness"). As Olivier Jutel theorizes in his book chapter on "Donald Trump, American Populism and Affective Media," the survivalist tendencies of contemporary figures like Alex Jones are based on entrepreneurialism and affective performance (Jutel 259), rather than on truth-telling, like Olamina. While the 1990s to 2020s have seen a rise in survivalist groups, products, and training experiences, the most prominent survivalists, like Alex Jones, are often dismissed, by all except for their loyal followers, as conspiracy theorists peddling merchandise. By contrast, Olamina is deadly serious about the threats she, her family, and her community face, and actually ends up using the survival skills she studies as she forms a resilient utopian commune.

After a three-year-old girl in the compound Olamina lives in with her family is fatally shot through the gate that protects the neighborhood, Olamina feels compelled to share her sense of impending doom and the religious wisdom and survival skills she has been gathering with someone else. She lists to her friend Joanne a number of problems in Southern California that she believes are shortly going to reach a crisis point. She tells her friend that it is only a matter of time before the gate is broken down completely and their community is destroyed by rapists, murderers, and looters; that college or living on one's own in safety is completely out of reach without a great deal of money that no one has; that measles and cholera are spreading in the south and east and most can no longer afford immunizations; that people on drugs are setting fires for the pleasure they get from watching things burn; and that hurricanes, tornadoes, blizzards, and other extreme climate-change-based weather events are causing death and destruction around the country. Joanne does not want to hear this, as she feels there is nothing she can do about any of it—she tells Olamina that "We can't make the climate change back, no matter why it changed in the first place. You and I can't. The neighborhood can't. We can't do anything" (*Parable of the Sower* 54). Olamina's father tells her to stop scaring people. Olamina is the only one, she feels, who truly recognizes all of the ways that life in America has become unbearable. While her parents and the other adults have been aware of all the dangers, have been "balancing at the edge [of the abyss] for more years than [she's] been alive" (61), Olamina has both a moment of stark realization of the realities of her world, and a sense that she and her family, friends, and neighbors absolutely have to do something to prepare for greater disaster when it inevitably strikes.

When it does, and her community is, in fact, destroyed by looters and arsonists, Olamina gathers her stored survival materials and book of religious verses and takes to the highways of California with two other survivors, Harry Balter and Zahra Moss, who become the first converts to the Earthseed religion. The main message of her beliefs is to recognize the power and constant presence of Change. In her religious verses, the Book of the Living, Olamina writes: "All successful life is / Adaptable, / Opportunistic. / Tenacious, / Interconnected, and / Fecund. / Understand this. / Use it. / Shape God." (*Parable of the Sower* 115). In a discussion with another early convert, Olamina explains her idea of what God is—an irrepressible force—and what corresponding power members of Earthseed have to "shape" God:

> God is Change, and in the end, God prevails. But there's hope in understanding the nature of God—not punishing or jealous, but infinitely malleable. There's comfort in realizing that everyone and everything yields to God. There's power in knowing that God can be focused, diverted, shaped by anyone at all. But there's no power in having strength and brains, and yet waiting for God to fix things for you or take revenge for you…God will shape us all every day of our lives. Best to understand that and return the effort: shape God. (*Parable of the Sower* 202)

Olamina explains that, to her, God is like a powerful stream that can nevertheless be "focused, diverted, shaped." And, rather than praying to God for help, each person has to make use of that power and shape it to their own ends. Reading Olamina's God in this way, as a malleable, dynamic power source, means that 'God,' though still an important marker of power, can be replaced with another abstract concept. Nevertheless, Olamina goes on to explain why she still calls this ruling force God instead of just Change: "[Travis] has asked and asked me about what Earthseed is. 'Why personify it by calling it God? Since change is just an idea, why not call it that? Just say change is important.' 'Because after a while, it won't be important!' I told him. 'People forget ideas. They're

more likely to remember God—especially when they're scared or desperate.'" She goes on to say that people need to be reassured by something comforting and familiar rather than an even more abstract, ill-defined concept: "'People do that all the time. They reach back to the Bible, the Talmud, the Koran, or some other religious book that helps them deal with the frightening changes that happen in life'" (203). Olamina equates God with "Change," but any power structure that rules the lives of the members of Earthseed could stand in for Olamina's idea of God. The force that seems to control and rule the lives of the people in Olamina's future California is neoliberal capitalism. If so, then what Olamina calls for is not a revolution against this system, not an overturning, but a call for those suffering under it to "shape it" from within, to use it to their own advantage.

Olamina's first Earthseed community, called Acorn, is somewhat successful in this, forming a self-sufficient commune that acts, for a time, as a safety net for those left behind in a neoliberal wasteland. Unfortunately, the commune is raided and brutalized by radicalized group of Christian Americans called the Crusaders. It would have been easy for Olamina and her followers to give in to despair after the Crusaders turn their utopian commune into a "reeducation camp," and indeed some members are killed, and others become mentally unwell due to the horrors they face and the loss of their children and partners. However, their trust in Earthseed and in Olamina's verses keeps the rest of them together as a coherent faith group in spite of the neoconservative attack on their commune. The group's survival, for decades to come, after this attack may also be due in part to the fluid nature of Earthseed: while the principal message of the religion, "God is Change," remains the same, Earthseed grows and adapts to survive within and beyond President Jarret's administration and the dominance of the Church of Christian America,

whose rigid fundamentalisms lose traction after a few years. However, Earthseed and Acorn is not entirely free of the neoliberal tendencies that its members have sought to escape. And, as Olamina's estranged daughter Larkin relates in *Parable of the Talents*, there are also serious problems with her mother's dedication to the "shaping" principles of Earthseed.

ACORN'S NEOLIBERAL ENTANGLEMENTS

Before it is raided by the Crusaders, Acorn is made up of those who, like Olamina, have suffered along the highways and in the miserable cities, factories, and farms of California. Its diversity ultimately makes it stronger and it becomes a self-sufficient community. Couples who have lost their children adopt orphans, people like Olamina called "sharers" or "hyperempaths"—people who can physically feel others' pain due to their mothers' prenatal drug use—are protected by those who are able-bodied and -minded, and farmworkers rescued from the electric shock collars used to enforce their debt slavery help grow sustainable crops for the group. This utopian community both engages with and subverts the neoconservatism that often accompanies the neoliberal policies whose disastrous effects drove the members of the community together.

Acorn is, ironically, made up of exactly the kind of family units that neoliberalism prescribes and encourages. In her 2017 book *Family Values: Between Neoliberalism and the New Social Conservatism*, Melinda Cooper traces a correlation between the rise of neoliberal economic policies and conservative ideas about what role families should play in the economy and in social life. She writes that social conservatives have come to regret the decline of the "Fordist family," the midcentury, single-earner household, as it was a

"mechanism for the normalization of gender and sexual relationships," as well as the "organization of labor, race, and class"—skewed toward the white, male worker at the expense of the African American, Latinx, and female worker (Cooper 3). Neoliberal economists regret the loss of this relatively self-sufficient family unit for a different reason: not only because it reinforced white, heterosexual social norms and hierarchies, but also because the private, single-earner family was "the primary source of economic security and a comprehensive alternative to the welfare state" (9). As the quintessentially neoliberal British prime minister Margaret Thatcher put it, "There is no such thing as society"; rather, "There are individual men and women and there are families" (Thatcher, "Interview for *Woman's Own*"). In neoliberal thought, the government should have very little or no role in making decisions for individuals and families; important choices must be made and carried out starting at home. If one income could both provide for and reinforce the gendered roles of the nuclear family, without any outside intervention, so much the better. Such arrangements allowed for both the maintenance of white, middle-class American power structures and for the dismantling of government programs that provided aid to economically vulnerable Americans.

While the members of Acorn are diverse in race, age, and ability, they do also maintain some of the core tenets of neoliberal-inspired neoconservatism in that they largely organize themselves into heterosexual two-parent families, and do not rely on government assistance to survive. Lacking this support, however, forces them to organize themselves into a socialized commune. On the road, Olamina meets an, admittedly, much older man, Taylor Franklin Bankole, but they marry and have a child together. Others they meet on the road form couples and families and live together in separate housing

units—cabins—within the commune. Two single parents with children of their own even marry each other to form a traditional two-parent (male and female-run) household. The children of each family all go to school together, but each goes home to their family's individual dwelling within the grounds of Acorn in the evening. However, as the government has failed them, and there is no longer a social safety net, the members of Acorn become self-sufficient out of necessity: with Olamina's training and stockpile of survival skills, they learn to grow their own food, trade with surrounding groups for other goods, and take care of each other. Their diverse but complementary skills—scavenging for wild sources of food, practicing medicine, operating and repairing armored trucks—allow them to survive largely on their own without undue outside assistance. Collectively, the members of Acorn share a belief in Earthseed principles, land, crops, and other resources, trade food and other goods they produce at street markets and with other families living nearby, and are required to learn at least two languages and a trade, which they are obligated to then teach to someone else.

In these ways, Acorn resembles historical socialist collectives, like the earliest kibbutzim in Palestine; these agriculture-based utopian communes were a mix of socialism and shared religious belief (Goldenberg and Wekerle 224). By the 1930s, the Zionist element of the kibbutzim became more dominant, and the settlements were increasingly used to shore up Israeli-claimed land against counterattacks from Palestinians who objected to their lands and resources being stolen. However, in the 1910s when the first kibbutzim were established, Jewish emigrants fleeing Russian pogroms began agricultural cooperatives on land purchased from Arabs in Ottoman Palestine. Several of the original members of the first kibbutz, Degania Alef, describe the

commune's goals of independence from forced labor: "Tanpilov declared, 'On the basis of my own experience, a Jewish worker can make a living in Palestine from the fruits of his own labors.' Bussel aspired to create 'a system that will truly give the worker individual freedom, without his having to exploit the work of others.' Baratz recalled, 'We wanted to work for ourselves and to do it not for wages but for the satisfaction of helping each other and of tilling the soil'" (Gavron 21). Like the early members of Acorn fleeing debt slavery and oppressive farm and domestic work, Jewish kibbutz members sought economic autonomy.

Colonists—Wanted

LLANO DEL RIO, in the Antelope Valley, Los Angeles County, California, needs 900 single men and women and married men and their families.

This is an opportunity of a lifetime to solve the problem of unemployment and provide for the future of yourself and children.

We have land and water, machinery and experts for every department of production.

No experience as an agriculturist needed. Men and women of nearly all useful occupations in demand. Every member a shareholder in the enterprise.

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Mescal Water and Land Co.

JOB HARRIMAN, President

924 Higgins Building, 2nd and Main Streets

Los Angeles, Cal.

(See article on pages 16 and 17 of this magazine)

Fig. 3. Job Harriman (1914). Full page ad in the July 1914 edition of *The Western Comrade* magazine for recruits to the Llano Del Rio colony. *Wikipedia*, https://en.wikipedia.org/wiki/File:Harriman-ad-1914.jpg.

Closer to home, Acorn also resembles the 1914-1916 Llano Del Rio socialist commune established in the Mojave Desert (about one and a half hours northeast of

Butler's native Pasadena) by Job Harriman, a socialist politician, and the Young People's Socialist League (YPSL). See fig. 3 for an ad Harriman published, calling for "colonists": The commune was populated with "hundreds of landless farmers, unemployed laborers, blacklisted machinists, adventurous clerks, persecuted IWW [Industrial Workers of the World union members, known as "Wobblies"] soapbox orators, restless shopkeepers, and bright-eyed bohemians." The cooperative colony, made up of socialist outcasts, transformed thousands of acres of land in the Mojave Desert into irrigated farmland and orchards that supplied the colony with 90 percent of its own food. People of all trades helped establish cobbler shops, canneries, laundries, barbershops, car repair shops, the community's *The Western Comrade* magazine, a movie theater, and a failed aviation attempt. Like Acorn, Llano was highly concerned with educating its members, so there were common nurseries, the first Montessori school, an industrial school for teenagers, and night classes and a large library for adults (Davis, *City of Quartz* 9-10). And like Acorn, Llano was short-lived—it faced internal divisions, but also attacks from outside by "creditors, draft boards, jealous neighbors, and the Los Angeles *Times*," which treated the commune with contempt in its press coverage of it (11). Contrary to the attacks on its nature, Llano was not an anti-American enclave. Likewise, as Olamina's daughter notes in *Parable of the Talents*, Acorn was not a "heathen cult" of amoral "free lovers," as the Crusaders imply, but rather a "real community…a semblance of security," with the "comfort of ritual and routine and the emotional satisfaction of belonging to a 'team' that stood together to meet challenge when challenge came." It was a place, she continues, for families to "raise children, to teach them basic skills that they might not learn elsewhere and to keep them safe as possible from the harsh, ugly lessons of the world outside"

(*Parable of the Talents* 63).[42] Paradoxically, it is only when Acorn is raided and captured by the ultra-conservative Crusaders that these traditional family units and the comfort they have found in their community are broken down—children are torn away from their parents and placed instead with Christian American families, and the men and women are separated and subjected to violent beatings, rape, and slavery.

While the published Parable novels establish Acorn as a socialized, religious-based community, it was not all that different from the gated neighborhood that Olamina left behind in Robledo (although in Acorn all members believe in the message of Earthseed). In Robledo, while individual families were more on their own in terms of finances, there were common schools, gun safety and shooting training for young adults, and a neighborhood watch. While Acorn is even more socialized, and utopic in that its members believe in Earthseed's principles and its mission of "going to the stars" it is also a more mundane group of heterosexual families who band together for mutual benefit and share a common goal of living and working together away from street violence and the other neoliberal devastations of Southern California. In Butler's plans for the novels, however, she had originally wanted Earthseed communes to be even more radical. In her notes for *Parable of the Trickster*, which was to follow *Parable of the Sower* and *Parable of the Talents* and detail the next generation of Earthseed believers as they set up new communes on other planets, Butler had a more drastic "post-patriarchal vision"[43] for the

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[42] For a reading of the Parable novels in terms of Butler's conception of the social contract, see Claire Curtis's *Postapocalyptic Fiction and the Social Contract* (Lexington Books, 2010).

[43] In her other novels, Butler often creates a "new order of difference," with "different categories of kinship relations and racialized gender" (Mehaffy and Keating 111). For example, in the *Xenogenesis* trilogy, human-alien offspring are sometimes a-gendered and face discrimination due to their difference. The Parable novels are much closer to reality and traditional cisgender, heterosexual relationship patterns, though they are still engaged in Butler's "preoccupation with difference," which she uses to "enact a critique of racial, economic, gender and other politics in the contemporary world" (Sands 2).

groups of people who survived, wanting to finally write about a feminist utopia that she had planned in notes for stories and novels since the 1970s, when she was influenced by the likes of feminist science fiction author Joanna Russ (*The Female Man*, *We Who Are About To…*).[44]

Nevertheless, as Canavan notes, most feminist utopian ideas Butler wrote down tended to disappear in final drafts of her writing, "making them a thread running across her career that can best be seen only from the perspective of the cutting-room floor" (Canavan, *Octavia E. Butler* 9). This was perhaps due to her concern with writing "YES" (i.e. publishable) books, as well as her difficulty in expunging traditional patriarchal community formations from her own thinking. For *Parable of the Trickster*, her notes for the novel detailed matriarchal societies where women ran collectivist social groups—while nuclear family groups would still exist in future Earthseed communities, women would run and own the houses, and many children would be adopted, having first been pre-fertilized eggs brought from Earth (OEB 2076, qtd. in Canavan, "Eden, Just Not Ours Yet" 65). However, Butler found that it was difficult to remove patriarchal social structures entirely, as "human biology might triumph over cultural experimentation"; consequently, she often found herself writing patriarchal narratives when outlining Earthseed communities on Bow, the hostile planet that the Earthseeders would eventually land on:

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[44] Gerry Canavan proposes that Butler's preoccupation with feminist utopias came from her own conception of the problems of the world coming from male-dominated societies. Canavan suggests that this view may have come from the lack of male relatives in her life (her father died when she was a toddler, and four brothers died before she was born), and so a lack of understanding of the male perspective. Further, Butler saw her mother, and other women in her life and in the fiction she read and movies she watched, as heroic rather than cowardly or timid when they had to compromise, as they were making the best out of no-win situations (Canavan, *Octavia E. Butler* 14). Thus, Butler's novels often feature strong, black, female protagonists who have to make hard decisions for all those around them.

> Why have I put the men on top and the "ladies" content to be wives, secretaries, and librarians? The top two leaders are male. The two engineers mentioned are male. Only the physicians are sexually integrated. How about a rule: each leader must have a deputy leader of the opposite sex and unrelated. Heads of housing groups as well as heads of community are required to be two, male and female, unrelated by blood or marriage. (OEB 2032, dated July 10, 2000; qtd. in Canavan, "Eden, Just Not Ours Yet" 66-67)

Butler's mental calculus to create a more balanced and equitable world shows how even in her wildest utopian dreams for Earthseed, patriarchal structures, including the heterosexual nuclear family, are nearly impossible to expunge completely.[45]

However, while the families in Acorn fall more or less neatly into two (male and female)-parent units, collectively they represent a multi-oppositional coalition of mixed race and mixed-age couples, the poor, the physically and mentally disabled, and formerly enslaved farmworkers, and sex slaves. Rather than a series of exceptional people[46] or nuclear families individually sustaining themselves, Acorn is a collective commune in which some family units also display alternative kinship practices, defining their family through connections and affinities rather than through blood ties (a common theme in Butler's oeuvre—especially in *Fledgling*, where child-vampire Shori forms a family of human symbionts who willingly let her drink their blood). For example, former prostitute

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[45] This extended to the roles for women that Butler saw as distorting the "collective imagination of female power": "(1) The firm, but kind and generous mother—a loving tyrant ("[Star Trek: Voyager's Captain] Janeway") (2) The bitch goddess, a terror, demanding, raging, hard-working, very tough (Thatcher) (3) The would-be man who competes on every level with men (Sherry Lansing) (4) The queen, commanding from on-high—distant from her people and their needs (Marie Antoinette) (5) The teacher/manager, responsible for her people, caring for them, teaching them, focusing them, but not their mother, goddess, master, or queen. Very simply, their leader, respecting their dignity and insisting that they respect hers (Olamina) (6) The politician, buying and selling votes, human rights, and human needs (any pimp). (OEB 2032)" (Canavan "Eden, Just Not Ours Yet" 66-67).

[46] Olamina is "exceptional" in the strength of her vision for Earthseed (see Texter, "Of Gifted Children and Gated Communities," and Andreolle, "Utopias of Old, Solutions for the New Millennium"—the latter reads Olamina as a new Puritan Founding Father, a "great leader" who is also a "hagiographical exemplar" [120]. Thaler likewise reads Olamina's narrative style as "the personal as exemplary," reminiscent of Benjamin Franklin's *Autobiography* ["Dystopian Future and Utopian Vision" 71].). However, she and the other members of Acorn are also vulnerable people banding together for mutual benefit and out of shared beliefs, not superhumans or people who are particularly or uniquely suited for survival.

Allie Gilchrist, who has lost her sister Jill and her abusive father in violent confrontations with dangerous people drifting in from the highways, adopts Justin Rohr, a three-year-old boy who was found "crying alongside the body of his dead mother." As Larkin relates to readers in some prefatory remarks, the two of them "wound up coming together in another small family" (*Parable of the Talents* 23). Many of the family units in Acorn have "come together" this way, finding each other on the road and settling down together and serving as useful members of the community. Ultimately, though most Acorn members marry and procreate heterosexually, these couplings ultimately subvert conservative ideals of white, male, single-earner, nuclear family households, as Acorn is made up of those who would otherwise have been left behind by neoliberal and neoconservative praxis and theory.

Representing this conflation of economic and social thought and its white, heterosexual, fundamentalist Christian, non-interference worldview in the novels is the Church of Christian America, whose radicalized agents deem Acorn to be a heathen cult full of sinners of all kinds. As Nancy Armstrong has demonstrated with Bram Stoker's 1897 *Dracula*, "any formation that challenges the nuclear family" turns it into "a form of degeneracy so hostile to modern selfhood as to negate emphatically its very being" (qtd. in Wegner 198). Non-biological nuclear families are thus deemed monstrous by the policers of the "moral majority" of Butler's imagined future. Beyond their non-Christian beliefs, Acorn members are condemned by the Crusaders, and other non-Earthseeders, for taking in children for what could only be nefarious purposes—"*what could they be doing with them?*" (*Parable of the Talents* 20). The women of Acorn are also accused by the Crusaders of all kinds of licentious behavior, purely because they are not Christian

Americans, and were not married to their partners in Christian American ceremonies. In an early confrontation between Olamina and one of the Crusader "slavers," the Crusader reveals what his group assumes about Acorn. When Allie reaches out to comfort and help Olamina, she is lashed with pain from her shock collar for trying to touch her. Allie, "bewildered and angry," looks at the man who lashed her, and he explains: "You don't touch one another. Whatever filth you're used to, it's over. It's time for you to learn to behave like decent Christian women—if you've got the brains to learn." Olamina understands him: "So that was it then. We were a dirty cult of free lovers, and they had come to straighten us out. Educate us" (*Parable of the Talents* 202-3). Ultimately, in spite of Acorn's neoliberal affinities (in the form of self-sufficiency, lack of government support, and largely heterosexual nuclear families), and because of its partially non-traditional family units and its lack of adherence to Christian American beliefs and practices, its members are demonized and harshly punished. The socialized, religious community Olamina and her followers have built is destroyed, and its children taken away.

ACORN'S OFFSPRING: CRITIQUING UTOPIA

Echoing this disjuncture of parents from children, including Olamina from her infant daughter Larkin, is the departure of *Parable of the Talents* from *Parable of the Sower*. While the latter is written entirely from the perspective of Olamina through her journals, *Parable of the Talents* begins with a prologue written by Larkin, and switches between excerpts from her father Bankole's memoir of Earthseed, *Memories of Other Worlds*, Olamina's journals and her verses from *Earthseed: The Book of the Living*, and

Larkin's bolded commentary on the story of her own and the rest of her mother's life. While the establishment of Acorn in *Parable of the Sower* is fraught with contradictions (adherence to and resistance against neoliberal, neoconservative tendencies), Olamina has "unquestioned authority" as the narrator of its beginnings in the first novel. In *Parable of the Talents*, which details Acorn's fall, Olamina's vision and choices are questioned by her daughter. Put another way, *Parable of the Talents* is to *Parable of the Sower* what the Talmud is to the gospels—critical commentary on sacred (Earthseed) verses, and personal accounts (via Olamina's journals) of the foundations of a religion (Canavan, *Octavia E. Butler* 136). The second novel is also a rebuttal of the cautiously optimistic utopianism of the first; the metaphorical "good ground" that the members of Acorn have cast themselves upon in *Sower* turns out to be "full of rocks" rather than fertile soil in *Talents* (137). And, as the third Parable novel, which could have resolved some of the questions about utopian religious endeavors raised in *Talents*, was never finished, Butler's readers are left in a state of tension at the end of the series.

