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The Puppetmaster: A Three-Pronged Argument on the Human Manipulation of Non-Human  
Beings

The following essay is the culmination of ideas that have come together and solidified over a period of years. This collection of ideas has a specific shape and texture as it exists in space. Each idea is represented by a golden hexagon; since there are three of these and I picture each hexagon as interlocking with one another (as they are interconnected), in my mind's eye they form a honeycomb. I invite you to envision this honeycomb as you read this text.

The color of the comb itself is not arbitrary. Think of the color gold as the imagined standard of perfection which I strive to achieve. In my life there have been multiple iterations of this, such as the orange sunlight derived from the taste of fresh-squeezed orange juice, but its current iteration is the pure, golden honey that drips from this triad of ideas and, of course, the comb itself. Perhaps this honey is the very essence of the ideas that I wish to communicate. There have been similar "essences" of this nature in other objects of inspiration. All of these images, shapes, textures, and objects collectively form the mental universe from which all of my finest work generates, all of which I strive to weave together to create the art.

Now to "break down" the comb itself. The first hexagon in this comb is my analysis of the continual projection of negative human traits upon non-human beings, specifically animals. The second hexagon analyzes the ways in which humans manipulate the environment to their

own desires, which is not necessarily to the benefit of the ecosystem. Finally, the third hexagon concerns itself with ecological crimes committed against the Earth and all of its inhabitants by humans and how this can and must be mediated before we lead to our collective demise. These are three very different topics, and through the comb I acknowledge that they are together yet apart, but they are fundamentally linked by the human manipulation of non-human life.

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A still from Ari Aster's film *Midsommar*. The Harga, a Swedish cult, uses the bear to purge their "most unholy affekts."

### Reading the Animal Scapegoat: How We Pivot and Purge

For the first comb, or idea represented by a golden hexagon, I have decided to analyze the projection of negative human traits upon non-human beings, specifically animals, as a scapegoat. Consider the following case study: in Torah portion Achrei Mot, when G-d spoke to Moses after the death of Aaron's two sons, He instructed Aaron through Moses to

take two he-goats for a sin offering... Aaron shall take the two he-goats and let them stand before the LORD at the entrance of the Tent of Meeting; and he shall place lots upon the two goats, one marked for the LORD and the other marked for

Azazel. Aaron shall bring forward the goat designated by lot for the LORD, which he is to offer as a sin offering; while the goat designated by lot for Azazel shall be left standing alive before the LORD, to make expiation with it and send it off to the wilderness for Azazel... He shall then slaughter the people's goat of sin offering, bring its blood behind the curtain, and do with its blood as he has done with the blood of the bull: he shall sprinkle it over the cover and in front of the cover... Thus he shall purge the Shrine of the uncleanness and transgression of the Israelites, whatever their sins... When he has finished purging the Shrine, the Tent of Meeting, and the altar, the live goat shall be brought forward. Aaron shall lay both his hands upon the head of the live goat and confess over it all the iniquities and transgressions of the Israelites, whatever their sins, putting them on the head of the goat; and it shall be sent off to the wilderness through a designated man. Thus the goat shall carry on it all their iniquities to an inaccessible region; and the goat shall be set free in the wilderness (Leviticus 16:5-22).

In this example Aaron HaKohen is instructed to purge the sins of the Jewish people for the holy day of Yom Kippur, and he must do this through the use of animal sacrifices. A lottery is drawn between two goats, deciding their fate: one serves as a sin offering to G-d, to cleanse the Shrine of "the uncleanness and transgression of the Israelites." The live goat, set aside, absorbs the sins of the Jewish people through Aaron's recitations, and it will be cast from the community by a man who must cleanse himself in order to return. This live goat, an offering to the demon Azazel, and all of the Jewish people's sins, are taken to an "inaccessible" location, out of sight and out of mind (banished). The sins of the Jewish people are projected upon the live goat, and purged through the animal's expulsion. Thus, these negative human traits are mapped upon an animal in order to ensure the purity of the group. With this in mind, let us consider Ari Aster's film "Midsommar."

