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Claremont Mckenna College

**Climate Change in Fiction: The Evolution and Challenges of
Environmental Apocalyptic Literature**

Submitted to
Professor William Ascher

By
Lauren Gode

For
Senior Thesis in Environment, Economics, and Politics
Fall 2020
November 23, 2020

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Abstract

This thesis examines the several aspects and variations of environmental apocalyptic literature, and its potential ability to mobilize action against the imminent threat of global climate change. It delves into the intersection between climate research and fiction, as well as the rhetorical techniques used in works such as *The Death of Grass* by John Christopher, *The Drowned World* by J.G. Ballard, *Oryx and Crake* by Margaret Atwood, and *The Road* by Cormac McCarthy, and covers the complementarity between climate fiction and works of non-fiction such as *The Great Derangement* by Amitav Ghosh. Finally, this thesis will assess the effectiveness of climate change fiction's capacity to stress and address the immediacy of approaching climate calamities, as well as argue the importance of environmental apocalyptic literature in the effort to motivate readers towards action to prevent disasters caused by climate change.

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Introduction

Imagine a world in which the temperature does not drop below 85 degrees Fahrenheit in places where the polar ice caps formerly dominated the sea. Areas remotely near the equator are uninhabitable because human flesh would simply melt off a skeleton if one were to venture near the tropics. Major cities, religious temples, and one's childhood home have drowned with the rest of civilization under the ocean that reclaimed the continents beneath its waves. A truly terrifying world this would be. But perhaps Earth was not buried in a watery grave but rather burned alive instead. Greenhouse gases destroyed the ozone layer and the sun's harmful rays set fire to everything and everyone. The survivors of the fires wander the scorched Earth aimlessly, shedding any remains of humanity and morality, and resorting to murder and cannibalism to survive.

These grim predictions of the future are fiction, stories that have not happened and might not happen in this generation or the one following. But these narratives, despite being fiction in genre, were written using two important components, facts and fear. The facts are rooted in scientific evidence that anthropogenic climate change, that is climate change caused by human activities, is not only real but rapidly increasing in both quantity and consequence. This fact is repeated constantly to the global population by politicians, climate scientists, and environmental activists, with inadequate adaptive or mitigative change being implemented in response. What makes this fiction not only special, but also memorable is the fear employed by the author. The fear of humans suffering in the aftermath of an eco-apocalypse or eco-catastrophe is not only real, but morbidly relatable.

Fiction authors have a rare and important platform within their rhetoric and are potentially in a powerful position to mobilize people into action to prevent the horrifying and

impending future that climate fiction depicts. This subgenre of fiction has the potential to spread the message of the importance of adaptation and mitigation of climate change to the public in the form of stories of brutality, violence, loneliness, and suffering. Stories are quickly transforming from fiction and fantasy, to predictions of reality.

This reality is hard to imagine when there is still snow on the ground in winter or beautiful tropical islands with what seems like endless miles of glowing coastline. Climate change is often painted as an issue for the future; its impacts currently too small to dedicate time, money, and resources towards. When climate scientists try to raise awareness and advise mitigation and adaptive technology, it is received mostly by others from the scientific community and not the masses: the population with the ability to make, fight, and implement change. But climate change is not a short-term problem, if fossil fuels burn on Tuesday, the world will not end on Wednesday. Greenhouse gases have been building in the Earth's atmosphere since before the Industrial Revolution, but they continue to accumulate at a growing rate, with no evidence of slowing down. In fact, on May 9, 2013, the amount of carbon dioxide in the atmosphere exceeded 400 parts per million (ppm). Carbon dioxide concentrations have not been this high in over 3 million years. Atmospheric carbon dioxide currently sits at 412 parts per million.

Data regarding the changing climate are often dense and unabsorbable, or articulate the problem without getting across the immediacy and danger of the issue. Global sea levels rise at approximately 0.8 millimeters per year. That number is not jaw dropping; it is miniscule when considering there are 25.4 millimeters to the inch. The human mind does not read 0.8 millimeters and quake in fear or dream of their house falling into the ocean, because it is hard to imagine sea level rise on a global scale. Reading this number rarely triggers the mind to reason that 0.8

millimeters is small, but the ocean covers more than 70 percent of the surface of the planet and accounts for 97 percent of water on Earth. A rise in 0.8 millimeters amounts to 75.6 trillion gallons of water added to the world's oceans each year. That is enough water to fill 144.4 million Olympic swimming pools. If all of Greenland's ice were to melt into the existing ocean, global sea levels will rise by 23 feet. Quantifying the number of gallons that would enter the ocean with a sea level rise of 23 feet is a task too terrifying to take on, but, globally eight of the world's ten largest cities are near or on the coast. Humanity is headed for this reality.

Amitav Ghosh describes society's views of climate change using a memorable analogy. The Sundarbans is the only place on Earth where tigers reside in mangrove forests. The people living in the Sundarbans are aware of the large and powerful tigers that live among them in the dense trees that line the rivers and coasts. The beasts mostly keep to themselves, hunting and staying far from their human neighbors; therefore, the people of the Sundarbans rarely view them as a threat. It is not until it is too late that an individual may recognize the tigers as a serious and highly dangerous risk. Ghosh explains, "The tiger is watching you; you are aware of its gaze, as you always are, but you do not see it; you do not lock eyes with it until it launches its charge, and at that moment, a shock courses through you and you are immobilized, frozen" (Ghosh, 2016, 29). The danger represented by the tigers is not always visible and consequently not adequately acknowledged.

This is the widespread mentality society developed towards climate change. If making sustainable or "green" choices is on the mind, an individual will recycle a soda can, turn off the lights when leaving the room, or buy the slightly more expensive but environmentally friendly cleaning detergent. But, just like the tigers creeping silently through the mangrove forest, if conservation and global climate change are not prominently kept in mind, that individual will

rarely act in an eco-friendly way. How could small, seemingly insignificant daily decisions have a negative environmental impact on the planet? One individual choosing to recycle will not make a difference in the battle against climate change. However, when millions of people around the world adopt the mentality that their actions have no environmental repercussions, the amount of trash, energy, greenhouse gas emissions, and electricity skyrockets. A singular decision adds to the pool of trivial yet detrimental actions that will result in an irrecoverable planet. To achieve meaningful change when it comes to the warming climate, society must stop believing that a singular individual cannot make a difference, and end the widespread doubt that climate change is not occurring because of lack of exposure to direct impacts of climate consequences.

One of the largest issues with climate change research is that it is often obtuse, even to the well-informed public. The majority of the population has no desire to break into a forty-page white paper that discusses the chemistry behind ocean acidification or the flux of carbon dioxide through Earth's carbon reservoirs. The underlying issue is framing. If an individual walks through a bookstore and sees a work entitled, *Global declines in ocean nitrification rates as a consequence of ocean acidification*, they will more often than not keep walking. However, if the book was entitled *On Time and Water* and the cover illustrates a shrinking iceberg in the center of a deep green sea, they are more likely to stop out of curiosity. What about time and water? This title is engrossing, exciting, and original. In the book, Icelandic author Andri Snaer Magnason weaves his reader through climate science using ancient folklore, stories of his ancestors, and sacred cows. *On Time and Water* is a narrative that simultaneously warns of the massive changes life on Earth will soon endure due to fundamental changes that oceans currently experience, and urges society to understand the magnitude of the issue for both present and future generations. Magnason's book does not attack the reader with facts, numbers, and

complex models about the changing climate, but instead makes the issue palatable and relatable, using human's innate morality and fear of not only change, but death as a tool to spark action.

The essential way to inform people, besides the actual events the world is experiencing such as increased sea levels, temperatures, hurricanes, and wildfires, is to modify how people receive the information. It must be digestible to the majority of the population because people may hold onto and believe norms without understanding the reasoning. Fiction, unlike scientific literature, has a powerful capacity to mobilize people, because it attacks issues from a different angle and uses rhetorical devices that appeal to basic human emotions. Climate fiction, specifically eco-apocalyptic literature, has gained popularity in recent years because of the immediacy of the issue and the influence it has on readers. Fiction writers are an imperative part of the battle against climate change because unlike climate scientists, authors use their imagination to bring to life the consequences of global warming. Climate fiction creates worlds in which the reality of current climate change impacts continues for too long. The result is irreversible, life altering, and life ending disasters. By presenting a plausible eco-apocalypse and the emerging new reality, authors exploit human's deepest fears: loneliness and isolation, violence, cannibalism, and barbarism, and the undeniable power of nature. The ingrained fear humans have towards these feelings is a powerful antidote to the passivity people exhibit towards climate change.

Fiction writers influence people's orientation of global climate change by increasing the severity of the outcome. Authors must dance on the delicate and dangerous line between fear and motivation to action. If an apocalyptic narrative is too frightening, it may result in one of two negative outcomes in the hands of a less skilled author. The first is an obliterating effect: the apocalypse becomes too terrifying and horrific, that it scares the reader off from even thinking of

the future of climate change. In this case, confronting the potential reality of an eco-apocalypse is too much to handle, so the individual does their best to hide from the truth. The opposite can also occur when a narrative is deeply disturbing. When the reader is presented with the absolute worst-case scenario, it can feel cathartic or reassuring because things simply cannot get any worse. The writer wants to avoid overwhelming their audience with fear, they must strike a balance between dread and desire to make a change.

Climate fiction writers are imperative to informing society about the dangerous and imminent impacts of climate change. If the world continues producing fossil fuels according to the “business as usual” model, atmospheric carbon dioxide concentrations will likely surpass 1000 ppm before 2100. Eco-apocalypse and eco-disaster fiction, such as John Christopher’s *The Death of Grass*, J.G. Ballard’s *The Drowned World*, Margaret Atwood’s *Oryx and Crake*, and Cormac McCarthy’s *The Road*, use not only climate research and realities, but rhetorical mechanisms, figurative language, and human’s deepest fears and emotions, to spread extremely important information regarding the consequences of climate change and encourage the unavoidable need for adaptive and mitigative actions, before it is too late.

Complementarity of Fiction and Non-Fiction in Climate Literature

Although non-fiction literature regarding climate change does not use stories of apocalypse to engage their reader, it still shocks the reader with the truth of current climate change and its future projections. Non-fiction literature is important because it legitimizes the fictional stories. Readers can read a post-apocalyptic narrative and then refer to non-fiction books or articles that corroborate the world that the author created. Non-fiction books are rooted in evidence, experiments, and anecdotal stories of natural disasters and personal experiences with climate change. This literature reinforces the idea that an eco-apocalypse or tremendous, life-altering disaster is not only possible, but coming much sooner than most of humanity realizes.

The fact that many people do not believe in the seriousness of climate change is rooted in our culture. “Let us make no mistake: the climate crisis is also a crisis of culture, and thus of the imagination” (Ghosh, 2016, 9). In his book, *The Great Derangement*, Amitav Ghosh discusses the importance of modern climate change literature. He argues that when authors, artists, historians, and politicians refuse to acknowledge climate change as a pressing and dangerous problem, they are promoting an “age of derangement” through which society convinces itself that drastic climate events and changes are not taking place. When future generations look back at the early part of the twenty first century, they will find little evidence of climate change in culture: specifically, art and literature. Artists and writers are tasked with the difficult job of informing society and addressing humanity’s changes within their works. Climate change is not only a concern for scientists and environmentalists. When Earth’s changes are left out of history, generations to come will have difficulty understanding what went wrong. Why was a global threat underplayed for so long? Authors have the responsibility to inform, and to inform eloquently and creatively.

Climate change authors face unique challenges when taking on the issue of climate change, especially when involving an apocalypse. This genre of fiction addresses climate change by creating a futuristic and imaginary world torn apart by the destroyed Earth. Because of this, Ghosh argues that “fiction that deals with climate change is almost by definition not the kind that is taken seriously by serious literary journals: the mere mention of the subject is often enough to relegate a novel or short story to the genre of science fiction” (Ghosh, 2016, 7). Climate fiction is commonly dismissed because it creates a sometimes-otherworldly society. The new world can seem unbelievable and may not be taken seriously or understood for the message that it carries.

It is important to draw a distinction between climate fiction and science fiction. Climate fiction, except in some cases such as Margaret Atwood’s *Oryx and Crake*, does not deal with new life, time, and space travel, or traversing between planets. Science fiction literature is often not regarded seriously. Eco-disaster and eco-apocalyptic fiction, however, is more of a prediction rather than utopian or science fiction. They are cautionary tales written in a time when the world faces continuous repercussions of natural disasters and sea-level rise. These stories influence society’s views of the degrading natural environment and effectively capture the current state of the world. Their purpose is not only to entertain, but to warn and inspire fear strong enough to provoke action.

The most common critique of climate fiction had been the improbability of an eco-disaster or apocalypse occurring. Readers often associate apocalypse with zombies, the Earth splitting open and swallowing humanity, or an end reminiscent of the Book of Revelation. Environmental apocalypse should not be lumped into the category of the common post-apocalyptic narratives because there is a key difference: a climate apocalypse is not improbable. As Ghosh points out, several of the weather events the planet experienced in the recent past had

been *highly* improbable. Hurricane Sandy struck the east coast with a magnitude previously unknown by the United States, wildfires currently ravage the entirety of California, and glaciers are melting rapidly at both poles. Ghosh argues that the important difference between the weather events the planet is currently experiencing and those that occur in science fiction novels is that “improbable though they may be, these events are neither surreal or magical. To the contrary, these highly improbable occurrences are overwhelmingly, urgently, astoundingly real” (Ghosh, 2016, 27). Critics of climate fiction no longer can argue that wild storms, high temperatures, and rising sea levels are unbelievable because humanity it experiences all these phenomena in reality. If society continues on its path, “improbable” and “unlikely” weather events and natural disasters will continue, worsen, and potentially lead to a completely new and terrifying way of life.

Ghosh’s contribution highlights all the negatives outcomes of global climate change, in contrast with other authors aim to find silver linings in this. Not all projections of the impacts of global climate change in the nonfiction genre are apocalyptic, some of them, although they predict huge changes, predict a mixed set of outcomes. Gregg Easterbrook, author of the poignant yet admittedly dated article, *Global Warming: Who Loses- and Who Wins?* takes a different approach, and argues that although the changing climate will bring what he calls “generations of misery”, it will also result in a “rip roarin’ economic boom” for others.

