

The Garden of Humanity: The Manifestation of Hope in (Post) Apocalyptic Video Games

by

Pamela Maria Schmidt

A Major Research Project

Presented to the University of Waterloo

in fulfilment of the

requirement for the degree of

Master of Arts

in

English: Experimental Digital Media

Waterloo, Ontario, Canada, 2020

© Pamela Maria Schmidt 2020

Author's Declaration

I hereby declare that I am the sole author of this master's research project. This is a true copy of the master's research project, including any required final revisions, as accepted by my examiners.

I understand that my master's research project may be made electronically available to the public.

Abstract

The purpose of this project is to explore the juxtaposition of hope before and after cataclysms in apocalyptic video games. Specifically, I will be exploring why hope is found either after the apocalyptic scenario has happened (post mortem) or just before (prope mortem). The cause of these scenarios, usually a form of human invention and/or creation, always result in a return to the natural in the aftermath of their removal, the core theme for my analysis. Considering our current environmental emergency and technological paranoia surrounding AI and other technologies, these games perpetuate the false pretense that action is not necessary, as humanity will endure. The methodology I will use for my MRP is a close reading of three games that constitute my object texts. These games are: *Jak II* (2003), *Horizon: Zero Dawn* (2017), and *Final Fantasy XIII* (2009). To complete this project, I will need to investigate and analyze the function of the core theme in the games, individually and as a genre by understanding their narrative structure through a closer reading with an ecocritical and hauntological lens. The major research goal of this project is therefore to understand why hope is found post-mortem. A secondary goal will be to understand why the environmental and the technological are intertwined and why games are the perfect avenue to analyze this connection. A third goal will be to postulate whether this is correlated to current day attitudes towards the environmental emergency and technological paranoia by using games as a medium from which to make cultural commentaries.

Acknowledgements

I would foremost like to thank my supervisor, Dr. Neil Randall for his never-ending support and faith in all my ideas—even outlandish ones. I am thankful for his vision and creation of the Games Institute which provided a space to explore, research, and write about games academically. I am grateful for Marisa Benjamin, Sid Heeg, Lia Black, and Agata Antkiewicz for their constant encouragement and providing much needed editorial and emotional support. Finally, I'd like to thank my family for their understanding and unconditional love during these unprecedented times and difficulties created by the pandemic that made writing this project feel, at times, impossible.

Table of Contents

Author's Declaration.....	1
Abstract.....	2
Acknowledgements.....	3
Table of Contents.....	4
1.0 Introduction.....	5
2.0 Review of literature.....	8
3.0 Methodology.....	10
3.1 Hauntological and ecocritical lenses.....	14
3.2 Discussion of methodology scope.....	17
4.0 Analysis of JAK II.....	18
4.1 Prope mortem of Jak II.....	19
4.3 Connecting ecocriticism with technology in Jak II.....	24
5.0 Analysis of FINAL FANTASY XIII.....	27
5.1 Hope after catastrophe - a hero appears.....	29
5.3 Final Fantasy XIII and eschatological anxiety.....	31
5.4 Tying it all up: technology meets environmentalism meets hope.....	35
6.0 Analysis of HORIZON ZERO DAWN.....	37
6.1 Nature meets technology.....	42
7.0 Discussion.....	47
7.1 Hope as the return to the natural.....	47
8.0 Works cited.....	55
9.0 Bibliography.....	59
10.0 Appendix.....	65

1.0 Introduction

When looking at current cultural attitudes, it is evident that the climate crisis and paranoia around rapid technological advancements are at the forefront. For environmental concerns, the mass media bombards us with spun narratives and alarmist rhetoric more concerned with spectacle and sensationalism—scaring the willpower out of people—than motivating action. While declaring the need for urgent action, the media continues to publish articles that question the validity of the research; portraying the scientific community as a group of bumbling, old, white men who cannot agree on anything except for pointing fingers at the every-day human. There is a struggle to create a united scientific front that aims to lift the masses up and leverage change. Change we are more than capable of doing—such as during the outbreak of the COVID-19 pandemic. Ironically, our anxiety with capitalistic structures and their insatiable hunger for technology are far more familiar and unified. Our daily lives are increasingly entrenched and saturated in technological “betterment” such as home automation technology (Google, or Alexa, Home), GPS maps and tracking in our phones, and mobile wallets. The latest thousand-dollar devices become irrelevant within a year and even without a clear understanding of AI and its functions, corporations are ravenous to invest in it¹. Where environmental anxieties are scrutinized with facts, technological ones are easily swept under the rug of post-Y2K, sci-fi paranoia and unfounded tech-based mythologies due to the fantastical nature of the genre. Despite fearing surveillance and technological devouring, we rely on our devices. These two anxieties appear to be distinct, even opposed, but are far more connected than

¹ Jaron Larnier, a leading AI theorist and father of VR often speaks out about the misunderstanding revolving around AI, and in an article for *Wired*, notes that “‘AI’ is best understood as a political and social ideology rather than as a basket of algorithms. The core of the ideology is that a suite of technologies, designed by a small technical elite, can and should become autonomous from and eventually replace, rather than complement, not just individual humans but much of humanity” (“AI is An Ideology”).

we may realize. Like the star-crossed lovers Romeo and Juliet, their collision is that of fatal attraction, tragedy, and senseless death. They manifest the apocalypse.

Staunch, traditionalist scholars, must acknowledge that literature is no longer the only window into observing societal attitudes, anxieties, and potentials (and that these issues are far more serious than the tragedy of two angst-y Shakespearian teens). By commercial standards, video games are the most successful media product of our time, with generations Y (of which I am part of) and Z being one of the first to grow up with video games as a readily consumable media (“Video game industry silently”). Tom Boellstorff recognizes the colossal influence of video games, stating that “the information age has, under our noses, become the gaming age” (33), and as Astrid Esslin explains in *The Language of Gaming*, “the success of videogames relies heavily on situation representation, committed interaction, and player immersion. Gaming is thus a multisensory, immersive experience...[making] gamers significantly more ideologically susceptible than say, readers of a novel” (138)². Where books and films are passive and observation-based experiences, video games are active, immersing players into narratives where the illusion of control and co-creation erupt with player agency. We must realize that if we are to study societal attitudes, whether they be producing or produced by media artifacts, we must hold

² As an example, when reading or observing films or books about zombies, the viewer may be frightened or concerned with the plot but could theoretically distance themselves as separate from the narrative (focusing on something else, looking away from the screen, closing the book, etc.). Zombie games create an entirely new experience compared to films, as games position the audience as active agents affecting the story. For instance, *The Walking Dead* video game franchise by Telltale Games features episodic storytelling in which players need to make important, timed decisions that determine the outcome of the story. Meanwhile the *Zombies, Run!* augmented reality (AR) fitness app utilizes gamification and storytelling to motivate users into running and/or walking. As the player you are, tasked with getting supplies and out-running zombies generated through your mobile device. Braver players can have their running speed tracked—resulting in virtual devouring if you do not out-run the zombies. By putting players inside the story, games behave as multimodal texts that engage aural, linguistic, visual, and spatial systems, even beyond these active and immersive elements.

the potential and influence of games to the same standard as that of literature and film, as they influence billions of players who buy, play, and consume the stories told through this medium.

The purpose of this Master's Research Project (MRP) is to generate insight into the connection between climate change and technology (with a focus on AI), and why they are frequently portrayed together in apocalyptic video games. I explore apocalyptic video games to observe the function of hope, as a construct, thus, I look at video games where 1) hope is found after the catastrophe has occurred, and 2) the catastrophe is prevented and hope is found, despite the characters living with trauma. The core theme for my analysis is the return to the natural following the removal of the cause of these scenarios, usually a form of human intervention and/or creation. Considering our current environmental crisis and technological paranoia, these games harden an anthropocentric paradigm and perpetuate the false pretence that action is not necessary, as humanity will endure. These games, usually set in a dystopian universe, are hopeless until a hero—the player as the protagonist—swoops in to conveniently save the day just in the nick of time (where art thou' Romeo?). Seems unrealistic, right? And yet, perhaps this is the crux of the problem. Hope is a wild card that is only summoned at the brink of collapse, either to embolden the hero help the world imagine life after catastrophe, or narrowly preventing Armageddon.

Gerald Farca, in his overview of the dystopian genre in *Playing Dystopia* notes that these narratives either focus on specific issues, or “a dominant trend that plagues social totality...[by revealing] the hideousness of (*human*) nature [sic] and the inability to evolve past vital shortcomings,” which often include human-made eco problems and technological monsters (126-127). His study reminds the reader that the purpose of these nightmarish worlds are as cautionary

tales, revealing societies deepest anxieties³. Contrasted with utopias, dystopias teach a lesson of what will happen if human anxieties come to fruition. Although I understand how “hope” as a motif is nestled into utopian genres, I am suspicious of the hopefulness found in dystopias, as even Farca notes that dystopias are “a nightmare [compared to utopia’s] dream, like a malevolent and grimacing *doppelgänger*” (qtd. in Kumar 98), which generate fear. Contrary to popular belief, fear is not a great motivation for inciting action. More on this later.

2.0 Review of literature

Not all apocalyptic or dystopian video games are directly related to climate or technological disaster. For instance, the *Fallout (1997-2018)* series deals with a divergent aftermath of World War II which resulted in global nuclear devastation. The *Metro (2010-2019)*, based on the Russian novel *Metro 2033* by Dimitri Glukhovsky, also deals with civilization post nuclear fallout as does the *Wasteland (1998-)* and *S.T.A.L.K.E.R. (2007-2009)* series. Other apocalyptic video games that avoid direct causation toward the environment or technology veer into “zombipocalypse” territory, including *The Walking Dead (2012-2019)*, *Dying Light (2015)*, and *Resident Evil (1996-2019)* series. However, a surprising amount of games (not all of which are directly considered apocalyptic, but rather dystopian or survival) behave as a sub-genre within the apocalyptic sphere that intertwine technological paranoia and climate emergencies together, including: *Portal (2007-2011)*, *Half-Life (1998-2020)*, *Death Stranding (2019)*, *Breath of the Wild (2017)*, *The Last of Us I & II (2013, 2020)*, *Enslaved: Odyssey to the West (2010)* and some of the *Final Fantasy* titles such as *Final Fantasy VII (1997, 2020)*. Arguably, games dealing with nuclear devastation oscillate in the eco-horror realm, such as the *Fallout* and *Metro*

³ This may be surprising, but hope delivered through alarm is a central trope in utopian and dystopian genres, so that when society has its anxious wound revealed, it can learn how to tackle it and fix it in the real world (62, 69).

series. Many games that are not necessarily apocalyptic, but traditionally dystopian featuring elements of environmental degradation and technological fear such as the *Metal Gear* (1987-2018) and *Dishonoured* (2012-2017) series. All aforementioned titles are triple A (AAA) games; meaning they are developed by major-publishers and usually have the same amount of funding, reputation, and marketing as Hollywood blockbusters. Therefore, this survey does not account for small scale production or indie games⁴ that could also be classified in this category.

Each “object text” chosen for this MRP brings a unique perspective to human relationships with technology, the environment, and how the mistreatment or imbalance of these forces will lead to the end of life as we know it. More importantly, they manifest hope in an interesting way to tackle these tangled, complicated issues. Currently, there are no published or peer-reviewed scholarly work on *Jak II*, its prequel *Jak and Daxter: The Precursor Legacy* (2001), or its two sequels *Jak 3* (2004) and *Jak X: Combat Racing* (2005). *Final Fantasy XIII* is limited in academic focus. The original title is only explored from a narratological perspective in Johansen Quijano-Cruz's "How Linearity Affects Narrative: The Incomplete Story of Final Fantasy XIII" (2011). The game's prequel *Final Fantasy XIII-2* (2011) was explored for its puzzle mechanics by Nathaniel Johnston in "The Complexity of the Puzzles of Final Fantasy XIII-2" (2012), while its sequel *Lightning Returns: Final Fantasy XIII* (2014) provides a ludological linguistic conundrum in Luthfie Arguably Purnomo's "Grab the Garb: The Influences of Translation Techniques in the Ludological Aspects of Video Game Translation" (2015). *Horizon Zero Dawn* has been studied from a variety of perspectives including cultural appropriation, kinaesthetics, aesthetics, characterization, propaganda, and pattern recognition. Most notably, Lauren Woolbright performed a peer-reviewed video essay about "Ecofeminism

⁴ Independent Development Game Companies

and Gaia Theory in *Horizon Zero Dawn*" (2018) about the game's underlying activist message and how it failed to create a stronger impact. Another scholarly work that explores similar themes is Jesus Fernandez-Caro's "Post-Apocalyptic Nonhuman Characters in Horizon: Zero Dawn [sic]: Animal Machines, Posthumans, and AIBased [sic] Deities" (2019) exploring the human-animal divide through a posthumanist and animal studies lens.

3.0 Methodology

To explore the oscillating relationship between technology and the environment that spawn apocalyptic scenarios, and where hope comes into play, I conduct a close reading of my object texts. Traditional literary studies employ close readings as the main methodological tool for deep, critical analysis of a written work to formulate greater, overarching meaning.

Observations made through a close reading are then used to make a greater contextualized commentary on the work. Similar approaches have been adopted by film and game studies due to the transitive quality of narrative and storytelling. My close reading methodology is influenced by this tradition, however, given the multi-modal semiotics of AAA games, this project requires that I adjust the conception, understanding, and approach to narrative that games create.