As Larkin relates in *Parable of the Talents*, she was taken from Olamina and Bankole during the Crusaders' raid on Acorn and placed with a not-very-loving Christian American family who renamed her Asha Vere. Her childhood was not a happy one, and she knows nothing, until much later, about her biological parents. She has heard of Earthseed but dismisses it as a cult. When she does learn who her mother is from her Uncle Marcus, who she meets by chance at a Christian America church event, he tells her that Olamina has died. When she finally learns that her mother is alive, Larkin starts researching Earthseed, and has some questions. Like her Uncle Marcus, Larkin shares the concern that Earthseed is too focused on pie-in-the-sky goals (its "Destiny" is to travel to

the stars and set up new Earthseed societies on other planets) rather than using its influence to improve conditions for the people who would still be stuck on earth after the last Earthseed spaceship left its orbit. Marcus says the Destiny is "an airy nothing. The country is bleeding to death in poverty, slavery, chaos, and sin. This is the time for us to work for our salvation, not to divert our attention to fantasy explorations of extrasolar worlds" (*Parable of the Talents* 156). Larkin wonders, "were they all hoping to fly off to Alpha Centauri? It wasn't that simple, of course. But to tell the truth, the more I read about Earthseed, the more I despised it. So much needed to be done here on earth—so many diseases, so much hunger, so much poverty, such suffering, and here was a rich organization spending vast sums of money, time, and effort on nonsense. Just nonsense!" (380). Gerry Canavan notes that Larkin's commentary on her mother's endeavors introduce a broader critique of the Earthseed Destiny, which "entails the necessary and unhappy tradeoff of a retreat from real-world political struggle that concretely makes actual people's lives substantively better" (Canavan, *Octavia E. Butler* 139). Larkin's critique calls to the reader's attention that Olamina's lofty goals eschew direct political action in favor of what seems to most to be an unrealizable dream—Larkin calls the Destiny "pathetically unreal" (*Parable of the Talents* 138).

On a more personal level, Larkin's most common criticisms of her mother's Earthseed endeavor are that Olamina's dedication to Earthseed (and its Destiny) has kept her from being a mother to her daughter, and that Olamina, despite "all of her protests and denials" has become a kind of god/goddess figure and actually loves all the attention and devotion she receives from her followers (*Parable of the Talents* 1). As Larkin notes later in the novel, Olamina's middle name—Oya—is the name of "a Nigerian Orisha—

goddess—of the Yoruba people. In fact, the original Oya was [fittingly] the goddess of the Niger River, a dynamic, dangerous entity. She was also goddess of the wind, fire, and death, more bringers of great change" (48). Even as Larkin wonders why her Baptist grandfather would name her mother after this non-Christian goddess, she acknowledges the two competing aspects of her mother's nature—a force for change, and a dangerous source of power. Larkin's fascination with her mother—after all, she is narrating the rest of the story of her mother's life—may come from this power Olamina exerts over others, even, in Larkin's case, at a remove. In her early notes for *Parable of the Talents*, Butler often wrote of a "Dark Olamina" who variously used security forces to force people to stay in Earthseed or was subject to plots from her followers and adopted children to oust her from the leadership. This version of Olamina, Gerry Canavan finds, is "a steely and callous and, at times, brutal political operator," concerned with building the Earthseed empire (Butler did some research into the life of Mohammed in 1989, trying to understand how someone with a religious vision turned into an empire builder) (*Octavia E. Butler* 130). Yet, Olamina remains in power and continues to draw new recruits to her, a testimony to Butler's ability to weave together the violence and seduction of power.[47]

In the published version of *Parable of the Talents*, Olamina is more likeable and sympathetic.[48] However, Larkin still feels betrayed by her biological mother's actions

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[47] Canavan, *Octavia E. Butler* 4. For example, in her short story "Bloodchild," Butler has human boy Gan agree to host the alien egg larvae of his surrogate mother/lover, T'Gatoi, even after he has seen the carnage that happens to humans when their aliens' offspring are born by rupturing through their human hosts' bodies. T'Gatoi and her kind rule over and control the few remaining humans who have survived apocalypse on Earth and made it to the T'lic planet, but also promote family bonding and sexual pleasure to their adopted humans.

[48] Canavan notes that the published version of Olamina is an idealized, perfected version of Octavia Butler herself, which Butler admitted in private journals, and that the Earthseed verses are much like the notes of self-affirmation that Butler often wrote to herself to motivate herself to keep writing—e.g. "So be it; see to it," and "Every day in every way" (*Octavia E. Butler* 19).

that ultimately led to their separation. Not only did Olamina refuse, when the security of Acorn was becoming increasingly precarious, to move with Bankole and baby Larkin to a potentially safer community, she also, in Larkin's view, favored Earthseed over her personal relationships. Although Olamina could not have known that Acorn would later be raided by the Crusaders and her daughter taken from her, Larkin sees her decision to disregard Bankole's wishes to move as a personal betrayal. If Olamina had left Acorn behind, Larkin believes they could have led "normal, comfortable lives" together as a family through the turbulent times (*Parable of the Talents* 138). Instead, Larkin says, her mother saw her love for her daughter as "a weakness. Earthseed was her strength. No wonder it was her favorite" (294). And, later, while Larkin was struggling to fit in with her adoptive parents and the strictures of the Christian American church, Olamina was "giving her attention to her other child, her older and best beloved child, Earthseed" (379). These critiques show some of Larkin's bitterness about how her own life turned out, and her feelings of abandonment, but it also highlights some of the hypocrisy of Olamina's philosophy. For a proponent of communal living and creating safe spaces for marginalized people to come together, work hard, and raise families in peace, in spite of the devastations of neoliberal capitalism all around them, to have, in her daughter's eyes, abandoned her child, or, allowed her child to be raised by others who didn't share her vision, goes against everything she preaches.

While Olamina did spend years searching for her daughter, and her brother Marcus knew of Larkin's existence and didn't tell Olamina of her whereabouts, Larkin feels personally betrayed, and a little afraid of her biological mother. Before Larkin learns who her mother is, she reads about the Earthseed "cult," which had survived the

attack by the Crusaders and become a "wealthy sect" that "owned land, schools, farms, factories, stores, banks, several whole towns. And it seemed to own a lot of well-known people—lawyers, physicians, journalists, scientists, politicians, even members of Congress" (*Parable of the Talents* 380). Olamina is now known as a Shaper, travels with bodyguards, and seems to Larkin like a "charismatic, dangerous heathen cult leader" (395). When she had read her mother's journals and met her face-to-face at an Earthseed compound, Larkin acknowledges that Olamina had many positive qualities and was an effective community leader. However, she also finds her to be intimidating due to her fanatical dedication to Earthseed: "People who are intelligent, ambitious, and at the same time, in the grip of odd obsessions can be dangerous. When they occur, they inevitably upset things" (171). Again, Larkin's criticisms of her mother both show her own vulnerabilities and make valid critiques against her mother's movement. Being a force for change, or rather, using her own force to "shape" Change, seems to Larkin to have gone to her mother's head, turning her into a kind of god when her verses preach that each individual has the power to shape their own future.

These criticisms, though, are ultimately part of Butler's larger project of writing dialectically about utopia and dystopia. Using Butler's writing shorthand *aop* (as opposed to), we can say that *Parable of the Sower*, as opposed to *Parable of the Talents*, tends toward utopia versus dystopia, illustrates Olamina's youthful vision rather than a series of her more mature calculations (Canavan, *Octavia E. Butler* 136), and is radical rather than pragmatic (Moylan, *Scraps of the Unpainted Sky* 243). As is clear from the nasty end of Acorn, Butler did not set out to write a utopian narrative for Earthseed. And, as Canavan notes, Butler was not, in general, a utopian thinker. She believed instead that evolution,

over millions of years, had made humans "clever but mean, creative but self and short sighted" (*Octavia E. Butler* 150). Olamina, a perfected version of Butler herself, is a rare exception, although Larkin can find plenty of reasons to think of her biological mother as selfish. Although Acorn survived for a time unmolested, and brought together people who had suffered and were now more at peace and thriving, Butler chose to write most of *Parable of the Talents* about how Acorn was brought down, its members literally shocked into submission to radicalized neoconservative governance, rather than how it could serve as a model for a utopian future.

Butler did, however, retain a few threads of utopian hope for a better future; Earthseed, the larger idea behind the first Acorn commune, continues on, with Olamina gaining power and prominence. Earthseed even wins a lawsuit against the Church of Christian America for the damages done to the people and property of Acorn. As Olamina says in her journals, writing about her time under Crusader rule, "Earthseed lives. Enough of us know it and believe it for it to live on in us. Earthseed lives and will live. But Jarret's Crusaders have strangled Acorn. Acorn is dead" (*Parable of the Talents* 216). Taken together, the two Parable novels represent Margaret Atwood's term "ustopia," a third way between two seemingly opposite concepts: while "dystopias are usually described as the opposite of utopias…scratch the surface a little…you see something more like a yin and yang pattern; within each utopia, a concealed dystopia; within each dystopia, a hidden utopia" (Atwood, *In Other Worlds* 85). Acorn, the utopic commune amidst dystopic conditions under neoliberal, neoconservative government and religious rule, falls under pressure from radicalized fundamentalists, but Earthseed, both as a utopic concept and a religious and civil institution, continues on.

SLOW RESILIENCE IN BUTLER'S PARABLES

The relationship between Earthseed and the larger structuring social and economic forces it operates within is a complicated, interconnected one, that is related to the idea of resilience. On the one hand, "resilience" is often used in neoliberal thought to denote personal, individual survival. On the other, resilience is also used in ecological systems theory to denote the ability of a system to suffer changes and persist. Olamina and Earthseed are bound up in both definitions. Olamina believes from the beginning that it is up to each individual to do what they can to prepare themselves for disaster, and then teach others to do the same. As she tells her friend Joanne, she's spending her free time "trying to learn whatever I can that might help me survive out there [outside of their gated neighborhood]," because "We can stop denying reality or hoping it will go away by magic…Nothing is going to save us. If we don't save ourselves, we're dead" (*Parable of the Sower* 54-5). Here Olamina presents an idea of individual resilience congruent with neoliberal governance.[49] That is, her sense of how to survive is premised on the idea that it is her own responsibility to learn how to do so, rather than that of a governing body to protect her from or prepare her for disaster (as none have managed to keep her completely safe in the past). She feels it is her responsibility to then share her survival skills with others and that survival is easier in groups; however, her initial impetus is toward personal survival, perhaps due to her history of having to conceal her hyperempathy and avoid witnessing violence. As security studies scholar Pat O'Malley

[49] See Jonathan Joseph for a discussion of how resilience is not quite "reducible to neoliberal policy and governance, but it does fit neatly with what it is trying to say and do" (38). On a related note, Jeremy Walker and Melinda Cooper discuss how resilience has also become a key term in homeland security: "…resilience has become a byword among agencies charged with coordinating security responses to climate change, critical infrastructure protection, natural disasters, pandemics and terrorism, reorienting these once distinct policy arenas toward a horizon of critical future events that (we are told) we cannot predict or prevent, but merely adapt to by 'building resilience'" ("Genealogies of Resistance" 144).

has noted, the "resilient subject" is one whose "self-reliance and responsibility in an uncertain world" is "valorized"; they must "become an entrepreneur of one's self, to manage one's own risks, to be innovative, adaptive and responsible" without reliance on "professionals" for help (504-5). Put more strongly, Kevin Grove argues that resilient subjects must be able to "withstan[d] catastrophic shocks and respon[d] to adversity…*rather than mobilizing against the sources of insecurity* (6; emphasis added). Olamina's insistence on learning how to survive under the neoliberal conditions of semi-fictional California is liberating for her, but it also establishes her as a "resilient subject" playing into the logic of neoliberalism—working for her own and her creation Earthseed's survival within a broken system, rather than advocating for an overthrow of that system.

This avoidance of direct political conflict carries through *Parable of the Sower* into *Parable of the Talents*. Even after Olamina's Acorn community is torn apart by the Crusaders, her response, once Earthseed has regained its footing and established new branches, is to sue the Church of Christian America for damages, not to "challenge…the new liberal government [that follows Jarret's administration] to redirect its own economic and political policies" (Moylan, *Scraps of the Unpainted Sky* 243). Earthseed is also, as Larkin and Marcus have already critiqued it in *Parable of the Talents*, seeking to advance its own cause (its Destiny to "go to the stars") rather than trying to make conditions better on Earth. While still on Earth, Earthseed "creates enclaves within the political system," rather than changing it (Stillman 32). Canavan agrees; after the destruction of Acorn, Earthseed is no longer threatening to the "powers that be." Even its concern for education leads to privately funded charter schools, a bastion of neoliberal

policy (i.e. privatizing all previously public-funded social services) (*Octavia E. Butler* 137).[50] Ingrid Thaler and Vincent Lloyd also concur that Earthseed's founding principles are (necessarily) rooted in neoliberal thinking. Thaler contends that Olamina's critiques of neoliberal politics and the resulting conditions actually make her espouse radical, neoconservative ideologies (69-97). Specifically, as Canavan summarizes, "the federal government is corrupt, proto-fascist, and can't save you; local communities need to be heavily armed so as to defend themselves with brutal violence from drug-addicted outsiders; nearly all of your neighbors are incompetent at best, wicked at worst, and can't be trusted; only religion can revitalize society; a collapse is coming, so prepare yourselves; and on and on" (*Octavia E. Butler* 134). Lloyd finds that Olamina's commune fails because of her unacknowledged commitments to such neoliberal cultural forces. This failure to take a firm stand against neoliberalism is made clear narratively, as the plot of her novels is "ultimately indecisive—in the end, Earthseed and Christian America [her amalgamation of fundamentalism backed by neoliberal political policy] coexist in a pluralist nation" (Lloyd 450). All of Olamina's and her fellow Acorn members' struggles to make better lives for themselves seem to result in a partial acceptance of their oppressors—Olamina even visits a Christian American center (to get information about Larkin's location) and finds her brother Marcus ai a minister there. Her own flesh and blood have fallen prey to the megachurch.

Butler is not alone in writing literature that sets out to resist, but ultimately, at least in part, capitulates to neoliberal thought. Huehls and Greenwald Smith find that

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[50] Canavan notes that, although Earthseed is concerned with promoting education, and Butler was a fierce advocate for the importance of education as a source of self-improvement, "not *all* education turns its charges into radicals. Much education turns students into better workers and prepares them for elite jobs administering, benefitting from, toxic systems rather than opposing them" (*Octavia E. Butler* 139).

most contemporary literature does this, even while attempting to create new ideologies that "might escape it." And, as we have seen with Butler's struggle between writing publishable "YES" versus true-to-her-vision "NO" books, this tension between resistance and capitulation is also tied up in an author's desires to be famous, or at least modestly successful, in a market that values texts that "reinforce its logic" (15). Huehls and Greenwald Smith specifically name such texts as "novels of identity" or the "neoliberal novel," which focus on "individual and cultural identity to the exclusion of a larger structural understanding of the economy" (9). More recently, novels bound up in identity politics, still capitulating to neoliberal logic, have started to give way to fiction that instead explores race and ethnicity's "affective, bodily, networked way of being in the world" (10).[51]

While the Parable novels do grapple with, and do not entirely resist neoliberal logics, they also address affect and the body through Olamina's hyperempathy—her (dis)ability to physically feel others' pleasure and, more often, pain. Before writing *Parable of the Sower*, Butler had imagined writing about a utopian society where everyone had hyperempathy, which would have made people "inclined either to accept one another's differences or at least to behave as though they accepted them since any act of resentment they commit would be punished immediately, personally, inevitably" (2001 speech to the U.N.'s World Conference Against Racism, qtd. in Jansma). In *Parable of the Sower*, because only an unlucky few have this condition, the effect is different; "sharers" who feel others' pain must avoid revealing their disability for fear that others will take advantage of it. While her hyperempathy makes Olamina particularly

[51] See, for example, Colson Whitehead, Karen Yamashita, Junot Diaz, and more.

community-minded and open to "the possibility of new and genuine ethics, and of a world better than this one" (Canavan, *Octavia E. Butler* 134), also making her uniquely suited to founding socialized utopian societies like Acorn, it forces her to inflict more violence on others, and to be more vulnerable to the Crusaders, Acorn's slave drivers. In order to lessen the amount of pain she herself feels, Olamina must kill rather than injure people on the road who try to hurt or rob her. She must also hide her condition from the Crusaders, who would be able to control her easily by hurting others with their shock collars. Sharers, as Marlene Allen notes, make valuable slaves, because their owners can control them without physically hurting them (Allen 1363), so Olamina's disability, if it were known, could make her both more docile and more highly valued by her enslavers. Her condition is caused by sharers' mothers having taken too much of a wonder drug meant to cure Alzheimer's, passing on hyperempathy to their unborn children. This can be seen as another example of Butler commenting on historical slavery through the remove of science-fictional technology: passing on a condition that causes one's children to be more vulnerable to slavery is similar to children born into slavery because of their parents' bondage (1363). Ultimately, however, the same condition that makes Olamina more vulnerable to control also makes her resilient, resourceful, and a natural-born leader, having to adapt quickly and decisively to new challenges. As with her and Earthseed's relationship with neoliberal thought, Olamina's "sharing" allows her to be both more vulnerable to and more resilient against oppression.

While the term 'resilience' is bound up in neoliberal governance and theory, it is more often associated with ecological systems theory.[52] Ecologist C.S. Holling's 1973

[52] Resilience was technically first discussed academically in terms of engineering as the elasticity or flexibility of an object but is more often used in terms of ecology.

definition is the one most widely cited; he defines resilience as the "persistence of relationships within a system and…a measure of the ability of these systems to absorb changes…and still persist" (17). This is different, he notes, from stability, which is the ability of a system to undergo short-term fluctuations and return to an equilibrium. Rather, resilience is the capacity for relationships to persist in spite of high fluctuations that might even overturn the entire system (16). Holling uses this definition in terms of relationships between species, that is, for example, how a population decrease in one species would negatively affect another linked species. In Butler's Parable novels, we can apply Holling's definition of resilience to Earthseed as a means of discussing how a fringe, survivalist, religious group is able to continue in spite of attacks on its environment—discreditation from neighboring communities, enslavement of its adults, and kidnapping and rehoming of its children—and over the course of multiple generations of believers who ride out the political ideologies of various right- and then more moderate-leaning presidential administrations, and travel to other, often hostile, planets. Reading Olamina's beliefs and Earthseed through this definition of resilience, we can then see what kind of coping strategies will allow Earthseed to survive through the worst ravages of neoliberal capitalism and neoconservatism.

Olamina's daughter Larkin, blinded by her own personal pain from losing her parents as a baby, misreads the goals of Earthseed as survival through continued kinship.[53] Based on how Acorn was formed, as a group of like-minded couples and

[53] Many of Butler's novels, including the *Xenogenesis* trilogy, *Fledgling*, and *Kindred* are preoccupied with kinship and belonging; see Phillip E. Wegner's "We're Family: Monstrous Kinships, Fidelity, and the Event" for a discussion of Butler's use of kinship in her science fiction as a set of practices or as way of *doing* rather than as a direct bloodline. For more on kinship and religion in *Xenogenesis* and *Wild Seed*, see Michelle Osherow, "The Dawn of a New Lilith" and Sarah Wood, "Subversion through Inclusion."

families pooling together their resources and skills to create a safe place for their children to thrive, Larkin assumes that her mother's absence in her own life goes against all Olamina originally sought to establish, and that she has chosen power, influence, and her obsession with Earthseed over her relationship with her own daughter. However, Olamina's goal, from the beginning, was not only to survive within a broken system herself, teach others how to do so as well, and build a utopian community of interdependent families, but also to give people an even greater, more far-reaching goal to work toward. In a dream she relates at the beginning of *Parable of the Sower*, Olamina finds herself first learning how to fly, on her own, and then looking up at the stars:

> I'm learning to fly, to levitate myself. No one is teaching me. I'm just learning on my own, little by little, dream lesson by dream lesson…The wall before me is burning…The fire spreads. I drift into it. It blazes up around me. I thrash and scramble and try to swim back out of it, grabbing handfuls of air and fire, kicking, burning! Darkness…I fade into the second part of the dream—the part that's ordinary and real…Darkness. Darkness brightening. Stars. Stars casting their cool, pale, glinting light. (4)

This dream highlights the two competing aspects of Olamina's vision: to learn to be individually resilient and teach herself how to survive in the midst of disaster, and to look even farther than California, toward a establishing a new world. It also more or less summarizes the trajectory of the two Parable novels.[54] In the first, teenage Olamina is learning to fly, that is, survive on her own outside of her gated neighborhood, "without benefit of adult guidance, or a teacher of any kind" (Govan 243). She dreams up the Earthseed religion, gains followers, meets her future husband, and sets up Acorn in *Parable of the Sower*. But then in *Parable of the Talents*, her dream of flying crashes and

[54] See Thaler for a reading of Olamina's fire dream as a presaging of her development as a religious prophet. Thaler argues that the presence of fire, as a common sign of biblical apocalypse, denotes the end of a world order, which must be destroyed to make room for a new one (71).

"takes her directly into a wall on fire" (243). That is, Acorn comes head to head with the superior technology and cruelty of the Crusaders, crumples, and dies. And yet, at the end of this nightmare is the "darkness brightening" and the "cool, pale, glinting light" of the stars—from the opening of the Parable novels, there is some hope for a better future in space, away from the destructive fire, in the form of, I have argued, neoliberal and neoconservative thought and policy on Earth.

Earthseed's "Destiny," as Olamina calls it, is to "take root among the stars" (*Parable of the Sower* 71) that is, to spread their utopian communities to other planets. She explains how she came up with the name "Earthseed" for this goal in her earlier journals through a metaphor about seeds. She writes that she was

> …thinking about the way plants seed themselves, windborne, animalborne, waterborne, far from their parent plants. They have no ability at all to travel great distances under their own power, and yet, they do travel. Even they don't have to just sit in one place and wait to be wiped out. There are islands thousands of miles from anywhere—the Hawaiian Islands, for example, and Easter Island—where plants seeded themselves and grew long before any humans arrived. Earthseed. I am Earthseed. Anyone can be. Someday, I think there will be a lot of us. And I think we'll have to seed ourselves farther and farther from this dying place. (72)

Rather than simply preserve some semblance of normality within and survive the devastations of neoliberal capitalism and neoconservatism on earth, Olamina's goal, from the beginning, was to leave California, Earth, and even humanity behind—she is an Earthseed, and seeks to go to a place where humans (and the worst ills of humankind) do not yet exist. Reading the Destiny in terms of ecological resilience, Earthseed, which cannot fully thrive in its home environment, must be removed to a new location, off-planet. The human species is not resilient; humans have caused each other and other species to suffer, and so its next best hope is transplantation. As previously discussed, both Larkin and Marcus see serious ethical problems with Earthseed wanting to remove

itself from the struggle for a good life on Earth, as fulfilling this Destiny will leave every other person on Earth who does not belong to the Earthseed religion to a lifetime of increasing misery, compounded by the continued presence and long-lasting effects of neoliberal policy.

