AN ENVIRONMENTAL CRITIQUE OF AMERICAN POST-APOCALYPSE NARRATIVES: ECOCRITICISM AND ETHICS

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CERTIFICATION OF APPROVAL

I certify that I have read An Environmental Critique of American Post-Apocalypse Narratives: Ecocriticism and Ethics by Gabrielle Vasso, and that in my opinion this work meets the criteria for approving a thesis submitted in partial fulfillment of the requirement for the degree (Master of Arts in Cinema Studies at San Francisco State University.

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AN ENVIRONMENTAL CRITIQUE OF AMERICAN POST-APOCALYPSE NARRATIVES: ECOCRITICISM AND ETHICS

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This essay is concerned with the place of nature as it is represented in entertainment, predominantly film and video games. Through close-textual analysis of films *The Road* (John Hillcoat 2009) and *WALL-E* (Andrew Stanton, 2008), and videogame *The Last of Us* (2013), this paper seeks to analyze post-apocalypse representations on screen to raise questions about environmental morality in mainstream culture and ecocritical thinking. The central argument of this paper is that post-apocalypse narratives are manifestations of the public anxiety about environmental catastrophes, which reflect cultural fears. The essay concludes with a discussion of current environmental conversation in political, and social platforms in relation to these narratives, and how they contribute to the culture of fear in the United States.

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Introduction & Thesis Proposition

In recent years, environmental discourse has gained increasing significance in mainstream culture, politics, and across academic disciplines. The advance of technology, global mass production and industry led to environmental exploitation causing a series of environmental issues. Instead of simply studying it as a problem in natural science ecocritic Lawrence Buell writes, "The responsibility for addressing this problem, or constellation of problems, will increasingly be seen as the responsibility of all the human sciences" (699). This essay is concerned with the place of nature as it is represented in entertainment, predominantly film and video games. Through closetextual analysis of films *The Road* (John Hillcoat 2009) WALL-E (Andrew Stanton, 2008), and video game The Last of Us (2013), this paper seeks to analyze postapocalypse representations on screen to raise questions about environmental morality in mainstream culture and ecocritical thinking. The central argument of this paper is that post-apocalypse narratives are manifestations of the anxiety about environmental catastrophes, which reflect cultural fears. These narratives share a common theme in which anthropocentric human survival supersedes the devastation of the environmental catastrophe.

Stimulated by emerging awareness of human influence to the environment and the subsequent shocking consequences, the environment has become "the twenty-first century's most pressing problem" (Buell 699). The current politics of the environment involve strategies for progression of sustainable practices, advocacy, education, and justice. This conversation exists in the media, through books, documentaries, fiction, etc. John Parham writes in his book, *Green Media and Popular Culture*, "For one of the central ways we shape our relationship to other animals, our place on earth, and the social structures that arise from these understandings is through media and culture" (1). This suggests that media plays an important role in shaping public understanding of the environment. How the mass media positions and approaches the environment may be shaping attitudes, values and beliefs. As Kelly Ball-Stahl suggests in her dissertation,

"Environmental Values in American Popular-Culture Narratives," Americans are receiving environmental information less from credible media sources and more from popular-culture narratives. She writes "environmental issues are prevalent in popular-culture narratives, readily available an accessible for those who might never read government or scientific documents about environmental issues (6). Ball-Stahl's assertion demonstrates the importance of studying popular media that responds to environmental issues – through analyzing the ethical position of fiction that reflect cultural fears of environmental catastrophe. My research shows that such studies are still underdeveloped in relation to ecocriticism and representations of the post-apocalypse in popular culture particularly in the mass medias purveyance of environmental morality.

Background

Understanding apocalypse, and post-apocalypse narratives may be complicated because of three reasons. First, they are cultural representations of worldly destruction, which is dependent on historical and cultural postulations. An apocalypse narrative could have different meanings depending on the time frame, and the culture that produced it. For example, an apocalypse narrative could revolve around a religious Armageddon as predicted in the medieval age, or nuclear war and/or environmental catastrophe in modern time. Second, apocalypse and post-apocalypse narratives may be difficult to characterize because they are constructed through different genre, themes, and style such as horror or action or even comedy. The main element that unites all apocalypse narratives is the drama of the "end of the world." Finally, as digital technologies expand and become more accessible, the apocalypse and post-apocalypse exists on many different mediums and deserve cross-media examination. Representations of apocalypse and post-apocalypse exist in books, films, television, video games, and many other elements of popular culture. Furthermore, it should be mentioned here that dystopia as a post-apocalypse environment should also be included in this discussion since there are many post-apocalyptic narratives that also include themes of dystopia. A good example is *The Hunger Games* (Gary Ross 2012). The following paragraphs will offer a broad characterization of dystopia, apocalypse, and post-apocalypse, and identify their place in environmental discourse.

David Christopher states in his essay, "The Capitalist and Cultural Work of Apocalypse and Dystopia Films," "the primary difference between apocalypse and dystopian narratives is the fall of capitalist culture in apocalyptic narratives and its full realization in dystopian ones" (57). In other words, government, society, or culture is destroyed in apocalypse narratives. In dystopias, capitalist society has been destroyed and a more formidable one takes its place. Films like In Time (Andrew Niccol 2011) or books like *The Hunger Games* (Suzanne Collins 2008) offer examples of dystopian societies. Most suffer, while a small percentage of the population prospers. The population is held under strict control, and there is almost always some kind of uprising as the plot unfolds. Christopher states that the main distinction between apocalypse and post-apocalypse narratives are temporal. The apocalypse refers to the actual catastrophic event that destroys the environment and society. So the setting is before and during the destructive event. In the post-apocalypse narrative, the setting takes place after the destruction. He also notes that mainstream "apocalypse and post-apocalypse narratives are highly ideologically similar in either their valorization of a patriarchal hero that can save capitalism, or the canonization of human tenacity" (59). Unlike films such as Melancholia (Lars Von Trier 2011), in which total annihilation of the planet is realized, the Hollywood model focuses on a patriarchal hero to save the survivors and build a new society. So apocalypse and post-apocalypse narratives usually celebrate the ingenuity and survivability of humanity, while not really responding to its depictions of the environment in a state of trauma.

Post-apocalypse and dystopia narratives are often combined. In the post-apocalyptic film *Mad Max Fury Road*, the planet has been destroyed by a nuclear war. The few remaining survivors live in small, dystopian societies. In the society the leader controls the water supply to the point of deprivation - and most of the population suffers. Karen A. Ritzenhoff and Angela Krewani write in the introduction to their book, *The Apocalypse in Film*, "In order to understand the filmic and narrative representations of contemporary catastrophes, we have to turn toward the narrative of the apocalypse" (xii). Current cultural understanding of what could end the world is reflected in fiction narratives. Analyzing the end of the world throughout time as represented in fictional works demonstrates cultural fears exclusive to that time and place. The 1960s-80s

produced many nuclear apocalypse films as a reflection of the fear underlying the Cold War. Today human caused environmental catastrophes drive the apocalypse in films like *The Day After Tomorrow* (Roland Emmerich 2004) or *Waterworld* (Kevin Reynolds 1995). Sociologist Barry Glassner popularized the concept of "the culture of fear". Glassner argues that media has dramatized the amount of hype for particular issues. He writes in his book, *The Culture of Fear*, "Even concerns about real dangers, when blown out of proportion, do demonstrable harm" (xxiv). Apocalypse and post-apocalypse narratives at least have two elements that are evident in all representations. One, they are developed from a catastrophic event harming the planet, and two, they reflect and perpetuate fear, which does demonstrable harm as Glassner points out.