To articulate this crucial point, consider how analyses of literature attend to exposition, dialogue, motifs, characters, and themes; where, games also incorporate environmental triggers, artifacts, chance encounters with nonplayer characters (NPCs), artwork, music, and more all to varying degrees. In fact, there are cases where the game mechanics, such as combat, might carry more weight to advancing the story than the game's narrative elements, such as cut scenes. Narrative analyses of games must account for this by borrowing the established methods of analysis from literary studies, but flattening the value placed on narrative elements to make space for proportionally weighted analyses of mechanical elements that convey meaning. To provide a

concrete example, analyses of “side quests” (side storylines that diverge from the main plot) will be just as important as “main quests” to my methodology since these short-form storylines contribute to world-building and enrich the story contexts.

In the field of games studies, seminal texts for framing include Mary Flanagan's case study on serious games for activism, entitled *Critical Play*, and Ian Bogost's theory of procedural rhetoric first explored in his book chapter “The Rhetoric of Videogames” in *Persuasive Games* which articulates how game mechanics convey meaning. *Critical Play* outlines an epistemology of play that recognizes games as a cultural artefact worthy of study and defines the act of play (specifically within games) as blurring the boundaries of social reality by giving players tools in which they can construct their own realities (254). If play characterizes social, cultural, political, and personal themes, then it should also be examined for how these paradigms are constructed (6)⁵. I am inclined to agree with Ragnhild Tronstad, who reviewed Flanagan's book in "The Productive Paradox of Critical Play" and notes that Flanagan, "doesn't address the apparent paradox in the concept “critical play,” or how these two terms, put together like this, must necessarily influence each other. What happens to play when it becomes critical? And how might critical content be influenced by play?" ("The Productive Paradox"). Her work remains heavily used to inform game studies, but is truly meant for those interested in art historical clichés, which Flanagan uses to discuss the subversive factor of games, creating an informative read for game designers to enhance their understanding of social impact.

⁵ Despite the enormous value of her work that legitimizes the study of games, Flanagan does not actually give a clear definition of what the "critical" in "critical play" means. Flanagan acknowledges that games should be analyzed for the way they carry social norms and entrench problematic paradigms, such as sexism and racism (6). However, instead of guiding the reader through methodology of how to critically analyze games as textual objects, she gives examples of games specifically built for activism paired with a frightening account of disturbing doll play (32).

Conversely, Ian Bogost's work on "The Rhetoric of Video Games" specifically analyzes how video games emulate a unique form of rhetoric that he coins as *procedural rhetoric*. Bogost focuses on the psychology of gamers and approaches to play, concluding "people who play video games develop values, strategies, and approaches to the practice of play itself," (119). The connection to the medium is inherently embedded in the system, as games can "facilitate cultural, social, or political practices ... where cultural values themselves can be represented—for critique, satire, education or commentary" (119). With so much cultural prowess embedded in digital artefacts, the use of procedural rhetoric in games, as Bogost suggests, can be used to expose "hidden ways of thinking that often drive social, political, or cultural behaviour" (128)⁶. Bogost suggests that game rules alone influence players, which disregards the importance of visuals, environments, free-play interactions, players who dissent against rules and still uncover meaning; subconscious world-building elements that rhetorically persuade players to specific values; or subliminal messaging within the game.

Instead, I use Thomas Rickert's *Ambient Rhetoric* to inform my close reading. Ambient rhetoric, a relatively new theory, is the grounding of classical rhetorical strategies and ideas in materiality and viewing the overall cluster as an ontology (x). As Rickert explains, ambient rhetoric moves away from the duality of object/subject interaction to focus on nonlinear narrative devices (music, atmosphere) which are also integral to human experience (xii). Rickert challenges not only what persuades us as humans but also what persuasion truly means. In what Rickert notes is an "age of ambience," traditional boundaries of interaction are dissolving,

⁶ Persuasion in this medium is driven by the rules of the game and the procedures developed to drive the narrative forward "by creating procedural models [and] imposing sets of rules that create particular possibility spaces for play" (122). Core rhetorical appeals, therefore, are implanted in the rules of play and the coding that brings the system to life. Although mentioning the possibility of exploring the games' environments, and the importance of rules that create spaces of interaction, Bogost's rhetorical approach, although valuable, is far too narrow for games.

especially with the explosion of new, technological mediums—such as video games—which "not only impact our environment and how we interact with and within it but [also] transform our knowledge about self and world" (1). Rickert's ideas are grounded in "material relations": our environment, inanimate and animate objects, and our senses along with traditional rhetorical appeals (x). Due to this extended nature, Rickert argues that ambience is both a style of rhetoric, but also complicates rhetorical work by opening a new set of opportunities, offering a new perspective for considering persuasive objects, especially the capability of inanimate ones (284-85).

Although Rickert proposes how rhetoric should behave in the twenty-first century, I understand his view on what truly "persuades" the subject as separate from a specific object. As I stated earlier, I disagree with Bogost's theory of procedural rhetoric because of its narrowness on what is capable of influencing players. Environments, both real and imagined, and the things within them contain microcosms of information that influence in different ways—which game scholars must be cautious of when approaching "narrative." Narrative can be linear as the plot and "procedure" of play, but is also impacted by music, art, interactive objects, and environmental triggers. If ambience "continually attunes itself both to what is present and to what withdraws: they are the conditions that give rise to our ongoing perceptions and understanding of the world," then video games are both ontologically and rhetorically ambient (Rickert xiii). Video games impact almost all our senses (sound, touch, and vision) and can make meta-commentaries on themselves, be solely for entertainment, and/or can make critical statements about culture. The ways in which I critically analyze, or rather "play," my object texts is by acknowledging the rhetorically ambient elements within them and appreciate their influence.

3.1 *Hauntological and ecocritical lenses*

The overarching critical lenses that I use to inform my close reading are ecocriticism and hauntology that consider traditional dystopian genre tropes. Ecocriticism, often considered a catchall for all eco-related topics in the humanities, is a critical interdisciplinary approach gaining popularity⁷ that integrates culture studies, natural science, animal studies, politics, feminism, etc. and stretches beyond the confines of the humanities' mosaic. Ecocriticism is meant to be a broad intersectional approach that does not aim to exhaust the diversity of perspectives or influences that the Earth's climate has over all aspects of our lives, not just its drastic degradation (Garrard 5). The most unifying of these elements amongst ecocritics is the affirmation of human discrimination against the environment, and the challenge of anthropocentrism's toxic fruits that slithered into society during the era of the Enlightenment and continue to choke us (3)⁸.

First coined by Jaques Derrida in *Spectres of Marx*, hauntology is an ontological experiment that challenges "priority of being and presence with the figure of the ghost as that which is neither present nor absent, neither dead nor alive," (Davis 373). Derrida uses hauntology to resurrect the spirit of Marxism and interrogate how the ideology's presence continues to linger in politics, delving into performance theory, nostalgia, and language. The future and the past haunt the present through both animate and inanimate objects—such as Marx the person versus Marxism the ideology—leaving the present stuck in a vortex of anxiety.

⁷ In Adam Trexler's chapter "Mediating Climate Change," he notes that "over two hundred works of fiction about anthropogenic global warming have been published in the last thirty years. Nearly all of these novels shift the fictional climate for the sake of drama" (205).

⁸ This mindset was further insulated by the authority of the Catholic Church with paradigms of martyrdom and sainthood, which includes figures such as Aquinas and Augustine "who set great store by the belief that it is reason which distinguishes humans and other animals" (Rudd 29). Working to unhinge this chokehold to give voice and concern to the environment, ecocritics "[turn] to science studies to resolve the ontological difficulties that result from combining environmental sciences and literary criticism" (Trexler 208).

Initially an ontological approach to political philosophy, hauntology is used in literary, film, and music criticism. It has even evolved to encompass other critical theories such as performance and psychoanalysis. Derrida “creatively” identifies the core pillars of the ontology as three "things":

1. Thing One is mourning as a discourse. Always fuelled by some sort of trauma, mourning "[attempts] to ontologize remains, to make them present, in the first by *identifying* the bodily remains and by localizing the dead" (9).
2. Thing Two is Language itself, as "one cannot speak of generations of skulls or spirits," without the use of language (9). Or more simply, acknowledging unspeakable things that are carried in literature, such as generational trauma.
3. Thing Three is a transformative quality that Derrida cryptically describes as if it "works". In other words, does the spectre have the power to transform (decompose) itself or if it can transform (influence) others around it (9).

These three qualities of hauntology function in "radically dis-jointed time without certain conjunction," so that time itself is meaningless—hence why Marxism is prominent today (20).

Although these hauntological and ecocritical lenses represent seemingly opposite sides of a life-death spectrum, there are many commonalities between the two: the decentralization of an anthropocentric viewpoint and questioning the actions of the present as key examples. I am not the first person to notice the hybridity between the two. Dr. Laura A. White, in her book, *Ecospectrality*, investigates "how...ghosts can help readers to perceive difficult-to-visualise environmental threats and access marginalised [sic] environmental knowledge" ("Ecospectrality"). Having been released in May 2020, this appears to be the first seminal text to be published on "ecospectrality". For the purpose of my analysis, I will not be using White's original, hybrid term *ecospectral* and will refer to hauntology and ecocriticism separately.

As a genre, dystopia and utopia are opposite sides of the same coin⁹, essentially an "act of imagination" in which "the Utopia scrutinises [sic] empirical reality for potential ills and composes a vision of the future in which these issues are either solved or have turned into a nightmare [ergo, dystopia]" (Farca 36). In the utopian/dystopian sense, the exploration, or dream, of the future is used as a tool to disrupt the present in a "radical system break" (39). Its design as a warning of what humans are doing—with the goal of finding hope and motivation to stop cataclysms ahead of time—shows that the genre "forecasts an anxious anticipation of even darker times" by critiquing current social and political spheres, making it the perfect interrogative tool to understand a potential future resulting from these same political and societal attitudes (Farca qtd. Clarke 376, 379). It haunts the present with the nightmare of the future yet to come.

Unlike traditional gaming lenses, ambient rhetoric relates to either the immediate surroundings of something or is used as an adjective to describe how parts of the environment make the rhetorical subject feel ("Ambience"). Ghosts are ambient. Lacking object fluidity, they are free roaming agents that move through animate and inanimate objects of an environment and even have the capability to adjust the mood without being bound to space or time. Therefore, hauntology through a rhetorically ambient lens is "where we can interrogate our relation to the dead, examine the elusive identities of the living, and explore the boundaries between thought and unthought," while also challenging anthropocentric viewpoints and acknowledging that meaning can come from multiple, nonlinear, sources generating ecocriticism (Davis 379).

Inevitably, since the makeup of hope within apocalyptic scenarios is so complicated, my research must intersect dystopia, environment, technology, and humanity together. In a way, this

⁹ The genre was born as a response to the horrors erupting out of both World Wars (Farca 38, 70).

complex methodology and juggling of lenses is a new typology rooted in ambience, nostalgia, and déjà vu tasked with understanding when hope becomes actionable on a larger scale. It may appear ambitious to engage with multiple methodological paradigms, but to ignore the link between environment and technology, the dystopian nature of setting in these games, and how dystopia, in itself, is a kind of hauntology, would be to ignore a wicked problem¹⁰ that is so deeply buried in our society that we can no longer pull ourselves out of the grave.

3.2 Discussion of methodology scope

My first object text, *Jak II* (2003), revolves around the city of Haven—a futuristic, totalitarian, police-state under siege of monstrous alien forces. The last stand of humankind, the game warns that once the remaining, nurturing, part of the environment is destroyed (either via human technology or the aliens) humanity will fall in succession. *Final Fantasy XIII* (2009) is widely considered to be of a more dystopian nature—as is the general M.O. of the franchise—and sets itself in a highly technologically advanced society where humans have no natural interactions with the environment and, in fact, fear it. Focusing on the alienation of human-technology-nature and how our fearful worship will lead to the apocalypse by refusing to cooperate and co-exist. Finally, *Horizon Zero Dawn* (2017) makes a direct statement about how insatiable needs for irresponsible technological growth, merged with the obsession of gaining capita, will (and does) lead to the annihilation of humans. Set post-apocalypse, where humanity miraculously resurrected in the 31st century by a technological failsafe and is disturbingly close to committing the same sins that their eradicated ancestors did.

¹⁰ The “wicked problem” I am referencing is Rittel and Webber’s variant—used to address the many complexities surrounding problems in social policy.

I explore the concept of hope in these (post)apocalyptic video games to investigate why hope is found either *post mortem* (after the apocalyptic cataclysm has happened), or what I call *prope mortem* (during the apocalyptic cataclysm and before total annihilation can be completed). The cradle of hope in these games involves multiple moving elements that require exploration in order to understand the context from which this hope (or lack of, until *post* and *prope mortem*) is birthed. Pinpointing hope reflecting real-world anxieties, we can potentially gain insight on the lack of action taken to tackle complicated issues in our contemporary society.

4.0 Analysis of *JAK II*

To contextualize the analysis of *Jak II*, an understanding of the major narrative divergences from the game's predecessor, *Jak and Daxter: The Precursor Legacy (TPL)* is needed. *TPL* is an open-world platformer game that takes place in an unnamed fantasy world, overgrown with plant life and abandoned Precursor ruins. In the games' mythology, the Precursor's¹¹ created many planets, (including the world in which the game takes place) and resources (such as the unreplicable Precursor metal) to create their revered temples and cities; and a "natural" resource called eco. There are six varieties of eco that possess different specific properties, but the most central to my analysis is dark eco which contains the power to corrupt, manipulate, and destroy. Interestingly, it is the most common variety of eco. The human race live in small, scattered farming settlements. Among these humans, a select few become sages who study eco and the Precursors, and who have the ability to channel the specific variety of eco that they study. The first game's plot centers around the mute and orphaned protagonist, Jak who is on a quest to cure his overly talkative best friend Daxter. After an incident resulting in exposure

¹¹ An ancient, mysterious, technologically advanced race that are the central deities of the series. How the Precursors' looked, how their culture functioned, and why they vanished is a bemusing mystery that is explored throughout the entire series.

to dark eco, Daxter was turned into an ottsel—a hybrid between an otter and a weasel—and he and Jak journey to find Gol Acheron, the sage of dark eco rumoured to knowing how to cure Daxter. Discovering that Gol has been corrupted by the dark substance he studied and planned world domination, Jax and Daxter defeat him. The heroes, along with their friends Keira and her father Samos, a green-eco¹² sage, find a teleportation device. This is where *Jak II* picks up the plot. When they power-up the device, monstrous creatures fly through the gate, sparks of dark-eco flying out and spreading throughout the world, along with a colossal, demonic head. In a panic, Jak presses a button that launches the vehicle forward, through the gate, thrusting the four 300 years into the future. Landing in what appears to be a massive industrial complex of highway like design, Jak is arrested by guards.