In this way, Earthseed's Destiny is more of a retreat from the world rather than a means of advancing it (Canavan, *Octavia E. Butler* 139). And yet, in order to survive, Earthseed must take these steps, eschewing a possible better future for many for a decidedly different, third way for at least a few hundred people. As it seems unlikely that Olamina and Earthseed will be able to have a substantive effect on the way of the world, given their difficulties in maintaining their autonomy against just one group of Crusaders, compromises must be struck to at least create a better environment for those who are willing to explore new ways of life. Likewise, many of the practices of Earthseed, in the Acorn community, are coping strategies that balance between individual survival and group revolution. In the end, *Parable of the Talents* (and the planned third novel in the trilogy, *Parable of the Trickster*) is not meant to simply tear down any hope for a different, better future beyond neoliberal governance that is built up in the utopic tendencies of *Parable of the Sower*; rather, *Parable of the Talents* acts as a realistic counterbalance to the optimism of *Parable of the Sower*. Isiah Lavender finds more of value in *Talents*, as it "makes visible the strength and perseverance necessary to unlearn racist patterns and resist oppression" (*Black and Brown Planets* 23), and Claire P. Curtis finds that the fear expressed in *Talents* is "a necessary step towards what philosopher Jonathan Lear calls 'radical hope'" (161), which is choosing rebirth rather than giving in to vengeance or nostalgia after cultural devastation. Lear's book explores this theme

through the Crow Nation's loss of cultural autonomy; Christina Sharpe's *In the Wake: On Blackness and Being* similarly conceptualizes what it means to prioritize ways of thriving, what she calls "wake work," in the face of affliction, but through the African American experience of slavery and its still-lingering after effects. Rather than "indulging in apocalyptic storytelling" (Yaszek, "Afro-Futurism, Science Fiction, and the History of the Future") by having Olamina succumb to despair after the violent dissolution of her original utopian commune, Acorn, Butler focuses on compromise and resilience.

Slow resilience is, then, a response to the slow violence of neoliberal capitalism, which in Butler's novels echoes historical slavery with added science-fictional technology and Olamina's hyperempathy disability as means of enforcement. Neoliberal and neoconservative ideas, like the climate change its adherents have perpetuated by following non-interventionist, privatization, and deregulation policies, affect those must vulnerable in a society, and do so over multiple generations, races, classes, and religious beliefs. In the Parable novels, slow resilience involves individual and group resistance *and* capitulation to neoliberal, neoconservative ideologies, constructing new, safer environments after one's home is no longer welcoming, safe, or in existence. Rachel Greenwald Smith explores this tension between resistance and capitulation in her theory of a "compromise aesthetics" for literature since the 1990s, which attempts to both appeal to mainstream audiences to be marketable and to experiment formally. She finds that while many would assume this kind of compromise to signify "a satisfactory settlement, an enduring resolution, a calculated truce," she argues that "an incorporation of recognizable experimental and mainstream modes" actually "demonstrates the inherent instability of both" ("Six Propositions on Compromise Aesthetics"). The Acorn

commune is built on familiar, mostly traditional nuclear families (though some members of those families are adopted after being orphaned) and is self-sufficient, playing into mainstream neoliberal, neoconservative ideology, but it is also made up of the people who are least likely to survive in a neoliberal world. Olamina is both forced and partially willing to give up a "normal" family life in a safer community for her beliefs in Earthseed; she accepts that she will not have a normal relationship with her biological daughter (after spending years looking for her). Larkin recognizes this, understanding that her mother ultimately has a larger goal in mind—establishing Earthseed on Earth and on other planets. Earthseed builds schools and provides other resources for its adherents on Earth, but also wants to leave it all behind to start again on an unpopulated planet. Olamina estranges herself from her remaining family members who have converted to Christian Americanism in favor of her non-Judeo-Christian religious beliefs, and she even, after her death, gives up the Earth to travel to other planets. Like the post-post-modern novels Greenwald Smith analyzes in terms of negotiations between mainstream and experimental modes, the logic behind Earthseed is one of compromise between fitting into the hegemonic neoliberal society that California has become in order to survive and maintain some sense of family and community, and then experimenting with utopian, socialized living, non-Judeo-Christian religion, and space travel when possible to work toward a more equitable future. Ultimately, like Greenwald Smith's assessment of compromise aesthetics, this tension between safety and survival within and bold exploration beyond neoliberal ways of life is not a capitulation to, or complete revolution from neoliberal capital and its devastations, but rather a way for Butler to explore the instabilities of both neoliberal and utopian thought.

While some of this tension could have been resolved in a third novel, *Parable of the Trickster*,[55] which would have taken place off-planet among often hostile lifeforms, there's something to be said for leaving the novels open-ended rather than attempting, as Butler did for decades before and after the publication of the first Parable novel, to write a definitive solution to the problems she explores in the series. Rather than inventing a wiser alien species to tell humans how to live better (as in *Xenogenesis*) or using another planet's alien setting as a space where it is actually possible to implement radical change, Butler's published Parable novels "stay with the trouble" here on Earth. Butler comments on the responsibility of the human race to "grow up" on its own as a species in a short statement called "The Monophobic Response": "At the moment, there are no true aliens in our lives…Some of us know this. Deep within ourselves, we know it. We're on our own, the focus of no interest except our consuming interest in ourselves...If we are adults, and past the age of having our parents come running when we cry, then our only help is ourselves and one another" (415). While many of her novels do involve alien-human interactions, the Parables are focused much more closely on Earth and its dominant species' foibles. As Earthseed follower Travis explains, it is important for people to have a larger goal to work toward, and to be forced to do the difficult work of slow resilience in order to better the human race:

> The Destiny is important for the lessons it forces us to learn while we're here on Earth, for the people it encourages us to become. It's important for the unity and purpose that it gives us here on Earth. And in the future, it offers us a kind of species adulthood and species immortality when we scatter to the stars. (*Parable of the Talents* 156)

[55] Nisi Shawl suggests that *Parable of the Trickster* is the "Trickster of the Parables books—the solution in the distance we can recognize but can't see clearly, always hovering just out of our grasp" (Canavan, *Octavia E. Butler*, 143; see Shawl, "The Third Parable").

Only through slow resilience, by using survival strategies and compromise to stay alive in a neoliberal world while also working through the economic, social, and environmental problems on Earth, can humans prepare themselves for better lives, societies, and ways of being on other planets. A perfect utopian society cannot exist on Earth, and probably will not in space either—the Earthseed ship that does leave the planet's orbit at the end of *Parable of the Talents* is named the *Christopher Columbus*, suggesting a continuation of conquest and unequal domination. But we can work toward relationships with ourselves, other species, and with the earth that are a little better, a little more equitable, with each new generation.

CHAPTER TWO
CLIMATE CHANGE AS GOTHIC APOCALYPSE IN MARGARET ATWOOD'S *MADDADDAM* TRILOGY

When Snowman wakes up in a makeshift bed balanced on a tree branch at the beginning of *Oryx and Crake* (2003), he takes stock of his few remaining possessions: a watch stopped at "zero hour,"[56] a dirty bedsheet he wears, toga-like, as his only covering, a spider-covered "authentic-replica" Red Sox baseball cap, one ant-covered mango, a half bottle of Scotch, an energy bar, a can of meat-alternative cocktail sausages, and a pair of sunglasses missing one lens. He puts on the broken sunglasses ("they're better than nothing" to protect from the punishing sun) and "sits wrapped in his decaying sheet, hugging his shins and sucking on his mango." He surveys the "rosy, deadly glow" of the sun that will soon become too hot to sit under uncovered and listens to the ocean hitting the "ersatz reefs of rusted car parts and jumbled bricks and assorted rubble" (*Oryx and Crake* 3-6). So begins Margaret Atwood's *MaddAddam* trilogy, the first novel in the series, *Oryx and Crake*, detailing the life and memories, post-apocalypse, of Jimmy, aka Snowman. He is the Last Man,[57] he thinks, left on Earth after a mass human extinction event—the viral outbreak of a superbug, which was developed and released by his now-deceased, genius friend, Crake. At first, he has only bioengineered humanoids (Crakers—a new species of simple, human-like creatures who have been genetically engineered to eat only plant matter, and to have no sexual jealousy, greed, or any other wants that can't be satisfied by the environmentally-compromised world around them) and hybrid animals

[56] Snyder, in "'Time to Go'," draws attention to the Snowman's stopped watch, which denotes that he is "marooned in time, cast away between a human past and a post-human future, cut off from the past yet unable to move beyond it" (472). Hicks and Ingersoll pick up on the idea of Snowman as a castaway, comparing him to Robinson Crusoe (Hicks 27), and a "castaway in a culturally vacant cosmos, with no hope that his message-in-a-bottle could ever find a reader" (Ingersoll 171).

[57] See Özhan, "The Representation of Dystopia" (102) and Canavan, "Hope, But Not for Us" (140) for further discussion of *Oryx and Crake* as a "last man on earth" narrative.

(pigoons, wolvogs, rakunks) for company. Flashbacks to Jimmy's memories of the past form most of the novel and drive him slowly crazy, until he sees three human figures off in the distance at the end of the novel, and knows he is not alone. The opening scene of the trilogy introduces us to Atwood's satiric idea of what a Last Man would look like if left behind in a climate changed world, amidst the rusted-out ruins and surviving biotechnology of a society in which neoliberal capitalism has been taken to its furthest extremes.

Snowman, wearing his dirty sheet, scratching his bug bites, and messily sucking on his last remaining piece of fruit, is a far cry from the noble Last Men surveying biblical-scale destruction from on high that populated Romantic literature and art in the early to mid-nineteenth century. And yet, this engagement with Romantic ideas of apocalypse reflects an under-theorized aspect of Atwood's novels. While many critics have noted Atwood's use of the Last Man and Last Woman, the mad scientist, a la Victor Frankenstein, losing control of his creation, and other Gothic themes in the trilogy,[58] few if any have drawn explicit connections between these Romantic tropes, how they addressed grave environmental concerns of their day, and how Atwood employs them to obliquely comment on Capitalocenic climate change. Romantic paintings, poetry, and novels like Lord Byron's poem "Darkness" (1816), Shelley's *Frankenstein* (1818), her dystopian novel *The Last Man* (1826), and John Martin's painting *The Last Man*

[58] See Roman Bartosch ("'Zero Time' and the Apocalypse"), Maria Ferreira ("The *Übermensch* in the Laboratory"), Dunja Mohr ("Eco-Dystopia and Biotechnology"), and Lorrie Moore ("Bioperversity").

(1849),[59] reflected not only a sense of apocalypse and the ending of an age on a biblical scale, but also existential concerns about extreme weather conditions due to global climate changes at the times of their creation. In drawing on these texts, albeit often satirically, Atwood draws an ecological thread through literary history. Ostensibly preoccupied with concerns about human intervention in nature via biotechnology, the *MaddAddam* trilogy uses a mass extinction event through the spread of an engineered supervirus to signal the end of human civilization. As the slow violence of climate change is difficult to visualize without framing it as a short-termed spectacle (as in blockbuster climate disaster movies like 2004's *The Day After Tomorrow*), Atwood substitutes one spectacle for another, vividly describing the devastating aftermath of the supervirus outbreak rather than slowly detailing the long-term effects of Capitalocenic climate change. Nevertheless, her speculative trilogy, like Octavia E. Butler's *Parable* novels, ultimately puts forward a means of slow resilience for her few remaining human characters, this time one that involves grappling with old forms of dominance—male over female, technologically-advanced elites over third world citizens, neoliberal capitalism over environmental integrity, and humans over all other species—in a post-apocalyptic world of human creation.

[59] See Eva Horn, *The Future as Catastrophe* (Columbia UP, 2018), for an extended look at the trope of the Last Man in Romantic art and literature. Horn also cites French writer Francois Xavier Cousin de Granville's novel *Le dernier homme* (1805) and Thomas Campbell's "The Last Man" poem (1823) as Romantic examples of the use of the Last Man in terms of apocalypse, as well as some of their twentieth and twenty-first century updated counterparts, like George Stewart's novel *Earth Abides* (1949), Richard Matheson's novel *I Am Legend* (1954) and its multiple film adaptations, and Cormac McCarthy's novel *The Road* (2006).

LAST MEN AND WOMEN

In Romantic literature and art, the Last Man is the lone survivor of apocalypse, both a witness and a victim of catastrophic disaster. While earlier, biblical descriptions of apocalypse, as in the Revelation of St. John, involve a period of destruction and death followed by a new world order where God (or Jesus in the New Testament) descends to the Earth to reward the faithful, post-Enlightenment, Romantic conceptions of apocalypse

Fig. 4. *The Last Man (*1849) by John Martin (1789-1854). *Wikimedia Commons*, https://commons.wikimedia.org/wiki/File:Martin,_John_-_The_Last_Man_-_1849.jpg.

imagine an end without reconciliation with God. Rather than finding solace in the end in the embrace of God's love, the Romantic Last Man is alone, and is privy to a "final truth" about humankind—that is, how human nature devolves when put under the "ultimate stress test" (Horn 24-26). In John Martin's 1849 oil painting *The Last Man* (see fig. 4), the future of humanity is presented as visually bleak: darkness blankets a valley filled with ruins and human corpses as the Last Man, wearing biblical garb, stands on a ledge

next to a dead woman lying at his feet and gestures futilely toward the sun, which has dimmed to a dark red.

The last of his kind, the Last Man laments the end of humanity and the lack of religious comfort to be found after. The darkness is Martin's painting is a common theme in Last Man narratives, as seen in Lord Byron's titular "Darkness" poem:

> I had a dream, which was not all a dream.
> The bright sun was extinguish'd, and the stars
> Did wander darkling in the eternal space,
> Rayless, and pathless, and the icy earth
> Swung blind and blackening in the moonless air;
> Morn came and went—and came, and brought no day,
> And men forgot their passions in the dread
> Of this their desolation… (Byron 563)

The darkness, effected by the dimming of the sun itself, represents the absence of God, which is the cause of the desolation felt by those still alive. They futilely try to light their world by burning everything from huts to palaces, and whole forests, but these are eventually used up: and "all was black," causing the survivors to look "…up / With mad disquietude on the dull sky." The "pall" and "gloom" eventually extends throughout the universe and everything, even the moon, winds, and clouds "perish'd" (564).

Atwood's first *MaddAddam* novel, *Oryx and Crake*, begins with a disheveled, hungry, dirty Last Man in the form of Snowman, who wears his one-lensed sunglasses to combat the glare of the sun in a world where climate change goes on unchecked. He has witnessed the end of humankind (or so he thinks for most of the novel) and works through a series of disjointed memories of his genius friend Crake, who created the supervirus that has killed off most of humanity in the form of a Viagra-like pill called BlyssPluss, as he attempts to make sense of what led up to the apocalypse and how he was involved in it as the head of marketing for the drug. Many critics have noted

Snowman's ignobility as a Last Man: J. B. Bouson calls him a "kind of living human joke trapped" in his former friend Crake's experiment (153), and Roman Bartosch notes that he is "unreliable, confused, and shattered" (226). Alternatively, and more sympathetically, Lorrie Moore characterizes Snowman as a "pilgrim in Hell," akin to Dante's character in his *Inferno* ("Bioperversity"). When Snowman wakes up at the very beginning of the novel, the sun has a "rosy, deadly glow" (*Oryx and Crake* 3) like the red sun in Martin's apocalyptic painting, but as the novel progresses, it is described as "punishing" (6) and burning: "The sea is hot metal, the sky a bleached blue, except for the hole burnt in it by the sun" (11). Snowman must frequently find shelter from the sun's rays, particularly in the afternoon, to avoid exposure, and rather than contemplating the aftermath of the apocalypse in darkness, he has to squint and wear broken sunglasses to avoid seeing it, and his complicity in it, reflected back too brightly at him.

While it is clear that the brightness of the sun in *Oryx and Crake* is due to climate change rather than the time of day (as even short exposure to the "evil rays" causes reddening and blisters (37)), it is less obvious that the darkness in Romantic Last Man narratives, like Byron's poem "Darkness," is also climate-related. Byron wrote the poem in July 1816 in Geneva, when he was vacationing with Mary and Percy Shelley, and when they and Byron's friend, John William Polidori, decided to write ghost stories together, resulting in the creation of Mary Shelley's *Frankenstein.*[60] In April the year before, a week-long eruption of Indonesian volcano Mount Tambora had caused enormous dust clouds to choke tens of thousands of local inhabitants to death, and to

[60] For an account of this literary environment and the group's personal and romantic entanglements, see Daisy Hay's *Young Romantics: The Tangled Lives of English Poetry's Greatest Generation* (Farrar, Straus and Giroux, 2010).

spread across the world, affecting global weather patterns and lowering temperatures for months. In Europe, 1816 came to be known as the "year without a summer," and France, Germany, Austria, and Switzerland were harshly affected. Byron and the Shelleys witnessed the flooding and famine caused by excessive rain and subsequent crop failures in Geneva and suffered from the lack of activity available to them amidst all the thunderstorms (Townsend, "Year Without a Summer"). Mary Shelley, in her 1831 introduction to the second edition of *Frankenstein*, cites the terrible weather as the impetus for the authors to write their own stories and poems, as they were not able to pursue normal outdoor activities: "But it proved a wet, ungenial summer, and incessant rain often confined us for days to the house," where they found a volume of translated ghost stories (Shelley 190). In Shelley's resulting novel, as Chris Townsend notes, the climate changes from beautiful summer weather before the creation of Victor Frankenstein's monster to "rapidly worsen[ing]" weather reflecting 1816 Geneva: "Storms come and go, and lightning flashes with regularity. Frosts come, then thicken" until finally, at the end of the novel which is set in the far north of the Arctic, "all is a bleak hell of jagged ice, freezing winds, and billowing snow" ("Year Without a Summer"). Byron likewise acknowledges the weather as the inspiration for his poem "Darkness," saying that he "wrote it…at Geneva, when there was a celebrated dark day, on which the fowls went to roost at noon, and the candles were lighted as at midnight" (qtd. in Paley 3). Shelley's Last Man novel (Frankenstein's monster is the last, only member of his kind), and Byron's apocalyptic poem "Darkness" were both inspired and informed by the same global climate event.

Atwood not only draws on Romantic connection between depictions of the Last Man and the climate, but also on Romantic ideas of the Last Man and apocalypse (rather than just biblical apocalypse[61]) as they reflect the state of society in the twenty-first century. Like the Romantic period, the twenty-first century is a time of existential and climate crisis. As Revelations scholar William Barclay notes, apocalyptic visions become popular in times of "tyranny and oppression," or when there is the sense of an ending of one age; an extreme change must be made to make room for the next (4). The Romantic texts, like Atwood's novels, also engage with a concern about the loss of religious belief, or the difficulty of maintaining one's belief, in the rise of science as the dominant determiner of human futures. In the 1800s, authors were contesting optimistic Enlightenment ideas of infinite human progress, as in the philosophy of William Godwin, Mary Shelley's father, favoring instead more bleak views of the future of humanity. In Atwood's speculative 2000s, the philosophy of groups of like-minded survivalists called God's Gardeners who turn to religion for guidance is countered by that of bioengineers like Crake ("numbers people"), who have the power to create new, hybrid forms of life based on scientific knowledge alone. Like the Romantic period with its many new technologies and scientific experiments—e.g. galvanism, or attempted reanimation through electricity—the twenty-first century is also a period of rapid technological development, specifically in terms of the internet[62] and biogenetic engineering. These last two elements figure prominently in *The Year of the Flood*, the second novel in Atwood's

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[61] The apocalypse in the *MaddAddam* trilogy does also fall into biblical schemas of the ultimate disaster, as depicted in Revelations; Atwood's apocalypse, like its biblical counterpart, includes several of the seven plagues, such as disease, pollution of bodies of water, and the sun scorching the earth and burning people with fire. The appearance, at the end of *Oryx and Crake*, of three other human survivors is also a kind of resurrection of the dead, the eleventh of the twelve steps of the apocalypse (Barclay 9).

[62] See David Brin, "Future Tense: How the Net Ensures Our Cosmic Survival" for an assessment of the way the internet has profoundly changed the way we live and think.

MaddAddam trilogy, which is a kind of counter "last women" narrative to *Oryx and Crake* (Ciobanu 154). *The Year of the Flood* begins a few years before the viral outbreak (which is known as the Waterless Flood to the cult group God's Gardeners), following the lives of Toby, Ren, and Amanda, three former God's Gardeners members who are trapped in a cycle of pursuit and escape from evil-intentioned men.

Toby, Ren, and Amanda's alternative perspectives as Last Women recount a much grimmer, Gothic view of the apocalypse. Unlike Snowman, who roams the forest and beach and lives outside in trees, the three women seclude themselves (willingly and unwillingly) inside abandoned buildings and are constantly under threat, as I will discuss further below, from both wild animals and wild, rapacious men (Painballers, or, former prisoners of a *Hunger Games*-style prison fighting game). Toby is much better prepared for and adjusted to post-apocalyptic life than Snowman, however, perhaps due in part to her lack of complicity in causing the apocalypse, and certainly due to her survivalist training. Like Snowman's, Toby's introduction in the beginning of the second novel centers around her altered environment and the harsh sun, but is couched in more pleasant language and is followed by evidence of her fitness for survival rather than, as with Snowman in *Oryx and Crake*, a rendering of her filthy clothes and shaky mental state. Like Snowman, Toby wakes to a "reddening" sun and intense heat: "The air smells faintly of burning, a smell of caramel and tar and rancid barbecues, and the ashy but greasy smell of a garbage-dump fire after it's been raining" (*The Year of the Flood* 3). Nevertheless, the morning sun is described positively as a "sunrise" that Toby witnesses from the roof of the abandoned building she lives in, and there is still evidence of non-bioengineered animal life: "Birds chirp; sparrows, they must be." She can even hear them

more clearly post-apocalypse: “Their small voices are clear and sharp, nails on glass: there’s no longer any sound of traffic to drown them out” (3). While Snowman wallows in his fragmented memories and hears a series of companionable voices as he takes a lust-filled afternoon nap, Toby listens to real birdsong, tends her rooftop garden, and tries to decide if her feeling that someone is watching her is real or imagined. Her life post-apocalypse is similar to her life before in that she is forced to be constantly vigilant and hyper-aware of any danger—pre-Flood she was living in disguise and in hiding from Blanco, a murderous rapist who owned the shady burger joint she was living in. She has also, unlike Snowman, trained for this kind of future scenario: she knows that “Isolation produces such effects [of feeling something is watching her]. She’d trained for them during God’s Gardeners Vigils and Retreats. The floating orange triangle, the talking crickets, the writing columns of vegetation, the eyes in the leaves. Still, how to distinguish between such illusions and the real thing?” (15). As she at first believes that she is the Last Woman on earth, she is able to enjoy the last vestiges of non-human-altered nature, while also reviewing her mental survival training. Unlike Snowman, Toby as a Last Woman looks out on a ruined world she is not complicit in destroying, sees the destruction and smells the corruption of that world and notes her own paranoia within it, but chooses instead to focus on what has been saved—the chirping of birds and fruits and vegetables she has managed to grow. Unfortunately, this brief sense of peace is quickly interrupted, as the novel switches narrators to the other last women, Ren and Amanda, who suffer more extreme and Gothic horrors than Toby during the onset and direct aftermath of the apocalypse.