According to Easterbrook, countries located in colder or landlocked regions will emerge from the continuously changing climate better off than before. He predicts the emergence of new industries such as greenhouse-offset technology, an entirely new trade route in the Arctic Ocean, and previously untapped oil reserves under melted permafrost in Siberia and Northern Canada. Yet, Easterbrook predicts, “The next few decades may see previously unthinkable levels of

economic upheaval, in which fortunes are won and lost based on physical climate as on the business climate.” Easterbrook focuses on the economics of climate change, and how there will be large and largely unequal impacts across the planet, both physically and economically. He suggests mitigation and adaptation techniques, such as growing trees in newly scorching and uninhabitable areas to uptake carbon dioxide, and predicts climate migrants moving northwards and contributing to a different country’s economy. Although these predictions are possible, it is foolish to believe that any country, even those far away from sea levels rising and the equator, will not face catastrophic effects from climate change. Adaptation is not enough to save humanity or reverse the damage that has already been done.

The important message behind Easterbrook’s article is that simply putting resources into only adaptation strategies or only mitigation technologies will not be enough for what is coming. Society cannot fool itself into thinking adaptation is going to save the planet or count on mitigation to stop the problem. Governments globally must find a robust combination of these two strategies; a solution that adapts humanity to the current inevitable changes while simultaneously developing mitigation techniques that will prevent global warming and climate change from reaching a point of no return.

Thus, nonfiction writing, despite utilizing different tactics and methods, is essential to climate fiction books because it provides the bases for emotions and reactions from the reader. Eco-catastrophe and eco-apocalyptic literature arouse discomfort and fear in the reader; non-fiction reinforces that fear because the reader cannot dismiss the fiction as a form of fantasy. Despite the criticism that climate fiction, or “cli-fi” as Amitav Ghosh calls it, faces, the terrifying reality of the sub-genre is it is no longer fully fiction, but rather a dark prediction of reality in the not so far off future. A greater number of truth testers questioning the plausibility of their stories

is the burden climate fiction authors face. That is why non-fiction narratives about climate change are so important; non-fiction compliments the terrifying, apocalyptic fiction stories by cementing the reader's fears in scientific facts and reality.

Eco-Apocalypse in the 20th Century

Despite revolving around the same crisis and urging the same message, eco-apocalyptic literature evolves with the fluctuating and technological advancement of society. There is a marked transition from climate fiction written in the 20th Century to environmental post-apocalyptic narratives in the 21st Century. The mid twentieth century faced quite different challenges, conflicts, and changes than the 21st Century faces. Despite the Clean Air Act passing in 1963 and the Clean Water in 1972, the climate change movement did not truly gain momentum until the 1990s, when some corporations, and non-governmental organizations involved themselves in the blooming worldwide discussion on global warming. Before this burst of activism, most of the population had little understanding of climate change and its accompanied impacts and consequences. Society had larger, more pressing issues for which to dedicate time, money, and technological advances. Literature often reflects when it is written and the corresponding social and political tensions. 20th Century artists and authors focused on events and issues like The Great Depression, World War II, the Vietnam War, and advancing atomic technology. Consequently, disaster narratives written in the 20th Century focused on socio-economic or nuclear apocalypse rather than an environmental or climate driven apocalypse.

The climate fiction novels written in the twentieth century greatly differ from those written more recently, in style, rhetorical tactics, and message. During this time, climate-influencing technology was not a topic of fearful discussion and therefore, was rarely mentioned in climate apocalyptic fiction. Worldwide worry stemmed more from political tension and unrest or the imminent threat of another global war. Two climate fiction novels from the mid twentieth century, *The Death of Grass* by John Christopher and *The Drowned World* by J.G. Ballard,

discuss a post-apocalyptic world as a result of vast, detrimental environmental changes.

Although the plot, setting, characters, and fear tactics used are extremely different, both novels make it evident to the reader that this apocalyptic reality is a result of humanity's neglect.

Part I: *The Death of Grass* by John Christopher

Beginning to read a novel such as *The Death of Grass* in the year 2020 causes an eerie, unsettling, and chilling feeling in the pit of the reader's stomach. Despite being written in the 1950s, this novel mirrors current political and social challenges and unrest that face the world today. *The Death of Grass* is an atypical eco-apocalyptic novel for two main reasons: the story begins before the apocalypse occurs and then takes the reader through the apocalyptic and post-apocalyptic aftermath, and the origin of the apocalypse is not the usual climate fiction sub-genre that rests on increased fossil fuel emissions and the consequent global warming and sea-level rise. Instead, society is destroyed by an unstoppable and incurable virus that attacks grass, specifically grains, rather than humans. John Christopher, the pseudonym under which Sam Youd wrote the story, uses a unique form of destruction to comment on society's overuse of dangerous pesticides and genetically modified organisms. The Earth is saturated with manmade poisons designed to benefit humans in the short run at the cost of a healthy planet. Robert MacFarlane, in the introduction to the book, refers to the global pandemic that breaks out in the novel, the Chung-Li virus, as a "vision of nature's revenge for its sustained mistreatment – a return of the repressed" (McFarlane, 1956, 3). Similar to other novels written in response to the exploitation of the earth and its resources, the story describes in vivid detail the quickly approaching consequences of careless, unsustainable environmental negligence.

This book was written at the beginning of an emerging literary movement known as the "floral apocalypse", where authors expressed their concern over aggressive human intervention in the natural world through works of fiction, often centered on Earth's retribution against a selfish and greedy humanity. Books that fall into this category do not necessarily stress the existence and danger of climate change, but rather the threat posed by humans' continuous

manipulation of the natural world. Floral apocalyptic plots are often more of a social commentary than warnings of the future, and involve problems such as miracle growth hormones that causes weeds to overtake California or genetic modifications resulting in vengeful and violent plant species.

The Death of Grass has distinct features of a floral apocalypse because scientists in the novel strengthen grain species of grasses to make them more resistant to weathering and potential viruses, and therefore change the natural order of the planet. However, as described by Macfarlane, John Christopher rejects the idea that his book is a part of this movement or part of the science fiction genre at all. Instead, *The Death of Grass* is considered “a thought experiment in future-shock survivalism” (Macfarlane, 1956, 5). John Christopher explores the strength of human morality when faced with a disaster of its own creation. Macfarlane explains that “*The Death of Grass* is distinguished by the implacability of its narrative tone and the alarming speed at which morality is shown to decompose under emergency conditions” (Macfarlane, 1956, 7). The novel is a combination of climate change fiction and an examination of society that has not yet faced the consequences it deserves. It is simultaneously predicting a climate apocalypse while emphasizing the fragility of the human conscience.

While concluding his introduction, Macfarlane states that, “One way to measure the achievement of a novel of this kind is to consider how true its vision becomes, given time.”(Macfarlane, 1956, 9). As discussed previously, realism is the most common critique of climate fiction novelists. If a book can stand the test of time and even prove to be moderately correct in its predictions of future catastrophes, then it is awarded a higher level of praise than a book that is non-credible. Despite utilizing sometimes less than realistic plot lines such as government’s bombing entire cities with nuclear weapons to avoid mass famine or placing the

almost magical River Lepe, reminiscent of the mythological River Lethe of the Underworld, directly through the center of Blind Gill, *The Death of Grass*'s vision remains one of the truest within the genre of climate fiction.

The Death of Grass, although it presents a "pandemic" of plants, nevertheless resonates with the current pandemic. The virus, its origins, and the path it takes in *The Death of Grass*, despite taking grain as its victim rather than humans, is eerily similar to the COVID-19 pandemic in which the world is currently living, making John Christopher's writing not only visionary, since his novel was written decades before the virus outbreak, but also a frightening reminder of the power of pesticides and danger of human manipulation of nature.

Although *The Death of Grass* is a nonconventional environmental apocalypse, John Christopher still employs the necessary fear tactics, persuasive rhetoric, and often violent plot lines. This is common among climate apocalypse writers who employ different disasters, tragedies, and misuse of natural resources that "end the world" or life as society knows it. Similarly, they elicit different types of fear and dread from their reader to motivate them to remediate the decaying environment before the fiction becomes a reality. Christopher uses three main fear tactics in his narrative: the fear of complete economic and political collapse, the loss of humanity in a lawless world, and the debilitating fear of being neglected and then forgotten.

The novel opens rather plainly, two young boys and their mother are venturing from the city of London into the vast countryside, an isolated valley called Blind Gill, to visit their grandfather, a potato farmer. The beginning is somewhat surprising for an apocalyptic novel; the title and introduction prepares the reader for a dark and chaotic storyline. Christopher made the distinctive decision to begin his narrative in the time before the apocalypse, where life continued on deceptively normal. The first chapter introduces the main character as a child, John Custance,

his brother David, and the location Blind Gill, which transforms from a healthy and wholesome potato farm to a piece of land for which the characters will starve, battle, and murder. Flash forward twenty-five years and the brothers are grown up, John lives in London as an architect with his wife Ann and two children, while David runs his grandfather's farm in Blind Gill.

David shows his brother that the Chung-Li virus has invaded the Great Britain when the brothers are reunited on the farm as adults. A decaying greenish brown color marks a small patch of grass. John and Ann are shocked because they were under the impression that the terrifying, grass-eating virus was contained in China. At this early point in the novel, The Chung-Li virus has a "selective appetite", and only attacks the grass that produces rice. Even though the characters are aware of the devastation and loss of life the virus caused in China, they are unconcerned by its appearance in Britain because the population does not produce or rely on rice. John and the other characters see themselves as Western elite, part of a society that is above the Chung-Li virus and its indirect violence.

While discussing the virus, Ann responds to David's statement regarding its severity, saying, "Yes, it could have been us instead. Isn't that what you mean? We had 'forgotten' them again. And probably in another five minutes we shall have found some other excuse for forgetting them" (Christopher, 1956, 26). Christopher uses this conversation to introduce the theme and fear of being forgotten. The Chinese are suffering immensely because of their decaying environment, but it does not impact Great Britain or the rest of the world, so the topic can be discussed but quickly forgotten. The characters have yet to suffer the consequences of the Chung-Li virus, they see themselves as superior to the dying Chinese population.

The symbolism of the forgotten continues when David, "crumpled the (infected) grass in his hand, and threw it into the river. It sped away on the swiftly flowing Lepe." (Christopher,

1956, 27). When the conversation regarding the dying grass ends, the characters no longer need a physical reminder of the virus and they quickly dispose of it. Blind Gill's River Lepe flows through the center of the valley. It is reminiscent of the River Lethe in the Underworld, the river of forgetfulness. Throwing the diseased grain into the River Lepe represents the current British attitude towards the Chung-Li virus; they are aware of its existence, but eager to forget the looming danger it holds. The impatient need for Christopher's characters to forget the Chung-Li virus mirrors society's current attitude towards climate change and environmental degradation. It is much easier to forget the oncoming dangers and consequences that accompany a dying Earth than to deal with it head on. John Custance and the rest of western society's neglect of the threat of the Chung-Li virus will cost them greatly in the near future.

From the reunion at Blind Gill, years pass in a matter of pages. John and Ann continue to discuss the impacts of the Chung-Li virus amongst the two of them and their close friends Roger and Olivia. During another early, pre-apocalyptic interaction between the two couples, they are informed through the radio that, "the lowest possible figures for deaths in the China famine must be set at two hundred million people" (Christopher, 1956, 29). Besides John's wife Ann, the group is once again extremely dismissive of the Chung-Li virus. Jokes are tossed back and forth about the deaths; Roger believes the Chinese population needed a large reduction. This interaction emphasizes another negative widespread view towards climate change and other global issues: only underdeveloped and overpopulated areas of the globe will suffer and experience the negative impacts of a pandemic or large environmental changes because they do not have the technology or medicine to properly combat it.

Through this conversation, it is once again clear that modern, western, healthy individuals desire to forget the millions of lives lost to famine because it does not directly impact

them. Christopher attacks the innate human instinct of the fear of being forgotten, especially when disaster strikes. By utilizing dramatic irony in the crass conversations between the British characters, Christopher creates a large sense of dread within the reader. The reader knows what is to come for these characters, and wills them to be more respectful and ready for a negative turn of events. This impending feeling of doom in the reader makes the pre-apocalyptic portion of the book just as difficult to read as the violence that occurs later.

Society is living the prediction made in the novel currently in the form of COVID-19. Like the Chung-Li virus, COVID-19 first erupted in China and was not taken seriously by western governments. It was not until the corona virus swept through countries like Italy, Spain, and the United States that policymakers began to consider it a serious threat and enact preventative measures such as quarantine, social distancing, and travel bans. Just like in *The Death of Grass* and the Chung-li virus, political bodies in 2020 did not respond to the danger of COVID-19 until it was too late. The accuracy of John Christopher's predictions in *The Death of Grass* further adds to its literary importance because it warns against an arrogant attitude toward both environmental disasters and pandemics, two issues society is currently facing.

It is only when the Chung-Li virus mutates to attack grain grasses a few years after this initial conversation, that Christopher's characters are forced to acknowledge and survive within a crumbling, famine-struck, and violent society. Once the virus mutates, referred to as Phase 5 of the virus in the book, and begins invading grains, Christopher explains that it "was followed by widespread riots in the Far East that were nearest to the focus of the infection. The Western world looked on with benevolent concern" (Christopher, 1956, 38). The word benevolent feels out of place in this situation. Westerners still view the infected areas of the globe with a sort of charitable kindness rather than a sense of doom. It is not until the Chung-Li virus enters Europe

and drains all the green from what the protagonists regarded as a civil and cultured society that a calm realization spreads across the western world.

Great Britain experience with the Chung-Li virus began with controlled and manageable shortages of bread and meat, but quickly transitioned to a famine provoking lying and turning against its people. Roger, who has a high-level government job, explains that the Prime Minister has been ousted and the new government plans to bomb largely populated cities to sidestep the problem of feeding some while starving others. “Atom bombs for the small cities, hydrogen bombs for places like Liverpool, Birmingham, Glasgow, Leeds – and two or three of them for London” (Christopher, 1956, 60). Presenting a disaster such as this is aggressive and somewhat unrealistic. It is highly unlikely that a country’s own government would turn its weapons of mass destruction on its own people during a crisis. However, this book was written post World War II, when fears of nuclear war were high. This work, despite being part of a pile-on plot with which the author is unrealistic, illustrates that apocalyptic fiction often reflects society’s largest fears at the time it was written.

