Deep Ecology and Speculative Futures: the Unlearning of Human Separation from Nature Through the Lens of Art

by

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Abstract

Living in the midst of a climate crisis has prompted many artists and environmentalists to reconsider how humans as a whole relate to our surrounding environment. While mass culture positions humans as separate from nature, the theory of deep ecology reframes humans as a small part of a much larger interconnected system and asserts that all life has inherent meaning. Deep ecology provides an alternative way of thinking about what it means to live in an ecosystem and prompts a reimagining of a world that considers other life forms as valuable. When combining deep ecological principles with the practice of speculative design, artists have the freedom to use these possible futures as a way to interrogate their implications and define their potential. Through examining the work of artists focusing on a variety of environmental issues, the power of speculation as a tool will be explored through the lens of sustainable practice and deep ecology.

To speculate about the future is an act of hope; it implies the possibility for change and problem solving despite hardships of the present. Speculation exists in the grey area of the future, mushy enough to toe the line between prediction and imagination. More than determining how tomorrow– or 1000 years from now– might unfold, speculation provides room to exercise agency in the present that may impact the future. Intentional change can not occur without consideration for the future, and speculation is the grounds to play with those considerations. In a time of such ecological

flux, we are forced to cast our lines further into the future lest our environment becomes uninhabitable for humans. Through speculation, artists, architects, thinkers, and everyone else is encouraged to play, to imagine a world that may be healthier for life as a whole.

Speculating about environmental catastrophe, especially when considering geological history, demands a rethinking of our perceptions of time, influence, and nature. Designers Anthony Dunne and Fiona Raby refer to this practice as speculative design: designing for possible futures. Dunne and Raby clarify in their book “Speculative Everything” that their intent is not to predict the future, but instead answer “what if” questions that provoke discussion and imagination. They write, “What we are interested in [...] is the idea of possible futures and using them as tools to better understand the present and to discuss the kind of future people want”.[1] This essay will be referring to speculation as a tool, such as defined by Dunne and Raby. In speculating, one is allowed to unglue themselves from their place in the world and imagine alternatives to current reality. Because speculative design principles advocate for reimaging human’s relationship to the world around them, it can be an especially powerful tool when paired with environmental sustainability.

The attempt to reposition how humans think of themselves within a larger system is known as deep ecology, a term outlined by Arne Naess in a 1973 article.[2] The basic tenet of deep ecology is the recognition that all forms in nature have inherent

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[1] Anthony Dunne and Fiona Raby, *Speculative Everything: Design, Fiction, and Social Dreaming*(S.l.: MIT, 2014))

[2] Peter Madsen, “Deep Ecology,” Encyclopædia Britannica (Encyclopædia Britannica, inc., May 16, 2016), https://www.britannica.com/topic/deep-ecology)

value that is not dependent on or related to humans. Deep ecology asserts that human beings are *of* nature and not above it; it prioritizes balance between all forms of nature including humans and strives for a world where wise use and diversity are priorities. In his 1995 overview of the deep ecology movement, Alan Drengson asserts the importance of thinking of deep ecology as a movement rather than a philosophy because it intends to unify those of different beliefs to create action.[3] Deep ecology is an active unlearning of the separation between human and environment that extends across all modes of thinking and expands perspective beyond an individual or species.

In contrast, Naess defines shallow ecology as having the objective of ensuring the well-being of humans in developed countries through environmental actions such as curtailing emissions and addressing the issue of depleting resources.[4] Shallow ecology is anthropocentric at its core, prioritizing environmental charge primarily for the benefit of humans. Anthropocentric refers to a focus on humans and relates to our current geological age, the anthropocene, named as such to mark the influence that humans have had on nature and geology.[5] Many modern environmental movements practice shallow ecology, which prioritizes human well-being or demonstrates a surface understanding of the complexity of ecological systems. This can be seen in single-species preservation campaigns and the enactment of air quality laws as a human health measure. While these examples are not negative, they are human-centric

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[3] Alan Drengson, "The Deep Ecology Movement: Origins, Development & Future Prospects," *Trumpeter*12, no. 2 (1999): pp. 1-7, https://doi.org/10.1037/e719372011-009)

[4] Arne Naess, "The Shallow and the Deep, Long-Range Ecology Movement. A Summary∗," *Inquiry*16, no. 1-4 (1973): pp. 95-100, https://doi.org/10.1080/00201747308601682)

[5] "Anthropocene: Definition of Anthropocene by Lexico," Lexico Dictionaries | English (Lexico Dictionaries-Oxford), accessed May 11, 2020, https://www.lexico.com/en/definition/anthropocene)

and therefore place humans as more important than other beings and forms that share our environment.