GOTHIC HORRORS: SURVIVAL BEYOND EXTINCTION

Many scholars have established Margaret Atwood's marked interest in Gothic forms, going all the way back to her earliest literary works (Heiland 157). In the *MaddAddam* trilogy, Lorrie Moore finds that even "Mother Nature herself" is "captured, tortured, and mocked, in classic gothic fashion" ("Bioperversity"). Likewise, Shoshannah Ganz notes that Atwood uses Gothic markers to "advocate environmental awareness and change before the crazed monsters at the centre of the text destroy all life forms" (Ganz 88). While not citing Atwood's novels as an example, Hilde Staels defines the Gothic mode as one that is based on fear: "fear of ghosts, women's fear of men, fear of the dark, fear of what is hidden but might leap out unexpectedly, fear of something floating loose which lurks behind the everyday" (Staels 152). These fears reflect those of the main characters in Atwood's trilogy: Snowman is tormented by memories of his dead friends; Toby, Ren, and Amanda are afraid of Blanco, a violent rapist, and bands of Painballers, prisoners who have been punished by being forced to compete in a twisted version of paintball, but to the death. Toby, a former God's Gardener who was forced to seek refuge alone in an abandoned spa (called "AnooYoo"), is afraid of the hybrid animals and wandering bands of survivors who might be lurking in the forest; and all of the survivors of the supervirus are wary of other survivors who might be infected with the disease.

Snowman faces a series of Gothic horrors in *Oryx and Crake* when he ventures out from his customary tree to find food and supplies in the RejoovenEsense compound. In an abandoned house within the compound where he is checking each room for canned goods and toiletries, he can't shake the sense that someone might be alive, watching him. The very atmosphere of the house is terrifying: "The hair on his arm prickles:

claustrophobia and bad energy are already pressing him down. The air is thick, as if panic has condensed in here and hasn't yet had time to dissipate. It smells like a thousand bad drains" (*Oryx and Crake* 229). As it turns out, the only inhabitants of the house are long dead and evidence of the violence of their end is scattered around: in the bathroom lies a decomposing body of a man in "blue-and-maroon-striped pyjamas," and next to him on the floor are fragments of the mirror he smashed, in as Snowman imagines, a "last act of ineffectual rage of cosmic protest—*Why this? Why me?*" (230). Unnerved but determined to keep looking for supplies, Snowman goes down the hall to the bedroom, where, as do the heroines in Gothic novels like Ann Radcliffe's *The Mysteries of Udolpho* (1794), and even in Southern Gothic short stories like William Faulkner's "A Rose for Emily" (1930), he finds a skeleton moldering, aristocratically, in the bed: "The lady of the house is in the bedroom, tucked under the king-sized pink and gold duvet, one arm and shoulder blade outside the covers, bones and tendons in a leopard-skin-print nightie. Her face is turned away from him, which is just as well, but her hair is intact, all of a piece, as if it's a wig…" (230). Becoming used to the horrors of the dead bodies, Snowman finds himself reflecting instead on the remnants of humanity on the dead woman's body; her hair reminds him of Oryx, he and Crake's enigmatic lover before the end.

While Snowman passively encounters spectacles of death and wasted flesh, the female characters in *The Year of the Flood* face active threats to their persons, reflecting two key traits of the Gothic that Eve Kosofsky Sedgwick traces in her treatise, *The Coherence of Gothic Conventions*: live burial and encounters with the Unspeakable. There is a tendency for Gothic heroines to be trapped, sometimes underground, often in the dark, and generally with no visible means of escape, and to find themselves face to

face with things of such great import that their minds cannot reconcile them with previous experiences. In Ann Radcliffe's classic Gothic novel *The Italian* (1797), for example, the heroine, Ellena Rosalba, is kidnapped at night by an evil-minded monk working for her suitor's disapproving mother, and is forced against her will into an unfriendly convent where she is locked away in an isolated cell. While she does eventually escape, albeit narrowly and through a series of underground, torch-lit passages, Ellena first finds another kind of escape from her imprisonment. From her remote, locked cell, she is able to access a room in a turret that overlooks the expanse of mountains in the valley below the convent. As she looks out over the "wide and freely-sublime scene without," her "consciousness of her prison [i]s lost." She is so transported by the grand scenery that she feels she will be able to "bear…with equanimity, thro' the persecutions that might await her" (Radcliffe 90). She thinks of the power of God, who created the vast, mighty mountains below, and compares Him with the "boasted power of man," the "giant who now held her in captivity," who she now feels "would shrink to the diminutiveness of a fairy" (91). The awe-inspiring, sublime view she can access through the windows of her cage soothes her mind and transports her thoughts to higher powers than those keeping her locked away, whose formerly formidable influence has caused her so much worry until that moment. Because she can see the precipices, gigantic pines, dreadful passes, and thundering waterfalls below as visible examples of God's power, she finds that her captors' "utmost force was unable to enchain her soul, or compel her to fear [them], while [they] were destitute of virtue" (91). Her "live burial" in a tower therefore serves to diminish the mortal power of her captors rather than to elevate it.

While Atwood's imprisoned female characters also experience a kind of transport and remove from their dire circumstances, their sublime moments of escape are due more to the trappings of late capitalist consumer culture than to broad vistas demonstrating God's glory. In Atwood's "midquel," *The Year of the Flood*, Ren is trapped in a quarantine room in Scales and Tails, an adult club with dancers in exotic, feathered costumes who cater to Painballers and local "pleebrats." While she initially goes into the "Sticky Room," a detox space, as a health precaution after an encounter with a customer, she quickly becomes trapped there as a violent brawl breaks out in the club. The owner, named Mordis, is the only one who knows the code to let her out of quarantine, and he dies just outside her door trying to prevent violent, rapacious men from getting into the room and to her. After Mordis dies, Ren realizes her situation: "The Sticky Zone was a fortress… [Mordis had] saved my life. But now I was locked inside, with no one to let me out. *Oh please*, I thought. *I don't want to be dead*" (*The Year of the Flood* 280).

Effectively buried alive in this "fortress," Ren has nothing to do but watch news of the "eruptive plague" that begins quickly spreading across the world, and to try to ration her dwindling food supplies. However, as Ellena was granted a reprieve from thoughts of her unfortunate situation through access to the turret with impressive views, so too is Ren also partially rescued from imprisonment when her friend Amanda finds her and guesses the code to unlock the Sticky Room. While still stuck inside the club to avoid outbreaks of the disease, and also marauding gangs of thieves and rapists, Ren and Amanda have their own kind of release by drinking beers and eating bar snacks, painting their fingernails (in colors blithely called "Satsuma Parfait" and "Slick Raspberry"), and trying on dead erotic dancers' feathered and sequined bird costumes. These are worn over

Biofilm Bodysuits, which are a kind of full-body condom for safe interactions with customers. Wearing the outer trappings of deceased club dancers, Ren and Amanda forget their troubles and dance: "So there we were in our flamingo-pink and peagret-blue costumes and our fresh nail polish," Ren relates, "dancing on the Scales stage together with the music turned up, whump whump babadedump, bam bam kabam, singing along as if we didn't have a care in the world" (*The Year of the Flood* 331). In that moment, they forget that they are stuck in a club full of plague victims with only a dwindling supply of snack food to sustain them and abandon themselves to the beat of the music.

This moment of abandon is a kind of "hysterical sublime," a term coined by Fredric Jameson in his 1984 essay version of *Postmodernism, or The Cultural Logic of Late Capitalism*. In the essay Jameson talks about the traditional definitions of the sublime according to Edmund Burke ("an experience bordering on terror") and Emmanuel Kant (the enormous power of Nature that could only be understood in terms of the divine) (Jameson 77). He then theorizes a new, updated version of the sublime for a postmodern or late capitalist mode. Jameson says that pleasant fields and picturesque houses, which might have served as artistic focal points in the past, are "all irredeemably and irrevocably destroyed by late capital" and turned instead into vacant lots, superhighways, and condominiums. He also notes that the naturalization or normalization of technology can cause "even the automobile wrecks [to] gleam with some new hallucinatory splendor," and that "urban squalor can be a delight to the eyes, when expressed in commodification" (77). This new kind of wonder at manufactured products and their decay is, he says, a "camp" or "hysterical" experience of exhilaration and terror

at the sight of objects without any depth or history behind them, a vivid, hallucinatory enjoyment of a "glossy skin" obscuring reality.

In Atwood's novel, Ren and Amanda's borrowed costumes are manufactured products in the style of bird feathers and are peeled off like a layer of skin. They are surface representations of animals, and when Ren and Amanda wear them, they are also surface representations of the dead dancers; they are wearing their skins. Further, the Biofilm Bodysuits they wear beneath the costumes are literally a second skin made of "layers of living cells [that] bonded with your skin" and breathed in oxygen for you (*The Year of the Flood* 330). So, as they dance on the club's stage, Ren and Amanda are simulacra of the dead dancers, and are wearing simulacra of birds' feathers, and even simulacra of their own skins. They revel in the unrealness of it all, and this allows them to escape for a moment from the reality of their situation. Like Gothic heroines in nineteenth-century novels, the female protagonists in Atwood's novel are also able to transcend imprisonment with a kind of sublime experience, albeit one where they are wading in surface and mass-produced pleasures rather than being steeped in a self-affirming experience of God's power over humankind. This moment is cut short, however, when their dancing is met with clapping, and three men appear in the club. The terror the women feel is quickly overpowered by joy, as Ren and Amanda recognize the men as old friends from the God's Gardeners. Their experiences of the hysterical sublime go from the wild abandon of wearing others' manufactured skins to the terror of being observed to the joy of recognition.

Ren and Amanda's exhilaration while wearing the skins and feathers is also an example of a kind of extinction sublime—that is, an encounter with the ultimate

Unspeakable, or, as Heather J. Hicks phrases it, "the mother of all apocalypses" (27): the mass extinction of one's own species. This is incomprehensible because it is the worst possible outcome, and because no one will live through it to be able to describe it. By dancing in the "skins" of dead erotic performers, Ren and Amanda revel in and play with their own future extinction. Likewise, reading Atwood's trilogy, and post-apocalyptic fiction in general, allows us to "imaginatively…rehearse the end," to "witness the unwitnessable and to survive the unsurvivable" (Snyder 486), so we too can act out and work through our own fears. In this way, through writing about sublime experiences that allow her characters to process the ultimate disaster, Atwood proposes a way for us to grapple with another anthropocenic and anthropocidal disaster of great import: global climate change. By allowing readers to play out, through speculative fiction, a mass extinction scenario and its aftermath, Atwood's trilogy opens up a space for us to consider that largest of hyperobjects, climate change, and to find ways to comprehend its vastness and lasting impact. Timothy Morton defines hyperobjects as things that are "nonlocal" in that "any 'local' manifestation of a hyperobject is not directly the hyperobject," just as local manifestations of climate change, like extremely cold winters or hot summers, are symptoms of a larger, global, interrelated set of processes. Hyperobjects operate on "profoundly different temporalities than the human-scale ones we are used to," in the same way that climate change is evidenced over decades, centuries, and millennia rather than days, months, and years. And finally, hyperobjects are "invisible to humans for stretches of time" (Morton 1), just as it took centuries for humans to detect changes in the earth's atmosphere due to human CO2 emissions. Due to these qualities, climate change is a slippery thing to grasp; it does not "take the shape of

an event" (Horn 55), so Atwood's novels replace it with the catastrophic event of a supervirus outbreak to make a possible end of humanity more observable.

The outbreak is cleverly called the "Flood" by the God's Gardeners a reference to the biblical Flood God releases in Genesis to cleanse the earth of all the sin and impurities that humankind had accumulated since leaving the Garden of Eden. Like Noah and his Ark in the biblical Flood, a few human (and many more animal) survivors in Atwood's novels make it beyond the supervirus apocalypse. It is important to note here that the story of the flood recorded in the Old Testament could reflect a series of global climate change events that have been recorded in the history and mythologies of several ancient cultures.[63] Namely, at the end of the last Ice Age, around 10,000 years ago, global warming caused several massive glacial dams to fail, producing huge floods in Eurasia and North America. Geologists have found evidence of such floods through water-carved potholes hundreds of feet above what are today deep channels and waterbeds, denoting the rapid formation of enormous lakes after their release from glaciers. These geologic formations occur in Asia, Europe, Alaska, Washington State, and the Midwest (Montgomery, "Biblical-Type Floods are Real"), and are recorded as apocalyptic floods in the Old Testament as well as in ancient Sumerian, Babylonian, and Assyrian versions of the *Epic of Gilgamesh* (Salvador and Norton 49). Atwood's naming of the supervirus apocalypse as a Flood, though it is "waterless," therefore implicitly references these earlier global climate disasters.

Ultimately, Atwood's use of Gothic horror in the form of live burial and her characters' play with the unspeakability of mass human extinction due to a bioengineered

[63] As one internet commenter noted, this is going "from Noah to NOAA" (Mahomed, "Re: Was the Great Flood a result of Global Warming?").

supervirus help readers to grapple with worries of human extinction due to Capitalocenic global climate change. Some critics optimistically advocate for this kind of contemplation, as it would do well for us to "accept that our species most likely has a shelf-life," and that we should collectively "remember [ourselves] *as* a species" that has damaging effects on other species (Belyea 194). Atwood's novels, however, not only to try to make sense of these grand narratives on a species-wide scale, but also make readers aware of the individual suffering that Capitalocenic disasters do and will have on those most vulnerable to mass disasters, as is evident in the suffering of the female survivors in Atwood's counter last-woman narrative in *The Year of the Flood*.

RUNAWAY SCIENCE AND ITS MONSTERS

So far, this chapter has addressed the suffering and mental anguish of characters relatively peripheral to the origin of the supervirus which causes the mass human extinction event in the trilogy. To get a full picture of Atwood's speculative, Gothic imaginings about how such an event could come to be, it is necessary to turn toward the world and mind of the mad genius creator of the apocalypse, Crake, and his other creations. Crake's world is one of neoliberalism run amok, with stark divisions between elite and underserved societal groups, even down to the types of food—real or "alternative"—that each group has access to. Strange and often dangerous hybrid animals, grown as part of an elaborate game of genetic creation that defies millennia of evolution, wander the forests, occasionally attacking humans. After the apocalypse, Crake's "children," the Crakers, are left to fend for themselves with only Snowman, who feels lonely and abandoned, for guidance. In this world of Gothic biogenetically altered

monsters and speculative horrors, Atwood frequently references Mary Shelley's *Frankenstein*, her characters' deepest desires echoing those of Frankenstein's monstrous creature.

Before the Waterless Flood occurs, Atwood constructs a dystopian future where, as Gerry Canavan has noted, the "historical trajectory of neoliberal capitalism has reached its logical culmination" (142). The world is divided into gated communities called Compounds that house the elite and all of the biotech engineers and labs, and relative slums with little security and much poverty, called the "pleeblands," for everyone else. Drug companies purposely infect people with newly created illnesses to profit off of their own cures, and biotech labs release dangerous hybrid animals into local environments with no oversight. Climate change, as previously noted, has run unchecked; this causes desertification and coastal flooding. In Florida, for example, citrus orchards dried up, Lake Okeechobee "had shrunk to a reeking mud puddle and the Everglades had burned for three weeks straight" (*Oryx and Crake* 63). The little remaining semblance of statehood and governance is the authoritarian power wielded by a private security force, the Corporate Security Corps, known as the CorpSeCorps. As Michael Spiegel argues, the dystopic, neoliberal world of the *MaddAddam* trilogy resembles a neomedieval state, one in which the "nation-state" is gravely weakened due to "simultaneous globalization and fragmentation," but persists in the form of loyalty to local groups and transnational organizations. This is similar to feudalism in that individuals would identify not with a nation-state but with "bonds of blood (kinship) and those of oath (vassalage)" (Spiegel 120-121). As a person living in a Compound, Snowman identifies with his family, reminiscing about his childhood for most of the beginning of *Oryx and Crake*, with the

Compound he grows up in—HelthWyzer—and then the college that he attends after high school—the Martha Graham Academy. The people who attend this school, focused entirely on the humanities, are presented as binary opposites of those who, like Snowman's friend Crake, attend more prestigious, science-focused schools like the Watson-Crick Institute: the former are "words" people while the latter are "numbers" people. Students at each kind of college go on to have extremely divergent careers, and also categorize themselves as very different from the "pleebrats" who live outside of compounds, staying largely away from the pleeblands unless they want to engage is some kind of illegal activity.

These feudal divisions and identifications, meant to keep each social group separate and from uniting against the corporations who run the Compounds, are enforced even by the quality of food that students in each college consume, which is either "real" (in elite institutions) or lab-produced food alternatives. Those in the Watson-Crick Institute get to eat, for example, real, non-GMO popcorn with real, cow's milk butter; those attending the Martha Graham Academy are more likely to end up eating various corporation-designed, bio-engineered alternative meats and other "ersatz" foods—another product of the excesses of neoliberal capitalism. These ersatz foods include, as Hub Zwart succinctly summarizes, "soy-sausage dogs; SoyOBoyburgers, SoYummie Ice Cream, chocolate soy, mango soy, chocolate soy goo, microwaved dinners, butter substitute, CrustaeSoy, ChickieNobs Nubbins, soyboys, joltbars, soyafries, soytoast and SoyOBoy sardines" (Zwart 269). ChickieNob Nubbins are particularly disturbing, as they are the result of genetically engineering chickens to be headless stubs that grow breasts or

drumsticks only. Snowman (then called by his given name, Jimmy) witnesses them being grown in a lab at the Watson-Crick Institute, and has no idea at first what he's seeing:

> "What the hell is it?" said Jimmy.
>
> "Those are chickens," said Crake. "Chicken parts. Just the breasts, on this one. They've got ones that specialize in drumsticks too, twelve to a growth unit."
>
> "But there aren't any heads," said Jimmy.
>
> "[…] That's the head in the middle," said the woman [in the lab]. "There's a mouth opening at the top, they dump the nutrients in there. No eyes or beak or anything, they don't need those."
>
> "This is horrible," said Jimmy. The thing was a nightmare. It was like an animal-protein tuber.
>
> "[…] no need for added growth hormones," said the woman, "the high growth rate's built in. You get chicken breasts in two weeks – that's a three-week improvement on the most efficient low-light, high-density chicken farming operation so far devised." (*Oryx and Crake* 202-3)

Virtually nothing of the original animal remains, and teenaged Crake and the other scientist in the lab refer to the "chicken" as if it's a vegetable to be maximized for ultimate growth speed and profit. This is, as with all of Atwood's fictional creations, not that far off from conditions today: in factory chicken farming in the United States, chickens' beaks are often removed to prevent them from pecking each other out of pique from being crowded in too closely together, causing injuries and infections, and they are pumped full of hormones to increase the size of their breasts. The ChickieNobs are therefore horrifying because, in addition to their nightmarish appearance, they are an extrapolated version of the kinds of lab-produced franken-meats that we eat today, and they are marketed and fed to a majority of people who do not have Jimmy's firsthand knowledge of their creation. The lab experiments at Watson-Crick have become everyone's food, cheaper and more widely (or the only option) available than real meat.

Even more horrifying are the pigoons, which Jimmy/Snowman also has firsthand knowledge of, as they are developed in his own Compound, HelthWyzer. While the

ChickieNobs are devoid of nearly everything, besides their meat, that identifies them as chickens, pigoons are disquietingly similar to their porcine originals. Though much larger and fatter than ordinary pigs, because they harbor multiple extra internal organs that will later be harvested for human transplantation, they still look and smell how one would expect. To Jimmy, as a young boy, their eyes are a little terrifying: "They glanced up at him as if they saw him, really saw him, and might have plans for him later" (*Oryx and Crake* 26). They seem a little too intelligent to Jimmy, which is disturbing given that they have not only human-compatible kidneys, livers, and hearts growing inside of them, but also, as Jimmy's father announces one evening to Jimmy's horrified mother, "genuine human neo-cortex tissue" (56). For this reason, it is explicitly stated in promotional material that no meat from a pigoon ever ends up as a pork product, as "no one would want to eat an animal whose cells might be identical with at least some of their own." Nevertheless, Jimmy's father's colleagues often make jokes about the food they're served in the company café, which is quite often pork, so much so that the café is nicknamed "Grunts" (24). In a world where ChickieNobs are grown to maximize profit margins and produce as much meat as quickly as possible, it is no large stretch of the imagination that pigoons that have outlasted their usefulness as organ growers are then turned into "pigoon pies," bacon, and ham sandwiches.

While some, like young Jimmy, are queasy at the thought of eating human-pig hybrid meat, and the occasional few, like his mother, are morally outraged about the genetic experiments HelthWyzer is conducting, most of the employees of OrganInc Farms, where Jimmy's father works, think of their genetic splicing experiments as a powerful game. In the early days of the lab, scientists created all kinds of monstrous

hybrids, some ultimately benign—rakunks (racoon + skunk)—and others so terrifying they had to be liquidated—snats (snake + rat) and cane toads with prehensile chameleon-like tails (who needed an animal like this that "might climb in through the bathroom window and blind you while you were brushing your teeth?"). The scientists creating these hybrids called it "create-an-animal," which was "so much fun…it made you feel like God" (*Oryx and Crake* 51). Jimmy's mother throws this religious angle back in her husband's face when he announces that pigoons now have human brain stems: "You're interfering with the building blocks of life. It's immoral. It's…sacrilegious." Jimmy's father reacts, as do most of the scientists throughout the trilogy, with a secular rebuttal: "It's just proteins, you know that! There's nothing sacred about cells and tissue…" (57). People like Jimmy's father who "play God" by creating hybrid animals also enjoy playing an actual game called *Extinctathon*, where the goal is to identify as many extinct species as possible. The game has an explicit religious overtone, as the opening phrase on the game's screen is "*EXTINCTATHON, Monitored by MaddAddam. Adam named the living animals, MaddAddam names the dead ones. Do you want to play?*" (80), implying that fallen humans have strayed so far from God's grace in the Garden of Eden, where Adam was tasked with classifying, nurturing, and protecting species created alongside humankind, that they have instead begun to cause animals to go extinct. Ultimately, throughout the first novel of Atwood's trilogy, humans are indicted for playing God, sometimes to maximize profits, and other times simply because they can. Their capitalistic excess, including the desire for larger, fatter meat products, has effectively caused other species, which had evolved naturally over millennia, to be virtually unidentifiable, or, in the case of the pigoons, to be a bit too close to human for comfort.