4.1 Prope mortem of Jak II

The player discover that the future is a complete opposite of the world that was, the human population having advanced and grown exponentially since the prequel. While the first game was light-hearted, colourful, and child-friendly, the second is a dark, moody, nightmare world in *prope mortem*. The main setting, Haven City, is locked in a war with the Metal Heads, the creatures that had flooded through the teleportation gate in the opening cutscene. The origin of the Metal Heads is shrouded in millennia of lost history, except that they are the ancient enemy of the Precursors and have followed them throughout the galaxy, destroying everything they create. They are also a biomechanical alien race with extensive species diversity including: insectoids, felines, and enormous dinosaurs. Metal Heads devour eco, stripping the planet of its resources, leaving it barren with nothing but tainted, dark eco. It is heavily implied that Haven is humanity's final stand against the alien swarm in a race over resource scarcity. Eco is not only

¹² Green-eco is characterized as a life-giving substance and is used for healing wounds.

rare, due to the Metal Heads unchecked consumption, but is still used to power many technologies. For instance, the eco-grid is a force-field that encapsulates Haven. The moment there is no more eco to pump into the grid, the field will shatter, allowing the Metal Heads to storm the city. In an ironic retaliation, eco is also used for violence by powering the various weapons and gun modes that Jak uses.

Very much an Orwellian nightmare, Haven City is under control of the dictator Baron Praxis and his corrupt Krimzon Guard (KG), who rule the city through martial law. He denies the rights and liberties of his people and mistreats other intelligent races, such as the Lurkers, who are the city's low-class workforce controlled through the Krimzon Animal Control agency. Beyond the enslavement of Lurkers, there is also a clear class divide among Haven's population: districts such as the Slums and Water Slums are considered condemned as Praxis has denied them basic access to clean water, while richer districts such as the Industrial Section, Gardens, and Port use fresh water liberally as the game illustrates enormous canals and fountains in these regions. Even the ambient music in Haven is rhetorically dark and moody, with its distinctive drumming reminiscent of a marching beat that matches the walking pace of NPCs. Desperate for a way to preserve the city and life, Praxis is willing to take any action to further his war effort and avert extinction. Of particular interest to my investigation is his biological warfare efforts dubbed the "Dark Warrior Program", in which Praxis pumped human subjects full of dark eco to create super humans—which leads us to Jak getting knocked out. Jak was chosen to be part of the program and was heavily experimented on for two years before being broken out of prison by Daxter.

The city is under martial law with quarantined districts restricted to key-card access only. Booming propaganda machines are stationed in every corner of the city that portray the Baron's

messages. Armoured guards patrol in packs. Guard behaviour is very interesting as they patrol both on foot and on hover vehicles, delivering lines such as "I have suspicious activity in this sector", "please advise, suspect's description", and "roger that, we're making our sweep". In terms of dystopia, Farca explains that in particular oppressive regimes in particular, warn about the dangerous of science and technology, "centre on the universal theme of human nature's darkside," which come out in all capacities and are overcome by the "player in a process of emancipation" (115). This holds true with Jak's personality. Jak's character arc parallels the hopeless tone and rejection of nature in the game. From a wide-eyed, optimistic child, extremely loyal to his best-friend with a knack for getting into trouble, Jak becomes a super-human rage-monster with a bad attitude—and whenever he's angry, he mutates into an unstoppable, dark-eco creature¹³.

Despite being called “hero” by many characters in the game, Jak is very much a mysterious character and anti-hero. The dark eco corrupted him, making his anger issues and his ability to turn into a monstrous demon at will, noteworthy. As Jak, the player can steal vehicles—either parked or by throwing the driver out—and can assault citizens without the guards batting an eye. However, if the player commits murder, or hits a guard, Jak is immediately pursued by an armada and the city goes into full lock-down: citizens screaming, alarms blaring, and gun-turrets erupting from the ground. The blatant, disregard for civilian life is interesting as despite being an authoritative regime, Haven City advertises itself as a type of “Sin City”. Hover-bikes are advertised on billboards as "GT" models, the popular bar "Hip Hog" is advertised in neon with dancing women, bottles of liquor called "Happy Pirate", and fashion. It is an interesting juxtaposition to the guards, propaganda machines, and posters with Praxis' face

¹³ The most interesting change is that Jak is no longer mute. All those years of repressed speech make him a man of few words, but when he speaks it is always in a sneer and biting wit.

emblazoned with the word "OBEY". It behaves as a distraction tactic to the oppressive nature of the regime that references "glorious" assaults, executions, and giving up freedom for protection. It is especially interesting, considering that one of the lines delivered by the propaganda machine: "I have been informed by the ministry of extreme labour that production has been down...work harder not smarter...forced labour will set you free!" which is a direct reference to the Auschwitz slogan.

This disturbing reference to the Holocaust is not something to be taken lightly. The propaganda machines in *Jak II* are an ambient, narrative apparatuses portrayed as an environmental element that are more of a prop than interactive piece, serving to enhance the overall oppressive and violent atmosphere. When playing, unless close to the machines, the player can hear snippets of what Praxis is spewing without truly listening. Upon closer examination, the machines populate 15 minutes of unique dialogue including:

1. **Direct attacks to the player** ("Don't try to make a fool of me, Jak. Just because I haven't killed you yet doesn't mean I won't. The people of this city worship me because I offer them safety. All I ask in return is for their lives. I'll find you. And when I do, you'll wish you died in prison.");
2. **Conveying false information about the war effort** ("Pay no heed to the groundless rumours of low eco supply");
3. **Promoting surveillance culture and distrust** ("Remember even your friends could be enemies. Turn in all who subvert.");
4. **Forcing citizens to support the war effort** ("The city needs your sacrifice. It is better inside the walls...Join the Krimzon Guard and your family will be allowed to stay."); and

5. Showing dissatisfaction with citizen behaviour through the Auschwitz reference.

To compare the two side by side, the actual Auschwitz slogan, which was also used in other concentration camps, reads "*Arbeit macht frei*" in German, translating to "work sets you free" ("Arbeit macht frei"). Although *Jak II* phrases it as "forced labour will set you free" the resemblance is uncanny. What makes it even more alarming is that the player would need to listen to the machine, or spontaneously catch this fragment, and would need to possess existing knowledge of the Holocaust to understand the weight of this excerpt. No scholarly work or video game journalism has caught this wording. No articles exist that question the Naughty Dog developers about using this potential reference.

In "Nature's Healing Power, the Holocaust, and the Environmental Crisis", Eric Katz explores the Holocaust through a Judaist and ecocritical lens, trying to understand the evil of human genocide and see if it can teach us anything about the "human-induced destruction of the natural world, what is sometimes called the process of "ecocide". In his quest to understand more about the Holocaust, Katz pilgrimaged through Nazi-created death camps in Europe, only to be struck by the juxtaposition of beautiful green, unchecked growth that seems to hide the ghosts of Nazi annihilation and "demonstrates the power of Nature to reassert itself in the midst of human destruction and human evil" ("Nature's Healing Power"). Katz notes that many forget that in order to make the camps, farmlands were destroyed, and agricultural management was used by the Nazis as a way to enslave both humans and nature. Therefore, ecocide and genocide are linked by human need to dominate and are windows into how we can explore human domination over 1) other humans and 2) nature.

All surviving natural areas *in Jak II* are controlled for farming, preservation, or have been either destroyed or toxified. They have all been subject to domination, the majority under Praxis, making them akin to the civilians living in Haven. The reference therefore is not meant to be a nod toward the Holocaust, but rather, the dominating powers that led to the genocide (and arguably ecocide). This may also explain why the message was hidden in the machine itself amongst various other dialogue that boasts Praxis. Unquestionable subjugation to the regime is for *your* benefit. Praxis does not care about humanity's final stand, but rather cares about remaining in power. Lacking empathy for humans, this dominating worldview is linked to anthropocentrism. Thoroughly analyzing the formation of the anthropocentric mindset in the Renaissance, Robert Watson in "Shadows of the Renaissance" concludes that aligns itself with Katz's analysis. The establishment of a hierarchy with humans at the top allows for dark fantasies to fester where genocide and the enslavement of animals becomes completely acceptable (58). In other words, human domination sits upon a throne of anthropocentrism—which is why Praxis is obsessed with enslaving humans and animals (the Lurkers), destroying an alien—animal—race, and does not care about the environment being stripped, so long as it is stripped in his favour. This disturbing world is a complete contrast from the first game, which was open to exploration and the player was surrounded in flourishing nature.

4.3 Connecting ecocriticism with technology in Jak II

After being tortured for two years, Jak has little care about the world around him and obsesses over his vendetta against Praxis. In order to complete this goal, Jak seeks out Thorn, the leader of Haven's rebel movement called the Underground. The Underground works to thwart Praxis' efforts and overthrow him, while also keeping in mind that the war against the Metal Heads is something they cannot ignore. Thorn, advised by the elder "Shadow", gives the player

missions where they explore many parts of Haven such as the poorer Water Slums and the gentrified Arena District. Most interesting are the places that behave as nature reserves. Every time Jak has a mission outside of the city, the environment is usually barren and industrial, including ports and strip mines. A few of these outside missions showcase the environment but put the player in dark jungles where the wildlife is extremely hostile. Missions within protected nature sites include the agricultural section where Haven's citizens farm freely and walk leisurely. Two zones that require high-level security access are Haven Forest and the Mountain Temple. Both appear to be protected as sacred sites in which the forest is a refreshing break from the dark and bleak Haven city with green canopies and freshwater. The Mountain Temple is thriving with life and contains ancient Precursor relics. Haven Forest embodies nature as sacred and capable of possessing its own agency. During a cutscene where Samos is meditating, he receives a terrible vision of Praxis's master plan to stop the Metal Heads, which involves the use of an artefact: the Precursor Stone. He exclaims: "I must ask the plants vital questions about our future...The Baron is planning to destroy the Precursor stone...the energy released will be beyond comprehension! It will destroy the world and more...ending all life! The plants are crying out for protection! You must stop the Baron, Jak!" ("Act Two: Onin"). As Jak and his friends are themselves of the past and a more natural world, this scene helps solidify the anthropocentric toxicity the future has fallen into. This imbalance is strengthened by Samos being the only one capable of communicating with plant-life, which were able to give an insightful answer immediately.

This is not the only time when nature creates a haunting impact. At this point it is worth mentioning that the game deals with time travel on a more complicated scale. Yes, our protagonistic group was thrust 300 years into the future, but it turns out that Samos and Jak

themselves are *of* the future. Jak is a little boy and true heir to the throne, while the middle-aged Samos is the "Shadow" of the Underground. When completing a task for the Elder Samos, he instructs Jak to go to Samos' old hut from TPL to bring a life-seed to the Young Samos, as it will help him to fully become a green-eco sage. Samos' old hut located in "Dead Town"; a district of Haven that was ravaged by the Metal Heads during the early days of the war. The Baron activated the city's eco-grid behind the district and left everyone who could not make it behind the new wall, to die. It's a bleak moment where the player realizes that this "new world" is truly *their* world; the village where Jak and Dexter grew up eventually becomes the metropolis of Haven.

The ghosts explored in hauntology are both animate, inanimate, and even metaphysical. This include the concept of time which is a clear sign of hauntology is time as broken concept. According to Mark Fisher in "What is Hauntology", a broken sense of time is crucial as it leads to "the compulsion of nostalgia and repetition" (18-19). The sense of broken time is solidified with the games' time travelling elements that all serve to channel nature's phantom presence. Nature's whisper is heard by Samos. The nature reserves around the city remind the player not just what used to be, but what will be lost if the Metal Heads succeeds or if Praxis' rule continues. In the case of Samos' old hut, it serves as a reminder of the peaceful and happy life that Jak used to live when everything was in tune with nature. This spectral power that nature holds in the game is used as a rhetorically ambient device to set the tone of the game world.

In "Cosmic Pessimism," philosopher Eugene Thacker explores the power of pessimism, noting that "gloom is literally atmospheric, climate as much as impression, and if people are also gloomy, this is simply the by-product of an anodyne atmosphere that only incidentally involves human beings," which fits not only with the atmosphere that Haven City produces, but can be

understood by the environment (70). I believe this type of pessimism can be understood as both why a hauntology is needed and how the environment embodies it. Hauntology is a nostalgic and déjà vu device; exploring warning from unconventional sources that break down an anthropocentric model of thinking in which the human possesses the utmost wisdom. Haven is itself a gloomy city, but there is no sense of impending doom. Doom, as Thacker describes it, is "terror of temporality and death" while gloom is "the horror of a hovering stasis that is life" (70). In *Jak II*, nature is a spectre of gloom, horrified with the growing ignorance and imbalance. Gloominess is like hopelessness, as there is no promise or expectation for things to get better. It explains why Jak is more concerned with his own vendetta than hope for a brighter future. It is only as the narrative continues and he consistently returns to these natural places does he understand the importance of the world and why it is worth saving. Nonetheless, Jak remains the fickle switch for which rescue happens, which makes collective groups such as the Underground appear completely useless. It is by Jak's will alone that change happens in the last possible moment.