In Ari Aster's folk horror film "Midsommar" (2019), negative human traits are projected upon the bear, a representation of the most concentrated human wickedness, in order that they may be purged from the group as a whole, creating purity and renewal. In the film, a couple in a

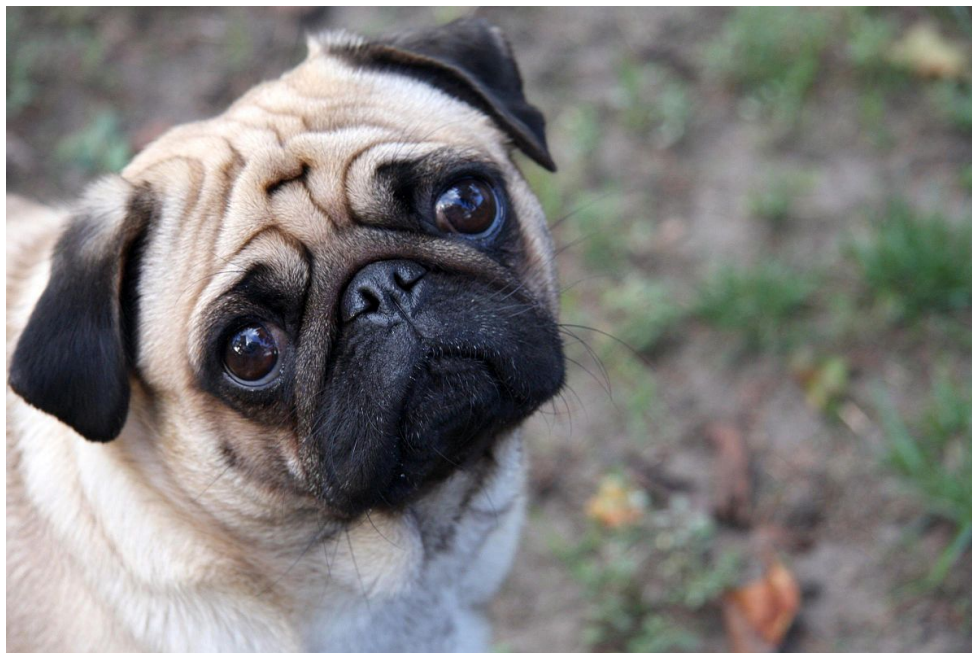
floundering relationship travel to a Swedish commune known as the Harga for a midsummer festival. Christian, an anthropology PhD student, is an unsupportive and lackluster partner to Dani, who has suffered a recent family trauma. Eventually the audience learns that the festival requires nine human sacrifices to be “reborn” in the cycle of life, and Dani chooses Christian as the final sacrifice. He is inserted into the skin of a bear, placed in a wooden temple, and burned alive, along with the eight other sacrifices. An elder of the group addresses Christian and describes his fate: “Mighty and dreadful beast. With you, we purge our most unholy affekts. We banish you now to the deepest recesses, where you may reflect on your wickedness” (Aster). As the sacrifices burn, the Harga imitate their screams of agony, and they shriek, retch, and convulse as the smoke spirals up toward the sky.

The midsummer festival depicted in the film is fundamentally a purging ceremony. In order for the group to continue forward in harmony, their sins and other negative traits must be removed. This is carried out through the scapegoating of the bear, a representation of these negative elements. When the sacrifices are burned, the Harga imitate their behavior to imagine the negative energy physically leaving their bodies in the same way that the smoke emanates from the bodies of the sacrifices. Fire is frequently represented as a cleansing and purifying element in the film; for example, when Dani blesses the crops and livestock of the commune, she does so while holding a large torch, allowing the fire of the sun, their creator, to reach the Earth, source of their sustenance. The sacrifices are even dedicated to the sun, that which creates light and fire. In the same fashion as the *korbanot*, or Biblical animal sacrifices, are slain, a cleansing process is undergone and the sins and “unholiness” are collectively banished from the group to a

territory that they cannot reach (i.e. the wilderness and the clutches of Azazel in the case of Yom Kippur in the Bible portion and “the deepest recesses” in the case of the Harga).