Little research exists between the environment and dystopia and post-apocalypse narratives. Generally, most Hollywood depictions of dystopia and post-apocalypse in which an environmental catastrophe is depicted ends with the environmental situation unresolved but with some hope for humanity's future because of the actions of the main character. David Ingram suggests in his book, Green Screen: Environmentalism and Hollywood Cinema, "the combination of affirming the power of the individual to change the future, with relatively open and unresolved sense of that future, is a typical strategy for movies dealing with environmental apocalypse" (9). He notes that it is potentially problematic to extend the environmental discussion to apocalypse narratives because flction does not make claims about the environment in the same way as non-fiction. Nevertheless, it is useful to analyze these narratives through an ecocritical lens to understand popular culture representations of environmental apocalypse, especially since environmentalists warn of catastrophes that bear similarities to the narratives. In other words, these films are cultural productions in which real fear may be manipulated. This paper is concerned with narratives that may be responding to fear from environmental destruction, both human inflicted and natural.

Some scholars have attempted to categorize the relationship between environmental catastrophe and apocalypse. Phillip Hammond and Hugh Ortega Breton define the relationship between the apocalypse and the environment in their essay, "Eco-Apocalypse: Environmentalism, Political Alienation, and Therapeutic Agency." In response to the "risk society" culture that has been the forefront of environmentalist

debate in the U.S., "eco-apocalypse first offers a sense of purpose or mission in the absence of political visions of the future and second, provides a fetish for the loss of modernist political subjectivity" (108). Hammond and Breton make an important connection between the current political mode of discussion of the environment and the subsequent lack of agency people are developing to deal with environmental issues. For example, documentaries like Gasland (Josh Fox 2010) or Food Inc. (Robert Kenner 2008) reveal a striking lack of government response to environmental issues affecting citizens like hydraulic fracturing or food safety. This explains the "loss of modernist political subjectivity-" of the audience. In apocalypse drama The Day After Tomorrow a scientist (who represents the average American father figure) warns the American government about an environmental catastrophe that is about to hit the Northern part of the United States. His determination to inform the public is an example of the ecoapocalypse "mission in the absence of political visions." Although Hammond and Breton's terminology offers a connection between the environment and apocalypse narratives, I am hesitant to call narratives in this paper "eco-apocalypse" because it insinuates that the filmmakers were attempting to make some kind statement about the environment, which cannot be assumed.

Analysis through ecocriticism may be useful in understanding the environmental underpinnings of these narratives because it is fundamentally concerned with how the environment is treated. Lawrence Buell defines ecocriticism as "an umbrella term used to refer to the environmentally oriented study of literature and the arts" (138). Ecocriticism unifies avenues of research such as environmental justice, ecofeminism, deep ecology, and social ecology. Buell acknowledges that ecocriticism is going through a second wave to include a broader range of fields, but maintains its objective of promoting an ecological consciousness in cultural productions. Influences on ecocriticism include evolutionary, deep ecological thinking, Buddhism, and Taoism. Although primarily a literary criticism, scholars are expanding ecocriticism to other cultural productions. Today, with the advance of technology, many cultural productions exist in the Internet or on digital platforms. Ecocritical research is needed in this area, as they may be transforming human relationships to the natural world and/or the material. Contemplation of the relationship between the dominance of technology and its effect on

the relationship between humanity and nature will be explored later in this paper through analysis of the video game, *The Last of Us*.

As ecocriticism encompasses varying ways of ecological thinking, it will be useful to understand its ethical roots. In the United States, environmentalism is an emerging discourse in the political world, on par with trade and health. This may be potentially problematic because as environmental issues reside at a political level, the ideology of environmentalism remains anthropocentric. Buell defines anthropocentrism as, "the assumption or view that the interests of humans are of higher priority than those of nonhumans" (134). On the other end of the spectrum lies ecocentrism, which Buell defines as "the view in environmental ethics that the interest of the ecosphere must override that of the interest of the individual species" (137). Fundamentally these frameworks are moral or ethical forms of thinking, and raise questions about the overall goal of environmentalism. Should rocks, trees, and streams have rights or should rights only be given to organisms with a heartbeat or consciousness? Is it possible for society to adopt ecocentric values or is anthropocentrism inherent to humanness? Buell suggests that humans will always be anthropocentric on some level because we are conscious and make decisions for almost everything that (we assume) is not. He states, "as an ontology, deep ecology and ecocentrism more generally can provide a needful corrective to modern culture's underrepresentation of the degree to which humanness is ecosystemically imbricated" (103). Buell is saying that in order for ecocentrism to thrive, humans need to develop a new ontology in which they understand their own dependency of earth's ecosphere. Assuming today's environmentalists' are advocating for inclusivity of all the ecosphere in ethical treatment of the environment, the goal is ecocentrism. Therefore this paper will analyze the treatment of the environment in dystopia and post-apocalypse narratives with ecocentrism in mind.

Considering that Yellowstone National Park was established in 1872, ethics regarding the concept of the environment may always have existed in some capacity, even at a political level. However, it is important to note that scientists, advocates, and elements of popular culture in the last century have revolutionized traditional environmental values. Attention has been brought to the human impact on the environment. Developing environmental virtues is paramount to tackling human caused

environmental issues. American culture is going through an environmental revolution. For example, the green movement has transformed American society at a social and economic level. "Green" products are on the rise and are bringing attention to consumerist practices such as the environmental impact of production. Phrases like zero waste, non-GMO, and minimalist lifestyle have surfaced. Quite possibly the culture of the United States and maybe the world is in a transition period in which environmental ethics are slowly gaining a place. The next paragraphs will offer a deeper, philosophical understanding of ethics and the challenges American culture poses to the inoculation of environmental virtues.

Based on the same philosophies Buell outlines in his research (in biocentrism, ecocentrism, deep ecology, etc.) Sandra Jane Fairbanks pulls specific virtues that make up an "environmental good person" in her essay "Environmental Goodness and the Challenge of American Culture." She states that she prefers Ronald Sandler's assessment of human ethics for "his pluralist approach is particularly well-suited to environmental virtues because it encompasses reasons and motivations that go beyond human flourishing at either the individual or species level" (83). Sandler's description centers on the idea that humans are ethically good as long as it is fitted in respect to emotions, desires, and actions. Fairbanks lists twelve virtues that she associates with an environmentally good person. They incorporate themes of ecocentrism, deep ecology, ecofeminism, and land ecology. They revoke individualism, and encourage sustainable living. Fairbank's virtues are evolved from the theme that everything in the earth's ecosphere has intrinsic value. She then outlines obstacles American culture poses to these virtues. They are,

"(1) Our materialistic conception of a good life... (2) The entrenched individualism of Western culture... (3) A lack of aesthetic appreciation of nature on the part of many Americans... (4) The predominance of social hierarchies associated with the logic of domination" (90-95).

Wealth and materialistic possessions are how Americans determine success for themselves and for their friends, which is not currently possible without doing harm to the earth. Americans will have a tough time practicing humility and biocentrism when preoccupied with individual self-importance, especially in culture where individual success, wealth, and fame is praised above friendship or community service.