Into this world of rampant, unchecked, destructive capitalism, neoliberal vassalage, ersatz food products, and bioengineered hybrid animals goes Crake (whose given name is Glenn), who is a childhood friend of Jimmy's and is a Frankenstein figure in Atwood's novels. While the Crakers, his humanoid creations, think of him as their god, many critics see him as a stereotypical mad scientist,[64] who, according to Ursula Heise, has "world-devastating ambitions" (126). Roger Davis cites his transgressions of ethical boundaries and "immoral acts against humanity" (creating the supervirus) as evidence of Crake as a representation of "white, Western, unbounded scientific knowledge"; he is "ostensibly work[ing] for the betterment of humanity but ultimately leads to its destruction" (238). In a more nuanced view that is closest to my own thinking of Crake as akin to a tortured Victor Frankenstein, Roman Bartosch characterizes Crake as "not at all cold and distanced but a fervent—if misanthropic—thinker" who believes that the world "needs a new, ecological utopia" (228). Unfortunately, he takes an apocalyptist's stance, i.e. believing "not in the reformation, but in the dissolution of the present world," which he believes is "beyond mending" (Barclay 5); he ultimately decides to kill off nearly all of humanity, including himself, with his supervirus to make way for the ecological utopia he imagines.[65] Nevertheless, Bartosch argues, Crake also "embraces human animality and accepts the evolutionary continuum between man and animal that allows him to add the genetic sequences of animals to his new-formed human beings" (228-9). That is, he conducts his many genetic experiments altering humans, animals, and human-animal hybrids not simply for the pleasure of it, or because he has the power to do so, but rather

[64] See also Bouson (145-6), Ingersoll (170), Barbara Korte (161), Cynthia Kuhn (400), and Sharon Rose Wilson (47-48) for readings of Crake as a mad scientist.
[65] Crake thus adopts an "anti-population" argument which has its roots in the thinking of Thomas Malthus (Stein 185).

out of his deep convictions about the flaws of human nature and a desire to correct them. Rather than attempting to further elevate humankind over other species, he puts aside human hubris to create humanoids with animal characteristics (like, for example, genitals that turn blue to indicate fertile periods, a trait borrowed from baboons).

Despite his noble intentions, Crake ultimately creates monstrous progeny to live in a degraded world. His greatest creation, the Crakers, are genetically enhanced trans- or post-humans[66] who have only easily satisfied desires and little to no ecological footprint. In a climate-changed world where the waters are polluted, the sun beats down mercilessly, and few non-genetically altered animals can survive, Craker children play with the detritus of humanity, asking Snowman to identify objects—"a hubcap, a piano key, a chunk of pale-green pop bottle smoothed by the ocean. A plastic BlyssPluss containter, empty; a ChickieNobs Bucket O'Nubbins, ditto. A computer mouse, or the busted remains of one, with a long wiry tail" (*Oryx and Crake* 7)—from what is, for them, another world. The Crakers' sex lives are entirely utilitarian, eliminating any impetus for competition, violence, or sexual abuse; they only live to about thirty years old; they eat leaves and caecotrophs (their own digestive waste repurposed as food to glean all possible nutrients); they are a variety of different skin tones that a starving Snowman describes in terms of long-lost foods—"chocolate, rose, tea, butter, cream, honey"—but all have green eyes, which is "Crake's aesthetic" (*Oryx and Crake* 8); their body odor repels insects; and their skin is resistant to ultraviolent radiation. And yet they

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[66] See Andrew Pilsch, *Transhumanism: Evolutionary Futurism and the Human Technologies of Utopia* (University of Minnesota Press, 2017), for a lengthy discussion of the transhumanism movement, which is based in cybernetics, evolutionary biology, and spiritualism, and advocates for the genetic alteration of the human species, especially for longer lifespans. Crakers can be seen as both transhuman (given their unnaturally limited life spans and genetically altered physical traits) and posthuman (given their existence, literally and figuratively, beyond humankind).

are also, in Snowman's mind, unnatural and a little creepy, their enhancements ultimately causing them to be far from human. The Craker women, for example, are all "admirably proportioned…No ripples of fat around their waists, no bulges, no dimpled orange-skin cellulite on their thighs. No body hair, no bushiness." They are so far removed from human women with imperfections (which, Snowman reflects, is what used to attract him—"the lopsided smile, the wart next to the navel, the mole, the bruise"), that they look like "retouched fashion photos, or ads for a high-priced workout program" (*Oryx and Crake* 100).

Because they have so few of the desires, traits, and flaws that mark the human qua human, the posthuman Crakers are akin to Frankenstein's creature, who is monstrous in no small part because of his unnatural birth. While N. Katherine Hayles posits that the "posthuman does not really mean the end of humanity," signaling instead "the end of a certain conception of the human" (286), Maria Ferreira finds that Atwood's Crakers, who in the end seem more like animals than humans, suggest that once genetic experimentation has gone "beyond a certain threshold of consensual acceptability," it will be difficult to hold on to "old notions of what a human being is" (152). At what point, Ferreira is saying, will science push beyond the bounds of the human into something else entirely? Put another way, Andrew Belyea concludes that the Crakers seem less "authentic" as a species than *homo sapiens* (although, he asks, "Are we any more 'authentic' in our *homo hereandnowus* manifestation than we were in our *Australopithecus africanus* or *homo erectus* or any other of our previous evolutionary iterations?"), given our penchant for a solipsistic anthropocentricity (189). One could argue in turn that the Crakers seem inauthentic not just in that they are an entirely new

species of human, but also in that they were created in a lab rather than through heterozygous reproduction. Frankenstein's creature is also visually and biologically unnatural or inauthentic. He is created out of body parts collected from graveyards and charged with electricity, and, though his "limbs were in proportion, and [Victor Frankenstein] had selected his features as beautiful," he is much taller and larger than the average man, and has several disquieting physical characteristics:

> His yellow skin scarcely covered the work of muscles and arteries beneath; his hair was of a lustrous black, and flowing; his teeth of a pearly whiteness; but these luxuriances only formed a more horrid contrast with his watery eyes, that seemed almost of the same color as the dun white sockets in which they were set, his shriveled complexion, and straight black lips. (Shelley 42)

Though designed to be handsome, the creature, once reanimated through unnatural processes, proves hideous.

Just as much of Snowman and Crake's world is the result of neoliberal capitalism and biotechnology taken to its logical conclusion, so too is the world of Frankenstein the result of "methodological naturalism" taken to its logical conclusion (Hogsette 533). And, as Shelley wrote against the secular humanism of the Enlightenment and its aftermath, Atwood writes against making a "Faustian bargain" with biotechnology (Mohr 290). Both Frankenstein and Crake defy the laws of nature to "birth a motherless monster" (Townsend "Year Without A Summer"), Crake using genetic engineering rather than a sexual partner to generate the Crakers. Rosi Braidotti calls this a "*masculine standpoint*," which is a separation and autonomy from the maternal (206), and a dream of "self-generation, of being father/mother of oneself…It is a form of flight from the feminine" (184). Unfortunately for Frankenstein's creature, the lack of a mother involved in his birth, and Victor Frankenstein's subsequent lack of maternal love and nurturance

for his creation, lead to the central conflicts of Mary Shelley's novel: the creature, rejected by Frankenstein and nearly all others, kills Frankenstein's brother William in retaliation, then, when Frankenstein refuses to make a companion for the creature, the creature strangles Frankenstein's fiancée, Elizabeth, causing Frankenstein to spend the rest of the novel hunting for the creature. The creature's birth is unnatural not only because of Frankenstein's lack of maternal care for his creation, leading to murderous anger and lifelong antagonism between father and "son," but also because, as Anne K. Mellor explains, it goes against the laws of evolution (as they were understood in the early nineteenth century) and is an example of scientific hubris. Mary Shelley was well-versed in the latest science of her day, and so was familiar with Erasmus Darwin's "evolutionary ladder" of reproduction; this was a hierarchy in which "sexual reproduction is at a higher evolutionary level than hermaphroditic or solitary paternal propagation" (295). That is, beings created out of sexual coupling are evolutionarily more advanced than those produced by a single parent. Having created a human being without a mother, Frankenstein "moves down rather than up the evolutionary ladder; he reverses human progress and perverts the law of the survival of the fittest. And he denies the natural mode of human reproduction through sexual procreation" (299). Even worse, Frankenstein engages in what Mary Shelley considered to be "bad" science—exploitation of natural forces to serve human desires—versus "good" science–respectfully recording how nature works (287).

Beyond this scientific critique of Frankenstein's creation, the creature's birth is also "unnatural" because it is, like the creation of human brain tissue in pigoon bodies, the result of a scientist playing God. This is against the natural order of things, in which

God created the earth and its creatures out of nothing, ex nihilo, while scientists like Crake are not really creating life out of nothing, but rather "mix[ing], splic[ing], and engineer[ing] existing life into a new breed" (Trauvitch 175). Crake takes genetic traits from several different non-human species to create Crakers, and Victor Frankenstein takes body parts from multiple dead bodies to create his creature, and *re*-animates him, rather than providing him with his original spark of life. No wonder, then, that their resulting creations are considered sub-human; Shelley states the creature's horrifying nature unequivocally in her 1831 introduction to the second edition of *Frankenstein*:

> Frightful must it be; for supremely frightful would be the effect of any human endeavor to mock the stupendous mechanism of the Creator of the world. His success would terrify the artist; he would rush away from his odious handywork, horror-stricken. He would hope that, left to itself, the slight spark of life which he had communicated would fade; that this thing, which had received such imperfect animation, would subside into dead matter; and he might sleep in the belief that the silence of the grave would quench for ever the transient existence of the hideous corpse which he had looked upon as the cradle of life. (Shelley, Introduction to *Frankenstein* 1831)

Frankenstein's creature, made outside of God's creation, is hideous, and he kills his creator's family members and cannot find love; the Crakers are likewise too perfectly designed to be considered fully human, thus occupying an "uncertain space between the human and the monstrous" (Davis 238). While it turns out at the end of Atwood's third novel in the trilogy, *MaddAddam*, that the Crakers are genetically compatible with humans (Craker-human hybrid babies are born without genetic complications), their alien traits often make them unsettling. They all have luminous green eyes, for example, but these are an "uncanny" shade of green that does not naturally occur in humans: "How had Crake devised those eyes? How do they light up from within like that? Or give the appearance of lighting up. It must be a luminosity feature, perhaps from a deep-sea

bioform" (*MaddAddam* 374). The Crakers' unnerving green eyes are quite similar to Frankenstein's creature's "yellow, watery eyes," which is one of the creature's disturbing physical traits that causes Frankenstein to want to reject his creation.

The eyes of the Crakers and of Frankenstein's creature serve more than one purpose: both to ask their creators why they have created them,[67] and to reflect back the fears, desires, and anxieties of their creators. Mary Shelley discusses these concerns when she relates the story of her novel's origin: she had a dream-vision of a scientist creating life, finding it hideous, going to sleep hoping to wake and find it was all a dream, and actually waking to see his creation standing over him. The "horrid thing stands at his bedside, opening his curtains, and looking on him with yellow, watery, but speculative eyes" (192). These "speculative eyes" question Frankenstein about his creation's origin, but "speculative" also has other meanings relevant to this scene. "Speculative" comes from the Latin verbs *specere*, to look, *speculat-*, observed from a vantage point, and *speculari*, watchtower ("Speculate"). These definitions imply observation from a critical distance: the creature's watery, yellow eyes look on Victor Frankenstein from a remove due to the gulf of humanity between Frankenstein and his creation. But "speculative" is also related to *speculum*, or mirror—in the Middle Ages, "speculative grammar" meant that in which the structure of language is "explained as mirroring that of reality" ("Speculative grammar"). So, the creature's eyes also mirror, or reflect back, Frankenstein's hopes, fears, and deepest desires, and it is this that is so disconcerting.

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[67] This is a reference to Jeffery Jerome Cohen's "Monster Culture (Seven Theses)." His seventh thesis on the cultural production of monsters states that "The Monster Stands at the Threshold…of Becoming," with the main idea being that monsters "bear self-knowledge, *human knowledge*…These monsters ask how we perceive the world, and how we have misrepresented what we have attempted to place. They ask us to reevaluate our cultural assumptions about race, gender, sexuality, our perception of difference, our tolerance towards its expression. They ask us why we have created them" (Cohen 20).

Likewise, in Atwood's novels, one young Craker boy, Blackbeard, befriends Toby toward the end of *MaddAddam*, when the few remaining human survivors of the apocalypse band together with the Crakers and increasingly sentient and communicative pigoons. Blackbeard comes upon Toby writing in her journal, and, turning his luminous green eyes on her, asks plaintively, "Oh Toby, what have you been writing?" (*MaddAddam* 374). Blackbeard is both looking on at Toby's journal and observing her writing down the story of his people *and*, as Atwood's creation, reflecting back the novel at its author—"Oh Margaret, what have you been writing?"

Atwood would reply that she also began her narrative after having a "dream vision"; Atwood, like Shelley, was contemplating the meaning of life and our and other species' existence, in this later instance while staring at a rare, endangered, red-headed crake on a birding trip ("*The Handmaid's Tale* and *Oryx and Crake* in Context" 517). Her resulting trilogy, she would also respond, is *speculative* fiction rather than science fiction. Atwood, writing specifically about *Oryx and Crake* and *The Handmaid's Tale*, defines science fiction as "books with things in them we can't yet do or begin to do, talking beings we can never meet, and places we can't go," while speculative fiction "employs the means already more or less to hand, and takes place on Planet Earth" (513). Speaking of the role and possibilities of literature more broadly, Atwood finds that it "puts the shadowy forms of thought and feeling—heaven, hell, monsters, angels, and all—out into the light, where we can take a good look at them and perhaps come to a better understanding of who we are and what we want, and what our limits may be" (517). Thus, her *MaddAddam* novels are speculative in that they are based on monstrous scientific advances and leaps forward in technology that have or could easily happen in

the world today, reflecting back to readers an only slightly exaggerated image of their own society so they can take a good look at themselves in the mirror.[68] If Mary Shelley's *Frankenstein* is a "terrifying mirror reflecting a horrific reality that we are unprepared to accept," that of "man creat[ing] human life without the biologically and relationally necessary woman and with indifference to God" (Hogsette 533), Atwood's trilogy reflects the terrifying reality of humans not only creating life without millennia of evolutionary or heavenly guidance, but also extinguishing most of their own species and marooning a few unlucky survivors in a friendless world.

Like Blackbeard, Jimmy/Snowman also looks on and questions his existence in the novels, adopting, like Frankenstein's creature, a monstrous perspective; in *Oryx and Crake* when he goes on a scavenging trip he finds a mirror in a bathroom, and takes a look at himself: "He can't resist mirrors in the places he breaks into, he sneaks a peek at himself every chance he has. Increasingly it's a shock. A stranger stares back at him, bleary-eyed, hollow-cheeked, pocked with bug-bite scabs. He looks twenty years older than he is. He winks, grins at himself, sticks out his tongue: the effect is truly sinister" (*Oryx and Crake* 231). Like Frankenstein's creature, when not looking at himself in horror, Jimmy asks the image he has of Crake in his mind why he is still alive when, he at first believes, all other humans have perished. He is also aware that the Crakers, with their perfect bodies and elaborate, staged mating rituals, could never find him attractive as a sexual partner, making him feel even more alone: in contrast to the flawless bodies

[68] While Mary Shelley's novel *Frankenstein* is typically considered to be the first science fiction novel, *Frankenstein*, according to Atwood's definition, is actually also a work of speculative fiction—Luigi Galvani conducted galvanism experiments that supposedly reanimated dead animal tissue, and the Romantics considered electricity, used to "reanimate," a "life-giving fluid," which is the real-life inspiration for the creation of Frankenstein's monster (Mohr 286).

of the Craker women, he is clad in his "filthy tattered sheet, reeking, hairy, tumescent, leering like a goat-balled, cloven-hoofed satyr or a patch-eyed buccaneer from some ancient pirate film." Fed up with his fate, he addresses Crake out loud: "'Crake!' he whimpers. 'Why am I on this earth?' How come I'm alone? Where's my Bride of Frankenstein?'" (*Oryx and Crake* 167). As it turns out, Crake had vaccinated Snowman from the supervirus without his knowledge so that he could tend to the Crakers. While he successfully led them away from the compound in which they were born, Snowman no longer thinks his existence is necessary to their survival— "He's served his evolutionary purpose, as fucking Crake knew he would. He's saved the children" (107). As a now useless, dirt-encrusted human being in a sea of attractive but unattainable posthumans, Snowman further aligns himself with monstrosity, giving himself the nickname the Abominable Snowman. On his own sense of self in relation to other species, Snowman says he is both "existing and not existing, flickering at the edges of blizzards, apelike man or manlike ape, stealthy, elusive, known only through rumors and through its backward-pointing footprints" (7-8). This also echoes Frankenstein's creature at the end of the novel; lonely and wandering the far reaches of the Arctic, rumored to have been seen by locals here and there, always eluding his creator's grasp. Crake's world, now populated by genetically engineered monsters adapted to survive in a climate changed world of Crake's generation's creation, is, for the seeming Last Man on Earth, a desolate hellscape with little comfort or hope for a different future, until the Abominable Snowman realizes that he is not actually the last of his species.

SLOW RESILIENCE THROUGH NEW AND OLD AFFINITIES

At the end of *Oryx and Crake*, Snowman sees smoke in the distance, which turns out to be from Toby, Ren, and Amanda's campfire. The next novel, *The Year of the Flood*, goes back in time to events before the end of *Oryx and Crake* to detail how the three women met up with each other and a few other remaining God's Gardeners and were captured, raped, and tortured by Painballers, the only other human survivors of the "Flood," before escaping to the beach where Snowman finds them. The final novel of the trilogy documents how Snowman, the Crakers, what is left of the God's Gardeners group, and a few agreeable pigoons meet and unite against the marauding Painballers who are not only rapists and but also thieves of valuable supplies. The unlikely affinities between the human and nonhuman survivors of Crake's apocalypse show both that there is no real end to human, or humanoid, life on Earth, despite Crake's best intentions, and that those people left behind after the apocalypse will still be forced to deal with old forms of dominance, and, in Crake's eyes, dangerous human practices like art and myth-creation, that continue on in the relations between the human survivors; in the rapidly solidifying culture of the new species of humans, the Crakers; and even in the new multi-species coalitions that form between the humans (1.0), Crakers (2.0), and pigoons.

Though the world of the novels has become nearly uninhabitable, due to unchecked neoliberal capitalism that has hastened the worst symptoms of global climate change, nature begins to reassert itself post-apocalypse. Snowman, like Toby, begins to notice signs of natural life, specifically birds, amidst the wreckage of human civilization: near the ReJoovenEsense compound there is a "long scrawl of birds unwind[ing] from empty towers—gulls, egrets, herons, heading off to fish along the shore…a salt marsh is

forming on a one-time landfill dotted with semi-flooded townhouses. That's where all the birds are going: minnow city" (*Oryx and Crake* 148). This is a reflection of the "theme of nature's very slow but very certain power to self-renew" (Hengen 77); not only birds but both native and genetically altered plant life is "thrusting itself through every crack," and it "won't be long before all visible traces of human habitation will be gone" (*Oryx and Crake* 221-222). As Lee Rochelle notes, "[t]his permutation, like the urban influx of bird life, indicates a resilience and increased adaptive capacity of plant and animal species" (65). Some of the plants taking over the former compound are "exotic splice," but "in a few years they will be overwhelmed" by native plants, "Or else they will spread, make inroads, choke out the native plants. Who can tell which? The whole world now is one vast uncontrolled experiment—the way it always was, Crake would have said—and the doctrine of unintended consequences is in full spate" (228). Despite all of the bioengineering of plant and animal life that humans in the first novel have carried out, the natural laws of evolution and survival of the fittest—will it be native or exotic spliced plants that dominate the landscape?—have reasserted their power, and the "unintended consequences" of human tampering in natural processes will play out as they will.

Like the birds and plants that have survived Crake's apocalypse, the remaining humans, Crakers, and humanoid animals mix, compete, and form alliances and new forms of culture that Crake not only did not want for his humans 2.0, but also actively tried to eliminate, biologically, from his new species. Crake did intend for the Crakers to coexist peacefully with each other and with the remaining plant and animal life left on an environmentally devasted Earth, but he did not consider that any human, besides Jimmy, would survive to taint the Crakers with dangerous ideas about hierarchies, art, and

religion, those most corrupt of human practices. Crake genetically engineered his new and improved human species so that they would eat only plant matter. They have strictly regimented mating rituals that completely eliminate sexual tension, jealousy, or violence, and, the human survivors slowly learn, they are meant to replace humans as a gentler, more ecologically friendly, and peaceful race. When Toby, Ren, and Amanda finally meet Jimmy and the Crakers, Toby starts to question why they, the few remaining humans, have somehow been chosen to remain alive despite of Crake's design for a new world order. Addressing God, Toby asks, "Are the new people Your idea of an improved model? Is this what the first Adam was supposed to be? Will they replace us? Or do You intend to shrug your shoulders and carry on with the present human race? If so, you've chosen some odd marbles: a clutch of one-time scientists, a handful of renegade Gardeners," and several psychotic Painballers and victimized women. "It's hardly the survival of the fittest," she adds (*The Year of the Flood* 414). That is, Crake's plan to kill off the human race, and with it its worst, rapacious, greedy qualities, seems not to have been fully successful. Flawed human beings—complicit scientists, rapists, and traumatized women—are all still alive and are witnesses to the devastation caused by the supervirus.