The underlying question in both of these cases, then, is “why animals?” As in, why must animals be the vehicle from which purity emerges? The answer differs slightly for each case, but the essence is the same: because humans are manipulators, “shapers,” and animals can be manipulated. Even from the very beginning, this theme has persisted; in Genesis, for example, when creating man G-d says ““Let us make man in our image, after our likeness. They shall rule the fish of the sea, the birds of the sky, the cattle, the whole earth, and all the creeping things that creep on earth”” and ““Be fertile and increase, fill the earth and *master* it”” (Genesis 1:26, 28). In this case, humans were created with the appearance and attributes of G-d and the angels, and as the link between the earth and the heavens. It follows, then, that as G-d is the master of all creations, if humans have traits resembling Him, surely they must be the masters of their own realm, of all “lower” creatures. Humans are and always have been the Earth’s puppeteers, and so we have *internalized* that we are greater than animals, and we treat them in accordance with this. As such, when confronted with our errors, it is almost natural for us to brush them aside or deny them outright, even if this has disastrous consequences.

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A picture of a pug. According to Smithsonian Magazine, “many dogs in these breeds suffer from a disease called Brachycephalic Obstructive Airway Syndrome... which make(s) their nostrils or soft palate too small, obstructing airflow and leaving the pups gasping for breath” (Daley).

### Choking on Love: Harmful Genes in Breed Dogs

The second of the three ideas represented by a golden hexagon or honeycomb is that of humankind’s tendency to manipulate the environment to our own desires without considering that these alterations may be detrimental to the ecological landscape. I wanted to meditate on this idea through an analysis of dogs, idiomatically deemed “man’s best friend,” whom we have shaped to our own desires and even aesthetics through domestication and selective breeding. Considering the fact that the histories of humans and dogs are intimately connected through domestication, an inherent source of human manipulation and dominance, dogs are uniquely positioned as an example of the ways in which humans manipulate the environment without regard for the ecological consequences. I found that a 2016 article published by a team of UCLA scientists in the *Proceedings of the National Academy of Sciences*, a multidisciplinary journal,

paired well with this fairly niche argument. The article, which is entitled “Bottlenecks and selective sweeps during domestication have increased deleterious genetic variation in dogs,” uses dogs as a case study for examining the effects of bottlenecks, artificial selection, and inbreeding on the accumulation of deleterious, or harmful, traits.

Marsden et al concluded that “intense artificial selection for desirable traits results in a concomitant accumulation of deleterious variation in genes trapped in sweep regions. This finding is especially disconcerting because sweep regions are enriched for disease-related genes, a finding that highlights anew the controversy over intense selection for fancy traits in dog breeds and other domestic species” (Marsden et al). This quote refers to selective sweeps, also called gene hitchhiking, in which a selected trait and the genes surrounding it are locked into position. This can cause deleterious genes to accumulate because there is no way to control whether the genes surrounding the selected gene are advantageous or maladaptive<sup>1</sup>. The intense selection Marsden cites here may also reference the fact that even the human-selected trait itself is often a maladaptive disabling trait that would not enable the animal to survive to create offspring in the wild, prohibiting it from reproducing the trait in the next generation.

Humans have manufactured a parallel universe for dogs in which disabling traits are artificially passed onto offspring through unsustainable breeding practices that deteriorate health over generations. It is the very opposite of the wild, in which these disadvantageous traits die out before the next generation begins due to the presence of natural predators which prohibit the afflicted animal from surviving and passing on the trait to their offspring. (Although, it is never too far from reality when the apex predator—humanity—rules and is pulling all the strings.) We

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<sup>1</sup> See *Bioinformatics for Beginners* by Supratim Choudhuri for additional accessible information on selective sweeps.

have created a space in which, because the stubby faces that constrict their breathing are somehow pleasant, and their long locks conceal their failing hearts, we can make their family tree draw inward and create lasting suffering and stressful, depressing lives. The strangest part is the profound love we have for them—some even argue that fallen pooches should have obituaries<sup>2</sup>—all the while we torture them so. Why do we show our love with hate? Even in our love for other creatures, we still must spread our sticky fingers over them and alter them as we see fit. And still, I couldn't tell you the answer.

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A fork in the road with two paths. In *Triangulum* by Masande Ntshanga, our current path of destruction is presented, as well as an alternative unknown path.

The Fork in the Road: Alternatives to Destruction with Ntshanga, Butler, and Jemisin

South African writer Masande Ntshanga's novel *Triangulum* traces the history of colonization to a single event: the crashing of an asteroid into the African continent, creating the

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<sup>2</sup> For an argument in favor of dog obituaries, see "Finnegan, Dog Known for His Exemplary Nose, Dies at 14" in the *New York Times*.