About a third of the way through the novel, the reader moves from the pre-apocalypse and into the apocalypse. Roger and John decide to move their families out of London and take their children from boarding school. After all of his arrogant critiques and crude jokes about the suffering Far East, Roger is forced to admit, “In a way, I think I feel it would be more right for the virus to win, anyway. For years now, we’ve treated the land as though it were a piggybank, to be raided. And the land, after all, is life itself” (Christopher, 1956, 53). The characters come to understand that humanity is at fault for the impending apocalypse. The misuse of natural resources continued for too long and the living Earth demands retribution in the form of the

Chung-Li virus. The planet starves its inhabitants after its inhabitants starved the planet of its natural order.

As John, Roger, and their wives prepare to leave London and retrieve their children from preparatory school, the reader is reminded of the innate fear of being forgotten and the guilt that accompanies those who are choosing to forget. This guilt is present much more at the beginning of the apocalypse, but as the world plunges into unspeakable violence and chaos, this feeling of guilt is quickly forgotten as well. John must walk away from a school full of young girls and teachers after picking up his daughter Mary, knowing that they are in an area that will be “sealed off” once the bombs fall. After retrieving Mary and narrowly escaping London by killing two young soldiers, with the help of a cunning gun shop owner named Pirrie, John and his now party of seven head to get his son Davey. The young boy insists on bringing his best friend with his family, and John and Ann are once again confronted with their own morality. The reader is stunned when Ann, loving mother of two, refuses to save the boy’s life and insists they leave him to die with the rest of the school. John, who desires to bring the boy along, replies coldly saying, “You do know what you’re doing, don’t you darling? I suppose we’re all changing, but in different ways” (Christopher, 1956, 86). They had barely left London’s city limits and the kindest, most maternal character in the novel responds without compassion to the inevitable death of a young child. This scene marks a shift in the novel, a point of no moral return for the characters. They have accepted the future for which humanity is headed, and embrace the new brutal and savage reality of the environmental apocalypse.

After leaving the city and the schools, John’s clan has truly abandoned normal society, they are now a part of the post-eco apocalyptic world where theft, rape, and murder run rampant. News of the great famine breached civilization, and every man, woman, and child must fight for

survival. Christopher switches his fear rhetoric from being forgotten to complete loss of conscience and morality when the stability of society crumbles. Throughout the group's journey across the English countryside, John and his followers kill several other people, including an unarmed mother. Arguments about what is right and wrong slowly cease because there is no longer right and wrong, there is only alive or dead. The characters continuously meet other starving survivors on their journey to Blind Gill, and the reader experiences the humanity seeping from them firsthand.

Throughout their journey, Ann and her daughter Mary are kidnapped and raped, Pirrie murders his wife and forces a young girl to be his sex slave, and John becomes the leader of a violent and growing group of famine refugees all searching for a safe haven from starvation and the animal that man has become. The interactions between humans become more and more hostile, and by the time the group finally arrives at Blind Gill, John and his company are unrecognizable from the characters that began the novel. There is symbolism behind the name Blind Gill, it highlights how unaware the characters are of their twisted and disintegrating humanity. They are blind to what they have become. What is even more frightening than the violence, is the relatability of the novel. *The Death of Grass* does not transport the reader to a far off, distant future, but instead takes them directly through the apocalypse so they can experience deteriorating morality and humanity. This is an extremely effective rhetorical tactic because the main characters could be anyone, which forces the reader to confront the question, what would I do in that situation? Would I make the same decisions if it led to survival, and what is the cost of those decisions?

The story does not end with the arrival of John and his family at his beloved brother's secluded farm. Instead, John is quickly informed by David that there is only enough room for his

immediate family, not his entire caravan. John's response to this news is irreversible. Pirrie and John decide to attack at night and take over Blind Gill. Amidst the eventually successful ambush, both Pirrie and David are killed. The reader is not informed of David's death until the final chapter, where John is in David's former office at the farm with Ann discussing the future. They mistakenly believe they can live a quiet peaceful life now that they are separate from the violence outside of Blind Gill. Once again, the theme of forgetting is highlighted, because how can they forget the unspeakable things they did in order to survive? John feels the impossible weight of his brother's life, yelling, "We'll blame Pirrie shall we? And Pirrie is gone, washed away with the river, and so the land flows with milk and honey again, and with innocence" (Christopher, 1956, 213). Just like the first grain of grass infected with the Chung-Li virus at the beginning of the novel, Pirrie was swept away by the forgetful river, taking the violence of the recent past and the blood on his hands with him, while the rest of the characters work to forget the violence in which they participated. The world will never be the same.

Rather than focusing on the climate, *The Death of Grass* places emphasis on the anthropogenic environmental changes occurring in the natural world. The Chung-Li virus embodies the planet's eventual retaliation after being degraded for countless years. The novel emphasizes the undeniable danger of forgetting; whether it is forgetting one's morality within a dying world, or forgetting that the planet is a nonrenewable resource. Once humanity exhausts all the benefits the planet can possibly provide, humans will be left to fight to survive on a decaying Earth where violence is second nature. John Christopher's elegant and upsetting story grabs the attention of the reader and forces them to confront the reality for which society is headed. It uses a fictional narrative of multiple horrors to spark individuals into action by creating fear not based on hard, scientific facts, but rather fear about forgetting oneself, one's beliefs, and one's morals.

The Death of Grass is representative of the power fiction authors have in the battle against climate change because it puts the reader in the place and mindset of the terrified characters, and illustrates that John and his clan could be any family fighting to survive in just a few years. This book, in particular, resonates because it is vastly applicable, not only to the serious threat of climate change, but to the global pandemic as well.

Part II: The Drowned World by J.G. Ballard

Only a few years after John Christopher wrote *The Death of Grass*, the accredited novelist, satirist, and essayist J.G. Ballard helped launch what came to be known as the “New Wave” of science fiction with the publication of the novel *The Drowned World*. From 1962 through 1966, Ballard wrote three apocalyptic narratives, all focused on drastic environmental degradation and destruction. Ballard’s first book drowns the Earth under a smoldering “Triassic sun” in *The Drowned World*, his second book burns it in *The Burning World*, and the final book turns it to crystal in *The Crystal World*. Over the course of four years, Ballard destroys the world in three different ways. Rather than labeling his novels as disaster stories, Ballard considers these three works as stories of transformation; stories that warp the very concept of time.

This “New Wave” science fiction focused on what is known as soft science, the science of human affairs and influences rather than futuristic and unrealistic technology. Soft science is often characterized by such studies as Anthropology, Psychology, Evolution, and Environmental Studies. The “New Wave” brought the science fiction novel back down to Earth and gave rise to several early and important novels that are now considered science fiction. There are some aspects of *The Drowned World* that are far-fetched and reminiscent of traditional science fiction. However, reading the novel as a work of climate fiction broadens its effectiveness in spreading climate change awareness.

In *The Drowned World*, Ballard utilizes a climate catastrophe of extreme temperatures and the melting of the icecaps to experiment with effects of isolation, lack of control over one’s environment and thoughts, and severe heat on the human body and mind. Ballard explores the terrifying truth of what an environmental disaster could do not only to the planet, but also to the psyche. Although the novel does depict torture and murder, the overarching fear tactic Ballard

uses is not the degradation of human morality or the fear of being tortured and killed by another man. Instead, Ballard seamlessly creates a fear of both the power of a “regressing” Earth and the power of one’s own primitive mind and where it takes an individual within sleep. Additionally, Ballard’s novel is not one of futuristic technological advancements and genetically modified organisms. Despite being set in the year 2145, the Earth and its amphibian and reptilian inhabitants have reverted to evolve with the new climate and the brighter and hotter sun. The reader must accept that humans are no longer the most powerful species on the planet; Ballard has made humanity a slave to the sunlight.

The first sentence of the novel is, “Soon it would be too hot” (Ballard, 1962, 17). This is an extremely powerful opening because of its simplicity. Every reader can understand and relate to that statement because, currently, society has time before it will be too hot, but climate change predictions illustrate that it will be too hot in the near future. Robert Kerans, *The Drowned World’s* leading protagonist, and the rest of his team of scientists are counting down the days until the sun’s beams will overtake their exploration, and they experience temperatures that society today can only imagine. Ballard continues his opening, explaining “the solar disc was no longer a well-defined sphere, but a wide expanding ellipse that fanned out across the eastern horizon like a colossal fire ball, its reflection turning the dead leaden surface of the lagoon into a brilliant copper shield” (Ballard, 1962, 17). An enlarged sun is a literary device that goes beyond normal science. Ballard’s descriptive language gives life to a lifeless sun. He introduces the sun before he introduces the main character, allowing the reader to understand that the sun will be the characters’ greatest antagonist throughout the novel. Ballard immediately warps the sun in the minds of the reader to be something feared rather than something enjoyed and loved. This tactic, known as defamiliarization, is an essential part of Ballard’s fear rhetoric because it places

fear on something that alone is not frightening. Defamiliarization is a rhetorical technique commonly used by fiction authors of presenting familiar things in an unfamiliar or unusual way to force a new perspective onto the reader. In the first paragraph of the book, the reader enters a different planet or alternate reality, when in fact Robert Kerans is simply on an Earth forced to change and adapt with the harsh and deteriorating climate.

The post-apocalyptic world that Ballard creates is strange and different, but shockingly livable given the backstory of how the world turned to water. The story begins several hundred years after several irreversible catastrophes, but the readers are not given details regarding the apocalypse until about halfway through Chapter Two. This leaves the reader to question why Robert Kerans is living in the penthouse of London's Ritz Carlton, the only floor that is not submerged. Kerans' boat is parked right outside his balcony on the "lagoon" that buried London deep below its surface. It is only when Robert Kerans boats to the testing station from his penthouse and reflects on his disinterest in the drowned cities his studies, that the reader understands how the drowned world came to be. "Perhaps it was this absence of personal memories that made Kerans indifferent to the spectacle of these 'sinking civilizations'" (Ballard, 1962, 32). Kerans feels no sadness for the cities that were lost to the sea because he has no connection to them and the life they once held. He grew up in what was once the Arctic Circle, which is now a sub-tropical zone where temperatures rarely exceed eighty-five degrees.

Unlike other climate based post-apocalyptic narratives, there is not one major event, disaster, or virus that overcomes humanity and destroys society. Instead, Ballard explains, "A series of violent and prolonged solar storms lasting several years caused by a sudden instability in the Sun had enlarged the Van Allen belts and diminished the Earth's gravitational hold upon the outer layers of the ionosphere" (Ballard, 1962, 33). Without atmospheric protection, the

Earth received the full intensity of the Sun's radiation and temperatures increased several degrees every year until, "The majority of tropical areas became uninhabitable, entire populations migrated north or south from temperatures of a hundred and thirty and a hundred and forty degrees" (Ballard, 1962, 33). In a matter of years, life that the world once knew ended and humanity was forced to adapt to the will of the sun.

Ballard continues to explain the events that followed the devastating expansion of the sun. Plants and animals mutated, as the increased radiation reaching the Earth's surface. The polar ice caps melted into the ocean, taking with it billions of tons of discharged topsoil that reshaped the oceans and the continental coasts. Humanity moved to the Arctic and Antarctic where the temperature and living conditions were tolerable. Meanwhile, the American Midwest transformed into "an enormous gulf opening into the Hudson Bay, while the Caribbean Sea was transformed into a desert of silt and salt flats" (Ballard, 1962, 34). Kerans and his team are in Europe, which has become "a system of giant lagoons" (Ballard, 1962, 34), to collect data on the mutated species that now rule the continents.

Ballard's solar apocalypse sparks two fearful reminders into the minds of his reader. First, the devastation the solar rays caused illustrates how Earth and its inhabitants are at the mercy of the sun. The only thing between the face of the Earth and the sun's fiery surface is a few vulnerable layers of atmosphere. Ballard was prescient in predicting the depletion of the ozone layer. The second fear lies in what remains unsaid. Ballard explains in great detail the several solar disasters, but never says exactly what weakened Earth's protective atmosphere so detrimentally. When the author leaves the origin of the disaster unknown, it is safe to assume that the problem is humanity. The unsaid fearful reminder is that society is the cause of their own demise. The deterioration of the atmosphere from fossil fuel emissions weakened the Earth's

only atmospheric barrier. Kerans explains to the reader that he thinks about the apocalypse like this: “The genealogical tree of mankind was systematically pruning itself, apparently moving backwards in time, and a point might ultimately be reached where a second Adam and Eve found themselves alone in a new Eden” (Ballard, 1962, 35). Humanity has grown too powerful and too influential on the Earth and its natural processes. Therefore, the planet must respond with regression to keep the anthropogenic damages at a minimum.

The painfully high temperatures and large continental losses are not the only challenges Kerans and his research team have to worry about. Martin Amis, in his introduction to *The Drowned World*, informs the reader of the largest obstacle Ballard’s characters must face: the lifelike nightmares that attack the unconscious mind during sleep. Amis reveals, “The human actors have embarked on a parallel process— within the diameter of their own skulls. Early on we learn that something has gone wrong with sleep: at night, the protagonists enter the ‘time jungles’ of uterine dreams, descending into their amniotic past and also into the past of the species, experiencing the ‘archaic memories’ (the ‘organic memories’ of danger and terror’) encrypted in their spinal cords” (Amis, 1962, 12). In order to survive and adapt with the watery post-apocalyptic world in which Kerans and his research team live, their brains attempt to aid them in reverting and adapting to the scorching planet and its new inhabitants through dreams.

The reader is given a few subtle hints at the beginning of the novel regarding both the strangeness and power of the characters’ dreams. Beatrice, Kerans’ current lover and a woman who chose to stay in her London penthouse rather than evacuate to the North with the majority of the remaining five million human beings, is the first character to mention the onset of unusual sleep while surrounded by the prehistoric plants and animals. Kerans, and his fellow researcher Riggs, begin their morning by telling Beatrice that the research team will be leaving London in

three days, and urging her to come with them despite their awareness of her stubborn and independent nature. Riggs calmly states, “What with the Type X Anopheles, skin cancers, and iguanas shrieking all night down below, you’ll get precious little sleep... That is, assuming that you still want any” (Ballard, 1962, 38). This ominous remark causes Beatrice’s mouth to quiver “slightly”. This exchange suggests that Beatrice’s sleep is being disturbed somehow, and Riggs is aware of it and familiar with the fear it causes within an individual. Later, she explains to Kerans that she has had “one or two peculiar nightmares recently” and that “a lot of people get them” (Ballard, 1962, 40). Clearly, Beatrice is not the only character afflicted with disordered dreams.