Environmental virtue requires a deep love and appreciation for the natural. In America, appreciation of the environment may be undeveloped due to the urbanization of most people who live away from untainted land. A U.S. census from 2015 states that over sixty percent of Americans live in cities. Also, as Americans seek consumerist comforts. how much of their time is spent outdoors? Even when outdoors are they considering the ecological impact of clothes and equipment made from natural resources? New research demonstrates that synthetic micro fibers in clothes are making their way into the natural habitats of fish and other animals through the washing machine.² In other news, recent laws have been made that do not allow breeding of certain animals or specify the treatment of animals. For example, in New Jersey, only shelter animals are allowed to be sold in pet stores. Also, pet owners are no longer allowed to tie their dogs outside in inclement weather for long periods of time. These may be ground breaking laws that normalize certain ethics, but it's still a long way from deterring the law of domination, which insinuates that man (not just human's according to ecofeminists) belong at the top of the biological world. These obstacles will be discussed in more depth later in this paper.

Coming from a more socio-political level, certain fears of catastrophe have surfaced as a result of heightened concern for the environment through environmental advocates such as Al Gore and Michael Pollan. The former's life-long political career has helped connect environmental issues with politics. According to Gore and Pollan's documentaries (*An Inconvenient Truth* 2006 and *Food Inc.* 2009) irrevocable disaster is certain if humans do not change their behavior and treatment of the environment. While Al Gore definitely has brought environmental issues to the popular consciousness (A Nobel Prize for Peace was given to Al Gore in 2007 for his success in massively raising the consciousness of the global public in climate change.) a noticeable growth of fandom of contemporary American dystopia and apocalypse narratives in literature, films and video games also emerged at the same time. Many popular documentaries made in the last ten years have followed a doomsday model such as *Before The Flood* and

¹ <u>https://www.census.gov/newsroom/press-releases/2015/cb15-33.html</u> Accessed on April 11, 2018.

² https://www.globalcitizen.org/en/content/bad-news-your-yoga-pants-are-killing-the-oceans/ Accessed on April 9, 2018.

Cowspiracy. Ritezenhoff and Krewani note that, "although humans have forever contemplated the end of the world in religious texts and stories, the aftermath of 9/11 brought a new wave of fears including environmental catastrophes, technological advancement, and war" (intro). Arguably, fictional depictions of environmental catastrophes could be a direct response to fear stirred by environmental advocates like Al Gore. Frank Furedi notes in his essay, "The Only Thing We Have To Fear Is 'The Culture of Fear Itself," "today, the role of culture is arguably more significant than it was in previous times...individual fears are cultivated through the media and are less and less the outcome of direct experience" (3). Not enough people in the United States have direct experience with environmental issues on a daily basis so they're knowledge and fear is developed through by the media.

During the Obama years the United States government started to undertake sustainable practices of harnessing energy to fit the needs of an industrialized world, such as solar and wind power. A large number of government and private agencies are devoted to environmental education and protection like the EPA (Environmental Protection Agency) or Greenpeace. As progress towards a sustainable, environmentally ethical culture may be in progression, the public's understanding of environmental issues does not converge with scientists' understanding. Elke U. Weber and Paul C. Stern argue in their 2011 analysis, "Public Understanding of Climate Change in the United States," alludes that the public forms their opinion of the environment based on physical, psychological, and social factors. Weber and Stern describe social factors as "indirect, mediated by news coverage, Internet postings, informal conversations, and documentaries and video footage of events in distant regions" (320). Similar to what Bahl-Stall suggests in her dissertation, most Americans are being familiarized to environmental ethics through media and popular culture. This means that Americans may also be introduced to environmental ethics (friendly or not) through mass media.

Finally, understanding how the environment was perceived throughout American history may be useful to calculating the development of the place of nature within American culture and how it is represented in the media. Mark Fiege gives a historical account of the role of the environment in American history in their book, *The Republic of Nature: An Environmental History of the United States*. Fiege notes that in early

colonialism, that is pre 1750s, religion formed beliefs around nature and humanity. Human nature was considered primarily evil, and only redeemable by God. Early colonists believed God was in all nature, so "evangelical sermons and rituals took place in streets, barns, fields, parks, groves, and rivers, away from the artificial, false hierarchy embodied in the church buildings of established denominations" (405). Nature, as it were, was inherently tied to spirituality and belief of a higher power.

Already deeply dependent on the land North America offered in spiritual terms, Fiege argues that the land played an important role in the revolutionary war. Rich and expansive as it was, the American landscape made colonists realize they could be independent from Europe, unlike other colonies in Canada and South America that were dependent on their European leaders for resources. The hope for America manifested in the 18th century as "the physical form and function of the American state embodied its fundamental purpose: the transformation of nature into wealth and power" (407). This testament is crucial to understanding the place of the environment in American culture for much of its history. As desire for independence moved the place of nature from spirituality to secularism and nation building, the relationship between nature and Americans changed. As the 19th and part of the 20th centuries reaped the rewards of industries and markets dependent upon America's environmental resources, they have now turned into liabilities. Fiege notes,

"Geographic space – vaunted American frontier – had been an asset in an agricultural and industrial age; it became a burden in a global economy centered on advanced technology, finance, the flow of electronic information, and a well-educated population. While the nation tried to maintain its creaking infrastructure and overextended military, it struggled with the environmental consequences – toxic pollution, obesity, disease - of its government-subsidized, mass production and consumption economy" (407).

At the core of economic success in the United States was, is, its natural resources. Fiege's historical account of the place of nature in United States suggests that the environment encouraged spirituality, independence, and the growth and prosperity of a nation. Spirituality was abandoned when the land become a resource for economic wealth and prosperity. Values associated with the environment in American culture are most likely assimilated to these principles. As the American landscape developed into urbanized regions, nature that isn't utilized for industry seems to have become a burden,

neglected or sanctioned into parks, and resulting issues challenge attested environmental values. Fear of environmental catastrophe is reflected in apocalypse narratives and presents a perplexing era for the American landscape.

Analysis

This paper will discuss environmentally induced apocalypse narratives from three plot settings. First, in *The Road*, the environmental catastrophe is unknown. The audience is introduced to post-apocalyptic world as everything in the ecosphere slowly dies. Intended this way by the original author of the book, the cause of catastrophe is insignificant. In WALL-E, enormous amounts landfill garbage has left the United States (and presumably the rest of the world) uninhabitable. Nothing will grow on land anymore and all the humans have deserted to outer space, to wait out the catastrophe. The clean up and organization of the landfill waste is left to robots called WALL-E. Finally in The Last Of Us, an outbreak of mutant fungus in the United States turns human hosts into zombie like creatures. With little hope for a cure, survivors live in quarantine zones throughout the United States. Zombies, and mutant fungal growths overrun the country. Players must fight the zombies, and survive in this inhospitable environment. These narratives offer a spectrum of popular environmentally induced post-apocalypse settings, in which the place of nature and human relationship with the environment will be analyzed. Favorably reviewed by populous critics and online critique websites, *The* Road, WALL-E, and The Last of Us use different mediums, and were developed for specific audiences. The Road, which is an adaption from the Cormac McCarthy's novel of the same name, is borderline horror, contemplative, somber and restrained. WALL-E is a surprisingly upbeat, cutesy animation suitable for children. Common Sense Media gives it five stars and calls it, "brainy, charming, eco-friendly animated adventure." The Last of Us, developed by innovative Naughty Dog, is popular among advanced gamers.

³ https://www.commonsensemedia.org/movie-reviews/wall-e Accessed on April 10, 2018.

Cinematic in story and quality, it is an intense, immersive experience. Gaming critic, Metacritic, gave it a 95 review.⁴ The next paragraph outlines the structure of analysis.