Even worse, the Crakers are not quite as impervious to human flaws as Crake had hoped. For example, it was impossible for Crake and his laboratory team to keep the Crakers from singing, because without music, early Craker prototypes were basically vegetables incapable of anything but the most basic functions. The Crakers' singing then becomes part of the ritual of their daily lives. They are also drawn to Snowman, or Snowman-the-Jimmy, as they call him, because he can explain to them the strange,

broken objects left behind by humans (bits of plastic, broken accessories, etc.) that they find on the shore where they live. Jimmy's explanations, however, necessarily devolve into the level of myth, as it is extremely difficult for him to explain to these simple creatures what things like watches are (how do you explain what time is and why it is divided into minutes and seconds?), or toast ("*Toast is when you take a piece of bread – What is bread? Bread is when you take some flour – What is flour? We'll skip that part, it's too complicated…Forget it…Toast cannot be explained by any rational means. Toast is me. I am toast"* (*Oryx and Crake* 98)), and how the Crakers themselves were created in a lab by Crake. Instead, Crake becomes, in their mythology, a creator-god who lives in the sky, and Jimmy's broken watch is a means of contacting him. More formally, replacing the Christian trinity with that of science, "Crake assumes the role of the Father," Snowman is the "sacrificial Son," left to die on Earth with the Children of Crake, as they are sometimes called, and Oryx, Crake and Jimmy's companion who teaches and nurtures the Crakers while they are still living in an artificially created environment in the ReJoovenEsense compound, is "that of Spirit" (Dunning 95). Jennifer Wagner-Lawlor notes that Oryx's relegation to a temporary "mother" of the Crakers "solidifies her subaltern position in the pre-epidemic period of the novel." While Crake, "God-like," lays out the laws that Crakers should follow, and, "Adam-like," names his creatures, Oryx "creates nothing but 'is' the spirit of nature 'herself'"; the animals, not the Crakers, are called the Children of Oryx (81). In the Crakers' less sophisticated minds, they call on Crake, via Snowman's wristwatch, for advice about what they should do in unfamiliar situations, and they call on Oryx when they want to heal themselves or Snowman, or find a fish to feed him with.

In *MaddAddam*, the surviving humans join forces with the Crakers and pigoons (who, it is discovered, have evolved to be able to communicate semi-telepathically with the Crakers) to collectively protect themselves from Painballers and any other desperate human survivors. This alliance is uneasy at first— the pigoons get into the humans' gardens and some of their pigoonlets are killed by the human survivors, male Crakers assume that the human females who "smell blue" (are fertile) want to mate, and male humans assume the same. The female humans, who have faced torture and rape, are finding it difficult to think about procreation and the furtherance of the human race when they are still recovering from their Gothic encounters with violent men. Nevertheless, the three species work together to find supplies at the ReJoovenEsense compound when they encounter a group of Painballers. The pigoons lead the charge to head them off before they can get the spray guns and other vital supplies, leaving the humans to kill or capture the last few Painballers. This joint attack is possible because the humans communicate to a young Craker, Blackbeard, what to tell the pigoons:

> Two of the largest Pigoons [which the Crakers call "Pig Ones"] lower their huge heads, one to either side of his face. There's a white tusk right beside his neck. Toby shivers. He begins to sing while tracing over Toby's marks in the sand with her stick. The Pigoons sniff at the diagram. Oh no, thinks Toby. This isn't going to work. They think it's something to eat. But then the Pigoons lift their snouts and move to join the others… "Looks like they got it," says Rhino. Zeb grins. (*MaddAddam* 355).

Toby is concerned that Blackbeard is so close to the pigoons, who have been known to attack humans in the past. Her fears are allayed, however, when they seem to understand the message Blackbeard relates, using Toby's human map and his otherworldly Craker singing, about how to attack the Painballers in the compound. This multispecies alliance is also a marker of the apocalypse as prophesied in the Old Testament: "The wolf will

live with the lamb, the leopard will lie down with the goat, the calf and the lion and the yearling together; and a little child will lead them…The infant will play near the cobra's den, and the young child will put its hand into the viper's nest" (*New International Version*, Isaiah 11.6-8). Relations between the species have transformed from antagonistic (the Pigoons are bred to have their organs harvested and their meat turned into questionable food products) to symbiotic, and the remnants of Crake's world begin to live peacefully together.

When everything has calmed down from the battle with the Painballers, Toby teaches Blackbeard how to write. After her death, the boy starts recording the myths about Oryx and Crake and the God's Gardeners that Snowman, and then Toby, has told them. Blackbeard does this, according to Toby's instructions, so that "it would always be there for us to read." Toby is careful to explain to Blackbeard how to make pens, ink, and paper for when their supplies run out, and that Blackbeard must make copies of the Book "with the same writing as the first one. And each time a person came into the knowledge of the writing, and the paper, and the pen, and the ink, and the reading, that one was also to make the same Book, with the same writing in it" (*MaddAddam* 386). Through this ritual of reading and writing—the means of recording myths they develop about themselves—the Crakers will perpetuate some aspects of human culture. Or, at least, they will have the tools to do so. As James Kidd notes, "The Crakers were manufactured to live entirely in the present, but the waste from our past litters the text of their world…the garbage of our culture is still a part of the present" ("Review: *MaddAddam*"). They coexist with flawed, traumatized human beings who can only explain things to them in mythic terms, and from this the Crakers invent a religion, which Crake had dismissed as a

major cause of unrest and violence among humans while he was designing his new race. From Crake's perspective, these things do not bode well for the future of Craker society; history will repeat itself. In *Seeds of Time*, Jameson says that it is "easier for us today to imagine the thorough-going deterioration of the earth and of nature than the breakdown of late capitalism" (xii). In Atwood's trilogy, though most of the human population is destroyed, it is still difficult to imagine the total obliteration of fundamental, though potentially destructive, aspects of human culture, in this case, oral and written transmission of origin myths.

While Crake wants to get rid of nearly all elements of human culture through his apocalypse, and even tries to genetically engineer traits like wanting to sing and make art out of the human genome, these practices find their way into the Crakers' way of life. The Crakers eventually develop enough cognition to realize when the humans are depressed, and create pictures to cheer them up, or, as they phrase it, "call them back." Blackbeard writes that "We made a picture of Snowman-the-Jimmy once before, to call him back, and it did call him back. These pictures will not call Snowman-the-Jimmy and Adam back this time [as they have both died], but it will make Zeb and Toby and Ren and Amanda feel better. That is why we made the pictures. They like pictures" (*MaddAddam* 376). In addition to the multispecies coalitions that are formed between the remaining humans, Crakers, and pigoons left on Earth, these attempts at fine arts, and the Crakers' "Book," much in the style of the Bible, are methods of slow resilience for the last humans and their culture. While the inter-species coalitions suggest a utopian, almost Biblical vision of harmony between babes and beasts in a post-apocalyptic world, the last vestiges of human art and culture are both reassuring remnants of how the world was

before the supervirus apocalypse, and jarring reminders of some of the more destructive human tendencies—to create aggrandizing myths about those who have control over and perpetuate inequitable conditions of living. In the end, Atwood's novels, which speculatively mirror today's world of rampant neoliberalism, unchecked global climate change, and uncontrolled biogenetic experimentation, suggest that human relations, art, and culture can survive, albeit much changed. It may take several generations for humans, Crakers, and human-Craker hybrids to rebuild or construct anew their civilization, but human, plant, and animal life will continue, in strange new forms that will ask us why we have created them.

CHAPTER THREE
BEYOND APOCALYPSE: EMBRACING "THE END" IN ENVIRONMENTAL SPECULATIVE NON-FICTION AND DOCUMENTARY

While the previous chapters have examined utopian, dystopian, and post-apocalyptic speculative environmental fiction in which humans are nearly, but not completely, wiped out by a variety of human-caused disasters—social, ecological, biological—this chapter turns to several works of speculative nonfiction and documentary from the 1990s to the 2010s, in which the anticipation of the end is removed, because it has either already occurred, or is a foregone conclusion about which nothing can be done. Rather than suggesting ways of living up to and through the apocalypse, two texts—David Wallace-Wells' 2017 controversial magazine article "The Uninhabitable Earth" and Roy Scranton's 2015 nonfiction book *Learning to Die in the Anthropocene*—starkly present the end of humanity as inevitable, the latter eulogizing the loss of human culture. Two other texts, a speculative nonfiction book by Alan Weisman (*The World Without Us*) and a speculative documentary series for children (*The Future is Wild*), both of which others have identified as "science faction," de-people the Earth, discussing in turn how human artifacts will survive beyond our species, and how other species might evolve and replace us as the dominant species. These first four texts critique the neoliberal capitalism that has contributed to global climate change and species loss, but do so without either discussing the actual human and nonhuman suffering that will be involved (skipping ahead, as most of them do, to a world where humans no longer exist), or imagining alternatives to that form of global organization (as did many of the speculative fiction texts I have already examined). The final nonfiction work I examine, by Anna Lowenhaupt Tsing (*The Mushroom at the End of the World*), breaks from the others in

that it suggests, like Donna Haraway's *Staying with the Trouble*, that the real struggle for humanity in the future, assuming there is one for our species, will be to learn to live differently *with other species* for our mutual survival. Eschewing neoliberal modes of interaction between human groups and between humans and other species, Tsing's work shows that we have much to learn from other species and can only engage in slow resilience to the threat of global climate change if we also interact and entangle ourselves with other species.

FEARING THE END

Frank Kermode identified three stages of apocalypse from Revelations and subsequent biblical exegesis in his 1967 book *The Sense of an Ending*: imagining or experiencing Terrors that presage the End and living amidst Decadence (with the hope for renovation to correct this way of life); living under the reign of the Beast (Satan, or, in less religious terms, a charismatic but destructive leader); and the End itself. Kermode discusses how the end has been predicted so many times, the actual date of the apocalypse doesn't really matter. Rather, thinking about the End of everything has become such an ingrained idea, an inevitability that somehow never quite arrives, that apocalypse has become more "immanent" than "imminent" (7), more a sense of ongoing crisis than an actual End (28). In the works of environmental speculative fiction and nonfiction I discuss, however, the End is imminent, passed, or even long gone due to nuclear tensions or outright war, Capitalocenic climate change, or the long, slow processes of species' evolution and extinction. The End is about to, or already has, sometimes millions of years ago, happened. These narrative frameworks at or beyond the End allow for a much closer,

terrifying look at the End itself, and also allow the fiction and nonfiction authors a chance to move beyond the catastrophic event that marks the End to focus on the possibilities of new, albeit radically different, futures, with new, radically different relationships between humans and other species.

In previous chapters, I have discussed how Octavia E. Butler's *Parable* series and Margaret Atwood's *MaddAddam* trilogy grapple with different reactions to the end of normalcy, or even of humanity, on Earth. Butler's *Parable of the Sower* and *Parable of the Talents* novels imagine a new way of life, a new normal, against the backdrop of apocalyptic chaos.[69] Rather than attempting to recreate the past, characters in many post-apocalyptic novels must adapt and begin a new way of living (562). The protagonist in Butler's *Parable* series adapts to the chaos of her fortified neighborhood being breached, most of her family members being murdered, and having to leave her home for a transitory life on the highways of California by forming a commune and new religion, Earthseed. Atwood's *MaddAddam* trilogy details the existence and subsistence of a few remaining human survivors of a supervirus that killed most of the people on Earth. The final novel ends with the survivors forming a new community with each other, the new humanoid species, Crakers, and a band of hybrid pig-humans, pigoons. Each of Butler and Atwood's series generally follows typical narrative responses to apocalypse and its aftermath. Being able to acknowledge, accept, and adapt to apocalypse, although not as comforting as being able to put apocalypse behind us as "an event that can be subsumed

[69] Taking up this theme in an article about Colson Whitehead's zombie apocalypse novel, *Zone One*, Leif Sorensen identifies the recognition of the impossibility of a return to normalcy as a common narrative response to apocalypse.

into human history" (Sorensen 567), means maintaining some sense of futurity, however altered, for humankind.

Some of the works of speculative nonfiction and documentary that I turn to in this chapter share narrative qualities with the post-apocalyptic novels previously discussed, while others purposely bypass the traumatic moment of apocalypse and standard narrative responses to it. David Wallace-Wells' doomsday *New York Magazine* article "The Uninhabitable Earth" (2017) and Roy Scranton's 2015 *Learning to Die in the Anthropocene* (2015) use apocalyptic language like that found in fictional accounts of apocalypse, but also lay out scientific evidence for how and how soon human civilization and humanity itself will be over. Rather than suggesting how humans can take individual or collective actions to mitigate the threat of climate change, which would all now be too little too late, Scranton and Wallace-Wells' apocalyptic works force their readers to confront their own imminent deaths and imagine the terrors of not only conceiving of but also actually experiencing the End. This is meant to try to both warn and acclimate people to what will be the new reality, or what could very likely be their end. Still other speculative nonfiction works, such as Alan Weisman's book *The World Without Us* (2007) and the BBC/Discovery Channel's documentary *The Future is Wild* (2002)[70] are situated in futures where humanity has already gone extinct. The need to fight for survival or to mend our wicked ways is over; humans have simply disappeared. Further,

[70] *The Future is Wild* was a joint production of several large Western telecommunications networks: the BBC (British), Arte (Franco-German), ZDF (German), ORF (Austrian), Mediaset (Italian), Animal Planet (American), and the Discovery Channel (American). The original documentary was a 13-part television miniseries released on the BBC in 2002; this was followed by a condensed 90-minute special version on Discovery's Animal Planet. In 2007, an animated kids' series premiered on the Discovery Kids Channel. According to the series' website, in the kids' version "Four human children and their stowaway pet Squibbon travel through time to explore The FUTURE is WILD's amazing environments and seriously weird inhabitants."

Weisman's book and the animated documentary do not detail how humanity has met its end. Rather, they focus on future ecosystems devoid of human life, but teeming with other species. Weisman's book briefly notes that, for the purposes of his thought experiment, humanity (and humanity only) has disappeared due to some kind of super virus or cataclysmic alien invasion (it does not particularly matter which). Despite this cursory dismissal of his own species, Weisman's book does allow for some nostalgic nods to humanity's legacy through a discussion of how other species had previously evolved and adapted in response to humans, and whether they might, in some way, miss us. By contrast, the BBC/Discovery Channel documentary even more summarily dismisses humanity as simply one of many species that will die naturally over time, winking in and out of existence as the planet cyclically warms and cools and environments shift from wet to dry.

While *The World Without Us* and *The Future is Wild* have and can be critiqued for ignoring how Capitalocenic climate change will affect species long beyond humanity's demise, or for imagining any viable alternatives to this apocalypse, I argue that these texts, despite, or rather through, their temporal removes from human life on earth, avoid the emotional trauma of the end. Rather than delivering jeremiads about human behavior and its inevitable ecological consequences, describing in detail the horror of the end of a species, or lamenting the loss of human life and civilization, they widen the lens of the future beyond an apocalyptic, anthropocentric paradigm, and imagine the potential for planetary slow resilience, sans *homo sapiens*.

As I have outlined above, slow resilience is an attention to the slow, vast, deep ways that humans, other species, and the planet itself show resilience in the face of

environmental, social, and cultural degradation. This resilience is both individualistic and species-wide. In the nonfiction texts I examine, their narrative and temporal reframings to time periods just after and far beyond human extinction similarly allow readers and viewers to visualize the lives of members of other species post-apocalypse, humanity's slow, pervasive, lasting influence on the rest of the planet, and the slow, ongoing adaptation of other species to life on a changing Earth. Reading calmly about the aftermath of human extinction, recontextualized in the deep, geologic time of the planet rather than in the short blip of the existence of the human species, allows readers and viewers of the nonfiction works I discuss to readjust their conceptions of the world outside of Capitalocenic apocalypse and their own species. Further, in the same way that slow violence necessitates "complicat[ing] conventional assumptions about violence as a highly visible act that is newsworthy because it is event focused, time bound, and body bound," (Nixon 3), reading the future in speculative nonfiction and documentary through slow resilience allows us to think about climate change, evolution, and extinction as processes necessarily, and perhaps blissfully, outside the bounds of media temporality and spectacle.

CLIMATE TRAUMA, "UNINHABITABLE EARTH," AND LEARNING TO DIE

The future of the Earth is scary. Especially according to an overwhelming number of recent reports by climate scientists, environmentalists, and journalists, and, increasingly, in products of popular culture. Environmental sociologist Lisa Garforth noted that "the future can seem an unthinkable or utterly miserable project" when viewed through the lens of environmentalism ("Green Utopias" 2005, 393). Anthropologist and ecologist

Jared Diamond stated in his 2005 book *Collapse: How Societies Choose to Fail or Succeed* that "The only question is whether [the world's environmental problems] will be resolved in pleasant ways of our own choice, or in unpleasant ways not of our choice, such as genocide, starvation, disease epidemics, and the collapses of societies" (qtd. in Jendrysik 37). In a 2008 *USA Today* article, journalist Tom Krattenmaker concluded that, at least according to popular media, we have already started down the unpleasant path: predicting ecological disaster is now a "secular theology of environmental collapse—the fearful conviction that the hopelessly corrupt world as we know it has entered its death throes, with massive destruction stalking ever nearer" ("'The End' as Weapon" 2008, 11A). These pessimistic views of the future have spread into popular film as well, as E. Ann Kaplan explores in her 2016 book *Climate Trauma: Foreseeing the Future in Dystopian Film and Fiction*. Kaplan finds that there have been an increasing number of depictions of dystopian future worlds in Eurocentric post-9/11 literature and cinema and theorizes that frequent exposure to futuristic disaster scenarios can induce what she calls "Pretraumatic Stress Syndrome." The inverse of PTSD, PreTSS occurs when readers or viewers of dystopian books and movies are "invited to identify with future selves in uncertain, dangerous, and ultimately unsustainable worlds." Rather than reliving terrifying moments from their pasts, people experiencing pretrauma "unconsciously suffer from an immobilizing anticipatory anxiety about the future…[and live] in fear of a future terrifying event" (Kaplan 2016, xix). These experiences can be paralyzing, rather than mobilizing.

Many experienced this sense of debilitating fear after reading climate change journalist David Wallace-Wells' 2017 *New York Magazine* article, comfortingly titled

"The Uninhabitable Earth. Famine, Economic Collapse, A Sun That Cooks Us: What Climate Change Could Wreak—Sooner Than You Think." This article sparked intense debate in scientific circles about the accuracy of the climate predictions Wallace-Wells made. However, it also painted such a convincingly hopeless view of the future that it sparked feelings of utter futility about what could be done to prevent total environmental and social collapse, and the purposelessness of pursuing any potentially mitigating measures. One reviewer of Wallace-Wells' book-length version of the article said that it was "enough to induce an honest-to-God panic attack" (O'Connell). A particularly arresting detail was the possibility of being cooked to death in one's own skin due to just a few extra degrees' increase in global temperatures. Wallace-Wells specifically notes that he consulted not "nonspecialists...as inclined to irrational panic and you or I," but rather "many sober-minded scientists…the most credentialed and tenured in the field," who have all "quietly reached an *apocalyptic* conclusion" (emphasis added): just reducing emissions, the sole focus of the few intergovernmental regulations proposed, will not be enough to prevent catastrophic temperature rise (Wallace-Wells). Wallace-Wells follows this calm, apparently universally accepted pronouncement of doom with a detailed explanation of how just seven degrees of global warming would make it impossible for human bodies to cool themselves:

> Humans, like all mammals, are heat engines; surviving means having to continually cool off, like panting dogs. For that, the temperature needs to be low enough for the air to act as a kind of refrigerant, drawing heat off the skin so the engine can keep pumping. At seven degrees of warming, that would become impossible for large portions of the planet's equatorial band, and especially the tropics, where humidity adds to the problem…And the effect would be fast: Within a few hours, *a human body would be cooked to death from both inside and out*. (Wallace-Wells; emphasis added)

Wallace-Wells goes on to note that, at about 11 or 12 degrees of warming, "more than half of the world's population, as distributed today, would die of direct heat," compounding his stark pronouncement of doom. Wallace-Wells states that the collective knowledge of climate scientists comes to an "apocalyptic" conclusion about "catastrophic" temperature increase and gives a vivid example of the agonies humans (and presumably many other species) could very likely experience. These are predictions of the terrors that will lead to the End; the apocalypse is coming, and it won't be pretty.

Even given all of the zombie movies and apocalyptic film and fiction in the popular culture we regularly consume, Wallace-Wells concludes that "we suffer from an incredible failure of imagination" when it comes to thinking about climate disaster. It is highly unlikely that Global North nations, including the United States, will be able to work together in time to prevent these catastrophic temperature increases. After all, President Trump announced in June 2017 that he would be withdrawing the U.S. from the 2015 Paris Agreement on climate change, which proposed working toward limiting temperature rise to no more than two degrees Celsius. As a major contributor to climate change, the United States' removal from even this relatively modest and ill-enforced agreement does not bode well. As Roy Scranton details in *Learning to Die in the Anthropocene*, there are few viable ways to ensure that Global North nations, which are primarily responsible for carbon emissions, limit their carbon production or pay carbon taxes (Scranton 28). Who would do the enforcing, when the United Nations, which also has no military force, is heavily influenced by these very nations?[71] Furthermore,

[71] A 2012 report posted on the Council of Foreign Affairs website states that one of the UN's goals should be to "Balanc[e] world powers." This careful language about the dominance of "Western countries" continues: "Global governance must make allowances for these imbalances and even organize its dynamics around these realities" (The United Nations and the Future of Global Governance").

decarbonizing the environment would mean forced economic austerity for any nation that supported it, and no politician is likely to win an election or remain in office with such a platform. This would also go against the rules of neoliberal capitalism, which depends on global economic growth to function (25-6).

Even if nations were to come together to reduce carbon emissions, this would not be enough, as CO2 emissions have already begun to trigger other climate changes. As Wallace-Wells notes, "The IPCC reports also don't fully account for the albedo effect (less ice means less reflected and more absorbed sunlight, hence more warming); more cloud cover (which traps heat); or the dieback of forests and other flora (which extract carbon from the atmosphere). Each of these promises to accelerate warming." Wallace-Wells positions these other triggers as elements of a war between humans and the Earth:

> And however sanguine you might be about the proposition that we have already ravaged the natural world, which we surely have, it is another thing entirely to consider the possibility that we have only provoked it, engineering first in ignorance and then in denial a climate system that will now go to war with us for many centuries, perhaps until it destroys us…Each day we arm it more.

Here Wallace-Wells uses antagonistic language to present both human interference in the environment—we have 'ravaged' it, 'provoked' it, and 'armed' it against us—and the natural world's revenge—it will 'now to go war with us…until it destroys us.' He also addresses readers with a personal "you," often used in propaganda to intimately involve its readers and viewers (e.g. in U.S. Army ads, Uncle Sam points directly at viewers, saying he "wants YOU"). In addition to the quote above, where you the reader might have already accepted and moved past your complicity in causing global climate change, Wallace-Wells also addresses the reader directly when he says that "It is, I promise,

worse than you think"; and "…no matter how well-informed you are, you are surely not alarmed enough." These rhetorical choices are meant as a warning to impress readers with the seriousness of climate change and to "shake the reader out of…complacency" (O'Connell), but they might fall into the trap of going too far, as did Al Gore's 2006 climate change documentary, *An Inconvenient Truth*, which was often critiqued for being "alarmist."[72] For example, Michael Mann, an atmospheric scientist Wallace-Wells interviewed for his piece, took to Facebook in 2017, stating that he was "not a fan" of the article's "doomist framing," as there is "also a danger in overstating the science in a way that presents the problem as unsolvable and feeds a sense of doom, inevitability and hopelessness" (Mann). While climate change is undeniably the greatest threat to the future of our and other species, doomsday approaches can backfire, producing complacency rather than action.