The discussion of dreams quickly appears again when Kerans leaves the penthouse apartment and enters the sick bay, where another researcher, Hardman, is being treated for his nightmares and consequent actions. The reader soon learns after a discussion with the research team’s doctor, Bodkin, that these upsetting and lucid dreams that infect the research crew are a side effect of the reverting planet. Bodkin explains to Kerans that *Homo Sapiens* are adapting and transforming unconsciously alongside the mutated plants and amphibians. Man’s DNA is preparing the mind and body for survival in the soon-to-be prehistoric world with the wolf-sized iguanas and giant gymnosperms. Bodkin explains, “However selective the conscious mind may be, most biological memories are unpleasant ones, echoes of danger and terror. Nothing endures for so long as fear” (Ballard, 1962, 55). Through this conversation, Ballard illustrates that the subconscious mind stores evolutionary fears, such as the fear of spiders or snakes, so when the Earth plunged back into the past, human beings are equipped to survive. Bodkin eloquently reminds Kerans, “The brief span of an individual life is misleading. Each one of us is as old as the entire biological kingdom, and our bloodstreams are tributaries of the great sea of its total

memory” (Ballard, 1962, 56). The nightmares prove powerful enough to force Hardman to a psychotic break. He steals a boat and flees the testing station, determined to reach the equator: the place to which his dreams lure him.

Prior to the initial conversation with Bodkin, Kerans had never experienced the horror or elusive power of these transformative dreams. He had to believe in their existence and influence without understanding firsthand their impact. When his first dream finally does come, it is as though the world itself has come alive below his feet. Within the nightmare, Kerans describes the enormous sun as it “sent dull glows pulsing across the lagoon, momentarily lighting the limestone cliffs which had taken the place of the ring of white-faced buildings” (Ballard, 1962, 85). It is clear from Kerans’ initial description of the dream that the Earth has regressed to a point at which humanity no longer marks the planet with its decrepit and rotting buildings. Furthermore, the sun seems to be alive with a heartbeat that pulses in sync with Kerans’ own beating heart. If that was not enough to scare Kerans out of his sleep; his dream then reveals “the black and stone-grey heads of enormous Triassic lizards,” that “roar together at the sun, the noise gradually mounting until it becomes indistinguishable from the volcanic pounding of the solar flares” (Ballard, 1962, 86). This revelation illustrates that in this dreamscape, humans are no longer the superior species. Amphibians equipped to live in the extreme, wet climate will soon take over what little power man has left on the remaining continents.

The most upsetting part of the entire dream, however, is how it concludes. After being shown that the sun, plant life, and amphibians will soon dominate, Kerans “stepped out into the lake, whose waters now seemed an extension of his own bloodstream” (Ballard, 1962, 86). The dream ends with Kerans evaporating into the water. Ballard explains, “he felt the barriers which divided his own cells from the surrounding medium dissolving, and he swam forwards,

spreading outwards across the black thudding water” (Ballard, 1962, 86). Within the dream, Kerans is no longer himself, but instead a singular cell within the prehistoric body of the planet, pulsing along with the sun’s heartbeat. The Earth is attempting to give Kerans a glimpse into his dark, excruciatingly loud, and hot future.

The creation of evolutionary nightmares and reminders that are ingrained into human DNA is Ballard’s most creative and effective strategy to terrify the reader about their potential future after climate change dismantles the Earth beyond repair or recognition. At the opening of the novel, Ballard paints an almost serene picture of what life is like living among the interconnected lagoons of Europe. Although the setting soon descends into chaos, the reader views this post-apocalyptic world as strange and uncomfortably hot, but livable. Humanity could adapt to boats rather than planes, trains, and cars, and if the Arctic Circle is a tolerable eighty-five degrees, then there is nothing to worry about. But then one’s mind turns on one’s body, plaguing the brain with nightmares to prepare for what is to come: living in the few remaining shadows to hide from the continuously growing sun and the monstrous, dinosaur-like lizards that now rule the planet. In Ballard’s nightmare novel, humans become a victim to their biological past. His characters are unable to fight what is ingrained into their DNA. Ballard relies on the fear of the power of the human mind and how quickly mental instability can overcome a human being. What is more frightening is how little control the characters have over their own regression.

Throughout the rest of the novel, Ballard employs other devices and imagery to stir sadness and fear within his reader towards climate change. He explores the power of nostalgia and loss in both his audience and his oldest character, Bodkin, who remembers what London was like before it was sixty feet underwater. When Kerans dives into the drowned city, the feeling of

incredible loss is absent within Kerans, who never knew a dry London or any above-water 20th Century city. But it is present and extremely powerful within the reader. It is upsetting to read pages of Ballard's beautiful writing describing how irreversibly immersed society is in his novel. It raises a nostalgic and protective feeling.

Finally, Ballard utilizes the strangeness and hair-raising feeling that accompanies the formation of mob or cult mentalities. Once the rest of the research team leaves London for Greenland, Kerans, Beatrice, and Bodkin retreat to their respective floating homes and soon "their only true meeting ground would be in their dreams" (Ballard, 1962, 97). Soon, the character Strangman and his barbaric and violent crew enter the secluded lagoon in which Kerans, Beatrice, and Bodkin live, bringing with them chaos, horrendous acts of violence, and cult-like rituals. Strangman is a looting pirate with a hydroplane, ferry boat, and obedient crew that scours the drowned world for lost treasures that no longer have any monetary value. After taking Beatrice hostage, murdering Bodkin, starving and torturing Kerans, and draining the lagoon to reveal a molded, waterlogged block of London, the most terrifying aspect of Strangman is still his uncanny paleness. The enlarged sun covers most of the sky, temperatures rarely drop below ninety degrees, and the lagoon is "a bowl of fire", yet Strangman remains a pale and ghostly white.

Although it is never revealed to the reader, Ballard hints at the fact that Strangman is an albino. Soon after Strangman's character is introduced into the narrative, albino lizards and alligators begin to appear and follow Kerans. To elevate his image, Strangman always dresses in a completely white suit. His crew, made up entirely of African American men, refer to him as "Mistah Bones", worship him, and follow his orders blindly, as though he is a god. Strangman soon reveals how he accomplished this complete control of his looter crew. He confides in

Kerans, “Because they think I am dead” (Ballard, 1962, 152). He magnifies his own unsettling and uncanny image by emphasizing his whiteness and exhibiting his strange power over crocodiles and bodies of water.

The introduction of the character Strangman is surprising to the reader. His appearance completely derails the plot from its initial course, which revolved around the regressing nightmares of the three main characters. But his entrance is important to Ballard’s warning of the danger of climate change. Strangman symbolizes blind human ambition, someone who will stop at nothing to get what he wants and remain on top. He travels through the European lagoons, damming and draining the water to see what now useless treasures the drowned world offers. Through Strangman’s character Ballard emphasizes the danger of human ambition, not only to other humans, but to the planet. Ambition and advancement drives corporations and governments to continue to pollute and emit dangerous fossil fuels; they are driven by a desire for wealth and power, just like Strangman.

Despite his use of aggression, torture, and violence, Strangman is no match for Kerans and the power of the natural world. After being rescued from Strangman by his returned research team, Kerans learns that there is no law to prosecute Strangman for his violent and ruthless crimes and that it is likely that the United Nations will keep the lagoon his drained and dammed. Kerans, with the regressing planet running through his bloodstream and whispering in his ear, finished what Bodkin set out to do before his death and demolishes the dam, drowning London once again along with Strangman and his crew. Ballard’s use of powerful symbolism illustrates that natural is unquestionably dominant over human beings, and will demand retribution sooner or later for its continued mistreatment.

The novel concludes with Kerans staggering alone, sunburned and shot, heading south towards the equator. Ballard reveals that temperatures are only climbing and will soon reach two hundred degrees, but Kerans' newly transformed Triassic mind believes that "there isn't any other direction". Ballard leaves his reader with the image of "a second Adam searching for the forgotten paradises of the reborn sun" (Ballard, 1962, 198). The world has returned to its origin after the sun erased the remains of human civilization and modernity with water and heat.

Through his exploration of human isolation, deterioration, and relationships to both nature and the sun, Ballard reveals the catastrophic effects that environmental deterioration can have on an individual's psyche. Ballard's approach to the climate fiction genre is distinctive because he is not interested in how an environmental apocalypse influences human interaction with one another, but instead how it degrades the individual mind and the consequences of this transformation. *The Drowned World* is a powerful and terrifying glimpse of the Earth once again taking penance for the countless wrongs done by society over hundreds of years. Ballard utilizes a new kind of fear to spur the reader into action: the fear of the human subconscious and its power over the conscious.

The Modern Eco-Apocalypse

Climate fiction literature saw a substantial change in focus, type of disaster, and rhetorical tactics as society transitioned into the 21st Century. Despite the progress made towards the end of the 20th Century, such as an increased awareness of humanity's impact on the climate and the planet, legislation such as the Clean Air Act and Clean Water Act, and the creation of the International Panel on Climate Change (IPCC), the turn of the century resulted in few environmental improvements. Fossil fuel emissions continued to rise, deforestation destroyed thousands of acres of healthy forest all across the globe, more than seventy five percent of coral reefs experienced some sort of bleaching as a consequence of ocean acidification, and thousands of species went extinct. Even with large technological advancements and increased research and knowledge on the topic, the drastic problem of climate change has only worsened in the 21st Century. Society is living in unprecedented times, and the events of the 21st Century illustrate that the issues of climate change and environmental degradation can no longer be ignored. Because of this, eco-apocalyptic literature has proliferated and has even greater relevance.

The increasing physical and visible consequences of global climate change preceded a transition in climate fiction literature. Current authors utilize tangible evidence and increasing technological advances to create both their eco-catastrophes and post-apocalyptic worlds. The problems addressed within current eco-apocalyptic novels carry forward some similar themes as 20th Century novels, yet they take a contemporary twist to focus on the newly emerged dangers such as advanced technology and genetic modification, and the increasing intensity of natural disasters and rising temperatures. 21st Century authors instill fear into their readers by invoking devastating isolation, barbarism and cannibalism, loss of love and family, and shame in the awareness that the environmental apocalypse is an avoidable manmade disaster.

Margaret Atwood and Cormac McCarthy are two of the most influential early 21st Century post-apocalyptic novelists. Both authors have a distinctive ability to cut deep into the reader's emotions, attacking the strongest types of human fears. Atwood and McCarthy instill dread of which the human mind is hardly aware until reading their novels and empathizing with their tortured characters. In the novels, *The Road* and *Oryx and Crake*, McCarthy and Atwood paint a gruesome picture of the Earth's post-apocalyptic future that resonates with the reader. Both books subtly make it clear that the apocalypse is a result of anthropogenic climate change and reckless human behavior. The authors force the reader to analyze their own impact on the Earth and the detrimental trajectory society is currently on.

Part I: *Oryx and Crake* by Margaret Atwood

The New Yorker calls Margaret Atwood's chilling and thought-provoking novel *Oryx and Crake* "Towering and intrepid... Atwood does Orwell one better." Most works of fiction within the same vein cannot be compared with the utopian nightmare George Orwell creates within the country of Oceania in his novel *1984*. His masterpiece is immortalized because of its masterful and terrifying predictions of the future that stem from the very real and understandable fears of where society was headed during 1948, the year Orwell's book was published. *Oryx and Crake*, despite being written fifty years later and depicting very different social and environmental issues, and resulting in an apocalypse rather than utopia, can be compared to Orwell's *1984* because of its literary brilliance and long-lasting impact it has on its reader.

Margaret Atwood is a renowned poet, novelist, and environmental activist, best known for her terrifying depictions of dystopian and apocalyptic futures in books such as *The Handmaid's Tale* and the *MaddAddam Trilogy*. Her novels have an uncanny ability to resonate deep within the reader, adding new fearsome dimensions to existing issues. Atwood's creativity and ability make strange, unnatural, and haunting post-apocalyptic worlds seem not only real within the pages of her books, but possible in society's not so distant future. Her distinct skill makes her one of the most important and influential authors of the 21st Century.

Of all of Atwood's works of literature, *Oryx and Crake*, the first book of the *MaddAddam* trilogy, employs the strongest use of fear, warnings against the manipulation of the natural order of the planet, and the consequences of anthropogenic climate change. Throughout the novel, Atwood alternates between the pre- and post-apocalyptic worlds through the perspective of her protagonist Snowman, known as Jimmy before the rest of humanity was wiped from the face of

the Earth. Atwood describes the time leading up to the apocalypse and pairs it with the present, where “Nobody nowhere knows what time it is” (Atwood, 2003, 1).

Similar to Ballard, Atwood does not target obvious human fears such as violence and bloodshed. Despite these aspects being a part of the narrative, brutality is the least of the reader’s worries when entering Atwood’s apocalypse. Instead, *Oryx and Crake* targets a much more nuanced fear to motivate society towards action against the problem of climate change: total human isolation. Atwood does not reveal what catastrophe ended human civilization until the end of the novel, yet she makes it abundantly clear, when describing the barren post-apocalyptic planet, that Snowman is the only human left on Earth.

Snowman’s isolation is a peculiar type of loneliness because he still has the company of the Crakers, who are genetically modified organisms created originally from stolen embryos in the lab of Snowman’s former best friend Crake. Despite resembling humans perfectly, besides their faintly glowing blue skin, the Crakers attributes are designed specifically for survival and reproduction within nature. They look and act like humans but are eerily inhuman in their actions and communication, which are modeled after other successful species’ traits in nature. This is what makes Snowman’s isolation so terrifying; the Crakers are people but they are not human. The Crakers presence forces the reader to confront human being’s need for socialization and comradery. The unity that humans feel towards fellow humans is a dimension of mankind gone previously unrecognized within the majority of apocalyptic fiction. Atwood explores the debilitating psychology of loneliness and its impacts on the human psyche. Her skillful use of diction and imagery elevates the dread of potential apocalyptic loneliness above the dread of violence, starvation, and mental instability.