These narratives will be analyzed individually starting with *The Road* and finishing with *The Last of Us*. First an in-depth assessment of the on screen environment will be discussed. *The Road* will be discussed in relation to the iconic meaning of "the road" as it has developed in American cinematic, and cultural history. In *WALL-E*, the place of nature will be discussed in relation to Disney. How does this reflect America's relationship to the environment throughout the last century? Finally, as part of the discussion of *The Last Of Us*, this analysis will explore how video games have the potential to harbor environmental ethics, and may also be transforming the way Americans experience nature. Parham notes, "popular culture can offer not just glimpses of ecology but, in places, a genuine and complex ecological representation" (1). Finally, in the conclusion of this essay, all narratives will be discussed together in relation to Buell's and Fairbank's research on environmental ethics and current environmental conversations in political and social realms. To begin, I will start with a discussion of *The Road*.

The Road

As mentioned before, *The Road* is adapted film from Cormac McCarthy's novel. Directed by John Hillcoat, the story follows a father and son as they travel south in the U.S. towards the coast in search of warmer weather, presumably in the Eastern part of the country. They travel through the rough, inhospitable environment as they encounter thieves, gangs of cannibal tribes, and few lone survivors. The environment of the film is in a state of total despair, which is reflected in the long takes, and minimalist dialogue. The tone is set through the grey color scheme, and little sunlight. Earthquakes rack the earth for minutes at a time, and trees keep falling. The father describes the landscape in his opening monologue. He says,

"I think it's October but I can't be sure. I haven't kept a calendar for five years. Each day is more gray than the one before. Each night is darker, beyond darkness. The world gets colder week by week as the world slowly dies. No animals have

⁴ http://www.metacritic.com/game/playstation-3/the-last-of-us Accessed April on 10, 2018.

survived. All the crops are long gone. Someday all the trees in the world will have fallen. The roads are peopled by refugees towing carts and road gangs looking for fuel and food. There has been cannibalism. Cannibalism is the great fear. Mostly I worry about food. Always food. Food and our shoes."

Thoroughly bleak, this monologue encapsulates the tone throughout the film. The man's opening statement is also the audience's only criteria for understanding what happened to the planet. A few flashbacks of life before and leading up to the man and the boy on the road offer a more visual reference to the past, but the catastrophe that caused this mess is never directly identified. It is an eco-catastrophe – meaning that everything in the earth's ecosphere is dying. The catastrophe has stripped humanity of everything nature has offered, which also collapsed capitalist society and American government. Human's become a more animalistic version of their pre-complacent selves. Always at odds with one another, survivors travel and live in small packs or alone, in constant fear of others. The Road demonstrates peoples' deep dependence upon nature, by removing its brilliance. Intentionally or not, *The Road* illustrates an America deprived of its natural resources, and the evil side of humanity the evangelists warned would accrue without nature or, in their view, God. As The Road demonstrates this horrific version of humanity without the support of nature's resources, the meaning of 'the road' and its place in American culture, national identity, and cinematic history is deconstructed and transformed. The next few paragraphs will offer insight to the relationship of the environment and the American people as it has been formulated, and the significance and transformation of 'the road,' in the film.

Literature, cinema, and other elements of popular culture have not missed the significance of nature and the landscape in America. As Ralph Waldo Emerson and Jack London embody the voice of the American landscape, cinema visualizes it. Deborah A. Carmchael, editor of *The Landscape of Hollywood Westerns: Ecocriticism In An American Film Genre*, writes, "the importance of the landscape itself, the idyllic or treacherous environment negotiated in these films, often revives supporting-role status, yet without the land, American national mythmaking would not exist" (1). In other words, the legend of the American West (and the rest of the country) would not exist without the landscape itself. The same contingency exists in the apocalypse and postapocalypse narratives; the environment or environmental catastrophe is set up as a

backdrop in which human generated turmoil can unfold. Obviously, one could hardly invent such catastrophic events without the land and the possibility of its destruction. For example, in *The Day After Tomorrow*, the plot is much more about family relationships and scientists versus politicians than it is about North America facing a modern ice age. Although *The Road* incorporates human conflict in its narrative, it does so in a way to reflect on the state of humanity stripped of society, governance, and natural resources. The environment becomes a character itself in *The Road*, as an ever-present force that exploits its inhabitants.

Another American film that generates a character from the environment is *The Plow that Broke the Plains* by Pare Lorenz in 1936. The opening credits read, "This is a record of land...of soil, rather than people." Lorentz's film is reflective of Americans' knack for transforming natural landscapes to benefit the economy. As Lorentz positions the environment in respect to its resourcefulness, he also denotes to its destructive capabilities. *The Plow That Broke The Plains* frames the Dust Bowl as a catastrophe that positions Americans dependence on the land. Lorentz ends the documentary by describing how the American government helped farmers and their families get back what they lost with an emphasis on 'we.' The documentary closes with the dialogue; "We must practice control and conservation if we are to save the rest of the grass. The rains will come again, the plow will dig again, but another decade of reckless use and the grasslands will truly be the great American dessert." In other words, by working together America can preserve the land, its resources, and its monetary worth. This may be problematic because the film argues that Americans must put faith into a system that causes harm to the earth in order to conserve it.

In *The Road*, no such reassurance is given. With the government gone, hope for help is scarce. In fact, survival is presented as the new standard of living. Mark Fisher writes in his critique, "The Lonely Road," "The strange implication is that only when nature has perished can human beings actually descend into the state of nature: only then can they emerge as what they 'really are'" (16). *The Road* demonstrates humanity in all its forms as it tries to survive. Cannibals and thieves are an ever-present reminder of the lengths humans will go for survival. Also, it suggests that morality is tied with culture and governance. The environmentally induced post-apocalypse narrative in *The Road*

asks what do humans do when the environment and society fails. If the most integral part of humanity is nature, then it's failure is humanity's end. This relationship can be further explored in analysis of 'the road' and its symbolic presence as a threshold to humanity's separation and inclusion of nature.

The American fascination of the open road has been celebrated throughout cinematic history. From the image of a woman in sunglasses and head scarf sitting in a passenger seat of a convertible, to the rebellion associated with the open road as depicted in *Easy Rider*, and to feminist agency in *Thelma and Louise* - the road as a construct in the American landscape has historically offered a reflection and social critique of society. American culture was founded in terms of movement and expansion. Movement in road movies is reminiscent of the expansionist visions of pioneers. However, in the post-apocalypse narrative, the road film must be reconstructed because the journey on the road does not represent nostalgia or freedom, it is constructed as a means for survival. In *The Road*, the man and the boy follow the road south to the coast to find warmer weather. Driving as far as they can, they make most of the journey on foot. They are followed and harassed by gangs of cannibals, and must make do with scarce food and water. The most dominant feature of the road in this film is its slow deconstruction. The road slowly deteriorates, which is symbolic of the eventuality of all manmade constructions. It is the end of an era, the end of America, and the end of all that the road represented.