5.0 Analysis of FINAL FANTASY XIII

Final Fantasy XIII, developed by Square Enix, comes from a long history of apocalyptic games. Heroes of each respective game are tasked with preventing some type of doomsday-esque cataclysm, surviving in the world post-cataclysm, or, as is the case with *Final Fantasy XIV* (2014), surviving multiple calamities in their unique universe ("Final Fantasy XIV"). What sets *Final Fantasy XIII* apart is that it tackles humanity's intimately intertwined relationship with technology while inadvertently making a comment about environmental relations. As with all *Final Fantasy* games, the world-building is extremely rich, leaving the narrative convoluted. The main plot of *Final Fantasy XIII* takes place on Cocoon, an enormous settlement, roughly the size

of North America, that floats above the planet Gran Pulse as an eerie, secondary moon stuck in the stratosphere ("Cocoon (Final Fantasy XIII)"). While Cocoon is a paradise like Haven, Gran Pulse is described as hostile and full of dangerous animals which upholds Darwinian principles of survival. It's important to note that humans were not the ones to create Cocoon, but rather the fal'Cie—technologically powerful beings, essentially magical AIs, who were created by the same deity (referred to as “the maker”) that gave life to humans. Despite the obvious biological differences between humans and AIs some key facts about the fal'Cie are:

1. **fal'Cie** are immortal.
2. They are given specific purposes (which the game refers to as “focuses”) to fulfil, contrasting the free will of humans who can change their own destinies.
3. The main source of fal'Cie power is infinite if it helps them fulfill their focus. Therefore, their powers can become anything to fulfill that vision including the creation of other, lesser fal'Cie, and **L'Cie**—effectively self-aware thralls to fal'Cie will.
 - a. L'Cie are given a focus by the fal'Cie and an unknown, prescribed amount of time to complete it.
 - b. Focuses are revealed in an abstract dream. It is up to the L'Cie to figure out what it means.
 - c. L'Cie gain some magic powers that assist in completing their focus.
 - d. If they do not complete their focus, they turn into monsters called **Cie'th** and once a Cie'th loses all will to will, they will turn into fossilized **Cie'th Stones**.

Conversely, if they do complete their focus, they crystallize.

It may appear that fal'Cie and humans co-habituate the planet peacefully, and that Cocoon was created as a safe haven for humans from the terror of Gran Pulse. The motivation for its

creation was far more sinister. Centuries before the start of the main plot, the fal'Cie split into two major groups: the Sanctum fal'Cie and the Gran Pulse fal'Cie. While Pulse fal'Cie are oriented toward terraforming—altering the environment to suit the specifications of the civilization—Sanctum fal'Cie are desperate to become reunited with their maker ("Analects Datalog"). The Sanctum fal'Cie stripped Gran Pulse of its resources to create Cocoon. The Sanctum fal'Cie created the lesser fal'Cie Orphan, who was born with an anomaly of having two focuses: 1) behave as a battery for another Fal'Cie, Eden; and 2) destroy Cocoon by creating a colossally bloody sacrifice of humans and Sanctum fal'Cie to gain the maker's attention ("Fal'Cie Datalog"). To realize this ominous plan, the Sanctum Fal'Cie lured humans onto Cocoon with the sweet promise of paradise. For their trickery, the remaining humans of Pulse viewed Cocoon as a world of foul evil, while the Pulsian Fal'Cie grew hateful against the Sanctum Fal'Cie for stripping Gran Pulse of its resources. Likewise, trusting in Sanctum guidance and nurture, the next generation of humans do not remember how life on Gran Pulse truly was, viewing it as a primal hellscape. Eventually, mutual paranoia crescendoed into a major conflict between the Pulsian and Cocoonian humans known as the War of Transgression¹⁴. After the conflict, the Sanctum fal'Cie claim to have ended the war, resulting in Cocoonian humans possessing unquestionable loyalty toward the Sanctum fal'Cie, worshipping them as gods¹⁵.

5.1 Hope after catastrophe - a hero appears

The main plot begins approximately 600 years after the War of Transgression, thrusting the player into a violent conflict called "The Purge". "The Purge" began when a vestige from

¹⁴ It is unknown which party struck first, as each side blames the other, but the climax of the conflict resulted in the Pulse fal'Cie, Anima, giving a focus to two Pulsian humans, Fang and Vanille, to destroy Cocoon by turning into the beast Ragnarok, ending the conflict once and for all—unknowing of the Sanctum fal'Cie desire for exactly that. Fang succeeds by partially transforming into Ragnarok, cracking Cocoon's shell before the two turn into crystal. The Sanctum quickly used this opportunity to transport the two, along with a now slumbering Anima, secretly onto Cocoon in a vestige.

¹⁵ In the Appendix, there is a chart that gives greater details on the organization of Sanctum versus Pulsian fal'Cie.

Pulse was breached by a Cocoon citizen. The vestige contained two crystalized bodies of Pulsian humans (Fang and Vanille) and the Pulse fal'Cie Anima, who awoke when the Cocoon citizen entered and in an act of defence, turned them into a Pulsian L'Cie. According to Sanctum propaganda, the focus of all Pulsian L'Cie is "Destroy Cocoon" and are therefore considered parasitic entities: hated, shunned, feared, and earmarked to be killed on site. These qualities are transitive. Since the Sanctum did not know exactly who the Pulsian L'Cie was, Sanctum soldiers were directed by Primarch Dysley—secretly the fal'Cie Barthandelus—to quarantine the entire seaside city of Bodhum, where the Vestige lay, and begin “The Purge”. Masqueraded as a willing migration from Cocoon to Pulse, the purpose of “The Purge” was to exterminate the entire population of Bodhum, including unlucky tourists and visitors.

The player initially plays as Lightning¹⁶ and cycles through five other characters who are tied together by fate. In a turn of events, these characters are all branded by Anima as Pulsian L'Cie¹⁷ during the chaos initiated by “The Purge”. The six start a tumultuous journey of uncovering what their shared focus means, rebel against Fal'Cie order, and vow to save their home. Even when they unravel their focus is to become the beast Ragnarok and destroy Cocoon, their resolve does not waver. Refusing to fulfill their focus, the group ends up on Gran Pulse to learn more about the true history of their world, seeking answers about how to save Cocoon without becoming Cie'th. The group decides to return to Cocoon to destroy Orphan—without the use of Ragnarok—to take back their own destiny. They succeed with a terrible price. Since Orphan behaved as the battery that kept Cocoon running, the entire artificial world begins to crash—just as their focus foretold. Fang and Vanille choose to willingly become Ragnarok,

¹⁶ The unfortunate human who was turned into a L'Cie was Serah, Lightning's younger sister and although she is not mentioned in this analysis, her story connects all the playable characters in the game.

¹⁷ In the case of Fang and Vanille, re-branded.

together, and save Cocoon from destruction by transforming into a massive, magma pillar that crystalizes—upholding Cocoon and saving the world, encouraging Cocoonians to return to Gran Pulse and start anew.

Unlike *Jak II* which is an open world platformer game with ambient, environmental elements that allows players to explore the game world with ease, player agency in *Final Fantasy XIII* is extremely rigid and controlled. The only interactive objects that players can connect with are save stations. Players can interact with NPCs, and listen to idle chatter, but pressing the "talk" button does not open a dialogue option, rather, it spits out pre-developed lines before becoming obsolete. The game mostly provides information via long-winded, cinematic cutscenes. There are even special viewpoints the player can interact with (although most of the time, you cannot progress further until you do so) that offer other cutscenes. In fact, many YouTube videos exist piecing together all cutscenes in a chronological film, that average around eight hours¹⁸.

5.3 Final Fantasy XIII and eschatological anxiety

Ripe with eschatological anxiety, *Final Fantasy XIII* dystopian tropes of government and technological control, environmental destruction, loss of individualism, and survival all present. Much like Baron Praxis in *Jak II*, the trope of an authoritative and cruel regime hiding their true, egotistical agendas is present as is the use of propaganda. Much like the propaganda stations that broadcast Praxis' orders and will, there are speakers installed everywhere in Cocoon in a Big Brother-esque fashion, distributing Sanctum orders, such as justification for the extermination of Bodhum's population:

¹⁸ Examples include YouTube videos made by Gamer's Little Playground and dansg08.

“On behalf of Cocoon citizens, I would like to thank you brave Pulse pioneers and express our best wishes for a successful relocation. Your noble and selfless sacrifice ensures the continued safety and peace of our society. Were it not for this remarkable gesture, every resident of Cocoon...would be exposed to the dangers of the world below” (“Chapter 1”).

A particularly poignant image is that the cutscene portraying this announcement was juxtaposed with soldiers executing civilians. However, what is interesting is that despite centuries of anti-Pulse propaganda, Cocoonians are shockingly aware that the regime's cruel and malicious acts. For instance, during the first chapter of the game, Lightning comments: "Better to die than get sent to Pulse. It's hell without the brimstone," to which Sazh, another playable character, responds "yeah, well hell's not sounding too bad. 'Cause this place ain't exactly paradise" (“Chapter 1”). This anti-Pulsian paradigm continues in the game. At one point in Chapter 8, a civilian remarked, "they're all infected by Pulse, or something anyway...". This poignant image of disease in relation to Pulse, a natural and overgrown environment, can be better understood through a postcolonial, ecocritical lens. In "Cholera, Kipling, and Tropical India" Upamanyu Pablo Mukherjee notes that the imperial use of describing colonies as a "permanently diseased environment enabled the casting of tropical (human and nonhuman) imperial "subjects" as malformed, underdeveloped, and incapable of moral, material, or intellectual progress" (80). Therefore, successful propaganda heavily hinges on not just dehumanizing rhetoric and “othering” of humans and severing a connection with the environment. The Sanctum has othered not just Gran Pulse in its entire capacity, but all things "natural" including plant and animal life on Cocoon.

There are no wild animals on Cocoon and dangerous breeds, such as the cat-like pantherons and behemoths, have been domesticated by Cocoon's military to be used as instruments of war. Even massive mechanical war machines resemble animals in structure—the Manasvin Warmech resembles an enormous scorpion, with electrical chainsaw blades instead of pincers. Another curiosity is that the particular pantheron and behemoth species on Cocoon all have the prefix "proto". Even artificial environments in the game, such as the Gapra Whitewood, used by the military for bio-weapon research, is described as a "proto-ecology plant" that contains feral creatures and military-breeds that are extremely violent. Proto as a prefix connotes "earliest, original; at an early stage of development, primitive" ("Proto"). I am more inclined to believe that the use of proto- as a prefix is meant to associate all things natural as primitive and, as Mukherjee notes with disease, unable to "intellectually progress". Ecological environments that are not corrupt for military means do not fare better on Cocoon. The nature reserve, Sunleth Waterscape, is off-limits to civilians and is visited by Sanctum officials engaged in field studies, who manipulate the environment with climate-controlled mechanisms, ironically powered by a Sanctum Fal'Cie ("Chapter 6"). In fact, even agriculture is under fal'Cie control and their food growth centre, that deals with all farming and agriculture, is called "automated nutriculture". Framing Pulse as disease ridden puts the Sanctum in an interesting position where they are reinforcing an anthropocentric paradigm, but also promoting this mindset that human safety can only be achieved via technology. The environment is something that needs to be carefully controlled for it to benefit humans in all capacities. After travelling through all these places, Lightning makes an interesting observation: "We've relied on them [the Fal'Cie] our whole lives. The food we eat, the light and water" ("Chapter 7").

Although *Jak II* was set in a technologically advanced future, there was little emphasis on the use of that technology beside aggressive expansion of cars and weaponry. Technology was portrayed as something that enhanced darker, human intention and enhanced government surveillance. The most marvelous technological capabilities in *Final Fantasy XIII* are all tied back to the fal'Cie, which, without magic, very much represent our contemporary understanding of AI along with our greatest anxieties surrounding it: human obsolescence (Sims, 8). This sense of obsolescence stems from anthropocentric worldviews that dominate modern culture, in which "by imbuing AIs with divinity [such as the Fal'Cie], they seem to be in a position above humanity" and therefore, are a threat to human superiority (228). In essence, this results in humans fearing that anything non-human will begin to treat us just as we treat them, "as resources to be mastered and exploited" which is how L'Cie are treated (10). When a human is branded as a L'Cie, they are a tool of Fal'Cie desire and whim; completing tasks that they would otherwise be unable to do. When they fulfill their focus, they outlive their usefulness and are cast away by either turning into Cie'th or crystal. What is interesting in this comparison is that the fal'Cie continue to enslave fauna and flora just as humans do; a technocentric ontology has the same hierarchy as an anthropocentric one: nature and animals always lose. This metacommentary of our treatment and reverence of technology emphasizes a need for a holistic ontology where nature, technology, and humanity live in balance.

If Cocoon represents a mistreatment of the environment, enslaving fauna and flora for destructive means, as well as the dangerous reliance of technology, then Gran Pulse represents the opposite, right? Not quite. Although *Final Fantasy XIII* appears to function as *prope mortem*, it actually represents both *post* and *prope mortem*. When the group arrives at Gran Pulse, they come to a horrific realization that despite the vast, untamed beauty and unhinged nature of the

planet, the human race has been annihilated, those who survived remaining as Cie'th and Cie'th stones. The only proof of human civilization are overgrown ruins that are reminiscent of current architecture and technological achievements. It is at this time that Fang notes that the mentalities of Cocoonians and Pulsians are not that different. Both worlds feared and hated each other and while Cocoon was more entrapped in technological advancements, the relationship humans on Gran Pulse had with nature was not better. Vanille describes the planet as "a world wild and fragile, vibrant and untamed. It's a place ruled by the brutal struggle for survival and the callous and uncaring whim of the fal'Cie. There is no such thing as mercy." ("Chapter 11").