The story begins with Snowman waking up alone in a tree. The setting is unfamiliar and not described in detail. Atwood focuses instead on Snowman, his slow progression to the forest floor, and the assessment of his food supply. Subtle hints such as his lack of a watch and food, dirty attire, and banter with himself suggest that Snowman is alone in a world greatly different from modern society. It is not until the Children of Crake appear and approach Snowman that the reader knows he is not fully isolated. Atwood describes the Children of Crake as “thick skinned” and “resistant to ultraviolet” compared to Snowman, who is “a creature of dimness, of the dusk” (Atwood, 2003, 6), painting the last man as a ghost or corpse rather than as a human. Atwood immediately brings the reader’s attention to the large differences between Snowman and the Crakers without immediately revealing each of their true origins. Snowman is a creature of Before while the Crakers were created for the present world.

Atwood continues with detailed imagery, describing the treasure the Children of Crake discovered on the white beach that is full of “ground up coral and broken bones” (Atwood, 2003, 6). The Crakers present their alien-like findings to Snowman, items such as a “ChickNobs Bucket O’Nubbins” and a “plastic BlyssPluss container” (Atwood, 2003, 7). These items are completely foreign to both the Crakers and the reader. Snowman explains, “These are things from before” (Atwood, 2003, 7). Through this interaction, Atwood establishes Snowman as the story’s otherworldly guide. This is a common character within the apocalyptic structure. An otherworldly guide is a character from another world or different time who guides other characters and the reader through the post-apocalyptic landscape, helping them to navigate the peculiar, unfamiliar, and often dangerous new world. In traditional religious apocalypses, the otherworldly guide is often an angel sent from Heaven to reveal to a prophet the oncoming and unavoidable apocalypse.

In *Oryx and Crake*, Snowman is the Crakers' guide. Despite his lack of angelic powers, Snowman is elevated to a mystical, almost god-like, being in the eyes of the Crakers because of his knowledge regarding the old-world items they find scattered throughout the world and his strange, human appearance that differs from their own. The Crakers beg Snowman to explain his beard, asking, "Oh Snowman, please tell us – what is that moss growing out of your face" (Atwood, 2003, 8)? The genetically modified Crakers have never seen facial hair on their own men, so they are confused by Snowman's appearance. He answers them simply, explaining that the hairs on his face are his feathers. This answer further elevates Snowman, making him magical and mythological, so the Crakers can invent stories of how he came to be. The Crakers create imaginative explanations in order to understand the last living human being, such as "*Snowman was once a bird but he's forgotten how to fly*", and "*Snowman has wrinkles because he once lived underwater and it wrinkled up his skin*" (Atwood, 2003, 9). These creative myths further isolate Snowman from the Children of Crake. Not only does he feel no connection to the Crakers, but he is othered and almost worshipped by them. He has the company of the Crakers, yet their existence is so vastly different from his own that he cannot find comfort or solace in their presence. Both Snowman and the Crakers are acutely aware that they are not the same, but the Crakers have one another while Snowman is completely alone in terms of human contact.

Atwood further emphasizes the traditionally apocalyptic trope through the elevation of Crake as the creator of both the Earth and the Crakers, and Oryx as the mother of nature and animals. In order to explain how the current world was born, Snowman makes his former best friend their god and himself the messenger of Crake, sent to look after his creations. Snowman gives the role of god to Crake so the Crakers have something to worship. He tells the Crakers that "*Crake made the bones of the Children of Crake out of the coral on the beach, and then he*

made their flesh out of a mango”(Atwood, 2003, 97). Additionally, Snowman explains that Oryx, the woman he loved in the pre-apocalyptic world, “laid two eggs: one full of animals and birds and fish and the other full of words” (Atwood, 2003, 97). In Snowman’s story, the Children of Crake gobbled up all the words before the animal eggs hatched, leaving animals without the ability to talk. Snowman creates an entire apocalyptic mythology to help the Crakers understand both themselves and the world around them. Without any remnants of human society, there is no one to question or challenge Snowman’s teachings; myths become truths.

With Oryx and Crake as the gods of the Children of Crake, Snowman assumes his role as the messenger, and chose a name in which he takes great pride and amusement. To the Crakers “his name is just two syllables. They don’t know what a snowman is, they’ve never seen snow” (Atwood, 2003, 7). He chose the name Snowman, or Abominable Snowman (he keeps the abominable to himself) because that is what he believes he has become: “The Abominable Snowman – 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” (Atwood, 2003, 8).

Atwood brilliantly defamiliarizes the reader in Section 1 of *Oryx and Crake* by not only exemplifying Snowman’s human isolation and vast differences from the Crakers, but also through the rewriting of the origin of the planet, the life on it, religion, God, and The Revelation. Earth is unrecognizable. It is still unclear what type of catastrophe led to Snowman’s new reality, but it is strikingly clear that it was destructive enough to end all other human life.

Section 2 takes the reader back in time to Snowman’s childhood, when he was known to the world as Jimmy. Atwood creates a distinct and strange pre-apocalyptic world unlike any other work of climate fiction. In *Oryx and Crake*, society operated as a dystopia before the

apocalypse occurred. Society is unrecognizable to the reader when Atwood describes Jimmy's childhood. Humanity was forced to transform entirely due to the deteriorating planet long before the true apocalypse that left Snowman alone to care for the Crakers. Atwood does not give a specific year that her novel takes place, but the reader can infer that Jimmy grew up in the distant future because of the dystopian societal structure that makes up pre-apocalyptic society. The book takes place in the United States after humanity has been forced to drastically adapt to severe weather events, natural disasters, and rising temperatures.

Like typical dystopian novels, Atwood has drawn distinct lines between social classes, isolating the poor and uneducated to the "Pleeblands" where disease, violence, and overindulgence run rampant. Society's elite are confined within the gates of several different compounds spread throughout the remaining continent that has yet to succumb to the rising sea levels. Compounds are corporate living communities designed specifically for the large, successful company's employees and their families. The compounds are small, gated towns, equipped with grocery stores, shopping malls, schools for all grades, golf courses, movies theaters, and anything else one could need for survival and pleasure.

The companies that have compounds are dedicated to a variety of different technologies designed to improve and prolong the human lifespan and advance and modify the natural world. Projects span from genetically modified organisms and chickens with no head or brain designed specifically for food (ChickNobs), to new skin that replaces sagging or wrinkled skin, to finally transforming and creating human life in the form of the Crakers. The compounds exemplify the dystopian scheme of the novel; human beings are separated and isolated based on rank, education, and intelligence. In this dystopia, "People come here from all over the world – they shop around. Gender, sexual orientation, height, colour of skin and eyes – it's all on order, it can

all be done or redone” (Atwood, 2003, 289). Jimmy and Crake are lucky enough to grow up inside a compound’s walls and therefore hear the constant warnings by adults within the compound of the danger of the Pleeblands.

Jimmy makes his way through several different compounds throughout the flashback duration of the novel. His childhood begins at OrganInc Farms where his father is a top scientist. OrganInc Farms specializes in genetic modifications and gene splicing. They create organisms such as the rakunk, a cross between a raccoon and skunk, the snat, a cross between a snake and a rat, the wolvog, an aggressive and bloodthirsty dog that appears loving and cuddly, and most importantly the pigoon, an eerily intelligent and massive pig created to grow human organs that replace failing or old organs inside humans that are willing to pay a massive price. Atwood explains, “There’d been a lot of fooling around in those days: create-an-animal was so much fun, said the guys doing it; it made you feel like God” (Atwood, 2003, 51). A number of experiments were destroyed because they were too dangerous to have around. However, other creations, such as the pigoon, survive the apocalypse along with Snowman and the Crakers, and prove to be Snowman’s main post-apocalyptic antagonist.

When Jimmy’s father is offered a promotion at a different compound called HealthWyzer, the two of them transfer compounds and Jimmy meets Crake, a fellow student and child of a scientist. Although the two boys are highly compatible and form a lifelong friendship, Crake surpasses Jimmy in intelligence and goes on to be a highly respected and acclaimed scientist. In his adult life, Jimmy, who has a gift for writing and the arts, begins his career at the compound AnooYoo, which creates pills and supplements designed to improve appearances, health, and any other ailment the human mind could imagine and desire. His final job is at the company RejoovenEsense alongside his childhood best friend Crake. There, Jimmy is in charge

of marketing Crake's BlyssPluss pill while Crake works on project Paradise, soon to be known as the Children of Crake.

BlyssPluss is a supplement "designed to take a set of givens, namely the nature of human nature, and steer these givens in a more beneficial direction than the ones hitherto taken" (Atwood, 2003, 293). BlyssPluss protects against sexually transmitted diseases, provides an unlimited supply of libido, and prolongs youth. Throughout the novel, Crake is portrayed as a cynical realist, a man who believes human passions such as art, beauty, and love are a waste of time and space and only cause "overpopulation, leading – as we've seen in spades – to environmental degradation and poor nutrition" (Atwood, 2003, 293). Crake claims his new pill will curb humankind's destructive tendencies and make the world a more peaceful place. Jimmy, Oryx, and the RejoovenEsense employers are blind to the fact they are aiding in the mass production and distribution of the product that will lead to humanity's downfall.

As an environmental activist, Atwood subtly introduces environmental degradation as the background of her main theme. While navigating the complicated storyline, changing timeline, and unfamiliar words, it is easy for the reader to miss Atwood's small and implicit warnings of the negative impacts of climate change and sea-level rising that plague Jimmy's dystopian home. Atwood never explicitly blames climate change for the transformed societal structure or the apocalypse. Instead, she focuses on the destructive tendencies of human nature, which links to humans' abuse of the environment and overuse of natural resources. Her subtle and implicit suggestions towards climate change constitute an effective tactic to motivate her reader to pay attention and take action to counteract global warming's disastrous effects.

Snowman points out the first brief indicator that world has faced the consequences of climate change while noticing a flock of birds heading "A mile or so to the south", where "a salt

marsh is forming on a one-time landfill dotted with semi-flooded townhouses” (Atwood, 2003, 148). Atwood quickly moves on to describe Snowman’s jealousy of the bird’s freedom, unity, and lack of responsibility in the post-apocalyptic landscape. It is easy to forget that they are headed to a drowned community of what was once a coastal town. This suggests that the continental United States lost a significant amount of land to the growing ocean and rising waves, but Atwood does not provide more detail. Later in the novel, when Snowman travels back to Crake’s Paradise lab, he cannot travel between noon and sunset because the sun’s rays are too strong and would burn his skin and blister his bare feet. Despite only wearing a dirty, ragged sheet as clothing, he finds that the Earth’s temperatures have become unbearable when the sun is at its full brightness.

Similarly, Atwood refers to the ramifications of climate change in the pre-apocalyptic dystopia before Crake released the apocalypse unto the global population. When Jimmy and Crake graduate from HelthWyzer’s high school, Jimmy reveals to the reader, “The ceremony used to take place in June; the weather then used to be sunny and moderate. But June was now the wet season all the way up the East coast, and you couldn’t have held an outdoor event then, what with all the thunderstorms” (Atwood, 2003, 173). Jimmy states this quite matter-of-factly, as if it is common knowledge that the summer months have succumbed to the natural disasters that regularly plague the planet. After his description of June, Jimmy tells the reader about Crake’s future after graduation, explaining, “He was snatched up at a high price by the Watson-Crick Institute. Once a student got in there and your future was assured. It was like going to Harvard had been, back before it got drowned” (Atwood, 2003, 173). Jimmy’s nonchalant discussion of sea-level rising illustrates that these catastrophes are not unusual. Underwater,

homes, and universities, as well as violent, frequent storms, are a common and accepted part of life.

The indirect tactic Atwood utilizes to incorporate the outcome of anthropogenic climate change is not aggressive and therefore may be extremely effective in motivating the reader. Instead, what goes unsaid becomes one of the most powerful parts of the novel. Atwood does not have to directly address the issue of climate change to make it obvious to the reader that it is the cause of many problems for modern society. Humans are forced to adapt and consequently transform into a dystopia. Atwood's society manipulates the Earth's natural order, which eventually leads to the apocalypse. Her message gets across without the reader feeling as though she is preaching. This strategy subtly motivates the reader to act against climate change before society reaches even the pre-apocalyptic dystopia within *Oryx and Crake*, much less the post-apocalyptic solitude and detachment experienced by Snowman.

Although Atwood's discussion of climate change and sea level rise is subtle and brief, she makes it clear that human nature is inherently destructive towards one another and the planet. Inhabitants of the Earth are in constant chaos and disorder. Society lives within perpetual wartime and a never-ending stream of pollutants, toxins, and emissions. It is part of human nature to destroy the Earth in order to further humanity's progress and gain. Atwood insightfully states, "Human society, they claimed, was a sort of monster, its main by-products being corpses and rubble. It never learned, it made the same cretinous mistakes over and over, trading short-term gain for long-term pain. It was like a giant slug eating its way relentlessly through all the other bioforms on the planet, grinding up life on earth and shitting it out the backside in the form of pieces of manufactured and soon-to-be-obsolete plastic junk" (Atwood, 2003, 243). Despite human beings having a painfully acute awareness of their own mortality, society continues to

treat one another and the earth as though they are expendable and replaceable. Atwood's critical commentary on the nature of society forces the reader to reflect not only on issues regarding climate change, but also human nature and what it means to be human.

In describing Jimmy's experiences throughout his life in the dystopian United States, Atwood continues to remind the reader that Jimmy is now Snowman, a broken and detached man surrounded by only the remains of nature and the humanoid Crakers who are anything but human. Yet she keeps the reader waiting in anticipation to reveal what ended the dominance of man on Earth until the final chapters of the book, despite hinting at Jimmy and Crake's role in the creation of the apocalypse. From the beginning of describing the friendship between Jimmy and Crake, Atwood makes it clear that Crake has no faith in humanity. Jimmy and Crake have several different conversations over the years about humans' inability to sustain themselves on Earth. Crake is disgusted by human beings and their obsession with one another. He tells Jimmy that humans "as a species are doomed by hope" (Atwood, 2003, 120).

Crake and Jimmy indulge in several different computer games and websites that overflow the dystopian internet, their favorite being Extinctathon, a game that exploits the millions of species gone extinct. The game begins like this, "EXTINCTATHON, Monitored by MaddAddam. Adam named the living animals, MaddAddam names the dead ones. Do you want to play?" (Atwood, 2003, 80). Gamers must compete against one another in naming extinct species based on small hints given by MaddAddam about the bioform in question. The players slowly narrow down the species to "Phylum Class Order Family Genus Species, then the habitat and when last seen, and what had snuffed it. (Pollution, habitat destruction, credulous morons who thought that eating its horn would give them a boner.) The longer the challenger held out, the more points he got, but you could win big bonuses for speed" (Atwood, 2003, 80). This game

profits from the degradation of the Earth and its irreplaceable life forms. Jimmy and Crake find it amusing and entertaining because the world they live in has little care for the planet on which they reside. This game embodies the widespread disinterest towards environmental sustainability, both in Atwood's novel and current, 21st Century society. But Crake takes this game too literally, soon becoming a "Grandmaster" of the game, and all of humanity pays for his obsession.