Vredefort Crater in South Africa, leading colonizers to find gold in 1886. According to the eco-terrorist cell The Returners, a group with whom the anonymous protagonist associates, this created a “fork in the road” with a path on the left and a path on the right. Humanity took the path on the left, the doomed path of rapid industrialization and digitization that stands before us, but in Ntshanga’s text *The Returners* seek to go back to the fork in the road in search of the unknown path on the right: an alternative to our present reality. In this comb I intend to put *Triangulum* and two other Afrofuturist texts, *Parable of the Talents* by Octavia E. Butler and the Broken Earth trilogy by N.K. Jemisin, in conversation with one another in order to outline various alternatives to the path of destruction that stands before us. Additionally, I will offer the consequences of this path with a focus on the so-called “fourth Industrial Revolution,” the rapid digitization of society that is beginning to take the form of an integrated metaverse. I will also include an analysis of the land as an autonomous being and how this presents itself in Jemisin’s text, linking this to the underlying theme of the human manipulation of non-human entities that binds each comb together.

In all three novels, the fork in the road of which Ntshanga writes presents itself clearly and unobtrusively: will humankind continue building, industrializing, with the ultimate consequence of complete annihilation, or are there alternatives to this fate? All three novels insist on the latter. In conversation I have referred to this comb as “the apocalypse comb,” but I have come to realize through further examination of these texts that it would more accurately be understood as “the utopia comb.” That is to say, each author carves out a space within the expansionist chaos for another way that may have utopian characteristics. Often these spaces are the last vestiges of more positive human priorities, such as education, the sciences, self-

preservation, and even beauty. In *Parable of the Talents* the alternative space presents itself as a religious community through the Earthseed movement, which has the core teaching of “G-d is Change” and that human beings have a responsibility to execute this change and “shape G-d” with the end goal of making a new home among the stars (“the Destiny”). Like the other two texts, the duology to which *Parable of the Talents* belongs is a “critical dystopia... motivated out of a utopian pessimism... that force(s) us to confront the dystopian elements of postmodern culture so that we can work through them and begin again” (Miller).

The alternative in *Triangulum*, interestingly, is in opposition to the Destiny in Butler’s text and suggests a mode of de-industrialization (or “un-civilization,”)<sup>3</sup> a return to humankind’s roots in order to investigate a different path. The Returners, the organization promoting this alternative in Ntshanga’s text, operate by foiling the goals of companies extracting from the Earth. This text specifically warns against colonizing new planets, opting instead to fight against the corporatization of the Earth to make the planet inhabitable for generations to come (i.e. against neoliberalism<sup>4</sup>). The Broken Earth trilogy takes place on a post-apocalyptic and fully autonomous Earth that has waged war against its inhabitants through deadly “Seasons.” Earth is subsequently placed at the head of the negotiating table, and requires significant concessions, in order to enact change.

On our current path, Octavia E. Butler suggests that human history is a cycle of building and destroying, even as we learn more about ourselves and the world around us. She also theorizes that the human impulse to create and destroy is a biologically-mandated cycle. We

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<sup>3</sup> See “Uncivilization: The Dark Mountain Manifesto” for a solution similar to that of The Returners.

<sup>4</sup> See “neoliberalism” by Johanna Bockman for a definition and background on this concept.

create complex systems of knowledge, of governance, of control and in order to maintain the capitalistic imperialism underlying these principles we must wage nationalistic wars in order to extract more resources. Butler asserts that all empires are fundamentally the same (and the superpowered states that we have now are indeed empires): like the Roman empire, which failed because it had nothing left to consume, in order for our current empires to survive we must take from the Earth until there is nothing left *to* take. Ntshanga agrees: “the Tower... was at odds with the history of its site, which for decades had been a nature reserve—a 40-acre island of fertile parkland, known as The Wilds, which traced its origins back to the 1920s. Before being donated to the city, the park had belonged to the private Johannesburg Consolidated Investment Company, a mine investor. But now it was private again, belonging to a different set of men who were gutting the earth for profit. *History in the metropolis often felt like a circle*” (Ntshanga 221; emphasis added).