David Laderman writes in his book, *Driving Visions: Exploring the Road Movie*, "The road movie's love affair with driving – with cars and motorcycles as mechanically developed vehicles of transport and exploration – seems generally driven by this modernist sensibility, which celebrates technology as a liberating force that can lead us into the future" (4-5). In *The Road*, this construct is broken. Early in the film, the man and the boy lose their car to cannibal gangs. They do not view the world around them from a vehicle's speed, or the confines of glass windows. Their engagement with their environment is direct in the sense that nothing is obstructing their view. Also, the limited power of technology can only get them so far in an eco-catastrophe. Machinery, dependent on electronic power, is useless in the post-apocalypse. This suggests that consumerist comforts and conveniences are only possible when nature allows them to be. Most manmade constructions are abandoned. This is similar to Lorentz's depiction of

tractors and other farming machines lying on the ground during the Dust Bowl, forgotten. The road brings the main characters to good and bad, but never the promise of long-term restitution. The ending of *The Road* ends in much of the same way it started. The man dies, and the son is approached by a family who assure him they are the good guys. Together, they keep following the road south, without any idea of what lies ahead. Hope is not lost; the road will lead them to somewhere better, even in the post-apocalypse setting. Nature is more fearsome and violent, but the majesty is preserved.

In the post-apocalypse narrative the road represents a small hope of finding a better life, danger to the unwary traveler, demise of American society, and the dependence of technology on nature. The Road demonstrates that in a post-apocalypse narrative the place of nature in American culture is not a mystical promise of fortune and prosperity, but a nightmare in which humanity's morality is tested and exploited. The post-apocalyptic road visualizes the doomsday prediction. Hannah Arendt writes in her book, On Violence, "It is only natural that the new generation should live with greater awareness of the possibility of doomsday than those "over thirty," not because they are younger but because this was their first decisive experience in the world" (119). The Road therefore is a manifestation of the aftermath of the doomsday fear in American culture. Utopia in the film becomes the lost capitalist society. In their best reprieve the man and the boy find a bunker stored with cans of food, medicine, and protection. A bottle of whisky and a hot bath become a luxury. This scene demonstrates a small reminder of the grandeur comforts of capitalist society. The film reminds the spectator that nature is inherently equivocal and powerful. The Road is transformative because in "The Road" American capitalist story ends.

WALL-E

As the relationship between the environment and humanity is being considered, human caused environmental issues are paramount to the discussion. Scientists and historians have considered identifying a geological era known as the Anthropocene. In the past twenty years it has been popularized to aid in environmental advocacy. Most notably, Elizabeth Kolbert's book, *The Sixth Extinction: An Unnatural History*, won a Pulitzer Prize for its focus on human contribution to ecological issues in the ecosphere all

over the world. Known as the sixth extinction, the Anthropocene era refers to a geological era in which a catastrophe outside of the natural evolution of the earth disrupts the ecosphere in terms of extinction, and depletion of resources. Advocates of the Anthropocene argue that humans have been the primary cause of wildlife and marine extinction such certain mammals, and coral reefs. Although heavily debated in terms of time frame and extent of human impact, the Anthropocene is significant to ecocritical studies and arguably development of modern environmental ethics. In eco-catastrophic post-apocalypse narratives the Anthropocene is the cause of catastrophe. *WALL-E* visualizes this ending through a narrative of devastating human impact towards the ecosphere. *WALL-E* is perhaps the most noteworthy ecological Disney animation in the twenty-first century because it acknowledges humanity's ability to affect the environment with monstrous consequences.

In WALL-E, humans have left earth because the land is inhospitable due to human exploitation. Pollution caused by garbage has rendered life impossible to maintain or grow. All animals have died, and humans wait contently in a spaceship for the earth to mend itself. A lone robot called WALL-E roams the earth, sorting and piling the enormous amounts of garbage left behind. Another, more sophisticated looking robot is sent to earth to look for signs of life. In Disney fashion, WALL-E falls in love with the robot, Eve, and he follows her back up to space with the plant he found. Eve is programmed to collect any vegetation and bring it back to the spaceship like Noah's ark. When they reach the spaceship, the audience learns the truth of the catastrophe that has plagued earth. This leads into the transitory plot in which the captain robot of the ship tries to hide the plant from human intelligence in a fight for control. In an over exaggerated example of evolution, humans have drastically changed since their ancestors left earth. They are confined to chairs, unable to walk, obese, and considerably less intelligent. They seem to not have learned much from their destruction on earth because they continue to harbor exuberant amounts of garbage. Only this time, they dump it into outer space. WALL-E is an environmental critique of consumerist society because it demonstrates the ignorance of inevitable consequences of unmanaged waste on the environment. However, the film may fall short of configuring the real consequences

because it suggests that in the end humans have the ability to save themselves in the event of such a disaster, and that the earth is capable of healing itself.

The environment has always been significant to the Disney narrative. Analysis of the environment in Disney animation is a popular avenue of research in environmental discourse, especially as it reflects and affects environmental values in American culture. Disney often harbors intrinsic values towards the environment, which has prolonged early mystification of nature in American culture. In an era when political correspondence of the environment is contradictory, Disney invites sensitivity towards nature. It has been speculated by many scholars that *Bambi* presented the idea of conservation and hunting laws in the United States. Lynne Dickson Bruckner writes in her essay, "Bambi and Finding Nemo: A Sense of Wonder In The Wonderful World Of Disney," "The 'Bambi Effect' is its wholesale indictment of hunting and its sentimental adoration of woodland creatures. Bambi has a long history of encouraging affection for nature while also shaping public opinion on the merits of hunting and forest fires" (188). Other Disney animations reflect on environmental concerns throughout American history. Pocahontas and Brother Bear visualize the American wilderness as it once was, at the brink of colonization and industry. In many ways these environments are preserved on screen and have become the folk tales of American society. Even in princess fairytales, like Snow White or Sleeping Beauty (although historically non-American), the relationship between princesses and nature makes a claim about environmental goodness. If you love and protect the earth, the earth and all its creatures will love and protect you. Throughout the history of Disney animations nature has been associated with good virtue or as Fiege and Cronon might suggest, spirituality. Through the Disney narrative nature becomes a kind of united religion in a nation where people are not united in their religious beliefs. WALL-E follows this mold of goodness and evil in its characters, but the narrative and parameters of the environment have transformed to reflect modern fears of ecological catastrophe.

As Disney often anthropomorphizes animals, trees, and nature, spectators are invited to experience a deeper relationship with the environment, albeit at a cost. Bruckner defines anthropomorphizing in her essay as "seeing the natural world through an anthropomorphic lens that establishes humanity as the barometer for normative values

and affirms the centrality of human life" (188). Animals are not caricatured with human traits in WALL-E like they are in other Disney animations. There are no animals to caricaturize because they are all extinct. Instead robots are anthropomorphized. WALL-E has a habit of taking relics he finds in garbage home with him. This is depicted as an endearing human trait, to own and keep possessions. The only living creature on earth besides the plant WALL-E finds is a small cockroach. Delegated as a kind of sidekick character, the cockroach is depicted as immortal, the superior survivor of a human caused ecological catastrophe. He is cute, and keeps WALL-E company during his daily chores. Alternately, humans are grossly caricatured. Their unappealing appearance might be a representation of humanity without an ecological conscience. Their consumerism, technological dependency and concern for only their own needs are their most dominant features. As WALL-E tries to find Eve on the spaceship he encounters humans. Their appearance is shocking. They drink from non-sustainable plastic cups, and change the color of their outfits as the fads dictate. They do not remove their eyes from the screens in front of them, which look like more advanced versions of a laptop, even if they are talking to a person next to them. When WALL-E bumps into a lady's chair, her screen vanishes and is astonished to see what is in front of her. She exclaims, "I didn't know we have a pool!" The spaceship is a prime example of a dystopian society. The population has been manipulated to the point of disillusionment and bodily mutation in an effort for control. The purpose of the caricature in WALL-E is not to demonstrate sensitivity towards nature, but to criticize a consumerist, ecologically ambivalent humanity that is dependent on technology.