In their adult life, as stated previously, Crake becomes a well-respected and highly compensated scientist and eventually creates both the BlyssPluss pill and the Crakers in his lab. After marketing and mass distributing BlyssPluss around the world, Crake flips a switch and the supposedly healing pill becomes a mass contagion, destroying all human life on Earth, with the exception of Snowman, within a matter of weeks. Crake, along with the disastrous effects of climate change and selfish human nature, creates what Snowman refers to as "the Great Rearrangement and made the Great Emptiness" (Atwood, 2003,103). Crake had grown up a world poisoned by overpopulation, extinction, extreme temperature, and human greed. He consequently acts as a god and uses his intelligence to force "Homo Sapiens Sapiens" to join "the polar bear, the beluga whale, the onager, the burrowing owl, the long, long list. Oh, big points, Grandmaster" (Atwood, 2003, 344).

Crake, despite creating both the apocalypse and the Crakers, leaves Jimmy injected with the contagion's antidote to live alone, and watch over Crake's "children" and the destroyed world. This act of selfishness is the cruelest of all of Crake's psychotic actions, because nothing is more frightening for Jimmy than complete human isolation. Snowman, in his devastation and loneliness, admits to himself and the reader that perhaps he is not the Abominable Snowman he so desires to be, but instead "the last Homo sapiens - a white illusion of a man, here today, gone

tomorrow, so easily shoved over, left to melt in the sun, getting thinner and thinner until he liquefies and trickles away all together” (Atwood, 2003, 224). He has an overwhelming sense of responsibility to the Crakers, but is crippled by the devastation of the rest of his kind and the accompanying loneliness.

Atwood illuminates the fragility and fatal tendencies of human nature by torturing Snowman with the ironically calming and peaceful presence of the naïve Children of Crake. The Crakers are a tease because they are human enough to almost convince Snowman and the reader that he is not completely alone. Atwood emphasizes that humans’ fatal flaw is simultaneously the tenderness and violence they exhibit toward one another. Earth becomes an innocent victim of society’s hateful and greedy actions towards their fellow human beings. Despite using a subtle voice when discussing climate change’s role in society’s transition to a dystopia and eventually to an apocalypse, it is clear through Atwood’s description of the new world and the post-apocalyptic landscape that climate change played a large role in the downfall of humanity, even though it was not the direct cause of the apocalypse. Moreover, Atwood frightens her readers by forcing them into the dirty and disintegrating shoes of Snowman. This highlights how painful and debilitating total human isolation is on the human psyche, especially when surrounded by the Crakers, who represent a cruel illusion of human companionship.

Part II: *The Road* by Cormac McCarthy

Previously discussed novels rely on human isolation, economic downfall, the human psyche, and mass starvation. All of these fearsome techniques employed by the authors are jarring and effective in frightening the reader. However, no book has been as gruesome and morbid as Cormac McCarthy's Pulitzer Prize winning post-apocalyptic novel *The Road*. This book is unlike any other within its genre. McCarthy's unusual writing techniques and poetic sentence structure contrasts the gruesome and horrifying storyline of the novel. Throughout the novel, the reader feels an overwhelming sense of dread and loss for this new world, as though they are journeying on the road alongside the man and the boy. It is easily the most upsetting novel out of the three previously discussed, because its content is so horrifying that it is difficult to get through the entire book without taking a break to recover and come to terms with the events that have occurred.

A small but important feature of McCarthy's book appears not within the story itself but rather in the way the story is written. McCarthy's form of writing is extremely strange; he discards traditionally grammatical rules, refusing to use quotation marks, apostrophes, commas, and proper indentation. Conversations often run together or are not distinguished from the narration. For example, a typical exchange between the man and the boy begins like this,

They staggered on like drunks. If they find us they'll kill us, wont they Papa.

Shh. No more talking.

Wont they Papa.

Shh. Yes. Yes they will. (McCarthy 115)

The boy's dialogue flows right from the description of the character's movement, he does not distinguish conversations with quotation marks. Furthermore, his conjunctions lack apostrophes, and his repetition lacks grammatical form. The sentence exchange is short and curt, a

conversation between two people with very little to say. It is important for the reader to understand McCarthy's style choices while reading his novel because it contributes to the overall theme: the man and the boy are living in a dark world, void of humanity; social conventions no longer matter and individuals do not care about grammar. This was a fantastic choice by McCarthy, it elevates his novel, truly thrusting his reader into the reality of the man and the boy.

Environmental apocalyptic novelists must balance on the fine line separating motivating the reader to take action to prevent the apocalypse, from making them feel hopeless as though the apocalypse was inevitable, and humanity was doomed from the beginning. McCarthy is the first of the four authors discussed who arguably goes too far in his depiction of the apocalyptic landscape. Apocalyptic literature is written to focus attention and intensity of action towards problems that plague current society. It increases awareness by increasing the severity of the expected outcome. These novels hold a mirror up to society, forcing readers to confront the ugly parts of the world that are more easily ignored than addressed. *The Road* examines the darkest parts of human beings by destroying the nature of what it means to be human. The extremeness of the scenarios may well turn readers away from confronting the issues McCarthy presents.

The Road, despite being post-apocalyptic, might not be considered a climate fiction novel. McCarthy never reveals explicitly to the reader what happened to end the world. He begins the tale in the midst of his post-apocalyptic landscape, with a nameless man and his nameless, godly son. He describes the setting, explaining it is "dark beyond darkness and the days more gray each one than what had gone before" (McCarthy, 2006, 3). This description is simple, yet immediately terrifying; what kind of world could be darker than darkness itself? McCarthy explores the stark contrast between light and dark throughout the novel. He pairs

objects and descriptions of darkness and black with cannibals, murderers, and the dead planet, and descriptions of light with the innate goodness that radiates from the child.

McCarthy continuously personifies the Earth, often talking of the planet as though it is a deathly ill patient. He compares the darkness and grayness of the world to “the onset of some cold glaucoma dimming away the world” (McCarthy, 2006, 3). He refers to the apocalypse as a disease, infecting both the environment and its inhabitants with its evil and darkness. His imagery of the Earth switches from diseased body to corpse while explaining, “By day the banished sun circles the Earth like a grieving mother with a lamp” (McCarthy, 2006, 32). The sun has abandoned the dead Earth, leading to the bone-chilling cold the man and boy must endure.

Like his characters, McCarthy keeps the reader in the dark regarding the apocalyptic event that thrust the world into the bitterly cold environment within the novel. McCarthy only reveals, “The clock stopped at 1:17. A long shear of light and then a series of low concussions” (McCarthy, 2006, 52). The flash was followed by “a dull rose glow in the windowglass” (McCarthy, 2006, 52). Even within this flashback, McCarthy never explains what the “concussions” are or where they came from. But the man reacts calmly to the flash, walking to the bathroom and filling the tub with water. His then pregnant wife asks why he is taking a bath. He responds quickly, “I’m not” (McCarthy, 2006, 53). Whatever the event was motivated the man to store fresh water to prepare for the dark future.

Throughout the man and the boy’s journey on the road, a few references are made towards the origin of the apocalypse in the man’s observations of the carnage that surrounds him. The former cities through which they travel are “mostly burned” (McCarthy, 2006, 12) and the “cauterized terrain” (McCarthy, 2006, 14) forces memories to surface of the time immediately

following the apocalypse. McCarthy explains, “Within a year there were fires on the ridges and deranged chanting. The screams of the murdered. By day the dead impaled on spikes along the road” (McCarthy, 2006, 33). Whatever happened to the world sparked a total loss of humanity in all human beings. Individual human life ceased to have importance, and violence spread like a virus until nothing was left.

The only thing that seems to remain from the pre-apocalyptic world are the roads. The man explains to the boy that the roads “used to belong to the states. What used to be called states” (McCarthy, 2006, 43). States are a foreign topic to the boy, who was born after the obscure apocalypse occurred. He asks his father what happened to the states and he replies, “I don’t know. That’s a good question” (McCarthy, 2006, 43). Even the characters living within the post-apocalyptic landscape are not sure what events forced the planet into savagery. Later in the book, the man and the boy come across a portion of the road littered with the bodies of burnt human beings, people attempting to flee from the unnamed force attacking the world. McCarthy describes the bodies as “Figures half mired in the blacktop, clutching themselves, mouths howling” (McCarthy, 2006, 190). The boy questions his father again, asking “Why didn’t they leave the road?” The man responds simply, “They couldn’t. Everything was on fire” (McCarthy, 2006, 191). Fire imagery continues to follow the man and the boy on their journey on the road to the coast. It serves as a constant reminder of what has been broken and can never be put back together, as well as alludes to a potential origin of the apocalypse.

The falling trees also serve as an important, yet subtle reminder of the decaying planet and the role climate change played in its death. The man and the boy are startled several times by the “long dry cracks of shearing limbs” (McCarthy, 2006, 96), followed by loud crashes as the trees uproot from the soil and collapse onto the ashen earth. The trees were not cut down or

struck by lightning; nothing is needed to provoke their fall. Later in the novel, “There was a sharp crack from somewhere on the mountain. Then another. It’s just the trees falling, he said. It’s okay. The boy was looking at the dead roadside trees. It’s okay, the man said. All the trees in the world are going to fall sooner or later. But not on us” (McCarthy, 2006, 35). Just like the fall of humanity, the falling of the trees is inevitable. The trees cannot survive without a vibrant and lively planet or a strong, caring sun. But the sun soon transitions from mourning the murdered earth, to circling it with “indifference”. There is nothing left to take care of the trees. The lifeless, cold planet can no longer provide the trees with the sustenance and nutrients they need to survive and grow tall. The Earth has been sucked dry of its resources. Once the Earth expired, the natural world did not take long to follow.

Finally, the only goal of the man and the boy’s entire journey along the road is to reach the coast before the man’s deadly cough takes his life. He is often overcome by painful coughing fits throughout the novel, forcing the reader to foreshadow a time when the boy must survive and travel the savage road on his own. Like the origin of the apocalypse, McCarthy never reveals why the man believes they will find answers and safety at the coast. He only discloses that their arrival at the ocean is imperative to survival. They finally arrive at the “alien sea breaking on the shores of a world unheard of” (McCarthy, 2006, 215), after their grim and appalling pilgrimage, only to discover that like the rest of the planet, the ocean has lost its color and life. The man’s stories of the blue water turned out to be nothing but a dream, just like the rest of his pre-apocalyptic memories. After arriving, “He looked at the boy. He could see the disappointment in his face. I’m sorry it’s not blue, he said. That’s okay said the boy” (McCarthy 215). Drained of life, the ocean is as dead as the human and animal remains that litter the road and the beach.

McCarthy reveals through his description of the ocean that just like human morality, the natural world cannot be remedied.

McCarthy understood that defining the origin of the apocalypse was not as important as detailing the aftermath of its effects on the natural world and the decline in human morality. By keeping the cause of the end of the world ambiguous, it not only allows the reader to infer that humanity is to blame, but it forces the imagination to run wild with possibilities, therefore personizing the apocalypse to an individual's greatest fears. The mystery surrounding the apocalypse's origin is what warrants *The Road* to be discussed and interpreted as a work of climate fiction. Climate fiction novels are rooted in the understanding that human beings have caused irreversible damage to their environment for countless years, and the Earth finally reaches its limit, resulting in a catastrophic event that changes life permanently.

McCarthy uses this apocalyptic trope but clouds it in mystery, forcing the reader to analyze all of society's actions that could potentially result in the irrecoverable and life-altering disaster. Furthermore, the 21st Century's largest apocalyptic concern is climate change. If *The Road* were published in the 1920's or 30's, the reader might assume some sort of economic apocalypse. Similarly, in the 1970's one might presume that McCarthy's apocalypse is a result of nuclear warfare. But because of the overwhelming imagery of fire, ash, and burning, as well as crashing trees and the "black" and "senseless" sea, it is easily inferred that the world has been ravaged by the overwhelmingly negative effects of climate change and global warming. The apocalypse annihilated the natural world, leaving an Earth that is "Cold. Desolate. Birdless" (McCarthy, 2006, 215). McCarthy refers to birds, or the lack thereof, three separate times once the man and the boy reach the coast. A specific reader could interpret this as a homage to Rachel Carson's famous work of environmental non-fiction *Silent Spring*, where Carson predicts the

rapidly approaching extinction of birds from the planet. *The Road* forces the reader to imagine living within Earth's dead carcass and fighting off viruses that take the form of murderers and cannibals. The only thing more terrifying than death is being alive in a dead world.

The versatility of McCarthy's apocalypse is only one aspect of what makes *The Road* extremely distinctive from other novels within the same genre. McCarthy's use of violence, cruelty, inhumanity, and even cannibalism overwhelm his post-apocalyptic landscape. The vivid description of the horrors and vileness in which humanity has grown accustomed is enough to make the reader's stomach turn. It has the most effective build-up of dread as any other apocalyptic novel. *The Road* has the potential to turn its reader away from any sort adaptive or mitigative efforts because of the horror depicted within its pages.

When beginning *The Road*, the reader is under no impression that it will be a heartwarming story. McCarthy begins by detailing the man's vivid nightmare of a blind dragon in a deep, dark cave. Though frightening, the reader is aware that it is not reality. Yet, the reader is still blissfully unaware that the man and the boy's reality is much worse than this dream. The first truly terrifying interaction occurs when the man and the boy must hide from a cult of cannibals who travel the road. At first, McCarthy tricks the reader into believing they are safe in their hiding spot. It is not until one of the cult members wanders into the woods that it is clear something horrible will happen. The man points his pistol, containing only two bullets -- saved for himself and his son if all hope is gone--, at the man and forces the man not to call out to his cult. The narrative builds the reader's anxiety as McCarthy explains, "He dove and grabbed the boy and rolled and came up holding him against his chest with the knife at his throat" (McCarthy, 2006, 66). The man does not hesitate, and quickly shoots the cannibal in the forehead, despite the sound that will alarm the rest of the cult of their presence.