5.4 Tying it all up: technology meets environmentalism meets hope

While technology and the restriction of nature resulted in the *prope mortem* apocalypse that is the game's main plot on Cocoon, the fear of the environment and interacting with it in Darwinian and Draconian mentalities is what presumably caused the apocalypse for the Pulsian humans. Furthermore, the apocalypse that ravaged Pulse is understood within an anthropocentric context, as life amongst fauna and flora continued. The group's arrival and enlightenment on Gran Pulse is a return to the natural encapsulated in the hauntological. Clues and fragments of the past are discovered by interacting with Cie'th stones and the entire world is a ghost from the past and the present; showcasing what has happened and what could happen to Cocoon. An important condition for the hauntological, according to Derrida, is the power of mourning. Mourning, following a trauma, channels qualities that are either an introjection or incorporation (121). Usually understood from a psychoanalytical point of view, hauntological mourning is associated with a specific spectre that does not necessarily bring messages from the past or future to inform the present, rather it deals with generational trauma. Colin Davis in "Hauntology, Spectres and Phantoms" identifies this specific spectre as a *phantom*, noting that "the phantom is

a liar; its effects are designed to mislead the haunted subject and to ensure that its secrets remains shrouded in mystery," which means that it is up to the present to not only uncover, but to decode the message (374). When looking at the propaganda of both Gran Pulse and Cocoon, it very much resembles the *phantom* and secretive generational trauma that Davis expresses. Both governments lied to their civilians about the real reason Cocoon was formed for centuries. Now, they must understand the full extent of the damage and how to make impactful change to stop the impending apocalypse orchestrated by the fal'Cie.

By exploring Gran Pulse, the L'Cie group must work through centuries of prejudice and mutual toxicity toward the other; understanding their co-dependence of Cocoonian fal'Cie and the fearful worship of Pulsian fal'Cie to rally hope and re-scale balance between humans-technology-environment. The group must confront the deep-seeded anthropocentrism of both societies that allowed for these apocalyptic scenarios to happen and have as much a metaphorical return to the natural, as a physical one. Ideologically, anthropocentric worldviews came to fruition via Christianity. Gillian Rudd analyzes what is potentially, a crucial point in medieval history when this could have happened in the chivalric romance *Sir Gaiwan and the Green Knight* in "Being Green in Late Medieval English Literature". Although the colour green connotated the Green Knight, Rudd argues it represents the environment. Green is associated with Celtic paganism, mysticism, and the fantastical and merged with Christian Hell (34). Tales like *Sir Gaiwan and the Green Knight* and others started formulating the Christian versus Pagan paradigm which inadvertently bled into a human versus nature divide (36). This exploded in the renaissance, when ideas of "the human species [was] characterized by its unique resistances to nature as well as its unique modes of self-consciousness," (Watson, 40). This binary was mediated when "haunted by fears of becoming...permeable to forces alien and adversarial to the

self, or sealed off from the sustaining sources of life," (40). Gran Pulse receives similar treatment.

Exploding with plant life, Gran Pulse seems beautiful, but the humans fell into the other side of the extreme, where Darwinian mentality alienated nature in another way, eventually contributing to human extinction. Through Gran Pulse and a return to the natural, the l'Cie realize what nature and freedom are physically, as well as metaphorically within themselves. It is here that they decide to end the cycle of fal'Cie order without destroying Cocoon. This manifestation of resolve, rekindling balance between themselves and the environment, is reflected through the increase in player agency—a nice break from the rigid, linear plot that often feels like pulling teeth. It is also during this time that the group decides to work together, so that none of them are alone in their struggles as l'Cie. Their power to create change starts off as individually finding hope, before collectively channeling that hopeful energy against a complicated issue.

6.0 Analysis of *HORIZON ZERO DAWN*

Horizon Zero Dawn (HZD) stands apart from *Jak II* and *Final Fantasy XIII* in that it is an entirely new world and story that does not build upon pre-existing world-building elements. It functions as an action-adventure, open-world, role-playing game with the additions of extensive world building and player-guided exposition. There are hundreds of side quests that can be completed whenever the player likes, granted that their player level permits it. Although there is a main plot, it does not need to be adhered to strictly and completing certain side quests may even impact the main story line. Due to this apex of open-world concepts, players are free-roaming agents with virtually no restrictions to their decision-making choices. As with *Final*

Fantasy XIII the narrative is dense, but not as complicated as it has fewer moving pieces and mythological elements that directly impact the story.

HZD starts in the 31st century and revolves around Aloy, a witty huntress cast out by the Nora tribe at birth as she tries to uncover her past as well as the past of the "Old Ones" and why their civilization, "The Metal World", ended. Aloy's greatest motivating factor is discovering who her mother was and why she was abandoned. The Nora tribe functions as a matriarchal government, with deep reverence to the powerful, nurturing nature of mothers. As Aloy was without a mother, she was discriminated against, especially as she was raised by another outcast, her father-figure, Rost. As all Nora, Rost taught Aloy to live off the land, the laws of the Nora people, and how to fend for herself—especially against machines. More aligned with *Final Fantasy XIII*, *HZD* features both mechanical animals as well as regular fauna. Both these animals are hunted for resources in which animals provide food, furs, and bones while machines provide metal shards for weapons, wires, and lenses. Much like Jak, Aloy's major motivating factor at the start of the series is revenge, after she was targeted by a cult known as the Eclipse and Rost was murdered in an attempt to save her. In her quest to understand why she was targeted, Aloy begins to uncover the secrets of the Old Ones and the horrifying reality that life on Earth had been completely exterminated.

Throughout the game, the player is simultaneously absorbing two parallel plots: 1) What happened in the 21st century and why did life miraculously continue? And; 2) Aloy presently hunting down the Eclipse, uncovering their deluded plan that will exterminate all life, and working frantically to stop it. The major difference between our real-world and the 21st century world of *HZD* is unchecked consumption, unchallenged powers of corporations, and a degrading

climate¹⁹, which climaxed when corporations gained the power of nations, often waging war with one another over resources with robotic war fleets. By 2060, one of the most powerful corporations was Faro Automated Solutions (FAS) owned by CEO Ted Faro who controlled 60% of global market shares. FAS' reputation sky-rocketed during the Climate Crisis of the 2040s where, with lead scientist Dr. Elisabet Sobeck, they produced climate-detoxifying robots that contributed to averting the crisis. Faro's next decision to shift to military machines led to unethical business practices such as pitting clients against one another, discreetly encouraging and instigating conflicts ("Re: Complaint"), and Dr. Sobeck's immediate resignation. This shift meant the design and creation of the "Chariot Line" of "peacekeeper" robots with the ability to:

- Self-replicate,
- Enslave enemy central processing units to their network (hack other machines),
- Convert biomass as fuel in emergency situations,
- Resist all forms of hacking through advanced encryption technology called "Polyphasic Entangled Waveforms."

The Chariot line eventually glitched, refusing to acknowledge stand-down codes and would self-replicate monstrously consuming biomass as their main fuel source spawning the **Faro Plague**. Noticed too late, and at the rate of the robots self-replicating and consuming biomass, the glitch meant Earth was projected to be stripped barren in 15 months leading to mass extermination ("Record: 1 Nov 2064"). This led Faro to contacting Dr. Sobeck, who proposed to

¹⁹ Examples include: 1) colonizing the moon to strip it of resources ("Leaks Sparks Fear"); 2) humans becoming obsolete in favour of robotic war fleets; 3) the Climate Crisis of the 2040s, where catastrophic tidal waves incited incidents such as the Great-Die-Off and robots were created to detoxify the Earth ("Refugee Opens Museum"); and the climate intervention AI VAST SILVER went rogue after being deployed into the atmosphere ("Turing Act Criticized"). Finally, the colony spaceship named "Odyssey" was created for the rich to escape the climate catastrophes, but also contained "200,000 zygotes in cryo-storage" ("Odyssey Injustice?").

create and implement **Project: Horizon Zero Dawn**. The end of the world was inevitable. The problem was not destroying the robots, but their unprecedented self-replication. Anticipating "Zero Dawn"—the end of the world—Dr. Sobeck planned for life to thrive after the inevitable would happen with a "super intelligent, fully automated terraforming system [that would] bring life back from lifelessness" ("The Good News"). The core of this system would be a true AI that would be fully sentient and capable of making "trillions of decisions necessary to reconstitute the biosphere" that Dr. Sobeck named GAIA²⁰. GAIA, along with her subordinate functions, ultimately succeeded. They cracked the code that shut-down the Faro Plague 50 years after Zero Dawn, created machines in the image of animals that would terraform and detoxify the Earth, and eventually reintroduce fauna, flora, and humans, repopulating the Earth with life in the late 30th and early 31st centuries.

Like *Final Fantasy XIII*, the game is both *prope* and *post mortem* as the apocalypse and worst case scenario did happen—all life on Earth was destroyed. Aloy eventually uncovers that an event known as "The Derangement," which happened the year of Aloy's birth, was a rogue signal severing GAIA's connection with her subordinate functions, causing them to become independent AIs. For instance, the function HEPHAESTUS, in-charge of producing the terraforming machines, began to make them more aggressive to combat human hunting while HADES began to communicate with the Eclipse and posed as a shadow god. With the Eclipse's help, HADES began to raise the Faro robots and planned to fulfill its function of reversing all terraforming efforts and reducing Earth back to a lifeless sphere.

²⁰ GAIA references The Gaia hypothesis "also known as Gaia theory or Gaia principle, proposes that all organisms and their inorganic surroundings on Earth are closely integrated to form a single and self-regulating complex system, maintaining the conditions for life on the planet" ("Gaia Hypothesis").

The hauntological elements are very pronounced in *HZD*. Perhaps the most central motif is the environmental storytelling technique of discovering textual, audio, and holographic data points scattered throughout the world; especially present in old ruins. These images can only be viewed via the Focus device²¹. Aloy, one of the few who use the Focus, found it as a child when she fell into some old ruins. It is through these data points that the player uncovers the parallel narrative of what the world looked like before the apocalypse, how Dr. Sobeck was able to revive life on Earth post crisis, the details of the Horizon Zero Dawn project (including positives and negatives), and how life was able to continue. In particular, the holographic data points literally appear as apparitions or ghosts. The ruins Aloy first fell into happened to be a bunker, littered with countless dead bodies²². Derrida encourages us to view ghosts not necessarily as spirits of the dead, but as anything that "points towards a thinking of the event that necessarily exceeds a binary or dialectic logic, the logic that distinguishes or opposes effectively or actuality," which can help strengthen our understanding of these holographic spectres as participating in a dialectic with Aloy, teaching her about the successes and failures of the previous world (78). More importantly, it teaches her the importance of not repeating their mistakes. Other hauntological theorists such as Colin Davis say that we should not bring our biases toward the messages spectres share, as some do not "reveal [something] secret, shameful or otherwise" but rather, "[bring] an essential unknowing which underlies and may undermine

²¹ An augmented reality (AR) device worn by humans on their upper ear. These multipurpose sensory interfaces that display 3D-holographic visuals only visible to the user; scan items to show weakness, components, and how they operate—which also allows for assistance in operating and repairing machinery and technology. It is also used for all communications including texting, calling, holographic conversations, and email. They were created by FAS.

²² Eerily, when Aloy finds and activates the focus device, holographic images appear directly above the bodies; final recordings to loved ones, fervent prayers, and implications of mass suicide acted out. Ironically, the game does hint at virtual ghosts in the datapoint "Holo-Haunting" that states "paranormal research community remains intransigent...with the simple fact that virtual spaces are as easily occupied by the spirits of the restless dead as physical spaces".

what we think we know" (377). Although the holographic, audio, and textual data points are explicit world building elements and warnings, a more ambient spectre are the Vantage Points.

Considered a collectible, Vantage Points are the audio diaries of Bashar Mati, paired with holographic images that show how specific ruins looked in their prime. These shared stories fall into the genre of memoir writing: slices of life and experiences that give a greater insight into how life was like and what people felt during the apocalypse, or as Mati calls it, the "Apocashitstorm Tour". We are not meant to judge Mati's life as he talks about being a troubled youth, falling into drugs and hating his rich father. Rather, it assists in defamiliarizing knowledge the player has already gained, undermining what we know, as Davis puts it. Before the player begins to uncover these data points, they are told that the Old Ones' civilization failed after living a life of sin and for worshipping the Metal Devils (War Chief Sona). As the narrative progresses and more spectres are discovered, that knowledge is subverted and contrasts the clinical way the other data points portray the apocalypse from a scientific perspective and the hope of Horizon Zero Dawn, hidden from the general population.

6.1 Nature meets technology

Part of understanding the role of technology and nature in the game, which is far more intertwined than in *Jak II* or *Final Fantasy XIII*, is to realize that while the 21st century is extremely technologically advanced, it completely severed its connection with nature and degraded the climate. While the 31st century may not be as technologically advanced, they approach technology from a place of respect; something Rost teaches Aloy from a young age. Furthermore, the human tribes have a more holistic view of the relationships between nature, machines, and humans. The most explicit example is in the Nora's monotheistic religion, in which they believe that the All-Mother gave birth to humans, animals, and machines. This is a

direct counterpoint to anthropocentric world-views that view this relationship as a hierarchy where humans are the apex predator. The complete antithesis of the 21st century, much of the success of the 31st century and technological marvels that saved the world are thanks to GAIA. It was not the team's decision for the terraforming robots to resemble actual animals, but rather, it was GAIA's and this nurturing nature trickled through to the tribes, as All-Mother is how the Nora understand GAIA and her caring nature. This brings an interesting consideration that the other two games barely brush open.