The threat to the environment in Disney has always been humans. In *Bambi* it is the hunter, in *Finding Nemo* it is the fisherman, and in *Pocahontas* it is the colonist. In *WALL-E* human threat towards the environment is totally manifested and becomes a sad spectacle. Like *The Road*, the environment in *WALL-E* (presumably the United States) is permanently overcast, silent, and foreboding. Colossal storms caused by climate change penetrate the land and long abandoned buildings and constructions deteriorate. However, unlike *The Road*, there is no sense of human suffering. WALL-E is a robot and only needs the energy of the sun to sustain him, but there is no other sign of life outside of the plant WALL-E finds and his pet cockroach. Through animation the spectacle of the

garbage becomes aesthetically appealing, almost beautiful. Bruckner notes that, "Animated representations can be less problematic than live action as they call attention to, rather than hide, their own staging and artificiality" (189). What should be a devastating scene becomes a comedic backdrop for WALL-E's life to unfold. The garbage WALL-E sifts through and sometimes takes home becomes the leftover consumerist remains of humanity. In one montage, WALL-E is making his giant, organized trash block pyramids and inspecting some of the trash. He comes across a box with a diamond ring, and throws the ring out, keeping the box. This spectacle demonstrates that values are not intrinsic, but constructed and learned. In WALL-E the environmental value is translated into what it can do for humanity. As the audience learns aboard the ship, only when Earth can sustain life will humans return. Evidently the environmental state of the earth in the film presents the idea that maybe the Earth is better off in a post human state. Clearly the humans depicted in WALL-E do not try to live sustainably as evident in the garbage they dump in outer space. If humans cannot control their anthropocentric needs, maybe it would be better if they moved on given they have the resources? For now, however, humans are stuck on Earth and must address the ecosphere.

WALL-E is first and foremost an environmental critique of anthropocentrism. Humans demonstrate zero culpability towards their destruction of the planet. They abandon the planet when it can no longer support them, leaving only robots to clean up. WALL-E presents an apathetic humanity in which the desire to control the environment supersedes environmental morality. Technological solutions are imposed when humans lose control of the environment. The only consolation to the overblown anthropocentrism in the film is when the humans go back to earth to start over. "The greening of earth, through replanting vegetation at the end of the film, offers the possibility of transforming dystopian space into significant place that sentient beings can reclaim as their home" (Whitely 143). To extend this argument, by presenting this turn of events, humans are never held accountable for their actions against the environment. The film distracts the horror of the situation by making it comedic. Humans need to hold themselves accountable in their responsibility to not allow a human caused environmental catastrophe to happen.

As technology is expanding and becoming a more vital part of everyday life, it is changing the way humans think, behave, and ultimately live. As humans shift towards a dependency on technology, humanities' relationship with nature changes. As demonstrated in road movies, the advent of the vehicle changed human's relationship with nature in terms of temporality and boundaries. In WALL-E the threat of the narrative transitions from humans to technology - specifically artificial intelligence. This is crucial moment for Disney history because it reflects the changing tides of American values and ecological understanding. Most Americans no longer question the human threat towards the environment, as evident in the Anthropocene. WALL-E suggests that artificial intelligence poses a threat towards humanity and peoples' relationship to nature. In the spaceship there is little to no biological life outside of humans. Therefore human interaction with nature is nonexistent. Their world is reduced to an artificial, technological existence. As technologies expand in the real world, this threat becomes not to far out of proportion. A study published at the Yale School of Forestry & Environmental Studies found that over half of American adults report spending five hours or fewer outside in nature each week. They argue the reason behind this is "the increasing use of computers, smart phones, televisions, and other technology, coupled with a growing movement from rural areas, is pulling many Americans away from the natural world." Only time will tell the long-term effects of this behavioral transformation, but WALL-E demonstrates the surmounting power technology might have to alienate humans from nature.

The Last of Us

Video games are arguably one of the most environmentally alienating forms of technology on the market today. To play a video game one usually must be indoors and thus have minimized exposure to nature. *USA Today* reported in June 2017 "the gaming audience is estimated at 2.6 billion worldwide, compared to 100 million in 1995. Users spend an average of 51 minutes a day playing on video game consoles." As video games have secured their position in popular culture, scholars have contemplated the place of

⁵ https://e360.yale.edu/digest/u-s-study-shows-widening-disconnect-with-nature-and-potential-solutions. Accessed on April 27, 2017

gaming in twenty-first century culture. They discuss possible negative effects on users, like engagement with violence. Others have praised its cinematic and immersive characteristics. In recent years scholars have combined ecocriticism and video game studies. A leader in ecology and gaming, Alenda Y. Chang, asserts that games are ecological texts and can harbor environmental values like any other medium. She argues in the essay, "Games As Environmental Texts, "game environments are not solely technical or aesthetic constructs but affective ones as well" (75). Further avenues of research might include examining the ecological state of the game world as it is constructed and users' engagement with the virtual environment. The following analysis of video game *The Last of Us* will observe the post-apocalypse narrative ecocritically as it is depicted, and discuss the depth of players' engagement as survivors in a post-apocalyptic world.

Ecological catastrophes do not require the ecosphere to be in a state of trauma as depicted in *The Road* and *WALL-E*. In the zombie apocalypse narrative for example, humans are threatened with extinction but the ecosphere is not. The post-apocalypse becomes a slow destruction of government control. In American narratives, human controlled society is lost. Fear in a zombie apocalypse is projected as human extinction. Spectators mourn the advent of a post human world, not the environment. The Last of Us depicts a zombie apocalypse narrative in which sixty percent of humanity becomes extinct in a twenty-year span. A viral disease infects humans and turns them into zombies causing this mass extinction. The zombie apocalypse is an ecological catastrophe because humans are part of Earth's ecosphere. The earth may not be in a state of trauma like in The Road or WALL-E, but it is an ecological disaster. Pielak and Cohen argue that zombies represent an underlying fear of the increase in the global spread of viral diseases. They write, "the zombie narrative often highlights the global, homogenizing force of the international medical regime, embodied by the United Nations and World Health Organizations, and the imperializing undercurrents that run through even fictitious perceptions of and responses to the spread of contagion" (25). The Anthropocene might suggest that the zombie is a human extinction process caused by humans through globalization. The game begins at the onset of the break out. The "break out" is the apocalypse in zombie narratives. In *The Last of Us* the post-apocalypse

narrative is depicted as loss of governmental control to the point of militarization of the state, economic depression, and humanities fight for survival.

In *The Last of Us* the scope of the disease is contained to the United States. In the real world globalization has made the spread of infectious diseases a real threat. The attention the Ebola virus garnered is a manifestation of the culture of fear of infectious disease. Globalization has made such fears relevant. In a report on "International Security and Foreign Policy Implications of Overseas Disease Outbreaks," the International Security Advisory Board writes, "Globalization means an outbreak in one part of the world can be anywhere within days, and adversaries can intentionally use biological agents to attack humans, animals, agriculture, and the environment" (16). For example, the United States produces beef for overseas trade. If the cattle were to be infected, this would economically devastate foreign beef trade. An ecocritical reading of this would suggest that humans acknowledge their capacity for control of the environment in terms of ability to manipulate and prevent ecological catastrophes. In the zombie apocalypse narrative, disease is the underlying fear. However zombie narratives project the disease as a monster, one that can easily be defeated through violence.