This standoff is horrifying in itself, but McCarthy has not yet gotten to the worse part. The man takes off, picking up the boy, “holding the boy’s knees, the boy clutching his forehead, covered with gore and mute as a stone”(McCarthy, 2006, 66). The poor, innocent child, a victim of an apocalypse he had no part in creating, is covered with the blood and brains of a cannibal who was ready to slit his youthful throat for food. The reader cannot begin to comprehend a world where this not only occurs, but is normalized. After their close escape, the father addresses the reader, explaining, “This is my child, he said. I wash a dead man’s brains out of his hair. That is my job” (McCarthy, 2006, 75). The role of a parent in this world is no longer to provide a safe home and teach children morals and right from wrong. It has transformed to protecting them from other humans who are filled with the ferocity of a starving animal and desperate to survive.

Once the man and boy are safe, the man returns to the scene of the shooting, where he finds “the bones and the skin” of the cannibal “piled together with rocks over them. A pool of guts” (McCarthy, 2006, 71). The cult took the dead body as an opportunity for food, and within hours had ate his remains. McCarthy includes this revolting detail in the storyline to illustrate that despite cults, alliances, or potential connections, all surviving human beings will not respect anyone. This makes the connection between the father and his son even stronger.

The interaction between the man, his son, and the cannibal is only the beginning of this dark aspect of the post-apocalyptic world. After escaping from the first cult, the man and the boy go more than five days without food. McCarthy describes their desperate search for food in detail, revealing their continuous attempts and failures at finding anything edible. Their struggle is torture to read, as the man and the boy get weaker and more desperate. On the fifth day, “they came upon a once grand house sited on a rise above the road” (McCarthy, 2006, 105). In their desperation, the man makes a rash decision to inspect the house for food, but his son is

adamantly against the idea. McCarthy is painfully slow in describing their search through the house, building the tension and the reader's fear that something horrible is about to happen. Once they find the kitchen, the man notices that "on the floor of this room was a door or hatch and it was locked with a large padlock made of stacked steel plates" (McCarthy, 2006, 108). This is a perplexing discovery because there are few things left of value in the world. The discovery further builds the terrifying suspense. "There is a reason this is locked" (McCarthy, 2006, 109), reasons the man, but the boy is still frightened. He is desperate to stop his father from opening the door, begging "I'm not hungry Papa. I'm not" (McCarthy, 2006, 108), despite the five days he has gone without food.

Rather than having the man break the hatch open immediately, McCarthy walks the reader through his hunt for a tool that could break it open. This is an extremely effective rhetorical tactic because it allows dread to build so painfully high within the reader, it becomes difficult to flip the page. When he is finally able to pry the door open, the man and the boy descend down the stairs to a scene worse than anything the human mind could dream up. With the light of a lighter, McCarthy reveals, "Huddled against the back wall were naked people, male and female, all trying to hide, shielding their faces with their hands. On the mattress lay a man with his legs gone to the hip and the stumps of them blackened and burnt. The smell was hideous" (McCarthy, 2006, 110). McCarthy does not need to explain why these people are being kept here; the reader is painfully aware. The man and the boy have found a human pantry. Other humans are keeping these men and women as food, slowly taking limbs from them, one at a time, until they have devoured the entire body.

McCarthy uses this scene to push his reader to their breaking point. It is extremely difficult to keep reading after this discovery. What has humanity come to? This acutely planned

act of cannibalism illustrates that humanity and morality has abandoned the planet. Humans have embraced the savagery of the apocalypse; the man and the boy appear to be the only remaining good to be traveling the road. This scene can inspire fear in one of two ways. First, the reader could be so completely disgusted and mortified by the human pantry, and therefore turn away from the book. This reaction does not spark motivation or inspiration to make a change currently to avoid this horrifying apocalypse. It could be argued that McCarthy goes too far in the creation and description of this scene. It is a violation of humanity to the greatest degree. Yet, to a reader with a strong will and stomach, this atrocity has the potential to inspire active change in how society treats one another and the environment.

After sprinting out of the padlocked basement, the man and the boy realize that the cannibals living in the house have returned. They barely escape and hide, lying in the leaves near the house. When they hear the voices of humans searching for them, the man pushes the revolver, containing the one remaining bullet, into his son's hands. He speaks softly and quickly to the boy, "If they find you you are going to have to do it. Do you understand? Shh. No crying. Do you hear me? You know how to do it. You put it in your mouth and point it up. Do it quick and hard. Do you understand? Stop crying. Do you understand?" (McCarthy, 2006, 113). Once again, McCarthy illustrates how completely different the role of a parent is in this apocalypse, the man taught his son how to kill himself were he ever to be captured by other humans. That is mortifying. Yet, the reader understands that this is an act of selfless love; the man is saving the boy from a violent and gruesome future that he will be forced to endure alone. A thought crosses the man's mind "What if it doesn't fire? Could you crush that beloved skull with a rock?" (McCarthy, 2006, 114). The man still has his morality intact, and knows that murdering his son is showing him mercy.

After narrowly escaping the house of horrors, the man and the boy run into some brief good fortune. They find another underground bunker that is much different than the first, full of food and water. A paradise that is kept hidden in the body of the dead world. When they get back on the road to continue towards the coast, they encounter a few other humans, including a group composed of three men and one pregnant woman. Although they never directly interact with one another, the man and boy are exposed to yet another atrocity. They are made aware of the other travelers' presence first when they pass the man and the boy's camp during the night, and again by a "stem of smoke" the following day. After choosing to investigate the travelers' abandoned fire pit, they find "a charred human infant headless and gutted and blackening on a spit" (McCarthy, 2006, 198). There is nothing a father can do to comfort his child after being exposed to something so heinous and vile, other than apologize and remind them that "what you put in your head stays there forever" (McCarthy, 2006, 190).

How does a human being who still possesses some sort of morality and understanding of right and wrong recover after seeing such a violation of human life? One cannot. Seeing a newborn baby being roasted on a spit is not something from which a normal human psyche can recover. Even the reader is forever changed after seeing this scene only through words on a page and pictures within their mind.

However, the man and the boy refuse to become numb to this suffering; McCarthy writes that the man worries that the boy may never speak again. McCarthy invokes the most outrageous act of inhumanity. *The Road* begs the reader to avoid the man and the boy's grim, appalling reality and forces them to question what they can do that will prevent *The Road* from becoming a prediction rather than a work of apocalyptic fiction.

Similar to his discussion of violence, savagery, and climate change blame, McCarthy's use of the post-apocalyptic trope places an uncommon type of guilt and shame on readers who ignore climate change at the expense of future generations. Rather than focusing on humanity's disrespect and degradation of the natural environment, McCarthy emphasizes the impact environmental deterioration will have on future generations who played no part in destroying the planet they inherited. Today's society drains the Earth of all its resources and life and now passes on the carcass of the planet to their children and grandchildren. McCarthy highlights human's commonly anthropocentric world views and creates *The Road's* apocalyptic landscape to illustrate the consequences of that perspective. Through the character of the boy, McCarthy embodies all the future innocent victims of environmental misuse. He presents his audience the tortured and miserable life of the boy, a child who is full of purity and godliness, to accentuate society's anxiety over leaving the destroyed and degraded world to their children, and forces his reader to question what kind of planet will be left for the next generation.

The boy's existence in itself is a miracle. He was born after the Earth was devoured by flames, famine, and violence. His survival in this world is absurd on its own, but his kind, loving, and gentle nature should be entirely impossible. The boy has never experienced a world where human nature is moral and compassionate; all he knows is the strange affection of his father who loves him, but also must protect and teach him to survive in the "ashen scabland" (McCarthy, 2006, 16), and the chaos and brutality of other humans living in the "cold autistic dark" (McCarthy, 2006, 15). The man and the boy endure many forms of loss and disillusionment, as well as physical loss.

McCarthy reveals the goodness of the boy's character through his father's thoughts and observations. The man explains to the reader, "He knew only that the child was his warrant. He

said: If he is not the word of God God never spoke” (McCarthy, 2006, 5). This is arguably the most powerful line in the novel. It epitomizes the man’s outlook on their life and journey along the road; the boy is the only remaining holy, pure, and godly being left on Earth, and it is the man’s sole purpose to protect him from the rest of humanity, no matter what unspeakable actions that might take. The existence of the children serves as his “warrant” or permit to not only live, but potentially take the lives of others who threaten the boy’s life.

For the duration of the novel, heavenly and angelic imagery surround the boy. After their encounter with the cult of cannibals, the man and boy recover by the heat of a small fire. The man “sat beside him and stroked his pale and tangled hair. Golden chalice, good to house a god” (McCarthy, 2006, 75). The man truly believes his son is some sort of god -a reminder of what once was and what is now lost. When they are back on the road, the boy constantly asks his father if they can help other struggling travelers. He gives some of their minimal food supplies to a man called Ely, and Ely soon admits that when he first saw the boy he believed he had died because he never thought he would see a child again. Where did he learn this selfless compassion? “Where man can’t live gods fare no better” (McCarthy, 2006, 172), Eli states when the man tries to tell him that the boy is a god. Somehow the boy continues to be moral, despite the horrors he experienced.

Accompanying the godly description of the boy is the mantra the man and boy repeat as they travel to the coast: “We are carrying the fire” (McCarthy 83). McCarthy utilizes the duality of fire by contrasting the fire that began the apocalypse with the fire that the man and the boy carry on the road. The boy reminds himself and his father that it is their job and responsibility to be “the good guys” and carry the fire to illuminate the dark world, “A blackness to hurt your ears with listening” (McCarthy, 2006, 15). The fire represents the remaining morality left in

humanity, the ability to draw a distinction between right and wrong. It is their job to keep this righteous fire alight because the boy is the only one left in the world capable of doing so. The idea of the pure fire embodies McCarthy's larger point regarding the environment left for future generations. The boy did not choose this life or contribute to the events that created this world, yet it is now his responsibility to protect what remains.

The responsibility the boy feels is perfectly represented at the end of the novel. When the man and the boy are camping on the beach after reaching the coast, they come back from a long walk to find "bootprints in the sand" and all their supplies gone. A thief had taken all their belongings. Angrily, the man and the boy take to the road to track down the thief. When they find him, the man aims the pistol at him and "The thief looked at the child and what he saw was very sobering to him" (McCarthy, 2006, 256). After seeing the godly boy, the thief surrenders to the man. The boy begs his father, "Papa please dont kill the man" (McCarthy, 2006, 256), but the man is angry and reclaims not only their cart and supplies, but the man's clothing and shoes as well. In this bitterly cold apocalypse, having no clothes and especially no shoes are a quick death sentence. The boy wants his father to show the starving man mercy, even though they surely would have died if they did not catch him. He once again demonstrates his innate compassion for humans who do not remember what that word means. Despite the boy's pleas, the man explains to the thief, "I'm going to leave you the way you left us" (McCarthy, 2006, 257) and sets off down the road with the boy crying in tow.

The man and the boy trudge quickly away from the thief, despite the boy's desperate sobs. The thief does not move from his stance in the road because "There was no place for him to go. The boy kept looking back and when he could no longer see him he stopped and then he just sat down in the road sobbing" (McCarthy, 2006, 258). The boy knows they have doomed the

thief to death. The thief's mal intentions do not matter to the boy; he just cares about the life his father has taken. The boy begs his father to turn around and help the doomed and scared thief. The man is angry and tries to explain that he is scared too and exclaims to his son, "You're not the one who has to worry about everything" (McCarthy, 2006, 259). The boy responds quietly, "Yes I am, he said. I am the one" (McCarthy, 2006, 259). How did the boy learn this? He feels as though he is the only one left with the fire: the humanity and morality that the rest of the world has long since lost.

The boy is aware of his responsibility to take care of the other decaying travelers on the road. The rest of humanity, the older generations that contributed and lived through the apocalypse, have given up hope. He is the only one left with the drive and the heart to protect the planet and other human beings. The boy attempts to rebuild the broken world, one selfless act of kindness at a time. He knows the role he must assume because he is the only human left with innate morality. This exchange between the man and the boy is crucial; it reinforces the godliness that surrounds the child and reminds the man what kind of planet and humanity his generation has left to his only son.

The Road is a tortuous book to read. With every turn of the page, the reader is expecting some horrid act of inhumanity or violence. Just like the man and the boy, the reader cannot escape from the dead world McCarthy has masterfully created. His ominous apocalypse and description of the quickly deteriorating environment allows *The Road* to be read as an eco-apocalypse, pressuring and frightening the reader of the rapidly approaching outcome of the overuse and misuse of the natural world. McCarthy takes this pressure one step further by reminding the reader through the character of the boy that future generations, society's children

and grandchildren, will be left with the impossible task of rebuilding an Earth that is almost too sick to be saved.

Interpretation, Tactics, and Effectiveness of the Environmental Apocalypse

Whether the author alludes to an eco-apocalypse obliquely or in explicit detail, human decimation resulting from irreparable environmental degradation is an extremely effective way to inform and frighten readers about the dangers of climate change. After reading a novel such as the ones discussed above, the reader is likely to gain a more acute awareness and understanding of the risks that global climate change poses to the world. Fiction certainly does not provide the readers with all the hard science and research behind global climate change. It could, however, motivate the readers to further educate themselves on the issues and impacts climate change will have on the Earth in the near future.

Several common features of apocalyptic novels further emphasize the necessity of immediate preventive actions to battle climate change. Climate fiction authors use apocalyptic and post-apocalyptic landscapes and the idea of the uncanny to make their novels more effective and open to an interpretation that favors climate change mitigation.

Part 1: The Uncanny in Environmental Apocalyptic Literature

Environmental apocalyptic novels are perplexingly uncomfortable, and often hard to read. They depict strange and unsettling characters and settings that are mentally indigestible and may challenge a reader's most cherished beliefs. These feelings arise because of the element of the uncanny in apocalyptic fiction. "Uncanny" is often used to describe the works of Edgar Allan Poe and his disorienting writing. In the poem "The Raven", the bird shocks the narrator by speaking the word "Nevermore". Animals are not supposed to speak, therefore the raven's ability to talk violates the reader's expectations and arouses the feelings of uncanny. Uncanny may be defined as mysterious, or arousing superstitious fear or dread; uncomfortably strange. In essence, it is disorienting. The feeling of uncanny is distressing and troublesome; it is something the reader is not expecting while reading a novel. The unknown and disorienting potential consequences of climate change make it an uncanny topic, an occurrence that most individuals would rather not discuss because it makes one feel exposed and vulnerable. Climate fiction confronts and accentuates the uncanniness associated with climate change, while adding technology, characters, and situations that further highlight the discomfort and dread that accompany the uncanny.