Drawing upon the conclusion established in the previous comb, “animals must be the vehicle from which purity emerges... because humans are manipulators, ‘shapers,’ and animals can be manipulated,” we can understand that because we have positioned the Earth underneath us as an endless pit from which we can (and, in many cases, *must*) extract, the endless cycle of theft and destruction continues. Crucially, in the previous comb I used the descriptor of humans as “shapers” in direct linkage to Butler’s text, which contains the protagonist’s religious manifesto, “Earthseed: The Books of the Living.” The second tenet of this religion is to “Shape G-d.” Here is the verse from which it originates:

*G-d is Power—  
Infinite,  
Irresistible,*

*Inexorable,  
Indifferent.  
And yet, G-d is Pliable–  
Trickster,  
Teacher,  
Chaos,  
Clay.  
G-d exists to be shaped.  
G-d is Change (Butler).*

In the same way that Butler and her protagonist Lauren assert that G-d is malleable as clay in our hands, so too is the environment, G-d's creation. If we are to be shapers, then we are destined to manipulate the world around us. In the end, though humans claim to be the highest Earth creature, one who stands between the Earth and G-d, our actions suggest otherwise. According to our behaviors, we are the universe's greatest shapers. Change itself is "infinite" and "irresistible."

I left the formation of Butler's words upon the page the same as in the text because it reminded me of a pylon that extends from sky to Earth, of the humans who dig a boundless hole into the Earth in search of its riches. A shovel, a stake; a representation of our mark. Like in fracking, when we inject the Earth with our toxic presence, we allow our agents of change to shape the very soil from which all life grows in our search to cage all of life's force. This segues directly into Earthseed's Destiny, wherein we must "make homes for ourselves among the stars," and allow our new environments to "remake us as we remake them" and "some of the new people who emerge from all this will develop new ways to cope. *They'll have to.* That will break the old cycle, *even if it's only to begin a new one*" (Butler 357-9; emphasis added).

Butler insists that in order for humanity to mature, we must leave the Earth behind and settle among the stars. However, the untapped utopia here is not guaranteed. Lauren reinforces

her utopia with the words “they’ll have to” because even as she utters them she understands that her argument has flaws that can be readily attacked. After thousands of years stuck in the same cycle of creation and destruction on Earth, even if we flee to the stars there is no guarantee that this cycle will break. Lauren’s argument is inherently weak: even when faced with new challenges in a new environment, there is still a not-insignificant chance that, for comfort, we will fall back upon our old patterns. Lauren herself states that “there seem to be solid biological reasons why we are the way we are. If there weren’t, the cycles wouldn’t keep replaying” (Butler 357-9). In essence, even if we shift our surroundings dramatically, the genetic makeup that makes us the way we are would not change. Why, then, would we discontinue the extractive cycle that makes us who we are?

It is this flaw that Ntshanga directly addresses in *Triangulum*’s alternate path. In the novel’s dramatic climax, the unnamed protagonist is confronted by the aliens who have been attempting to contact her all her life with humankind’s ultimate alternative path in the following quote:

If the corporatization of Earth does not end, then humankind will advance, but it will destroy this planet. It will seek other worlds and its imbalance will infect and spread, disturbing the universe and its calibration. The wars it will ignite, and the sickness it will spread, will result in the destruction of numerous worlds before the universe rectifies itself and regains its balance. This has been the goal of our signal, of gifting humankind with our voice, and now it is accomplished (Ntshanga 335).

If humanity continues down its industrial path, The Left Hand, then our influence will not be extinguished upon the destruction of Earth. In order to prevent the “sickness” of its influence from spreading further, the neoliberal path of The Left Hand must be pulled up from its root and

discarded for good. This is the plague that the protagonist refers to in the section “Five Weeks in the Plague”; i.e., the origin of the fork in the road that led to the creation of The Left Hand.

*Triagulum*’s alternative path entails the destruction of the forces of The Left Hand (perhaps one might call them its fingers) in order to find the fork in the road again and take the other path.

What this alternative path is—The Right Hand—is not exactly clear to the reader, unless one treats the fork in the road like a tautology (“either the destruction of the Earth will occur or it won’t”). However, among these paths there is, in some sense, a kind of comfort in the unknown. “Anything is better than this,” it seems to say. Ntshanga also addresses the end of the path of The Left Hand in reference to The Returned, a splinter group of The Returners that wants to ensure the destruction of humankind:

They call themselves The Returned. They believe humankind doesn’t deserve to survive. They work in a direction opposite to that of The Returners. They attack natural monuments with the intention of making humankind’s destruction inevitable. The last I heard, they were planting timed explosives on the cliff-face of Table Mountain (Ntshanga 328).