Joel, the main character of *The Last of Us* lives with his daughter Sarah in Austin, Texas at the first outbreak. Sarah dies when soldiers shoot her, thinking she is infected. In the outbreak there is total mayhem as people run from the infected. Twenty years later the infection has taken over much of the country. Militarized regulated slums offer sanctuary to the remaining population. A dystopian state has taken place, as the military exercises control and receives the best care and support. Quarantine zones are filled with poverty, and scarce resources. They offer protection, but at a cost. Criminals and those who do not qualify for the quarantine zones must take their chances in zombie-infested lands. There are bandit groups and cannibalism in these areas, as governmental control grows smaller and smaller. Twenty years later, Joel is a smuggler in a quarantine zone near Boston. Joel is presented as a rugged southerner with a hard past, but a fierce will to survive. In antihero fashion, he is asked by a group known as the Fireflies to smuggle a teenage girl named Ellie, to their headquarters. Joel finds out that Ellie is immune to the infection and the pair treks across the country to find the Fireflies to help find a cure. They battle through bandits, cannibals, and swarms of infected to get to the group. At the

end of the game it turns out that Ellie's brain must be removed to assemble a cure, which Joel objects to, killing everyone in the Firefly hospital and taking Ellie with him. As Joel and Ellie make their way across the country, the post-apocalypse setting unfolds. Like *The Road*, the materialistic remains of the capitalist society of the United States are left in ruins. Roads, buildings, and bridges slowly deteriorate. However, unlike *WALL-E* and *The Road*, nature is depicted as slowly creeping in to take over the ruins. The environment in *The Last of Us* flourishes. Birds are chirping, and animals thrive with little human interaction to detain them. *The Last of Us* visualizes an America in which nature is stronger than humans. Perhaps the zombie can be viewed in this narrative as kind of retaliation of violence in which nature causes destruction against humanity.

The breakout is caused by the cordyceps fungus, which exists in the real world. The fungus acts like a parasite, and attacks its hosts. It starts as a spore in the air, which pollinates in the air and attacks those that come into contact with it. In the game people may become infected by breathing in the spores and from contact with bodily fluids of those infected (being bitten). The fungus attacks the brain, which allows cordyceps to control and grow fungus throughout the body using the nervous system. The brain is not dead, but under control of the fungus. The game projects stages of infection that characterize the zombies Joel and Ellie encounter. First is the incubation process, in which the fungus enters the body and takes one to two days to take over the brain. In the runner stage, the fungus has control over all bodily functions and the zombies will attack anything that is not infected. In the next two stages, stalker and clicker, the fungus breaks through the skin of its host, disfiguring and developing echolocation. In the last stage, and the most rare, the zombie becomes bloated. A bloater is slow and carries spore colonies on its body. This hyperbole of fungal infection demonstrates that zombie fiction may have popularized as scientific knowledge grows and becomes widely known. Zombies are real, if only on a simpler biological level. The function of the zombie in the game is to present a "remnant of life, held in the zombie visage, engages the viewer in the Freudian paradox of the familiar that has become uncanny" (Pielak and Cohen). Arguing further, zombies are a remnant of human life, in which the viewer is confronted with the power of nature, assuming the zombie infection came from natural causes or mutations.

The essential feature of the zombie is gore. In *The Last of Us*, gore is utilized in the zombie body to grossly depict an alien parasites takeover of the human body. Unlike other narrative representations of zombies that focus on the decaying of the body, the fungus zombies are still alive and do not decay. The bodies are grossly disfigured, with fungus coming out of the faces of the body. In truth they are victims, but as Joel is frequently fighting the zombies for survival, they become monsters. The placement of gore in *The Last of Us* is to form horror, and imprisonment in a body that cannot be controlled. The horror of the zombie is set as part of the thrilling adventure Joel and Ellie take. Other zombie apocalypse narratives use comedy like Zombieland, or more monstrous horror depicted in I Am Legend. In Zombieland, the horror of the zombie apocalypse is dismissed because it aids in the dark humor of the narrative. The opening monologue of Zombieland narrates, "Planet Earth...Home to over six billion people. Today our very existence is threatened by epidemics. Climate change and dwindling resources, but those are the least of our problems." As the narrator speaks a zombie bride attacks her new husband, and little zombie girls in tutus attack a middle age mother in a van. Pielak and Cohen note "zombies are intimately cultural and populate imagined worlds that are reflections of our own." In Zombieland zombies literally become the girl next door, as depicted in the first scene when the main character's attractive neighbor comes over and turns into a zombie shortly after. They are people in the supermarket, celebrities and politicians. Zombies in The Last of Us reflect the parasitic behavior humans have taken towards the environment. As anthropocentrism dictates, humans control nature for their own needs. As evident through the sixth extinction, humans have become parasites to their environment, causing mass extinction.

The Last of Us is significant because unlike cinematic post-apocalypse narratives, an action response is required from the audience. In the game, players are engaged in the action of survival. This includes fighting, and accumulating resources and supplies. Pielak and Cohen argue that, "video games more directly force us to actually become a survivor and make awful calculations: Who will live or die? How does one balance the risk associated with acquiring food against the needs for sustenance" (175). In The Last of Us the player is Joel. Similar to most adventure games, players must take notice of their characters' well being. As Joel they must find medicine, food, and shelter. Joel

sleeps, eats, talks, and can get injured from time to time. Therefore the player is directly engaged with the game environment. They find medicine in quiet corners of long abandoned buildings, food in the meadows, and shelter in caves. Players must also take part in fighting zombies and bandits. This involves finding tools to make weapons, or guns and ammunition. To make it through the game, players must fight and kill zombies and other humans. An incredibly immersive experience, players may be more engaged in the survivor experience than they might experience watching *The Road* or *WALL-E* because they are engaged in the characters decision-making. In other games players must engage in manipulating the land. For example in Horizon Zero Dawn, players must farm, pick plants for resources, and kill animals for meat. In both games, players' responses to situations change the narrative of the game. For example, players can choose the type of response to other characters. They can be as engaging or passive as they want to be. Chang notes that "emotion becomes part of a player's apparatus for negotiating virtual environments, and even games that present temporally remote scenarios – can impress themselves forcefully on our psyche" (Chang 75). The reality of the gaming experience is transformative because the activity involved relies on gamer's emotions of the narrative experience.

Current gaming practices suggest that anthropocentric values are normative to virtual worlds as they are in real life. Gamers in *The Last of Us* take from the land what they need to survive. In *Horizon Zero Dawn*, gamers hunt and gather to fit their basic needs. The difference between the environment in the game world and the real world is the abundance of natural resources in the former. There is no limit to natural resources in a game. (This seems to echo the mentality of Americans since the industrial turn early in the 19th century as described above.) A gamer only has to quit and reload to the same scene to find resources resupplied. Also, resources are in the path of the game play. In the real world, one might have to travel miles to find what they are looking for, but in game play valuable materials are set within the path framework so the players do not have to look too hard. Despite these disparities, games might offer a platform for humans to become educated about the natural world. Chang notes, "games can offer a compelling way to reconcile a deep connection to nature and the nonhuman world with an equally important connection to technology and the virtual" (58). Since technology has become a

normative tool for human existence, games could become a resource for executing environmental ethics.