Uncanniness is depicted through the character of Pirrie in the novel *The Death of Grass*. The uncanny is exemplified in Pirrie's strange and disorienting actions. He is first introduced as the owner of a gun store in London that John and Robert attempt to rob in their desperation to flee the city. He allows them to take the weapons if he and his wife can accompany their party in leaving London. Pirrie originally appears old, feeble, and mostly harmless. However, he soon exposes himself as an expert, ruthless gunman, and violates all of the reader's expectations about

his character. He does not hesitate to shoot and kill other humans on their journey to Blind Gill, even those who are not an immediate threat.

His worst, most uncanny action, though, occurs after John murders an innocent husband and wife in cold blood. John's clan bring the dead couple's teenage daughter along with them in a desperate attempt to ease their own guilt. In the middle of that same night, during John's time as lookout, Pirrie's wife attempts to seduce John while the rest of the characters sleep. Pirrie soon wakes up and calmly asks John permission to shoot and kill his wife. John, recognizing both his own authority and Pirrie's mastery of the gun, concedes. Christopher describes, "She ran towards Pirrie, stumbling awkwardly over the railway lines. He waited until she was almost on him before he fired. Her body spun backwards with the force of the bullet, and lay across one of the lines" (Christopher, 1956, 89). Pirrie's murder of his own wife shocks the reader at the quick turn of events. Pirrie completely changed the rules with the murder of his wife; it was now acceptable to kill one another within the party. John Christopher exposes the uncanny in his apocalyptic world through the unexpected cruelty and lack of humanity within the elderly Pirrie.

J.G Ballard, on the other hand, employs an uncommon feeling of the uncanny within his reader compared to other books within the climate fiction genre in his novel *The Drowned World*. First, it is immediately unsettling to think of being on a boat and looking down into the water to see the skeleton of the city or town that was once known as home. London, along with the rest of the world, is a waterlogged, a deserted Atlantis, left to rot and wither beneath the waves. Unlike Kerans, who never lived in the world that is now underwater, reading about the drowned world disorients the reader.

Despite the feeling of loss associated with the loss of the familiar world, J.G. Ballard's catastrophe could stimulate uncanny positive feelings about an approaching eco-apocalypse. If

the reader is able to identify with the remaining five million humans left in the Arctic Circle, who are living comfortable and violence free lives, then they might view this apocalypse as a blank slate. J.G. Ballard changes the context of the apocalypse, evoking strong feelings of loss and calamity, but also making the new world livable and almost pleasant if humans stay away from the powerful sun and equator. Some readers could find this uplifting, this world offers new life and new opportunity. Does this apocalypse make the reader fearful or excited at the potential of being one of the five million people left? It is disorienting to pose a pleasant life following the destruction of most of humanity. This employs a feeling of the uncanny in a strange way. It is not necessarily negative, but it begs the reader to question why are they looking forward to a new beginning, and therefore assess all the faults of society in the present day and the actions that are leading us to a future reminiscent of the one described in *The Drowned World*.

Margaret Atwood emphasizes the strange and uncomfortable associated with the uncanny in *Oryx and Crake*. Atwood has a distinct ability to make her reader feel disturbed with the oddness of her storylines and characters. From the beginning of the novel, Jimmy is describing uncanny and unnatural aspects of this dystopian world, including creatures such as the pigoon, games like Extinctathon, and inventions like ChickieNobs, the chicken created only for food and referred to by Jimmy as “a nightmare. It was like an animal protein-tuber” (Atwood, 2003, 202). The student who created the ChickieNobs explains that “they’d removed all the brain functions that had nothing to do with digestion, assimilation, and growth” (Atwood, 2003, 203). This is an obvious violation of the natural world and sparks feelings of disgust and horror. Atwood emphasizes the uncanny through the society’s comfort with manipulation of life. She evokes themes in earlier works of literature such as Mary Shelly’s *Frankenstein*, when natural boundaries are crossed to the greatest extent.

Atwood's post-apocalyptic landscape continues with images and descriptions of natural violation in the form of the Crakers. The Crakers' presence causes Snowman enormous amounts of discomfort and loneliness; he is surrounded by individuals who are almost human, but not quite. Their existence makes his role as the last man on Earth that much more isolating because he is constantly reminded of his own, singular and fleeting human existence. All that remains are these uncanny experiments, perfectly crafted to sustain a loveless, passionless life on the destroyed planet. The Crakers presence is disorienting for both Snowman and the reader, evoking strong feelings of loneliness and an awareness of their own mortality and expiration.

McCarthy uses the idea of the uncanny in *The Road* to violate the reader's sense that human beings are civilized people. Despite the horror of murder and rape, they are a relatively common occurrence in today's society. Cannibalism, on the other hand, is not common. Most of humanity rejects the thought that human beings could ever be cannibalistic, and yet, McCarthy writes in detail how human beings have not only become cannibals in *The Road*, but calculated and planned cannibals. Humanity has accepted that eating one another is now a way of life. This is the most disorienting occurrence in the novel, invoking dread within the reader and a feeling that society needs to do whatever necessary to avoid the dark future McCarthy paints within the pages of *The Road*.

As expertly as he portrays the uncanny within the cannibals and murderers, McCarthy also inverts the feeling to reflect the uncanniness the man feels since the reality he lives in is so vastly different from the reader's reality. Unlike the other apocalyptic writers, McCarthy uses the word "uncanny" in the novel, describing one of the man's dreams. McCarthy details, "Lying there in the dark with the uncanny taste of peach from some phantom orchard fading in his mouth" (McCarthy, 2006, 18). From the perspective of the man, uncanny is not exemplified in

the violence and savagery that infects the world because this is what has come to be normal and expected. The man finds the uncanny in things that bring him joy or memories he believed left his mind long ago.

The bunker the man and the boy discover after finding the human pantry can also be considered disorienting because of the wealth of food and safety it holds. While in the bunker, the boy asks his father, “What are our long term goals” (McCarthy, 2006, 160)? This is an incredible and quite uncanny question coming from the young boy. This question illuminates the boy’s strange and otherworldly intelligence and further pushes the theme of uncanny in a twisted and warped sense that pairs seamlessly with McCarthy’s apocalypse.

Invoking the uncanny is a crucial component of environmental apocalyptic novels. By forcing the reader into a disoriented state of mind, climate fiction writers invite a broader, deeper discussion regarding climate change insofar as it violates expectations. Appealing to several different kinds of fear by violating expectations entails the clash of ideas or emotions. Perhaps the reader was not previously aware of the cruelty and monstrosity of which human beings are capable when forced into dire situations. Or, perhaps the reader had little understanding of anthropogenic climate change and the adverse effects humans have on their environment. No matter what assumption climate fiction challenges, the presence of the uncanny in environmental apocalyptic literature is a compelling strategy to force readers to think more deeply about climate change and the quickly approaching consequences of human manipulation of the environment.

Part II: Apocalyptic versus Post-Apocalyptic Literature

It is important to recognize the distinction between a novel that is apocalyptic, post-apocalyptic, or some type of hybrid of the two, especially when interpreting the effectiveness of climate fiction. Apocalyptic novels, such as *The Death of Grass*, describe the time leading up to the catastrophe and the catastrophe itself. What a singularly apocalyptic novel lacks is a “developed” post-apocalyptic landscape. In *The Death of Grass*, society has yet to crumble fully; Christopher only describes three days past when John Custance learns of the government’s plan to bomb Great Britain’s large cities to avoid choosing who lives and who starves. This is an effective tactic because the reader must experience the deterioration of society and morality alongside the characters. Unlike post-apocalyptic narratives, the calamity that ended the world is not a story, myth, or distant memory.

Christopher’s choice to make his novel apocalyptic is powerful in conveying the chaos, violence, and fear the generation that lives through the origin of the apocalypse must endure. Furthermore, current projections of irreversible environmental damages and their effects on society are predicted to begin in the next ten to twenty years, well within the lifetime of current generations. By walking his reader through the apocalypse, Christopher illuminates what humanity must handle if it continues on the path of environmental destruction. This is an effective writing method to instill fear and promote action.

Climate fiction novels set in a completely post-apocalyptic landscape appeal to different feelings and fears in the reader. These narratives, such as *The Road* and *The Drowned World*, take place in alien worlds created in the author’s imagination; places that do not exist. Rather than experiencing the apocalypse, most of the characters in post-apocalyptic narratives have little

recollection of the apocalypse that created the world they in which live. The apocalypse takes the form of a myth or fantasy.

In *The Drowned World*, Ballard's characters were not alive to tell the tale of the apocalypse firsthand. Instead, the apocalypse was more gradual, and Kerans' and his team recall the apocalypse through history and information that has been passed down from one generation to the next. They are living in a time hundreds of years past the original disaster. By placing his characters so far into the future past the apocalypse, Ballard consequently dampens the fear and terror associated with solar storms and a disintegrated ozone layer. Ballard built a ghastly post-apocalyptic landscape and utilizes several rhetorical tactics propel and inform the reader towards climate change mitigation. However, the novel has diminishing capacity to motivate the reader to act against climate change because his story lacks immediacy.

The Road, on the other hand, contains the character the man, or Papa, who was alive to remember the opaque apocalypse and describe it vaguely to the reader, even if it is never explicit or concrete. The man had lived prior to the apocalypse, before the world was rotten and overflowing with murder and cannibalism. He often has dreams and flashbacks of his wife, the sun before it become cold and indifferent, and the world before the bright flash and low concussions that ended society and morality. The brief glimpse of life before the apocalypse within the mind of the man is not enough to qualify this novel as apocalyptic, because the entirety of the plot takes place in the decaying post-apocalyptic landscape. McCarthy's timing is an immensely effective way to trigger climate change motivation. The man was an adult when the apocalypse occurred and although he is old, sick, and decrepit presently, the reader can infer that this is not because of age. His rapid aging and untimely death are a result of the dying world

that surrounds him and the boy. Furthermore, the boy was born after the apocalypse and his character cannot be older than ten.

McCarthy's vague and recent apocalypse is compelling when interpreted as an environmental apocalypse. It occurred recent enough for older generations to remember not only the apocalypse, but life before the apocalypse, when humanity and morality still existed. Despite the ambiguity around the event that ended the world, it can be inferred by the reader that it is a result of anthropogenic manipulation. *The Road's* post-apocalyptic landscape is all-consuming and extremely disturbing. The violence McCarthy describes in detail, paired with both the man's fleeting memories of a world that was still whole and the recentness of the destroyed world, forces the reader to infer that this apocalypse is quickly approaching. The immediacy of *The Road's* apocalypse is a helpful tactic in persuading readers to not only educate themselves on climate change, but take preventative action.

Oryx and Crake is a distinct form of climate fiction. Rather than choosing an apocalyptic or post-apocalyptic landscape, Atwood switches back and forth, describing the events leading up to the apocalypse, as well as the desolate world left behind after the apocalypse occurred. Atwood's tactic is powerful because she is able to illustrate society's mistreatment and over-exploitation of the environment and other human beings. She artfully highlights all of the reasons humanity was destroyed by the apocalypse. Despite the novel being set far into the future, this technique also makes it clear, from Snowman's narrative, that the apocalypse occurred recently. By combining the apocalyptic and post-apocalyptic tropes, Atwood molds a cleverly convincing novel about the dangers not only of climate change, but society's error of overusing the world around them for personal, short-term benefit.

Conclusion

One of the largest challenges surrounding the massive threat of climate change is the lack of digestible information available to the majority of the population, especially individuals who do not have a scientific education or background. Tackling a problem as widespread as climate change requires that the global population be not only informed about the dangers it poses, but also understanding, to some degree, of its immediacy. Every human being contributes to increasing atmospheric carbon dioxide levels, whether it is conscious or not. So many people are often under the impression that the only information available regarding climate change is in the form of dense, white-page scientific literature. However, climate fiction and environmental apocalyptic narratives provide a terrifying warning of climate change for their readers without being complicated or indigestible. Based on the popularity of the novels discussed in this thesis, environmental apocalyptic literature has the potential to reach, inform, and alarm a broader audience on climate change, and motivate society not only to further educate themselves on the issue, but to take immediate action to prevent the bleak futures that these novels predict.

The International Panel on Climate Change predicts that any raise in temperature above 1.5 degrees Celsius will have catastrophic impacts on the planet, its biodiversity, and its inhabitants. With the current rates of fossil fuel burning, electricity consumption, deforestation, and ocean acidification, the world is on track to force a temperature rise of at least 2 degrees Celsius in the next eighty years, as well as double the global average amount of atmospheric carbon dioxide. Consequently, the world will see a decrease in water availability, a large increase in droughts, flooding, the number of extremely hot days, extinction of species, and sea-level rising. That is only the beginning.

Lawrence Bell argues in his ecocriticism, *The Environmental Imagination*, that apocalypse is “The single most powerful master metaphor that the contemporary environmental

imagination has at its disposal” (Lawrence, 1995, 5). Forcing the reader into the twisted landscape of an environmental apocalypse is a powerful technique to change one’s perspective of the severity of climate change. Although, *The Death of Grass*, *The Drowned World*, *Oryx and Crake*, and *The Road* have large variation in plot, characters, and setting, these novels all speak to, directly or indirectly, humanity’s miserable treatment of other human beings, the exploitation of the environment, and the consequent destruction of the Earth. These authors force their readers to ponder uncomfortably perplexing, and sometimes even mortifying events that take place after the planet is beyond saving. Utilizing fiction to spread climate change awareness is a creative, disorienting, and exceptional technique, because environmental apocalyptic literature is not only informative and provoking, but also entertaining and motivating.

Climate fiction is an integral player in the battle against climate change. Climate fiction authors face the challenge of separating themselves from traditional science fiction tropes, and the struggle to be taken seriously when writing about such a drastic and severe topic. However, through the evolution of environmental apocalyptic literature, from the floral apocalypses and soft apocalypses of John Christopher and J.G. Ballard’s era, to the horrifying, disorienting, and mystifying catastrophes dreamt up by 21st Century novelists like Cormac McCarthy and Margaret Atwood, climate fiction has a lasting impact on the readers’ view of climate change and environmental degradation. This impact may be enough to spark mitigation and adaptation to save the Earth from the grim future predictions of these talented fiction authors.

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