In this example, The Returned acts as humanity’s judge, jury, and executioner as it goes about sealing humankind’s fate. It is important to keep in mind that the path of The Left Hand is ensured as long as we continue down the path of industrialization without any effort to alter our behavior in a significant way. In many ways the decision of The Returned to accelerate humanity’s demise is an effort to take back the power that marginalized communities have long been denied, especially in the global South. Indeed, even in the modern day African countries are deprived of control over their own resources, as stated by Ghanaian revolutionary and former president Kwame Nkrumah: “If Africa’s multiple resources were used in her own development, they could place her

among the modernised continents of the world. But her resources have been, and still are being used for the greater development of overseas interest” (Nkrumah 2). To spearhead the arrival of humanity’s complete destruction is to firmly take the reins of fate.

This path is also outlined in N.K. Jemisin’s Broken Earth trilogy, in which a member of a long-oppressed group commits an action that begins the end of humankind:

And then he reaches forth with all the fine control that the world has brainwashed and backstabbed and brutalized out of him, and all the sensitivity that his masters have bred into him... His fingers spread and twitch as he feels... his fellow slaves. He cannot free them, not in the practical sense.... He can, however, make their suffering serve a cause greater than one city’s hubris, and one empire’s fear. So he reaches deep and takes hold... of the great sliding-puzzle piece of earthshell on which the continent sits. Lastly, he reaches up. For power. He takes... Everything. He holds it. He is not alone. The earth is with him. Then *he breaks* it (Jemisin 6-7).

Notably, he “reaches up. For power” (Jemisin 7). In this case, the person who ensures the destruction of humanity is able to take back the power stolen from him by generations of oppression and manipulation by destroying the source of his suffering. To him, it is a form of consolation to carry the destiny of humankind on his shoulders, almost like a purging of wickedness; he removes the splinter that is humanity from the skin of the Earth, rendered powerless at last.

The destruction of humankind is, in both texts, a wholehearted embrace of the unknown: a communal death is every bit as unknown as an individual one. In this way, the controlled suicide outlined in both examples is multilayered in its meaning, and is a viable option when confronted head-on with the strings of fate.

Even with all of the paths that stand before us, it is necessary to ponder the consequences of the doomed course that we are on now, the Left Hand. I have decided to do this through an

analysis of what Ntshanga calls the “fourth Industrial Revolution,” or a fully-incorporated digital reality, a representation of our tendency to build until the bitter end. With the unveiling of tech giant Facebook’s rebranding as “Meta” in the hopes of spearheading the creation of a metaverse, it is becoming all the more clear that we are entering a new age of digital industrialization, a major step down the path of the Left Hand.<sup>5</sup> In *Parable of the Talents*, Butler imagines the implications of such an endeavor and what it could mean for the average consumer:

‘What did your mother do?’ I asked. Len shrugged. ‘Nothing, really. She lived in her virtual room—her own private fantasy universe. That room could take her anywhere, so why would she ever come out? She was getting fat and losing her physical and mental health, but her v-room was all she cared about... In that room she could go anywhere, be anyone, be with anyone. It was like a womb with an imagination. She could visit fourteenth-century China, present-day Argentina, Greenland in any imagined distant future, or on one of the distant worlds circling Alpha Centauri. You name it, she could create some version of it. Or she could visit her friends, real or imaginary... If her real friends didn’t indulge her as much as she wanted them to, she just created more obliging versions of them. By the time I was abducted, I didn’t know whether she really had any contact with flesh-and-blood people anymore. She couldn’t stand real people with real egos of their own’ (Butler).