The reality is that technology, nature, and humans will always be connected, but in order for the relationship to be mutually beneficial, humans need to seriously (re)consider our relationship to both. For instance, GAIA became naturally curious, nurturing, and altruistic because Dr. Sobeck continually taught her these things, spoke to her as if she was sentient, and validated her opinions. While Dr. Sobeck was in charge and personally developed GAIA, she hand-selected an interdisciplinary team to work on developing GAIA's subordinate functions. One of these workers was Travis Tate who worked on the function HADES—a failsafe so that if GAIA's terraforming efforts resulted in a planet unsuitable in sustaining life, HADES would reverse the Earth back to its destitute form. This decision was made only because of the history of AI's going rogue including VAST SILVER and the Faro robots.

Tate was eccentric, talented, loved to tease, and unnerve his fellow programmers on the Horizon Zero Dawn project. His favourite things included death metal, horror/torture films, and porn. Despite this, along with a criminal background, Tate was not inherently evil and proved to be extremely compassionate toward his fellow co-workers during the impending apocalypse. I can only assume that his relationship with HADES was clinical and the AI did not learn anything beyond its programmed nature. During The Derangement, it is implied that HADES, finally

gaining its own autonomy, wanted to complete its function. By unknown means, it was able to communicate and manipulate the Eclipse through the focus device and taught them how to revive the Faro Plague. HADES manifests humanity's greatest fears of an AI takeover as it does not just want to be above humans, nature, and animals but rather desires their extermination. As Sims explains it, what makes this fear of technology, and in particular AI, so ominous, is that "technology changes our lives so frequently and profoundly, and we do not stop to think about the nature of things or the nature of change" (10). Tate probably did not think of social impact or the nature of things—just like Ted Faro did not think through the nature of killer robots that could self-replicate and consume biomass. As one of his top roboticists, Brad Andac explained in a datapoint where he was seeking counseling: "There were no limits. Oh, God, there were no limits," ("Interview: Brad Andac"). Tate's story also tells a valuable lesson of how easily interpretations can be misconstrued by miscommunications. Very much a sassy death metalist, Tate at one-point jokes that HADES is "the ultimate killer app...extinction on demand". For an AI that is as fragile as a new-born and does not have the same level of language acquisition as humans, this humour can be lost in translation as HADES takes its function extremely seriously.

The return to the natural in *HZD* is therefore the entire game itself. It functions as a rekindling of balance between technology, nature, and humanity after the Faro Plague. *Jak II* and *Final Fantasy XIII* treat the return to the natural more as a meditative retreat without the use of technology and a reclaiming of the "primitive" in which nature is recognized as a force and energy worthy of respect. *HZD* takes a different route. Although the game showcases a new-humanity in the new world that is still learning much about itself and the lost, dark history of the planet, it does not shun technology and proves, with other clans like the Oseram, that humans

have a natural affinity to tinker and create; extending ourselves through technology to better our lives. In the opening scene when Aloy first discovered the focus, it's ironically found on a body where a patch of sunlight has broken through. Although Aloy is frightened, the moment she puts it on she exclaims "lights—everywhere!" almost as if she has been metaphorically enlightened ("A Gift from the Past"). Furthermore, without her focus, she would have never been able to learn about the 21st century, Project: Horizon Zero Dawn, and how to stop HADES, not to mention that the technology that was used to destroy the Earth, was also used to create GAIA and revive it. Technology and nature are not only "respected" but are worthy of forming relationships as shown with GAIA. No matter how much knowledge Aloy gains or who she shares it with, there is never a change in her holistic perception. As much as she destroys machines, she can also program them to cooperate with her, repairs them, and even receives data points from machines as if they are speaking to her²³.

This return to the natural clearly lacks of anthropocentrism and contains a very strong ecofeminist tone²⁴. Not only do most tribes treat men and women equally, the only obviously patriarchal society are the Carja clan, and even they are changing their ways as the old regime has been overthrown—the remaining loyalists forming the Eclipse cult are actively shunned by all tribes. This natural world is associated with female characteristics such as Nora villages named Mother's Crown or Mother's Heart, while a valley is named Mother's Womb. Meanwhile, all things of the Metal World are distinctly masculine and devilish as ruins are named Devil's Grief, Devil's Thirst, etc. Even GAIA's voice is in a traditionally feminine register contrasting

²³ The most fascinating of these dialogues are Metal Flowers, a collectible that Aloy calls a "new growth" as it is not of the past. When the player collects these flowers, they receive a data log of coded poetry that ranges from Japanese haikus, Arabic poetry, to British authors.

²⁴ Despite being a "human above all" ideology, anthropocentrism does have ties to patriarchy and "the relationship between anthropocentrism and patriarchy, as proposed by Keller & Golley (2000, p. 6), is that they are both 'validated by the same conceptual logic', i.e. anthropocentrism and patriarchy encourage dominion over women and nature where they are disregarded in some decisions and negatively affected" ("Environmental Ethics").

the masculine HADES. As the spectre of subversion unteaches, such as with Vantage Points, so too does this subvert an anthropocentric concept. Earlier, I explored how during the Renaissance, nature was associated as something pagan and hellish. In *HZD*, it is now nature that is revered and has undergone a process of deification to reclaim a nourishing worldview that is not destructive to any party involved.

While *Jak II* which features the lone hero, or *Final Fantasy XIII* which is a collective of heroes, *HZD* offers both solutions which are completely dependent on how many side quests the player has finished and how they react toward NPCs. Most of the time, helping out NPCs results in them rallying with you in the Carja capital city Meridian to defend the Spire, an enormous metal broadcast tower²⁵ turned religious site, against the forces of HADES. However, simply completing a quest does not guarantee that you automatically gain an ally. Aloy is soft-spoken and compassionate, but players can choose if her dialogue is more aggressive, strategic, or compassionate. Nonetheless, if the player chooses to focus on the strategic and compassionate nature, more NPCs will be persuaded into joining Aloy, while aggressive responses can turn them away. In the quest “Cause for Concern - Farewell” Aloy can choose to spare or kill Nil, an ex-soldier who assists the player in clearing out bandit hideouts. The trick is, Nil asks to fight to the death, as he is obsessed with bloodshed and feels he has outlived his purpose. Sparing him is not just an act of mercy, Aloy shows him that his life does have meaning beyond being a trained killer. Another interesting side storyline is the Hunter’s Lodge in which Aloy becomes Talanah’s “thrush” (apprentice). Although the Hunter’s Lodge mostly acts as an insider club for the fiercest hunters, Talanah shows Aloy that hunting is not just for trophies but to help those who are not skilled at fighting off machines, which at times behave as deadly pest problems. Working against

²⁵ These broadcast towers were used by GAIA’s subordinate function MINERVA to hack the swarm’s network and channel stand-down codes. GAIA could not detoxify and repopulate life on Earth until the Faro Plague was stopped.

the current leader of the Hunter's Lodge, Ahsis, who's pride and egocentrism lead to his death, this quest series shows that collective action, teamwork, and humbleness are the most important ingredients to giving others hope and creating tangible change.

7.0 Discussion

So, why focus on hope? The definition of hope is far from cookie cutter and as the Oxford English Dictionary (OED) reveals, is a convoluted mode of thought. At its core, hope is the “expectation of something desired...combined with expectation” that behaves as a promise for the future (“Hope”)²⁶. We *hope* that technology will help humanity and not cause its downfall; we *hope* that the climate crises will not destroy the Earth; we (well, some of us) *hope* that humans will smarten up before they manifest their own doom (although Romeo and Juliet certainly did not). This final explanation provided by the OED implies that anything which is not considered a “hope”, or hopeful, has historically been equated to hell—which may explain why hope is viewed more so as a positive word than ironic or spiteful, as hell's antithesis is heaven (salvation and deliverance). When it comes to these apocalyptic video games, hope manifests in completely different ways but all tend to lean toward this positive variant.

7.1 Hope as the return to the natural

In *Jak II*, the Underground appears to be the core group committed to fighting against Praxis. However, Jak is their main gun and a key-player for major events to truly drive the operation forward. Until Jak finds out about his younger time-twin, he does not express interest in saving the world. At one point this motivates Torn to comment "never part of a bigger cause,

²⁶ Hope has historically been personified as one of the heavenly Graces that can spark a “feeling of trust or confidence” in a person, object, or event. It is described as “Ground of hope; promise. Frequently in negative in not a hope (hell)” (“Hope”). In a modern sense, hope has a positive connotation in that the promise, and expectation, is something positive to the current state.

eh Jak? Never mind. I'll take your help any way I can get it" ("Act Two: Torn"). Due to Jak's lack of loyalty, the Underground treat him more as an asset than part of the movement. Jak is a kind of feral hope and wild card, especially when the uncontrollable dark eco erupts and turns him into a monstrous creature, not to mention the messianic undertones as it turns out he was heir to the throne. It may appear as if the hope manifested in *Jak II* is a selfish type of hope, feeding into anthropocentrism as Jak only cares when it affects him directly. Due to his lone-wolf nature, it may also give in to the dangerous idea that humans need a hero; someone to do the grunt work and lead a group of some-what incapable lackies to victory but is also God-like: untouchable and a force never to be reckoned with. And yet, because his actions are so unbeatable, Jak has become a symbol of hope amongst Haven's citizens who are tired of the Baron's tyrannical rule. This even prompted mob boss Krew to say "you've become a symbol to those townies. They'll bet anything on a glimmer of hope" ("Act Two: Krew").

Greg Garrard in "Ferality Tales" describes ferality as a subversive force as "domestication [can be understood as] the earliest form of oppressive "bio-power" which seeks to minimize or eliminate animal agency all together" (224). Nationalism, as he further describes it, has always thrived on anthropocentric rhetoric and triumph over ecology, and in a way, this is exactly what Baron Praxis does. The rhetorical gloominess of Haven showcases human over human domination, while the dwindling and scarce natural areas show the incomplete domination of nature. Eco represents the remaining gap. As eco is being ravenously stripped as a resource, most of it powering weapons, he has no choice but to turn his attention to dark eco—uncontrollable and untamed; true environmental power that refuses to yield to human aggression. By torturing Jak and fusing him with dark eco, Praxis was hoping to domesticate the final frontier of ecology and create a super soldier. Jak does not only bite back at the master and

escape, but also learns to control his dark powers. Jak becomes the binary between human and non-human; showing that both can thrive together, and that the environment is only hostile if we treat it as such.

This feral manifestation of hope, via Jak, is further strengthened through the trope of a return to the natural. If hope is an expectation of something yet to come, and better than the current state of things, then overthrowing Praxis is the expectation set by the Underground and Haven's citizens. How that expectation is fulfilled, is by the natural making a reclamation. Beyond Jak's binary position between worlds, the degraded and preserved environments call back to a time that was untainted with this mode of thought. Even regarding the plot, after the defeat of the Metal Head leader, Young Jak is sent back into the past to be raised in *TPL*'s world to preserve his safety and purity. Nonetheless, despite this overwhelming naturalism that produces hope, this does not disregard the hopelessness throughout the series and that Jak is still a single entity to bring it to fruition. This is a dangerous image that citizens banding together cannot make legitimate change happen. They need a "hero", or all their efforts are thwarted as not even the Underground are capable of making a dent until Jak arrives. This image of hero-figures is mirrored in *Final Fantasy XIII* and *HZD*. The result of these apocalyptic scenarios and the hero(s)' intervention brings, results in a return to the natural. Hope is the return to the natural that usurps the current, broken, system. It enables nature regaining its "ferality", ethically equalizing technology, and human supremacy dismantled. If these three conditions are not balanced, the cycle of alienation repeats. Humankind learns to live in harmony by respecting both technology and nature. Returning to the natural is in these games, therefore, about reclaiming balance and providing as a cautionary tale that the greater the divide, the closer we are to the apocalypse.

7.2 *Hope, the hero, and prope mortem*

As this MRP explores, the thread that pulls this wicked problem together is anthropocentrism, which *Jak II* and *HZD* continue to perpetuate. What these apocalyptic video games point toward is the tension of human domination nestled between themes of dystopia, abuse of the environment, and monstrous technological consumption. Despite *HZD* focusing on how the world post apocalypse is more unified and less anthropocentric, the overall meta-commentary still focuses on the messianism of Dr. Sobeck reincarnated (quite literally) in Aloy to stop the apocalypse—again. In this regard, *Final Fantasy XIII* is very different in that the heroic group is exactly that—a group—and the narrative developed slowly to prove that each of them were necessary as there is strength in numbers. Although player perspective is limited toward the characters they control, the civil war Barthendelus instigated was not only because of his manipulation. Many of the civilians, especially after the Purge, were upset with fal'Cie rule. Nonetheless, Lightning and her friends are still heroes and so all these narratives support “hope [which has] devolved into a puffed-up stance of anticipatory entitlement, as if good things will just naturally come to those with an optative frame of mind” (McMurry 78). In no way is this analysis insinuating that video games are slowly responsible for our passivity toward actively fighting against the climate crisis and technological paranoia. Rather, it is a window to showing the possibility of why society continues to sit back as these wicked problems continue to grow. Discussing pulp magazine, Scott McCracken notes that consumers, like media, can be molded into “our fantasies and desires ... [as we are] squashy and shapeless” (14). If our desire is to be saved, it will be reflected in the media we consume.