Wallace-Wells' rhetoric also dangerously simplifies a complex series of interrelated causes and effects into a black-and-white "war" between two seemingly equal opponents: one species versus the entire planet. First, as Jason W. Moore and others have noted, not all people on Earth are equally to blame, but rather those Global North nations and multinational corporations that have contributed most to carbon emissions and other pollution. Second, as ecocritical scholars are keen to point out,

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[72] While many conservative, anti-environmentalist climate change deniers have mocked Al Gore's documentary, one environmentalist who created his own counter-documentary made a valid point: the half-measures Gore proposes as to mitigate the effects of climate change will be too little too late. Danish environmentalist writer Bjørn Lomborg's 2010 documentary *Cool It: The Skeptical Environmentalist's Guide to Global Warming* takes on Gore's earlier documentary, arguing that the actions Gore suggested that individuals can take, like changing from using incandescent to more energy-efficient LED lightbulbs, will basically do nothing. Even if every car owner switched to driving a Prius, *Cool It* notes, carbon emissions would only be reduced by 0.5 percent (Hart, "Cool It Doc Slams Inconvenient Truth 'Alarmists'"). However, instead of proposing wide-scale institutional, governmental, and global changes to our current energy system, Lomborg falls into the different trap of hoping that "green" technology, specifically geoengineering, can fix the problem.

dividing humans from the "natural world" also implies an unhelpful human exceptionalism and anthropocentrism—i.e. that we are set apart from all other species, and are not part of nature. This is dangerous in that it ignores the fact that while humanity is "a force capable of inducing major shifts to the planetary system," making us a "truly terramorphic force," the wellbeing of the human species is closely interconnected with every other species on earth, and we are also "extremely vulnerable and…overwhelmed by the feeling of powerlessness…when acknowledging the extent of the damage" we have caused (Cielemecka and Daigle 68). The effect of Wallace-Wells' article, though admittedly a series of worst-case scenarios, on readers is to be extremely depressing and immobilizing when considered in the face of large, powerful forces like global capital, national politics, runaway acceleration of warming, and our own complicity in all of this. Ann Kaplan hopes that, by identifying and analyzing sources of pre-traumatic experiences, people will, "instead of being passively terrified…begin to understand dystopian scenarios as warning humans of what they must, at all costs, avoid" (Kaplan xix). However, it is difficult to experience climate (pre)trauma, face debilitating fear about the future, and emerge on the other side with anything other than a desire to retreat into the comfortable mental space one used to occupy before one's worldviews were exposed and shattered. When protest and individual and global initiatives are doomed to fail, there is little hope left that we will escape a kind of fate like the one Wallace-Wells' article warns of.

Adding to this hopelessness, former soldier, creative writer, and Notre Dame English professor Roy Scranton's non-fiction work *Learning to Die in the Anthropocene: Reflections on the End of a Civilization* takes, as its title suggests, a pessimistic view of

the future of humanity. Scranton uses memoir, climate science, and accounts of recent ecological disasters to argue that human civilization as we know it will effectively be over in an alarmingly short amount of time; there is no realistic way to convince nations to effect real environment change; nor is there time for a magic technological fix to improve the atmosphere. The planet is already overly warmed because of carbon emissions, which, due to global and national politics, are unlikely to be reduced in any relatively short amount of time. Further, as the Arctic and Antarctic ice caps continue to melt at alarming rates,[73] there is a very real potential for a "catastrophic runaway greenhouse effec[t]" where all or some of the methane currently trapped in the ice is released very quickly (14). As methane is twenty times more powerful, in terms of warming, than carbon dioxide, this would be very, very bad. Various technological fixes to greenhouse gas emissions—carbon capture and sequestration, air capture, and geoengineering in the form of adding a cooling layer of sulfur to the atmosphere—are either too costly to implement quickly, too difficult to arrange globally, or have their own potentially devastating side effects (a layer of sulfur might cool the planet, but it could also go too far and cause sudden massive cooling, which would lead to global crop failures and other complications) (29).[74] As Scranton rather baldly puts it, "We're fucked. The only questions are how soon and how badly" (1).

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[73] A December 2017 article on *Grist.org* stated that in the last decade or so, the Arctic environment has changed dramatically, so much so that some scientists are now calling it the "New Arctic" vs. the "Old Arctic." These designations are entirely due to extreme warming: "so far, 2017 has seen the highest permafrost temperatures in Alaska on record. If that warming continues at the current rate, widespread thawing could begin in as few as 10 years." If this warming continues, it will destroy infrastructure built on the permafrost, and release "additional greenhouse gases that have been locked for generations in the ice" (Holthaus, "Let It Go: The Arctic Will Never Be Frozen Again").

[74] This is essentially what occurred after the massive 1815 eruption of Mount Tambora, ultimately leading to the writing of Mary Shelley's *Frankenstein* in 1816, called the "year without a summer" due to global climate changes from the dust released by the eruption.

Having established this dire outlook, the rest of Scranton's book focuses on what it means to live and philosophize in the Anthropocene. As unavoidable, unfixable global climate crisis forces us to continually confront questions about life and death, we have to "learn how to die," and do so as an entire civilization, not just as individuals (16). This is a long, slow view of humanity; human civilization has existed for many thousands of years, and has certain ideas of "identity, freedom, success, and progress" bound up in it (17) that are going to be difficult to part with. What Scranton suggests humans need to do to reconcile this long history with its imminent End is what he had to do, mentally, as a soldier in Iraq: "learn to accept the inevitability of [his] own death." His prescription for survival in the Anthropocene is to "learn to live with and through the end of our current civilization" (16-17). Visualizing the end should not paralyze us with fear, but rather allow for reflection on what has been and what will be. This speculative way of imagining the future free of our "predispositions and fear," this "resonat[ing] on other channels and with slower, deeper rhythms" (17), will allow us to move beyond the present, mourn what is past, and anticipate a very different future.

Rather than focusing on the terrors of the End, we should, Scranton suggests, accept that our civilization is "already dead," as we can no longer prevent climate disaster (17). Therefore, our goal should be to "create a sense of collective humanity that exists beyond any one place, life, or time" (18). This slow resilience in the face of the end our civilization will need to include building "cultural arks" to preserve our "endangered wisdom," our "library of human cultural technologies that is our archive"; this is "not only the seed stock of our future intellectual growth, but its soil, its source, its womb." This puts a heavy weight on the discipline of the humanities; Scranton avers that the "fate

of the humanities…is the fate of humanity itself" (54). To avoid "sink[ing] into the futility of life without memory" of humanity's past, or "abandon[ing] the memory of the dead," Scranton suggests, we need to preserve cultural artifacts, languages, and stories about ourselves that we can carry into the future, and the humanities will have a crucial role in doing this.

Leaving aside scientific accounts of the future of the climate, Scranton turns to an almost-religious belief in the power of cultural memory to preserve our dying civilization. Careful to avoid placing his hope for humanity in a mystical afterlife, Scranton states his scientific, atheistic beliefs about our species: "This astonishing cosmos is our home. There is no other. There is no Heaven, no Hell, no Judgement, no Elysium. We humans are precocious multicellular energy machines building hives on a rock in space, machines made up of and connected to countless other machines, each of us a microcosm" (55). Instead, echoing ideas and language present in environmental speculative fiction, especially Octavia E. Butler's *Parable* series, Scranton emphasizes the power of culture and passing it down to future generations. He refers to humanity's collective wisdom, cultivated, harvested, and stored over long decades, centuries, millennia, as the seeds and womb of humanity. Lauren Olamina, in *Parable of the Sower*, develops a series of survival tips and truths about the world that she preserves in her self-authored religious text, *Earthseed*. Her text is slowly developed over the course of her lifetime and through her varied experiences as a refugee on the road, seeking stable and sustainable living conditions with people she meets along the way. Her text is also passed down to future generations, as detailed in *Parable of the Talents*. Olamina's daughter, Larkin (aka Asha Vere) continues her mother's tradition of recording her life in a diary,

and eventually meets her mother and learns of her radical belief system. Like Butler's novels, Scranton's nonfiction book also draws on the slow resilience of shared cultural memory as his hope for the future of humanity in the Anthropocene.

Nevertheless, it is unclear how exactly this cultural memory will be passed on, as "[b]uildings collapse, books burn, servers break down, [and] cities sink into the sea" (109). While Scranton acknowledges that climate change will bring devastation to all species on Earth, he assumes that some humans will remain alive to pass on this weighty cultural legacy, although our descendants may have devolved into "despotism or barbarism." After all, as Scranton points out, the stone tablets with writing recording the *Epic of Gilgamesh* (c. 1800 BCE) have survived countless civilizations, wars, revolutions, and the rise of fall of many empires. While other mass extinction events have completely wiped out other species (like the dinosaurs 66 million years ago), Scranton assumes that "[w]e may even be able to survive in a greenhouse world. Perhaps our descendants will build new cities on the shores of the Arctic Sea, when the rest of the Earth is scorching deserts and steaming jungles" (108-109). He speaks of "learning to die," and the complex philosophical questions involved in acclimating ourselves to this fact, but in the end he can't quite let go of the idea that we will, somehow, in some changed world, persist. His call to remember our "few thousand years of hard-won knowledge, accumulated at great cost and against great odds" (109), means little if our species follows the many others we have caused to die by Capitalocenic climate change.

BEYOND APOCALYPSE: SCIENCE FACTION

So far in this chapter I have examined responses to eco-apocalypse that focus on the end of humanity and ways to mitigate this as a civilizational disaster. Another nonfiction response to climate change is despair for the human race but hope for the rest of the planet, as detailed in Alan Weisman's 2007 nonfiction book *The World Without Us* and the BBC's documentary *The Future is Wild*, about speculative evolution. These texts, respectively, describe and digitally animate wild "but plausible" futures where humans have suddenly disappeared and unusual creatures, like previously extinct megafauna or new, hybrid creatures with names like "flish" and "cryptiles," will flourish. This chapter focuses on how the choice to completely remove humanity from the equation relates to thinking about slow resilience in terms of other species, and how sidestepping the emotional toll of examining humanity's apocalyptic end or the cultural leavings of its few remaining survivors can be intellectually productive. By examining the futuristic settings, narrative and rhetorical strategies, and use of scientific non-fiction and documentary tropes in these works, it is clear that *The World Without Us* and *The Future is Wild* purposely avoid engaging with humanity's role in global climate change and the huge burden of guilt that would otherwise be placed on humanity's shoulders for our reckless disregard for the environment. Rather than forcing readers and viewers to confront and devise solutions to these admittedly daunting issues, the authors and producers of these texts construct strangely comforting worlds where humans have simply vanished. This too is an example of slow resilience, as this allows readers and viewers of these works to avoid getting stuck in a cycle of fear and dread, and to imagine how other species might be resilient without us.

Besides being situated outside of apocalyptic logic, Weisman's book and the BBC/Discovery Channel's documentary operate within rather unusual generic and temporal parameters. *The World Without Us* is a thoroughly researched look at how human cities, buildings, and technologies would be preserved, destroyed, or blown up if all humans suddenly disappeared; how humans and other species have evolved alongside each other; what evidence would remain of human ingenuity and civilization after all humans were gone; what could prevent Capitalocenic environmental catastrophe; and how the Earth and its many other species would thrive and evolve without us. What ultimately makes the book so fascinating, however, is its premise: "Human extinction is a fait accompli. Not by nuclear calamity, asteroid collision, or anything ruinous enough to wipe out most everything else, leaving whatever remained in some radically altered, reduced state" (Weisman 3). Rather than imagining the most likely scenario—that humans cause their own and other species' extinction by overconsumption, greed, and environmental recklessness, Weisman invites us to consider that humanity, and humanity only, has ended due to a super-virus, mass sterilization, alien abduction, or the like. This is a conscious choice; like critics of Wallace-Wells' doomsday article, Weisman wants to avoid playing out "some grim eco-scenario in which we agonizingly fade, dragging many more species with us in the process" (4). Out of evolutionary instinct, we tend to be reluctant to "accept that the worst might actually occur," forcing us to "ignore catastrophic portents lest they paralyze us with fright" (3). That is, we find it debilitating to imagine a world without us in any of the many very real and possible ways we might wipe ourselves out, especially through global climate change, as this would leave us, Weisman argues, with no other response than an unproductive sense of shock. However,

if we instead speculate that something more fantastical like a human-targeted supervirus knocks us all out without affecting the rest of nature, we can then be free to consider what life will be like without us, and whether other species will notice our absence. This wildly speculative end to an entire species could put Weisman's book into the category of fiction. Moreover, Weisman has called his book a "fantasy" (Weich, "With People Out of the Picture" 2007), and a "love letter" to Earth and humanity (Strand, "Interview: Alan Weisman"). Others have called it a "thought experiment" (Bellamy and Szeman 194). And yet, Weisman's research into how the world would survive and thrive without us is lent scientific credibility through interviews with and the research of a myriad of environmental activists, architects, refinery operators, evolutionary biologists and other scientists, transhumanists, and proponents of the Voluntary Human Extinction Movement.

These contradictions make Weisman's book difficult to classify in traditional literary categories. Brent Bellamy and Imre Szeman have created a very specific category for Weisman and other authors writing about speculating evolution and the future of humanity: science faction. This form includes books as well as documentaries (Bellamy and Szeman include the *The Future is Wild* in this category); these "quasi-scientific, quasi science-fictional texts depict the world after the final collapse of civilization and the extinction of the human race, often at hyperbolic geologic time scales extending millions of years" (Bellamy and Szeman 192). The temporal ranges of both *The World Without Us* and *The Future is Wild* fit neatly in this category: the former covers a large span of time from just a few days or weeks after humanity's sudden departure, to millions of years ago and into the future; the latter barely mentions humanity and does not account

for its demise, and projects other species' evolution into futures five, one hundred, and two hundred million years from now.

Both texts' temporalities shift far into the future; this, coupled with "landscape[s] devoid of people," causes "an immediate challenge to narrative logic" (Bellamy and Szeman 192). Such leaps are accounted for in science *fiction* through cognitive estrangement. This occurs when audiences are estranged from the present reality but also given an explanation based on current or plausible-sounding science for the change (versus fantasy, where cognitive logic and reason are rejected) (Suvin, *Metamorphoses of Science Fiction*). Or, as Bellamy and Szeman put it, cognitive estrangement allows a science fiction text to "account rationally for its imagined world and for the connections and disconnections of the latter to our own empirical world" (192-3). Speculative fiction, according to Margaret Atwood, goes beyond what traditional fiction can do in that it explores "the consequences of new and proposed technologies in graphic ways by showing them as fully operational" (qtd. in Snyder 470). Yet, Katherine Snyder notes, "the imaginative effects of dystopian literary speculations depend precisely on their readers' recognition of a potential social realism in the fictional worlds portrayed therein" (470). Speculative fiction, like science fiction, must still be rooted in some kind of perceivable, recognizable realism. Science *faction*, though playing out the consequences of new scenarios and technologies, does not explain its narrative, temporal, and technological leaps, and so is even farther removed from traditional science fiction.

Bellamy and Szeman also note that science factional text, like science documentaries, "ten[d] to displace questions about narrator, addressee, or audience," and often manifest as "didactic teaching of fact, science, and environmental politics, adopting

a documentary form dominated by its presumed immediate relation to the real" (192). This is precisely what happens in *The Future Is Wild*. The BBC/Discovery Channel documentary has an authoritative-sounding male narrator (British television actor Christian Rodska) who opens the series by addressing unidentified human viewers he is about to say have gone extinct:

> Today, Planet Earth is dominated by humans. There are over 6 billion of us. But what would happen to the planet if there were no people? Just imagine that people were to disappear from this world. Many familiar animals—the big cats, the bears, the wolves, already endangered, already under threat from us, will disappear in a few thousand years. The planet, and the survivors, will carry on without us. Evolution, natural selection, will create new, and bizarre, life. (*TFIW* 2002, Episode 1)[75]

This short setup, with the series' only mention of humanity and its casual dismissal, is communicated via voiceover while time-lapse video is shown of people driving cars in cities to minimal music, in the style of Ron Fricke's cinematography in *Koyaanisqatsi* and *Baraka*. This short, half-minute clip is the only time people and the marks of their civilization are presented on screen. After a fade to white and a lens flare effect (used throughout the series to transition between time periods and environments), humanity, and a few short clips of real animals alive but endangered today, is replaced by quick flashes of the digitally animated, imagined future animals that will be presented throughout the series. The words "Welcome to the Future" appear on screen, and the narrator begins talking in the present tense, although he is narrating a time five million years from now: "These future worlds are populated by strange creatures…" (Episode 1). These first few minutes of the series establish a negative attitude about humanity, in

[75] I will focus my discussion of *The Future is Wild* only on Episode 1 of the original 2002 series, as it introduces the premise of the series and summarizes what will follow in the episodes that imagine the future five, 100, and 200 hundred million years from now.

which humans' only representation on screen is situated in a frenetic, over-populated, overdeveloped cityscape; the only commentary provided on the human race is that it has caused other species to be endangered. The cinematic and musical nod to Fricke's films compounds the "life out of balance" feel to the sequence, and the narrator summarily dismisses the entire human civilization to focus on the strange, new creatures of the future.

As the first episode continues, the narrator, with the help of several evolutionary scientists, explains how the climate of the Earth will change in the future, and how the continents will gradually move back together; this will allow all kinds of new life to evolve in the environments created. The narrator speaks about each new environment first in the past tense, as if the environmental changes narrated have already occurred: "In the dry Ice Age climate [millions of years from now], the vast Amazon rain forest *died* out to be r*eplaced* by grass" (emphases added). When the new time and environment is established, the narrator switches to present tense: "Without the cover of the forest, a few monkeys survived and adapted to life on the prairie. But there *are* predators here as well" (emphasis added). When that environment with its new predators is fully described, the narrator then switches to future tense to introduce a later time in a different place on the planet. These tense changes, and the cursory, negative dismissal of humanity, make it difficult to understand who the narrator is addressing. If viewers are situated in the futures being described, then, according to the premise of the series, humans are already gone, and the narrator has no one to talk to. (In later iterations of the series, humans have fled the Earth and have sent probes back down to their former planet to see what life is like now. In the original series, however, humans are just gone, and the future is

presented in the past, present, and future tense, to an unidentified audience.) At first, this seemed unsettling and confusing, as one expects to hear from the human survivors of an apocalyptic event in a traditional post-apocalyptic narrative. However, situating itself past an unidentified end for humanity, the self-styled documentary's strange use of time actually serves to soften the blow of the end of human civilization. The lack of human survivors (besides scientist interviewees who hover somewhere between the present and the human-less future) and the leaps between past, present, and future, disjoint viewers from a linear, end-oriented timeframe. The focus of the documentary thus becomes less anthropocentric and more concentrated on nonhuman animal life that could flourish without us.

The scientists who provide testimony about future species on Earth (zoologists, cell, developmental, evolutionary, and marine biologists, paleontologists, geologists, anthropologists, and specialists in biomechanics) speak about past geologic events on earth and the possibility of the new species discussed, lending a more documentary tone to the series. They are situated in the present, the time the series was produced, but discuss the potential results of evolution in the future. Each scientist sits or stands in front of a green screen, while multiple screen graphics depicting digitally animated future environments are projected behind them. Each scientist, all of whom are white and male, is identified in the lower-third of the screen by title, name, and academic affiliation, lending credence to their testimony. The lack of diversity among the scientists chosen to narrate the future seems retrograde today, when there has been a push for women and girls to study the sciences, and there are a growing number of women and minorities in all academic fields. While the presence of evolutionary scientists and biologists adds

credibility to the documentary, the choice of interviewees suggests that the future, like much of the past, will be narrated and explained to us by white men (despite the fact that humans, in this imagined future, are long gone—the legacies of racism and sexism apparently live on in this new, human-less world).

In addition to the choice to have white male scientists narrate a future devoid of humanity, the fact that the interviewer and the questions asked are not seen or heard further obscures who the series' audience is. Despite these confusing elements, the style of interview used is common in many science and environmental documentaries (and documentaries in general) and presents the series as a more traditional nature documentary with expert testimony from scientists in related fields. The animals presented in the series, often hybrids of animals alive today, are confirmed by one interviewee, Prof. Bruce Tiffney, to be fictional, "but possible" based on outcomes of evolution that scientists have observed in the past:

> So there are a whole series of rules, as it were, of how life has evolved, how life has changed and adapted through time, that we can test by taking our understanding of the present day and looking back in the past. It is no great leap of faith, then, to turn around and go in the other direction to the future. To go forward and create some of the organisms which are unusual, imaginative, but possible. (Episode 1)

The scientist interviewees lend scientific weight and plausibility to the series' fictional future animals, even as they further remove the series from a clearly demarcated temporal setting.

A quality that separates *The Future is Wild* from traditional nature documentary, and from other works Bellamy and Szeman identify as science faction, is the series' digital animations of its imagined future creatures. While, as Bellamy and Szeman suggest, both *The World Without Us* and the BBC/Discovery Channel documentary are

hybrid narrative forms that walk a fine line between fact and fiction, or science and science fiction, the documentary further removes its viewers from reality with its fabricated documentary video footage. For example, one of the creatures imagined in a post-Ice Age future five million years from now is called a "gryken." This creature lives, so the narrator tells us, on what is now the "bare, rocky plateaus of the holiday islands" (Cyprus, Malta, and Crete) after the Mediterranean Sea has dried up and turned into salt flats, making the islands into mountains in a desert climate. The gryken, a mustelid (part of the weasel family), is first shown from a close up, and then a medium close up, as it crawls along rocky ground past a stationary camera. Then the camera switches to a point of view shot of the rocky ground the gryken is crawling through, as if a camera is attached to the gryken's head. The camera finally switches back and forth from medium close ups of the gryken to wider shots of the surrounding landscape and the gryken's prey: some kind of unidentified lizard. These are common documentary shots, which allow viewers to watch the subject from both the perspective of the filmmaker presumably sitting a few feet away from the action, and of the subject through a bodycam. However, like the gryken itself, these shots are entirely fabricated, digitally created on a computer in a studio. This mimicking of documentary technique both makes strange the documentary format itself and allows viewers to further remove themselves from thinking about the real, imminent consequences of their own complicity in climate change. Instead, they can view fabricated images of fabricated animals, presented through the series' documentary style as visuals of the future of our planet and its strange new species.