Butler’s hypothesis of the metaverse raises concerns about an addiction to unreality causing physical and mental health issues. In a world where the norm is starvation, illiteracy, slavery, war, and disease, the metaverse presents itself as an idealistic alternative to a chaotic reality. In such circumstances, where almost no one has control over their own lives, it is truly tantalizing to create one’s own world where reality can be bent to their every wish. When the real world is marked by extreme limitations, a limitless virtual reality (which is explicitly limited to

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<sup>5</sup> A metaverse, as defined by Michelle Ye Hee Lee in *The Washington Post*, is “a communal, virtual space, seen by many as the next frontier of the Internet, where users interact using avatars” (Lee).



only the extremely wealthy) is an alluring alternative and a paradise by comparison. However, living full-time in a digital reality has major consequences, and is a stark contrast to the environment our species is accustomed to.

In our world, human society has continued to draw inward over millennia—from our days wandering the wilderness to creating permanent civilizations<sup>6</sup>, and later on retreating into our homes. Many believe the pandemic has accelerated our internal shrinkage and increased interest in a fully digital existence. Michelle Ye Hee Lee’s article in *The Washington Post*, which details a preview to the city of Seoul’s metaverse, describes a contactless culture that has emerged in the city’s younger gaming community during the pandemic. This has become the foundation of the city government’s metaverse: “City officials are hoping to draw on digital fluency in South Korea, which has a well-established video gaming culture and industry... During the pandemic, younger South Koreans have popularized the term ‘untact’--a spin on the term ‘contactless’--to describe many virtual events and services, including classes, festivals, concerts, and customer service help” (Lee). This bears some resemblance to Butler’s hypothesized metaverse, where Len’s mother is able to meet with friends without ever leaving her home. Butler, however, understands that her addiction to virtual reality has fundamentally altered her ability to socialize normally with real human beings, similarly to how pandemic-influenced isolation may have stunted people’s social skills, especially in children and adolescents.

In the novel, Butler also describes the metaverse through the lens of an outsider looking in, specifically through Len, a person denied access to it. That is to say, Len cannot fully

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<sup>6</sup> For more information on humanity’s change from being paleolithic nomads to creating permanent settlements, see “The Greening of the Badlands: Pastoral Nomads and the ‘Conclusion’ of Neolithization in the Southern Levant” by Gary O. Rollefson.

understand the ecstasy that her mother experiences in the metaverse; all she can see is her mother's withered physical form. This is how the reader is forced to understand the metaverse. The structure of a metaverse demands this kind of imbalance, this separation of human consciousness from its corporeal form. In order to fully immerse oneself in a virtual reality, one cannot see with their own eyes or walk with their own feet. A fully-integrated metaverse severs the connection between mind and body and saturates the untethered mind with a feast for the mind's reward system, creating addiction. It takes the mind and makes it a separate, tangible being and transfers it into a digital universe but discards the body in the process.

The internal shrinkage of humanity from body to mind is the "fourth Industrial Revolution," a term that is even referenced in Lee's article by Seoul mayor Oh Se-hoon: "The fourth industrial revolution, and the explosion of 'untact' culture during corona, demand a change in the way we deliver public service by building a Metaverse Seoul platform" (qtd. in Lee). As humans draw further within their own minds, I am concerned that the disconnect from physical reality will cause humanity to distance itself from the plight of the planet. It is also worth noting that a digitized existence is not without waste. For instance, cryptocurrency, which relies on a system of data mining, produces significant waste from electricity demands (and thus the emission of greenhouse gasses) as well as e-waste from data-mining devices. I am inclined to believe that the physical platform that sustains a would-be metaverse would have similar consequences. The fourth Industrial Revolution simply creates different kinds of wasteful excess and is still a significant step down the path of The Left Hand.

Throughout these examples we have seen that humanity has the ability to choose between multiple realities while inhabiting the planet, but the Earth itself has been entirely removed from

the decision-making process. Indeed, the Earth represented in *Triangulum* and *Parable of the Talents* is, much like our own Earth, completely lacking in autonomy in terms of decisions that affect its health and survival. On the contrary, the concept of the Earth as an autonomous being with desires, emotions, opinions, and strategies is explored in detail in N.K. Jemisin's Broken Earth trilogy. In Jemisin's text the Earth, devastated by the destruction that humans have wrought while inhabiting its surface, has decided to wage war against humanity in the form of a catastrophic "Fifth Season." In the glossary at the end of each book in the trilogy Jemisin defines a Fifth Season as "an extended winter—lasting at least six months per Imperial designation—triggered by seismic activity or other large-scale environmental alteration" (Jemisin 460). A Season often has harsh or catastrophic weather conditions, especially ash in the air that makes it difficult to breathe, and each individual community on the continent has food stores and other necessary items in order to survive these difficult conditions.