Hope, in these games, manifests in the hero. Containing the spectre of messianism, due to the anthropocentric world we live in, it promises that the hero will come and fix all wicked problems that are far too complicated for society to tackle. It is found *prope mortem* due to:

1. Belief that the messiah will come—so there is no point in doing anything drastic ourselves.

Despite focusing more on hope manifesting collective action, I want to acknowledge that this need for a hero trope is not lost in *Final Fantasy XIII*. Snow, one of the playable characters who suffers a hero-complex often comments “these people need heroes” which aligns itself with *Jak II*'s meta-commentary that the average human cannot make concrete change. The *Final Fantasy XIII* group was unable to achieve the impossible until they were gifted power beyond their comprehension. The final action is relatively fast paced, followed by a gruelling narrative build-up and is mirrored by the amount of agency the player possesses. An important aspect of this slow burn plot is that each playable character had to overcome their own internal struggles, misunderstandings, and biases before being able to trust in the collective which crescendo on Gran Place, where the player is able to choose the character they control and the battle teams. They can discover viewpoints that unlock small cutscenes and explore as much as they like without consequence beyond going against incredibly powerful foes. This is also the area that contains Cie'th stones which provide side quests and analects of the history and mythology. Mark Fisher in "What is Hauntology" notes that although hauntology can manifest in nostalgia and déjà vu, we must also consider the virtual agency of the dead (21). In this way, Gran Pulse as an environment haunts through generational trauma while Cie'th stones are more of a traditional hauntological element: communicate with ghosts. Ghosts of the past sharing their story and struggles as l'Cie that not only facilitate understanding but resonate with the protagonists as déjà

vu to their own emotions and experiences. Another interesting aspect of player agency is the ability to avoid battles. The battle system in *Final Fantasy XIII* is complex and difficult; relying on a slow grind to level up and choose battle "paradigms"—strategies that assign specific character classes. On Cocoon, although possible in some instances, most battles cannot be avoided. This battle system is metaphorically reminiscent that real change takes time and the game, especially upon arrival to Gran Pulse, will force players to slow down and explore²⁷. Unlike Jak, who solely represents hope manifested in a martyr-like, rogue hero and finds hope *prope mortem*, *Final Fantasy XIII* is a group of heroes that also find hope *prope mortem*. Hope is portrayed not as a single entity, but a true collective effort that takes time. The group had to work together to defeat Orphan and save Cocoon and finally, when Cocoon begins to crash to the ground without its central battery working, both Vanille and Fang become Ragnarok to physically hold up Cocoon, before crystallizing into an enormous pillar; signalling that they had successfully completed their focus. The game suggests that hope must first come from within before being channelled outward as Vanille comments “we held the light of hope in our hearts, and achieved the impossible,” (“Chapter 13”).

2. The complex and seemingly unending wicked problems of the apocalyptic scenarios.

Hope, according to *Final Fantasy XIII*, is something an individual must find within themselves to achieve the impossible; share with others to create a group while *Jak II* focuses on the lone hero. *HZD* appears to be the middle-ground between the two. When The Derangement

²⁷ The quests that the Cie'th stones give out are focuses that they were unable to complete as l'Cie and completing their focus will save the Cie'th and they will reward with you the an alect about the mythology and history of the Final Fantasy XIII game world ("History and Myth Datalog"). An interesting point is that the player is unable to complete all the Cie'th side quests during the main plot of the game, where their base level is far too low. After defeating Orphan, the player can return to Pulse and roam freely, as if total player agency is achieved only after the characters fully break away from the shackles of Cocoon and freely think for themselves.

happened, in a last futile hope GAIA used Dr. Sobeck's stored DNA samples to create Aloy. As the literal clone of Dr. Sobeck, GAIA hoped she would embody her "mother's" natural curiosity and compassion, while also being able to access all the Horizon Zero Dawn facilities that require her unique genetic signature as a key. Along with being an extraordinary hunter, Aloy is the same messianic, lone hero that Jak is—her revenge at the forefront before realizing that she must save the world. Unlike Jak, who stays in Haven and has future adventures with his friend group, Aloy is a wanderer who does not stay in one place for too long. Despite this, her compassion for others and the ability to teach the player that there is a pay-off to morality, shows that a true collective effort is also needed to manifest hope and stop wicked problems—especially when taking into considering the parallel narrative of Project Horizon Zero Dawn. Against impossible odds where extinction was inevitable, Dr. Sobeck brought together an interdisciplinary team that worked together for a gruelling 15 months to create GAIA so that life could begin anew after Zero Dawn—but she also becomes the lone hero, not just for creating and leading the project, but also in the finale. When a door glitches and refused to close properly, allowing for their energy signal to be discovered by Faro Plague robots, Dr. Sobeck took it upon herself to put on an environmental suit and sealed the door from the outside, meaning she could not return to the safety of the bunker and had to fend for herself in a degraded climate and the Faro Plague swarm. She sacrificed herself so that the rest could continue to work on the project. As Aloy put it: "While her people bickered, she was the one who took responsibility. The only one that could" ("The Mountain that Fell").

3. The apocalypse generates hopeless scenarios that break a few individuals out of perpetual, pessimistic gloom. It shakes them out of the belief that a hero will come to stop the problem themselves.

Derrida makes an interesting comment on messianism in correlation to Marx's legacy in which "we believe that this messianic remains an *ineffaceable mark*...doubtless of *inheriting*, of the experience of inheritance in general" (33), which as Daniel Punday explains, is Derrida's way of escaping the "temptation of memory" ("Derrida and the World"). Dr. Sobeck's memory is a spectre that is both concrete and conceptual, as all spectres are ambiguous ("Derrida and the World"). The belief of a hero (or messiah) manifesting in the last second is also a trope birthed into anthropocentric modes of thought. In her chapter "Beyond Humanity's End" in *Future Ethics*, Celia Deane-Drummond states that part of the promise of Christianity is that when the apocalypse comes (and it will) a messiah will also arrive to bring us salvation (249). This cultural mentality, hardened by anthropocentrism, is so deep seeded that it is almost impossible to imagine a scenario where the hero does not appear to save us *prope mortem*. *Jak II* and *HZD* focus on the inadequacy of the average human to help themselves, as even Dr. Sobeck's miracle GAIA echoes the Gaia hypothesis, stressing "the incapacity of human beings to manage the Earth" (255). If we recall, the climate crisis of 2040 in *HZD* was first and foremost maintained by robots and AIs—presumably not just because humans had the technology to do so, but because they were so incapable of doing it themselves. As Andrew McMurry explains in *Entertaining Futility*, "simply put, we exhibit a deeply misplaced anthropocentrism that cannot be expunged. Despite its continuing efforts, the cold, unfeeling world described by science or naturalistic fiction just can't get a grip on human vanity" such as twiddling our thumbs nervously until our messiah arrives (9).

8.0 Works cited

- “AI Is An Ideology, Not A Technology.” *Wired*. www.wired.com,
<https://www.wired.com/story/opinion-ai-is-an-ideology-not-a-technology/>. Accessed 18
May 2020.
- “Ambience, n.” *OED Online*, Oxford University Press. *Oxford English Dictionary*,
<http://www.oed.com/view/Entry/6132>. Accessed 20 Mar. 2020.
- “Arbeit Macht Frei.” *Wikipedia*, 5 Mar. 2020. *Wikipedia*,
https://en.wikipedia.org/w/index.php?title=Arbeit_macht_frei&oldid=944124674.
- Boellstorff, Tom. “A Ludicrous Discipline? Ethnography and Game Studies.” *Games and
Culture*, vol. 1, no. 1, Jan. 2006, pp. 29–35. *DOI.org (Crossref)*,
doi:[10.1177/1555412005281620](https://doi.org/10.1177/1555412005281620).
- Bogost, Ian. “The Rhetoric of Video Games.” *The Ecology of Games: Connecting Youth, Games,
and Learning*, edited by Katie Salen et al., The MIT Press, 2008, pp. 117–40.
- “Cocoon (Final Fantasy XIII).” *Final Fantasy Wiki*. finalfantasy.fandom.com,
[https://finalfantasy.fandom.com/wiki/Cocoon_\(Final_Fantasy_XIII\)](https://finalfantasy.fandom.com/wiki/Cocoon_(Final_Fantasy_XIII)). Accessed 19 Mar.
2020.
- Davis, Colin. “Hauntology, Spectres and Phantoms.” *French Studies*, vol. 59, no. 3, July 2005,
pp. 373–79. *DOI.org (Crossref)*, doi:[10.1093/fs/kni143](https://doi.org/10.1093/fs/kni143).
- Deane-Drummond, Celia. “Beyond Humanity’s End.” *Future Ethics: Climate Change and
Apocalyptic Imagination*, by Stefan Skrimshire, Continuum. 2010, pp. 242–59.
- Derrida, Jacques. *Specters of Marx : The State of the Debt, the Work of Mourning and the New
International*. Routledge Classics. 2006.

Ecospectrality: Haunting and Environmental Justice in Contemporary Anglophone Novels:

Laura A. White, Greg Garrard, Richard Kerridge: 9781350091566: *Literary Theory:*

Amazon Canada. [https://www.amazon.ca/Ecospectrality-Haunting-Environmental-](https://www.amazon.ca/Ecospectrality-Haunting-Environmental-Contemporary-Anglophone/dp/1350091561)

[Contemporary-Anglophone/dp/1350091561](https://www.amazon.ca/Ecospectrality-Haunting-Environmental-Contemporary-Anglophone/dp/1350091561). Accessed 1 Mar. 2020.

Ensslin, Astrid. *The Language of Gaming*. Macmillan International Higher Education. 2011.

Envrionmeneal Ethics.Pdf. <http://home.iitk.ac.in/~anubha/CE213.pdf>. Accessed 19 May 2020.

Farca, Gerald. *Playing Dystopia: Nightmarish Worlds in Video Games and the Player's*

Aesthetic Response. Deutsche Nationalbibliothek. 2018.

“*Final Fantasy XIV*.” *Wikipedia*, 16 Mar. 2020. *Wikipedia*,

https://en.wikipedia.org/w/index.php?title=Final_Fantasy_XIV&oldid=945802539.

Fisher, Mark. “What Is Hauntology?” *Film Quarterly*, vol. 66, no. 1, Sept. 2012, pp. 16–24.

DOI.org (Crossref), doi:[10.1525/fq.2012.66.1.16](https://doi.org/10.1525/fq.2012.66.1.16).

Flanagan, Mary, 1969-. *Critical Play: Radical Game Design*. MIT Press, 2009.

“Gaia-Hypothesis.”

[https://courses.seas.harvard.edu/climate/eli/Courses/EPS281r/Sources/Gaia/Gaia-](https://courses.seas.harvard.edu/climate/eli/Courses/EPS281r/Sources/Gaia/Gaia-hypothesis-wikipedia.pdf)

[hypothesis-wikipedia.pdf](https://courses.seas.harvard.edu/climate/eli/Courses/EPS281r/Sources/Gaia/Gaia-hypothesis-wikipedia.pdf). Accessed 18 May 2020.

Garrard, Greg. *Ecocriticism*. Routledge, 2004. www-taylorfrancis-com.proxy.lib.uwaterloo.ca,

doi:[10.4324/9780203644843](https://doi.org/10.4324/9780203644843).

Garrard, Greg. “Ferality Tales.” Garrard, pp. 241-258.

Garrard, Greg. “Introduction.” Garrard, pp.1-23.

Garrard, Greg. *The Oxford Handbook of Ecocriticism*. Oxford University Press, 2014.

Guerrilla Games. *Horizon Zero Dawn*. Sony Interactive Entertainment, 2017.

“Hope, n.1.” *OED Online*, Oxford University Press. *Oxford English Dictionary*,

<http://www.oed.com/view/Entry/88370>. Accessed 20 Mar. 2020.

Katz, Eric. “Nature’s Healing Power, the Holocaust, and the Environmental Crisis.” *Judaism: A Quarterly Journal of Jewish Life and Thought*, vol. 46, no. 1, 1997, pp. 79-. Gale Academic OneFile.

McCracken, Scott. *Pulp: Reading Popular Fiction*. Manchester University Press, 1998.

McMurry, Andrew. *Entertaining Futility: Despair and Hope in the Time of Climate Change*. First edition., Texas A&M University Press, 2018.

Mukherjee, Upamanyu Pablo. “Cholera, Kipling, and Tropical India.” Garrard, pp. 80-95.

Naughty Dog. *Jak II*. Sony Computer Entertainment, 2003.

“Proto-, Comb. Form.” *OED Online*, Oxford University Press. *Oxford English Dictionary*,

<http://www.oed.com/view/Entry/153235>. Accessed 20 Mar. 2020.

Punday, Daniel. “Derrida in the World: Space and Post-Deconstructive Textual Analysis.”

Postmodern Culture, vol. 11, no. 1, Johns Hopkins University Press, Sept. 2000. *Project MUSE*, doi:[10.1353/pmc.2000.0030](https://doi.org/10.1353/pmc.2000.0030).

Rickert, Thomas. *Ambient Rhetoric: The Attunements of Rhetorical Being*. University of Pittsburgh Pre, 2013.

Ruud, Gillian. “Being Green in late Medieval English Literature.” Garrard, pp. 27-38.

Sims, Christopher A. *Tech Anxiety: Artificial Intelligence and Ontological Awakening in Four Science Fiction Novels*. McFarland & Company, Inc., Publishers, 2013.

Square Enix. *Final Fantasy XIII*. Square Enix Holdings Co., Ltd., 2009.

Thacker, Eugene. "Cosmic Pessimism." *Continent.*, vol. 2, no. 2, Jan. 2012.

www.continentcontinent.cc,

<http://www.continentcontinent.cc/index.php/continent/article/view/84>.

Trexler, Adam. "mediating Climate Change: Ecocriticism, Science Studies, and *The Hungry Tide*." Garrard, pp. 205-222.

Tronstad, Ragnhild. "The Productive Paradox of Critical Play." *Game Studies*, vol. 10, no. 1, Apr. 2010. *Game Studies*, <http://gamestudies.org/1001/articles/tronstad>.

"Video Game Industry Silently Taking over Entertainment World EJINSIGHT - Ejinsight.Com."

EJINSIGHT. www.ejinsight.com, [//ejinsight.com/eji/article/id/2280405/20191022-video-game-industry-silently-taking-over-entertainment-world](http://ejinsight.com/eji/article/id/2280405/20191022-video-game-industry-silently-taking-over-entertainment-world). Accessed 28 Apr. 2020.