Bellamy and Szeman classify both texts *The Future is Wild* and Weisman's *The World Without Us* as examples of science faction, a rather narrow category of non-fiction and documentary that removes humanity from the future. This unexplained remove separates such texts from being classified as science or speculative fiction, as these genres must have a plausible, explained reason for any large leaps of the imagination. Science faction is a useful term for thinking about the narrative logic of these quasi-scientific texts, and I will return to it in the next section. *The Future is Wild*, however, poses several further generic concerns, as it, as a work of speculative evolution[76] and speculative documentary, incorporates speculative content but in documentary form, though the documentary footage of animals is also patently fictional, as it is clearly computer-generated animation.

While the generic classifications and temporal settings of these science factional texts are complex, readers and viewers of these texts, especially of *The World Without Us*, took issue more with the complete and largely unexplained removal of humans from them. Alex Steffen, a journalist with *Worldchanging.com* (a site dedicated to "solutions-based journalism" about sustainability, environmentalism, and futurism), objected to Weisman's casual dismissal of humanity without an accompanying account for how humans will violently and painfully disappear; instead, he says, the real work to be done is to (re-)imagine "the world with us," that is, how to "recove[r] its health in our presence" ("The World With Us" 2007). (This is similar to Donna Haraway's argument

[76] Other works of speculative evolution include several books by Dougal Dixon: *After Man: A Zoology of the Future* (1981), *The New Dinosaurs: An Alternative Evolution* (1984), and *Man After Man: An Anthropology of the Future* (1990); Peter Ward's book *Future Evolution: An Illuminating History of Life to Come* (2001); and the History Channel's "thought experiment" documentary series *Life After People* (2008), whose premise is nearly identical to that of *The World Without Us*.

about the "Chthulucene" in her 2016 book *Staying with the Trouble*, which I will discuss at length below. Haraway suggests that we should focus on "making-with" other species, rather than "self-making.") Boston *Globe* book reviewer Robert Braile wrote that Weisman's book might even hurt the environmental cause, given that its critics have often said that "environmentalists care more about nature than people" ("He Imagines a World Without People"). Bellamy and Szeman critique Weisman's book through the limitations of science faction. They posit that the contradictions of science faction, which exists somewhere between science documentary and science fiction, are meant to "generate the kinds of political outcomes longed for by those concerned about human impacts on the environment." However, the underlying assumptions of science faction (that humans could disappear tomorrow without first having a major effect on the natural world, and that the natural world would be better off without us) actually serve to reinforce a binary dividing humanity from nature and suggest that "nothing can be done" to fix the skewed power relations of humans over the rest of Earth's species (194). To be fair, Weisman does address how humans and other species have evolved alongside each other in the past and puts forward his solution to global environmental problems: limiting every human female to giving birth to only one child (a world-wide one-child policy). As Braile notes, however, this is a "wispy afterthought…as implausible as it is gratuitous" ("He Imagines a World Without People"). Weisman also wonders what humanity's contribution to the world is, and whether the world would actually miss us. However, this is also very briefly considered, and not mentioned again after the first chapter.

In a 2007 interview with Dave Weich (a documentary film director and interviewer of famous writers and other public figures), Weisman explained his decision to get rid of humanity in the beginning of his book:

> Posing a fantasy in which humans suddenly disappear immediately…eliminates the fear factor. Instead of facing some sobering reality about *this is what's going on and probably we're all going to die if it doesn't get better*, we don't worry about that because we're already dead; I've killed everybody off by the second page of the book. ("With People Out of the Picture" 2007; emphases original)

Rather than addressing very real concerns about Capitalocenic climate change and the future of the planet and the human race, Weisman elides these issues in order to allow his readers to avoid actually thinking about humanity's slow, torturous demise and that of the many species it will take with it. While many climate and post-apocalyptic fiction novels and their authors and readers would beg to differ, Weisman speculates that it is very difficult for us to actually imagine the end of our own civilization. As he states in his book, "Fantasies of space aliens with death rays are, well, fantasies. To imagine our big, overwhelming civilization *really* ending—and ending up forgotten under layers of dirt and earthworms—is as hard for us as picturing the edge of the universe" (224). This suggests that if one were to actually contemplate the end of all humans and any real traces of our accomplishments and technologies, one might fall into the debilitating fear of climate (pre)trauma. David Wallace-Wells' doomsday article does this to some extent—put the fear of the end and its terrors into his readers. Roy Scranton, however, wants us to really think about the end of our civilization and prepare to preserve human culture and knowledge. While Weisman proposes that his book helps readers avoid thinking about all the unpleasantness of the end, it also highlights the slow resiliency of the planet (albeit without us). Though meant to be somewhat comforting in that readers

aren't forced to contemplate their own species' imminent demise, Weisman's book also celebrates the adaptability of other species, and how the world will *go on* without us.

In addition to the resilience of other species, *The World Without Us* also imagines how the artifacts of our species will outlast us and transform from our dwellings and other sites of cultural exchange to concrete wrecks taken over by nature. While Roy Scranton's *Learning to Die in the Anthropocene* focused on the *cultural* remnants of humanity post-apocalyptic extinction event, Alan Weisman's book exhaustively focuses on our manufactured, *material* remains. In fact, *The World Without Us* covers the fate of too many human artifacts to list comprehensively, but includes pavement, skyscrapers, gas lines, cars, bridges, subways, DDT, hotels, Stone Age caves with cave paintings, trash spirals in the Pacific Ocean, oil refineries and their products, nuclear waste and radiation, coal mines, coffins, and plastics. That last human artifact, plastics, gets its own chapter in Weisman's book, and is the most lasting and visible evidence of humanity's neoliberal capitalistic entanglements. As Weisman notes, scientists researching the levels and types of plastic littering the planet, especially the oceans, have no need to examine samples from the years before World War II, before which few plastic products were used or invented—until the 1960s only durable Bakelite was used, and products like telephones and radios took much longer to "enter the waste chain" than the plastic disposable packaging that began to be produced more and more frequently in the 1960s (115). Any discussion of plastics must necessarily include a larger discussion about the oil industry, as plastics are composed of crude oil. By the 1970s, "Petromodern production, consumption, and debt-financing," at the expense of resource-rich countries like Brazil, were "central to the advent of neoliberalism," as cheaper and more

environmentally destructive methods of oil extraction and plastic production were used to maximize profit margins at the expense of the environment (De Loughry 333). As more and more cheaper plastics were produced, plastic products abounded, with plastic bags and plastic pellets used in factories being the plastic products most commonly found floating in the oceans. Given the sheer volume and indestructibility of plastics on Earth, this is going to be one of the most lasting contributions of humanity to the Earth. Even more so than our concrete structures, which will eventually be buried beneath layers of sediment. Stone structures will also survive as well, "retrac[ing] our steps back to the Stone Age," but these will eventually wear down as well, "gradually eroding away all memory of us" (Weisman 100). Plastics, on the other hand, wear down but do not erode away: even when they are broken down into smaller and smaller pieces, they are still consumed, digested, and passed out virtually unchanged by a variety of increasingly smaller and smaller organisms. Similarly, economic neoliberal policies have filtered down into nearly all aspects of human culture, including literature, as I have outlined in previous chapters.

Generally, Weisman's discussion of the physical artifacts of the human species tends to lead to two conclusions. First, that humans and other species have co-evolved, and our removal from earth, however fantastically this would be achieved in Weisman's thought experiment, will intimately affect the subsequent development of other species. And second, in our absence, most evidence of our civilization in the form of our material productions, besides our more pernicious inventions like plastics that reflect the worst excesses of neoliberal capitalistic production, will give way under the influence of natural processes like heating and cooling (which will break down our paved roads and

sidewalks), and cede the land to the flora and fauna that were only previously contained by our presence (weeds, native, and nonnative plants, the latter introduced and spread by us into new environments, will, for example, break through concrete structures and reclaim most of the land we had carved out for ourselves). These two trends in Weisman's thought are also examples of slow resilience. Even if our species does not continue on in the future, humans and their way of life will live on in the evolutionary and environmental impressions we have made on other species. These include more benign interventions, like causing animals we have historically preyed on to develop heightened sensory abilities to avoid being hunted by us, as well as more toxic ones, like spreading microplastics into every major body of water on the planet, even to the deepest parts of the oceans like the Mariana Trench (Gibbens). Regardless of the effects we have had on other species, our presence on Earth will continue on through other species and the quality of their environments. Similarly, though most of our manufactured structures will themselves break down, the few that remain will either serve as reminders of a lost culture (as do the stone heads on Easter Island for contemporary humans), or allow for new ecosystems to develop from our remains (for example, as Weisman notes, the lime in the concrete we have so often used to build our dwellings will enrich and raise the pH of the soil around the ruins of those dwellings, allowing for different species of plants to grow and increasing the area's biodiversity (Weisman 28)). Our End could mean making more room on Earth for the slow resilience of other species and the environment, as Weisman elaborates in the last chapter of his book:

> Within a few centuries, as most of our excess industrial CO2 dissipated, the atmosphere and shallows would cool. Heavy metals and toxins would dilute and gradually flush from the system. After PCBs and plastic fibers recycled a few thousand or million times, anything truly intractable would end up buried, to one

> day be metamorphosed or subsumed into the planet's mantle. Long before that—in far less time than it took us to run out of codfish and passenger pigeons—every dam on Earth would silt up and spill over. Rivers would again carry nutrients to the sea, where most life would still be, as it was long before we vertebrates first crawled onto these shores. Eventually we'd try again. Our world would start over. (Weisman 267)

Taking this wide view of the future of the planet, Weisman calls attention to our species as one in a series of many now-extinct species, like that of the dinosaurs, which have already contributed to the composition of the earth, from its atmosphere to its mantle. Without us, rivers would flow and life would flourish; nature would take its course with little care for humanity's apocalyptic end.

Like *The World Without Us*, The *Future is Wild* also completely sweeps aside the end of humanity, but this has a different effect than Weisman's book. The BBC speculative documentary series sweeps away, with humanity, any guilt viewers would then have to feel about causing planet-wide climate change, disrupting the lives and livelihoods of vulnerable human populations in the Global South, and doing irreparable damage to nonhuman life and environments. The documentary does not even attempt to address these issues or give viewers a chance to do so. Instead, its testimonies from geologists and evolutionary scientists set up a world of normal global climate changes that occur in measured, expected time periods. That is, there is no mention of how Capitalocenic climate change is going to speed up the normal number of millions of years between ice age and hothouse stages of the Earth's climate. Al Gore famously illustrated this by riding a boom lift high above a chart depicting normal, linked rises and falls in CO2 emissions and global temperature rise in his documentary *An Inconvenient Truth*; human-caused climate change has clearly drastically reduced the number of years between hothouse stages. There is not even a slight nod to this in *The Future Is Wild*.

In all fairness, Al Gore's game-changing documentary was released in 2006 while *The Future is Wild* was first released in 2002, so it is possible that the science behind widespread climate change wasn't as widely known when the speculative documentary was made. Or, perhaps, it was not in the interests of the BBC and other affiliated networks to produce and promote a climate change polemic at that time. As Kaplan notes, climate change narratives "emerge at the intersection of scientific predictions about global warming…and corporate businesses, determined to resist costly changes to their practices." Not only are media conglomerates unlikely to promote messages that would force them to change their own corporate business models, but they are also unlikely to take things "so far as to alienate audiences or conservatives" (Kaplan 12). The series was not explicitly marketed towards children, who could be both less cognizant of the implications of human-produced climate change and possibly more frightened by them, until the 2007 reboot of *The Future Is Wild* as an animated kids' series. Therefore, appealing to a younger, more susceptible audience may or may not have been a concern in framing the original series. Another proposed reboot of the series is going to be accompanied by new "digital media, such as mobile games, apps and interactive multimedia books. This will help to ensure that the cross-marketing opportunities are significant, both in product as well as geographic terms." Further, the series' merchandise will "give the brand an incredible lift," according to Joanna Adams, the producer of the original series (Whittock). This statement highlights the redesigned, re-animated series as marketed towards today's children, the audience who would be most interested in mobile games and apps related to imaginary future creatures. It also emphasizes the goal of the

series, which is not solely to educate its viewers about evolutionary and planetary science, to also to sell them products from the series' brand.

Regardless of the financial motives or intended audience of *The Future Is Wild*, the effect of making only a cursory mention of humanity through a short clip of cityscapes at the beginning of the first episode is dismissive of both the humans and other species that are now and will be affected by Capitalocenic climate change. The first episode mentions a few species that have been endangered by humans already—e.g. tigers—but mentions them only to then relegate them to the past as well. The narrator notes that by five million years in the future, the first time period explored by the series, already-endangered species will be long gone. And of course, by removing humans from the picture after the first few minutes, it becomes both unnecessary and impossible to deal with any issues of environmental justice that already plague vulnerable human populations. A common case study is Bangladesh, which is set to fare extremely poorly against sea level rise. A low-lying country already prone to flooding, Bangladesh's southern half will be increasingly underwater with just a few inches of sea level increase. This will disrupt the livelihoods of southern farmers, who are already having to adapt to sea level rise with floating school boats for their children, and floating gardens formed from manure and water hyacinth roots for their crops (Stone). As flooding worsens, many people will be driven as climate refugees north towards the border with India, but there will be nowhere for them to go when they reach the increasingly fortified, prohibitive border wall that surrounds three sides of the country, increasing international tensions between the two countries. Such issues are swept neatly aside by the documentary's speculative, temporal leap into a human-less future.

However, for all its eccentricities, *The Future is Wild*, like *The World Without Us*, imagines future times where other species flourish. In each episode, a new kind of environment is described, one that will be created through a complex series of weather and geological changes over time. Again, the series ignores how these natural cycles of warming and cooling of the planet are already being unnaturally sped up by Capitalocenic climate change. However, it is helpful and even reassuring to be reminded that the Earth has gone and will go through many environmental changes in coming millennia. Humanity may have caused unprecedented environmental destruction and changes during our time here, but, like many other species who have existed before us, we will pass into the fossil record of the planet and life will continue without us.

Ultimately, both Weisman's book and the BBC/Discovery Channel's documentary series, though intended as "thought experiments" imagining strange new futures, deliberately avoid making their audiences experience any fear of or sense of responsibility for Capitalocenic climate change and environmental degradation. However, they also both provide much interesting, and comforting, information about how the planet will slowly change over time, and how other species have and will adapt resiliently with or without us. They are also examples of unusual, hybrid combinations of science and fiction in that they include unexplained narrative, verb tense, and temporal leaps between the past, present, and future. While other works of climate non-fiction, like *Learning to Die in the Anthropocene* and "The Uninhabitable Earth" perhaps heavy-handedly emphasize dire doomsday scenarios and the importance of facing humanity's demise, *The World Without Us* and *The Future is Wild* purposely and completely prevent their audiences from having to consider them. Their unusual combinations of scientific

testimony and fantastical premises, like their speculative fiction counterparts, serve to remove their readers and viewers from apocalyptic logic and lamentations of the end of humanity, leaving room for contemplation of the slow resilience of other species and our lasting impressions on them and their changed environments.

CODA: STAYING WITH THE TROUBLE

The final environmental non-fiction text I will examine, as the final thought experiment of this dissertation, is Anna Lowenhaupt Tsing's 2015 book *The Mushroom at the End of the World: On the Possibility of Life in Capitalist Ruins*, which takes yet another approach to humans' relationships with other species. Taking the resilience of matsutake mushrooms in ecologically harsh and forbidding environments (mushrooms were the first species to begin to grow in Hiroshima after the atomic bomb dropped) as a case study, Tsing finds affinities and lessons for human survival. Diagnosing the state of the self and of literature in the twenty-first century through an economic lens, Tsing notes that in addition to climate change and the dangers of industrial progress, the economy "is no longer a source of growth or optimism; any of our jobs could disappear with the next economic crisis." Even worse, this precarity which now affects all people, regardless of class, is also reflected in today's literature: "it's not just that I might fear a spurt of new disasters: I find myself without the handrails of stories that tell where everyone is going, and also, why" (Tsing 1-2). Given this lack of narrative or economic guidance—the latter implying that one's sense of self is defined by the work one does—Tsing finds that "the uncontrolled lives of mushrooms are a gift—and a guide—when the controlled world we thought we had fails" (2). Living, as we are now, in a "time of diminished expectations"

about the possibilities of utopian solutions to global problems, Tsing's solution is to find "*disturbance-based ecologies in which many species sometimes live together without either harmony or conquest*" (2; emphasis original). Quoting Ursula K. Le Guin, Tsing notes that even "the utopian imagination is trapped, like capitalism and industrialism and the human population, in a one-way future consisting only of growth." All Le Guin, and Tsing, are trying to do is "to figure out how to put a pig on the tracks" (qtd. in Tsing 17). That is, how to call attention to this narrative of progress by interrupting it with something that derails it—a pig, a mushroom, a different way of thinking about the future of humanity.

Donna Haraway takes up a similar concern in her 2016 book *Staying with the Trouble: Making Kin in the Chthulucene*, writing that, "In urgent times, many of us are tempted to address trouble in terms of making an imagined future safe, of stopping something from happening that looms in the future, of clearing away the present and the past in order to make futures for coming generations" (Haraway 1). Much of the speculative fiction (and non-fiction) I have addressed does this, at least in part. Octavia E. Butler's *Parable* novels propose (and critique) a utopian solution to neoliberal capital's social, environmental, and cultural devastations, finding compromises between individual survival within and radical revolution against neoliberal neoconservatism. Butler's fictional Earthseed religion attempts to make a better future for coming generations on other planets, although Butler acknowledges in *Parable of the Talents* and her notes for a third novel that this will be a difficult, long-fought battle. Margaret Atwood's *MaddAddam* trilogy ends with the few remaining human survivors of human-created apocalypse trying to carve out a safe enclave for themselves to build a new world

populated by human-Craker hybrids and pigoons. The speculative non-fiction I have addressed above, I have argued, pointedly works to ignore the problems humans have caused its own and other species in the past and present, focusing instead on how human culture and artifacts can survive, in some cases, in a post-human (that is, after the end of humanity) world. Rather than projecting utopian ideals and solutions onto a post-apocalyptic future, or casually dismissing humans and their complicity in global climate change in favor of other species that could dominate the world millions of years from now, Tsing seeks to find interspecies relations that do not involve impossible, utopian harmonies or self-perpetuating hierarchies and narratives of dominance between species.

To address the many problems with the ways that humans interact with the rest of the natural world, it is tempting, as in *The Future is Wild*, to simply imagine that another species, one perhaps less rapacious, greedy, and environmentally destructive, will step up as the dominant species on Earth and we will be off the hook. It is also tempting to argue that plants, rather than animals, should occupy the higher position in the hierarchy of species, given animals' propensity for violence and conquest. Natania Meeker and Antónia Szabari's 2019 book *Radical Botany: Plants and Speculative Fiction* does the latter, contending that, going back to the eighteenth century, scientists, writers, and philosophers have explored how the "lower forms of life were to shed light on the higher," thus "upend[ing] and unsettl[ing] human assumptions about who wields power, and how" (Meeker and Szabari 55). After all, as Weisman's *The World Without Us* details, plants will outlive us and take back their place by breaking down markers of our culture and civilization (weeds will break through cracks in concrete pavement, vines will swallow up ruined facades of our collapsing buildings). Instead, Haraway (and Tsing)

argue for making "kin in lines of inventive connection as a practice of learning to live and die well with each other in a thick present." This "staying in the trouble" is not simply to "settle troubled waters and rebuild quiet places," that is, seeking some kind of return to normalcy or stability, but also to "make trouble, to stir up potent response to devastating events." Haraway's "thick present" is one that requires us to be "truly present, not as a vanishing pivot between awful or edenic pasts and apocalyptic or salvific futures." Rather than losing ourselves as a species in future-forward speculative thinking, playing out what if scenarios, instead we should acknowledge ourselves as "mortal critters entwined in myriad unfinished configurations of places, times, matters, meanings" (Haraway 1). That is, we should take advantage of the possibilities of the present, such as it is, acknowledging ourselves as one of many species that can coexist uneasily *and* nonhierarchically with others.

Like Haraway's "thick" present, Tsing describes the spaces of human-fungi interaction, which are "unencumbered by the simplifications of progress narratives," as "knots and pulses of patchiness…there to explore" (Tsing 6). Collaborative survival cannot be accomplished through "tales of progress nor of ruin," but rather by paying attention to the intricacies of human-fungi relationships, via the human practice of mushroom picking, which might be able to "open our imaginations" (19). Matsutake mushrooms, Tsing explains, rely on other species for their survival; they are the fruiting bodies of a fungus that lives underground and receives nutrients from roots of certain trees, which in turn are able to live in poorer soils because of the presence of the fungus. Matsutake mushrooms also provide a source of food and income for foragers in the U.S. Pacific Northwest, yet they resist largescale farming due to their need for "the dynamic

multispecies diversity of the forest" in just the right ecological conditions (40). Humans who want to harvest the mushrooms could just as easily hinder their growth (by "introduc[ing] hostile plantings, import[ing] exotic diseases, or pav[ing] the area for suburban development") as nurture them (by "cutting firewood and and gathering green manure") through their complex interactions. And yet matsutake, which in Japan rely on the presence of red pine to survive, grow only in places that have been significantly deforested: "All over the world, indeed, matsutake are associated with the most disturbed kinds of forests: places where glaciers, volcanoes, sand dunes—or human actions—have done away with trees and even organic soil" (50). Ultimately, Tsing describes this complex relationship as a kind of polyphonic assemblage between fungi, trees, and humans. Polyphonic music, rather than classical or even modern music, does not have unity as its goal; rather, it is a kind of music in which "autonomous melodies intertwine," sometimes creating harmonies, and sometimes creating dissonance. This kind of assemblage, with its looser sense of cohesion than an ecological community, reflects how species reliant in some way on each other sometimes "thwart (or eat) each other; others work together to make life possible; still others just happen to find themselves in the same place" (22-24). Rather than coming together perfectly and for mutual benefit, species in polyphonic assemblages sometimes coast along smoothly together, and sometimes bump each other off the track.

This is a looser, more adaptable form of the slow resilience I have examined in earlier in this and previous chapters. Slow resilience in Butler and Atwood's environmental speculative fiction takes the form of compromise and survival strategies in the face of neoliberal devastation and the Gothic horrors that result from human-caused

health and environmental disasters. In environmental speculative “non”-fiction, it takes the form of bypassing actions humans could take to prevent global climate change, or the blame we could bear for failing to do so, and forcing us to either stare our own destruction in the face or leap beyond it into a human-less future. A third way, leaving utopian half-measures and the equally difficult mental calculus of contemplating a future without us behind, is to consider the human species, and its speculative cultural productions, as being in a sometimes uneasy, sometimes harmonious assemblage with the rest of nature and our long history of writing and theorizing about it. Sometimes we fit into symbiotic patterns of growth and resilience with other species, and sometimes we act against our own best interests and cause devastating environmental destruction and mental anguish. Only a slow, sustained, deep geologic look at our relationships with other species and the climate will allow us to embrace those rare periods of growth and learning rather than fall easily into more destructive patterns of discord.

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