The world depicted in the Broken Earth trilogy explores what would happen if the Earth were able to feel such human emotions as anger and frustration in response to human activities that create environmental devastation on its surface. When we talk about the negative impacts of climate change and other human-influenced environmental disasters (e.g. oil spills, factory farming, etc.) we often call others to action because of the impact this destruction would have on humanity. Our desire to change the world for the better is most commonly motivated by our desire for us and our descendants to survive in harmony. We have not, however, addressed the fact that we are not alone on this planet, and that most of our efforts to mitigate climate disasters are inherently anthropocentric. Anthropocentrism (noun) is the belief that "humanity is the central or most important element of existence" (Oxford English Dictionary). Jemisin's portrayal

of the belligerent or “Evil Earth” relies upon human experiences and is limited to a human perspective, but this is not a significant limitation because it recognizes that humans must be spoon-fed information from our lens in order to understand or appreciate it.

The alternative to total destruction presented in *The Stone Sky*, the concluding book of the trilogy, comes from the perspective of a terrified yet hardened humanity that knows nothing but the Earth’s revenge. As such, they place the Earth at the head of the negotiating table, a place of respect, and make significant concessions in the hopes of achieving a cease-fire from catastrophe. To the reader, such behavior is completely foreign. It is difficult to believe that there is an entity, apart from G-d, who is greater than human, and what’s more, in a state of greater control than us. In our manipulation of non-human life (and non-life) we have treated its silence as a form of consent, or perhaps we have understood it as not worthy of consent. We have never consulted others (apart from other individuals of our kind) in any kind of decision-making process. To us, our voices are the only ones worth hearing. Yet in *The Stone Sky*, the Earth has its own voice, one of deep grumbles, sputters, and screams. During the negotiating process at the very end of the book, the reader is given the luxury of hearing an interpretation of the Earth’s voice:

The heart of the world is quieter than usual, we find as we take up positions around it. That is a good sign. It does not rage us away at once, which is a better one. We spell out the terms in placatory fluxes of reverberation: The Earth keeps its life-magic, and the rest of us get to keep ours without interference. We have given it back the Moon, and thrown the obelisks in as a surety of good faith. But in exchange, the Seasons must cease. There is a period of stillness... Then a heavy, lurching jolt of gravitation. *Accepted* (Jemisin 298).

The voice of the Earth in Jemisin’s text is a reminder of the vibrations that create human speech. “Earth-talk,” it is called, a conversation of vibrations, of movement. Jemisin relays this

to us in a way we can understand, in a text that mimics the twangs of sound. It is not altogether unfamiliar to the reader's eyes and ears. Also notable is the familiarity in its understanding of pensive silence. Just as in a human conversation, a ponderous silence can mean many things and is often the cause for discomfort as the speaker waits for a response. "In the moment, it feels like another millennium," and when a response is finally granted, the speaker describes it as a "jolt," much like the shock of hearing a response after an uncomfortable period of silence. Jemisin's example is just one of multiple cases in which alternatives to total annihilation are modeled.

I found the conversation between the human negotiators and the Earth in this text to be a useful tool to think about the Earth as an individual party instead of an underling of some kind. The exploration of a traumatized Earth wracked with suffering and devastation allows for us to have some empathy for the planet on its own, a sense of compassion elicited not for personal gain but for real sorrow. The Earth as we know it, of course, does not have such emotions, but conversations like these can give us something to hold onto, even if it is just a small nugget of compassion for its own sake. It is a reminder that, as a matter of fact, we are not—nor have we ever been—alone.

To close, I would like to leave you with a consoling quote from *Triangulum* for you to ponder when contemplating climate change and environmental collapse. I invite you to think of it when you feel despair (climate doom has never been accidental) about our current situation.

Here it is:

For a while before the scientists came searching for me in the field, I felt found, even cured, with an insurmountable feeling of peace and purpose. It spanned a lifetime, and was accompanied by the knowledge that not only were we not alone, but it was also not too late. There was still time to find our balance and survive. To clear the plague (Ntshanga 335).

It is not too late to make a change, to find an alternative path. Champion this change in your own way, and feel this peace—it is waiting for you.

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