Watson, Robert N. "Shadows of the Renaissance." Garrard, pp. 40-58.

9.0 Bibliography

- Abraham, B. "Video Game Visions of Climate Futures: ARMA 3 and Implications for Games and Persuasion." *Games and Culture*, Sept. 2015, p. 1555412015603844. *DOI.org* (*Crossref*), doi:[10.1177/1555412015603844](https://doi.org/10.1177/1555412015603844).
- Alaimo, Stacy. "Cyborg and Ecofeminist Interventions: Challenges for an Environmental Feminism." *Feminist Studies*, vol. 20, no. 1, 1994, p. 133. *DOI.org* (*Crossref*), doi:[10.2307/3178438](https://doi.org/10.2307/3178438).
- Åsberg, Cecilia, and Rosi Braidotti. *A Feminist Companion to the Posthumanities*. Springer, 2018.
- Bennett, Robert F. "The Y2K Problem." *Science*, vol. 284, no. 5413, Apr. 1999, pp. 438–39. *science-sciencemag-org.proxy.lib.uwaterloo.ca*, doi:[10.1126/science.284.5413.438](https://doi.org/10.1126/science.284.5413.438).
- Bosman, Frank G. "There Is No Solution!: 'Wicked Problems' in Digital Games." *Games and Culture*, vol. 14, no. 5, July 2019, pp. 543–59. *DOI.org* (*Crossref*), doi:[10.1177/1555412017716603](https://doi.org/10.1177/1555412017716603).
- Buell, Lawrence. *The Future of Environmental Criticism: Environmental Crisis and Literary Imagination*. Blackwell Pub, 2005.
- Buser, Michael. "The Time Is out of Joint: Atmosphere and Hauntology at Bodiam Castle." *Emotion, Space and Society*, vol. 25, Nov. 2017, pp. 5–13. *ScienceDirect*, doi:[10.1016/j.emospa.2017.09.006](https://doi.org/10.1016/j.emospa.2017.09.006).
- "Coercion: Why We Listen to What "They" Say." *Epdf.Pub*, <https://epdf.pub/queue/coercion-why-we-listen-to-what-quottheyquot-say.html>. Accessed 7 Dec. 2019.

- Coward, Martin. "Against Anthropocentrism: The Destruction of the Built Environment as a Distinct Form of Political Violence." *Review of International Studies*, vol. 32, no. 3, July 2006, pp. 419–37. *DOI.org (Crossref)*, doi:[10.1017/S0260210506007091](https://doi.org/10.1017/S0260210506007091).
- Demerjian, Louisa MacKay, editor. *The Age of Dystopi: One Genre, Our Fears and Our Future*. Cambridge Scholars Publishing, 2016.
- Doyle, Briohny. "The Postapocalyptic Imagination." *Thesis Eleven*, vol. 131, no. 1, Dec. 2015, pp. 99–113. *DOI.org (Crossref)*, doi:[10.1177/0725513615613460](https://doi.org/10.1177/0725513615613460).
- Dyer, John. *From the Garden to the City: The Redeeming and Corrupting Power of Technology*. Kregel Publications, 2011.
- Ecocriticism Offers Interdisciplinary Exploration of Literature, Environment*. 30 Mar. 2016, https://news.emory.edu/stories/2016/03/er_ecocriticism/campus.html.
- Eichberger, Jürgen, and David Kelsey. "OPTIMISM AND PESSIMISM IN GAMES: OPTIMISM AND PESSIMISM IN GAMES." *International Economic Review*, vol. 55, no. 2, May 2014, pp. 483–505. *DOI.org (Crossref)*, doi:[10.1111/iere.12058](https://doi.org/10.1111/iere.12058).
- Fernández-Caro, Jesús. "Post-Apocalyptic Nonhuman Characters in Horizon: Zero Dawn: Animal Machines, Posthumans, and AIBased Deities." *MOSF Journal of Science Fiction*, vol. 3, no. 3, 3, Dec. 2019, pp. 43–56.
- "*Final Fantasy XIV*." *Wikipedia*, 16 Mar. 2020. *Wikipedia*, https://en.wikipedia.org/w/index.php?title=Final_Fantasy_XIV&oldid=945802539.
- "*Fix My Post-Apocalypse*" – *First Person Scholar*. <http://www.firstpersonscholar.com/fix-my-post-apocalypse/>. Accessed 19 Nov. 2019.
- Frank, Taylor. "Pessimism versus Realism." *Poroi*, vol. 8, no. 2, Nov. 2012. *DOI.org (Crossref)*, doi:[10.13008/2151-2957.1136](https://doi.org/10.13008/2151-2957.1136).

- Glazier, Jacob W. "Derrida and Messianic Subjectivity: A Hauntology of Revealability." *Journal for Cultural Research*, vol. 21, no. 3, July 2017, pp. 241–56. *Taylor and Francis+NEJM*, doi:[10.1080/14797585.2017.1338600](https://doi.org/10.1080/14797585.2017.1338600).
- Goldrick-Jones, Amanda. "Pessimism, Paralysis, and Possibility: Crisis-Points in Profeminism." *The Journal of Men's Studies*, 22 Mar. 2001, <http://link.galegroup.com/apps/doc/A74799749/AONE?sid=lms>.
- Green, Catherine Emma. *Spectral Afterlife: Hauntology, Historical Memory, and Inheritance in Postmodernist Fiction*. p. 92.
- Hassan, Ihab. "Beyond a Theory of Literature: Intimations of Apocalypse?" *Comparative Literature Studies*, vol. 1, no. 4, 1964, pp. 261–71.
- Hayden, Craig. "The Procedural Rhetorics of *Mass Effect* : Video Games as Argumentation in International Relations." *International Studies Perspectives*, June 2016, p. ekw002. *DOI.org (Crossref)*, doi:[10.1093/isp/ekw002](https://doi.org/10.1093/isp/ekw002).
- Heidegger, Martin. *The Question Concerning Technology, and Other Essays*. Garland Pub, 1977.
- Hjerpe, Mattias, and Björn-Ola Linnér. "Utopian and Dystopian Thought in Climate Change Science and Policy." *Futures*, vol. 41, no. 4, May 2009, pp. 234–45. *DOI.org (Crossref)*, doi:[10.1016/j.futures.2008.09.007](https://doi.org/10.1016/j.futures.2008.09.007).
- "How Much Time Does It Normally Take to Make Triple-A Games?" *GameDev.Net*. www.gamedev.net, <https://gamedev.net/forums/topic/693558-how-much-time-does-it-normally-take-to-make-triple-a-games>. Accessed 3 Mar. 2020.
- Hullman, J., and N. Diakopoulos. "Visualization Rhetoric: Framing Effects in Narrative Visualization." *IEEE Transactions on Visualization and Computer Graphics*, vol. 17, no. 12, Dec. 2011, pp. 2231–40. *DOI.org (Crossref)*, doi:[10.1109/TVCG.2011.255](https://doi.org/10.1109/TVCG.2011.255).

Jameson, Fredric. "Progress versus Utopia; Or, Can We Imagine the Future? (Progrès Contre Utopie, Ou: Pouvons-Nous Imaginer l'avenir)." *Science Fiction Studies*, vol. 9, no. 2, 1982, pp. 147–58.

Lies-for-the-Greater-Good-The-Story-of-Horizon-Zero-Dawn.Pdf.

[https://www.researchgate.net/profile/Jessica_Austin5/publication/332072742_Lies_for_the_Greater_Good' - The_Story_of_Horizon_Zero_Dawn/links/5c9dec6692851cf0ae9eab43/Lies-for-the-Greater-Good-The-Story-of-Horizon-Zero-Dawn.pdf](https://www.researchgate.net/profile/Jessica_Austin5/publication/332072742_Lies_for_the_Greater_Good_-_The_Story_of_Horizon_Zero_Dawn/links/5c9dec6692851cf0ae9eab43/Lies-for-the-Greater-Good-The-Story-of-Horizon-Zero-Dawn.pdf). Accessed 1 Mar. 2020.

Limpár, Ildikó, editor. *Displacing the Anxieties of Our World : Spaces of the Imagination*. Cambridge Scholars Publishing, 2017.

Marino Carvalho, V. "Leaving Earth, Preserving History: Uses of the Future in the Mass Effect Series." *Games and Culture*, vol. 10, no. 2, Mar. 2015, pp. 127–47. *DOI.org (Crossref)*, doi:[10.1177/1555412014545085](https://doi.org/10.1177/1555412014545085).

Michael, M. G. *The Genre of the Apocalypse: What Are They Saying Now?* p. 15.

Monahan, Torin. "Regulating Belonging: Surveillance, Inequality, and the Cultural Production of Abjection." *Journal of Cultural Economy*, vol. 10, no. 2, Mar. 2017, pp. 191–206. *DOI.org (Crossref)*, doi:[10.1080/17530350.2016.1273843](https://doi.org/10.1080/17530350.2016.1273843).

Off, Greg. *Jak II: Official Strategy Guide*. 1 edition, Brady Games, 2003.

Panaqakou, Stamatoula. "Review Article: In the Shadow of the Master: Reflections on the Philosophical Legacy of Martin Heidegger." *European Journal of Political Theory*, vol. 7, no. 3, July 2008, pp. 391–99. *DOI.org (Crossref)*, doi:[10.1177/1474885108089179](https://doi.org/10.1177/1474885108089179).

Piggyback. *Final Fantasy XIII: Complete Official Guide - Standard Edition*. Standard ed. edition, Piggyback, 2010.

- Report, The Progress. "The Impact of Final Fantasy VII Remake on Climate Culture." *Medium*, 12 Aug. 2019. *medium.com*, <https://medium.com/@progressreportblog/the-impact-of-final-fantasy-vii-remake-on-climate-culture-35c95e4cb461>.
- Roth, John K. "Holocaust Business: Some Reflections on Arbeit Macht Frei." *The ANNALS of the American Academy of Political and Social Science*, vol. 450, no. 1, July 1980, pp. 68–82. *DOI.org (Crossref)*, doi:[10.1177/000271628045000107](https://doi.org/10.1177/000271628045000107).
- Ryan, Matthew. "The Logic of Fear: The Paranoia Accompanying War's Mediated Rhetoric Erodes Our Sense of Belonging." *Arena Magazine*, 1 Apr. 2003, <http://link.galegroup.com/apps/doc/A99908489/AONE?sid=lms>.
- Sanchez, James. "Race within the Machine Ambient Rhetorical Actions and Racial Ideology." *Rhetorical Machines*. *www.academia.edu*, https://www.academia.edu/39467179/Race_within_the_Machine_Ambient_Rhetorical_Actions_and_Racial_Ideology. Accessed 30 Jan. 2020.
- Sawyer, James E. "Anti-Sustainability Rhetoric: Sketching Ideological Responses." *Journal of Innovation Economics Management*, vol. n° 3, no. 1, June 2009, pp. 49–71.
- Shelbie Witte, and Todd Goodson. "'This Guy's Dead': Seeking The Origins of the Dystopian Narrative of the American High School in the Popular Culture." *The High School Journal*, vol. 94, no. 1, 2010, pp. 3–14. *DOI.org (Crossref)*, doi:[10.1353/hsj.2010.0005](https://doi.org/10.1353/hsj.2010.0005).
- Sponsler, Claire. "Beyond the Ruins: The Geopolitics of Urban Decay and Cybernetic Play." *Science Fiction Studies*, vol. 20, no. 2, 1993, pp. 251–65.
- Sword, Helen. "Modernist Hauntology: James Joyce, Hester Dowden, and Shakespeare's Ghost." *Texas Studies in Literature and Language*, vol. 41, no. 2, 1999, pp. 180–201. JSTOR.

Trace Journal. <http://tracejournal.net/trace-issues/issue2/02-Woolbright.html>. Accessed 1 Mar. 2020.

Vee, Annette. *Procedural Rhetoric and Expression*. p. 15.

Veli-Matti Karhulahti. "An Ontological Theory of Narrative Works: Storygame as Postclassical Literature." *Storyworlds: A Journal of Narrative Studies*, vol. 7, no. 1, 2015, p. 39. *DOI.org (Crossref)*, doi:[10.5250/storyworlds.7.1.0039](https://doi.org/10.5250/storyworlds.7.1.0039).

10.0 Appendix

Sanctum Fal'Cie created by greater fal'Cie, Lindzei		Gran Pulsian Fal'Cie created by greater fal'Cie, Pulse.	
<ul style="list-style-type: none"> Created Cocoon The purpose of their focuses are about running and maintaining Cocoon Share desire to fulfill Orphan's second focus to destroy themselves and Cocoonian humans to gain the attention of "the maker" 		<ul style="list-style-type: none"> The purpose of their focuses are about terraforming Gran Pulse Unclear if they share the same desire as Sanctum fal'Cie by sacrificing humans, although it is noted that some do have the specific focus of looking for "the maker". 	
Example: Carbuncle	Carbuncle is in charge of food production, overseeing hydroponic farming.	Example: Titan	"biogenitor...[consuming] weaker species and [giving] birth to new ones, thereby providing the stimulation needed to prevent ecological stagnation," (Fal'Cie Datalog).
Barthandelus (Primarch Dysley)	Rule Cocoon under the guise of being a human representative chosen by the Sanctum.	Anima	Unclear focus, but protected humans from hostile wildlife. Gave Vanille and Fang a focus to become the beast, Ragnarok, and destroy Cocoon after Sanctum fal'Cie stripped Pulse of its natural resources. Later gave this same focus to the other playable characters in the game.
Eden	Administrative and operational fal'Cie that gives orders to other lesser fal'Cie (like Carbuncle) to keep Cocoon running.		
Orphan	Anomaly of having two focuses: 1. Act as a battery for Eden 2. Destroy Cocoon		