Conclusion

In the analysis of this paper three types of post-apocalypse narratives were observed in relation to American history, and human's relationship to the environment. In *The Road*, American history comes to end with the destruction of the environment. The film demonstrates the dependency of society and culture on the environment. In *WALL-E*, environmental catastrophe is positioned to critique consumerist practices. The animation marks a turn in Disney's ecological subjectivity, and acknowledges a cultural acceptance of human's capacity to affect the environment. *The Last of Us* depicts an environment that has become unstable for humans and might lead to a post human world. These narratives suggest that nature is a vital part of the human experience even as technology takes its place. America celebrates a long history of valuing and de-valuing nature. Today, the place of nature occupies both a mystification that holds the secrets of American history and a resource that gives breath to human life. Also, it represents culture anxieties that the environment can be destroyed from exploitation.

To bring back Fairbanks and Buell's ethics into discussion, the grounding framework of environmental morality is to acknowledge that all that makes up the ecosphere has intrinsic value. Fairbanks suggests that environmental goodness is born out of principles of minimalism, friendship, and kindness. An environmentally good person would be concerned with preservation and protection of the Earth's environments. Since the apocalypse reduces human existence to survival it may be asking too much of post-apocalypse narratives to demonstrate human concerns toward the state of the environment. However, remorse or mourning for any non-human ecospherical element could be joined in the narrative framework, especially when the ecological catastrophe is human generated. Instead of mourning only humanity and the fall of capitalist society, post-apocalypse narratives could show humans' mourning the earth. Yes they are probably preoccupied with their own survival instincts, but mourning the environment would ground humanity's place in the ecosphere. In effect they would not be alone, but dying in a world that created them. As post-apocalypse narratives do not embody environmental ethics except to critique current treatment of the environment, it may be

useful to discuss how they support Fairbanks outline of obstacles in American culture that oppose environmental ethics.

Fairbanks outlines four obstacles. The first "our materialistic conception of a good life" can be applied to all three narratives. In *The Road*, survivors live in a cold, harsh environment. There is no electricity, so no technology, food is scarce, and people's safety is threatened as cannibals and thieves run unchecked around the country. Capitalist society becomes the utopia in this narrative. So by demonstrating how difficult life could be without it, the film celebrates materialism. The characters mourn the loss of capitalist society. In *WALL-E*, humans are living the good life up in outer space, while the Earth's environment suffers. Their materialism is evident in the technology they immerse themselves in, plastic cups, and quick fads they mold to. However in *WALL-E*, materialism is played out as a dystopian form of control, which reflects our own society. They are not in fact living the good life. Their bones have grown smaller and their bellies bigger, and have no sense of their own reality. *The Last of Us* grieves the loss of materialistic wealth from a globalized and capitalist society. The game demonstrates that without capitalism, society would be controlled by a select few that reap the rewards.

The second obstacle Fairbanks lists is "the entrenched individualism of Western culture." In *The Road* and *The Last of Us*, The Man and Joel embody the spirit of the American survivor. Independent, resourceful, and brave they enjoy a freedom of their own making. Depicted as an antihero, they engage in fighting, and kill, but only to protect themselves and loved ones. These characters embody individual heroism that are traditional in American adventure narratives. In *WALL-E* individualism is personified through technology. Humans exist in hovering chairs that take them all around the spacecraft. Their engagement with the world is regulated through individual computers. Maybe it is not so different from humans today engrossed in cell phones. Technology is designed for the individual, for single use only. The third obstacle Fairbanks argues is "A lack of aesthetic appreciation of nature on the part of many Americans." In *The Road* and *WALL-E*, the aesthetic state of the environment can only be appreciated through its power. All of the flora and fauna have gone so its beauty becomes mournful, a reminder of what was. Not that any characters notice, however. As mentioned before the state of the environment in *The Last of Us* is flourishing. Without human interaction, the land has

had a chance to resurrect its former glory. The fungus only affects humans, so the fungus acts as a kind of shield between humans and nature. The game takes place in the summer, so the flora and fauna of the environment is at its height. Designed to look like the real world, players will have a difficult time not enjoying the spectacle of it.

Finally the last obstacle Fairbanks points out is "the predominance of social hierarchies associated with the logic of domination." In anthropocentric ideology, humans' needs are deemed greater than everything else. The logic of domination is played out well in *The Road* and *WALL-E*. These narratives suggest that after animals die out, humans will linger on due to their intelligence and resourcefulness. These films, especially *WALL-E*, separate humans from their biological relatives and make them alien as a result of this dominance. In *The Last of Us*, the logic of dominance is disrupted. As the fungus is only toxic to humans, nature develops an upper hand. The environment is literally purging a species. Nature does not necessarily become dominant, but creates a balance between humanity and nature. In effect, post-apocalypse narratives respond to obstacles of environmental ethics assimilation in modern society. Post-apocalypse narratives may also be responding to the culture of fear developed by advocacy groups, politicians, and other environmental advocating media that using scare tactics to advocate for environmental concern.

Most notably, environmental advocates like Al Gore, Bill McKibben, and David Orr talk about dire consequences should humans do not change their treatment of the earth. Those dire consequences are played out on screen, in novels, and in video games. Advocates collectively have had success in developing awareness of the human impact towards the environment. This has led to developments in sustainable energy and materialistic goods. Electric cars are on the market, people are buying sustainable, smaller homes, and learning how to reuse. Parham argues that a green popular culture could "actively elicit sympathy for the preservation of endangered species, engage critiques of social and ecological consequences of consumer society or advocate particular ideas, whether it's giving up cars or the sustainable society" (29). Indeed, as ecological consciousness grows, cultural practices reflect the changing tides. Even if a society wants to embrace responsibility towards the environment, big business and politicians may need more convincing. Hammond and Breton note, "it seems unlikely

that the elite's (politicians) search for meaning in green politics will be successful. The vision of it offers – of urgent regulation – is largely negative, dystopian one, characteristic of a demoralized society" (109). Sure sustainable practices will change the way Americans live, especially in terms of materialistic consumerism. Much can be gained by incorporating these practices, like not harming oceans with plastic waste. Big business does not have to suffer either. Elon Musk is arguably a prime example of the incorporation of big business and sustainable practices.

Elon Musk states in an interview on Ted Talks, "we need to become a multiplanet species, this is the future." In the Obama era NASA funds were cut, promoting private companies to take up the challenge of space exploration. There is potential in private space companies for advancement in scientific knowledge and human expansion into space that was more strictly controlled in government funded space research. However, private space companies could become problematic in the sense that they can do whatever they want. For example, Musk's company SpaceX recently sent a Tesla vehicle into space. Although the car might not be the same as dumping garbage into space as depicted in WALL-E, one thing is certain; leaving material imprints may be a anthropocentric characteristic. Also Musk intends to colonize Mars, which should inspire ecocritical thinking to bigger horizons. For example, biotic ethics rests on the scientific insights that all life in the universe as is known follows a basic pattern and it is the responsibility of intelligent life to safeguard it. Ethics may be crucial to guide humans as they make their ways into space. Even Al Gore states in An Inconvenient Truth, "that is what is at stake, our ability to live on planet Earth, to have a future as a civilization. I believe this is a moral issue, it is your time to seize this issue, it is our time to rise again to secure our future." To extend his prose, humans must secure all that inhabits the ecosphere's future, not just humanities, especially as companies like SpaceX are discussing the colonization of other planets. First humans need to establish a moral code in relation to nature on Earth. They should not care about the earth simply because it affects humanity, but because intelligent life has the responsibility of protecting and preserving all natural elements within humanities reach. As technology expands and

⁶ https://www.ted.com/talks/elon musk the future we re building and boring Accessed on May 1, 2018.

humanities horizons grow larger, the environment *is* the most pressing problem of twenty first century.

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