Why should we not solely focus on human well-being? After all, we are humans and have the desire to increase the longevity of our species. Simply put, our current ecological condition implies that our recent approach to living in the world is not working well for any organism in the long term, including ourselves. As we begin to pay more attention to the ecological systems surrounding us, it becomes clear they are much more complex than we have given them credit for in the past. The increase of major weather events and global temperature indicate that humans are not immune to environmental impact, and in fact, are deeply ensnared in a web of ecological connections that we have only begun to understand. As our awareness grows that our actions have long term ripple effects, we must acknowledge our place within a wider system before hoping for sustainable environmental interaction.

Ecology, and the overwhelming feeling of living through an environmental crash, have proved a rich ground for artists to partake in speculation and to re-examine their relationships with the planet. There are as many approaches to environmental art as there are artists, and not all artists are actively speculating or considering deep ecology. It should be noted that as humans in our current anthropocentric society, it only makes sense that we are constantly navigating different modes of ecological thinking, ranging from an exploitative “human-first” mentality through understanding ourselves as part of something larger, a deep ecology viewpoint. For eco-artists whose work is intentionally speculative, they must decide where on this spectrum their work falls. However, that

does not necessarily define the thinking of the artist themself and should not be interpreted as such; it is merely one answer to the question of "what if?" that guides an individual's work.

Some ecology-centric art may not intend to be speculative but can certainly be seen through that lens. An interesting example is the exhibit *Connected Worlds* in The New York Hall of Science (NYSCI), located in Queens, New York. Part immersive art and part educational experience, *Connected Worlds* lives in a hard to define space between shallow and deep ecology. Its usage of unique digital technology as a nature education tool easily brings the educational model into a speculative future territory; if physical experience of nature is a thing of the past in an urban setting, is digital nature increasingly our logical future?

New media's approach to climate change and ecological thinking often results in a rub between technology and deep ecology. Computers, one of the primary technologies of a new media artist, have been used to help humans distance themselves from nature and are inherently designed by humans for human needs. From a material standpoint, the technologies of a new media artist are resource intensive and detrimental to the environment in both their production and disposal.[6] Both of these facts mean that new media artwork concerning ecology carries a lot of complexities and built-in messaging based solely on its inherent characteristics. However, this should not necessarily be thought of as limiting and can introduce new ways of thinking about the materiality of technology. While technology has been a major factor in our changing

[6] Syed Faraz Ahmed, "The Global Cost of Electronic Waste," The Atlantic (Atlantic Media Company, September 29, 2016), https://www.theatlantic.com/technology/archive/2016/09/the-global-cost-of-electronic-waste/502019/)

relationship to the environment, it is reflective of its society and will change with it. Further, new media in its constantly developing forms provides fertile ground for speculative design and play which opens new interaction possibilities and approaches to problems. *Connected Worlds* is a great example of the contradictions at play when bringing ecology and technology together and shows that the two concepts are not diametrically opposed.

Opened in 2015, *Connected Worlds* utilizes six 14ft+-tall screens and one screen depicting a waterfall that measures 38ft. Described as a "fantastical, interactive system" by the museum's website, visitors can interact with the screens to impact the environment depicted. Each of the six screens shows a different ecosystem that is home to its own unique plants and animals. Through moving their bodies, visitors can change the ecosystem by planting seeds, harvesting trees, and creating clouds. As changes are triggered in one ecosystem, other ecosystems are impacted.[7] This encourages a "systems thinking" approach and shows visitors how their actions can set off a chain reaction, impacting many environments.[8]

NYSCI's tagline of "Design Make Play" is realized as visitors learn to allocate the shared water source of the

[7]"Connected Worlds – The Fun Way to Learn About Sustainability," NYSCI, accessed May 5, 2020, https://nysci.org/home/exhibits/connected-worlds/)
[8] "Connected Worlds - Interactive Installation," Design I/O, accessed May 5, 2020, https://www.design-io.com/projects/connectedworlds)

ecosystems and cultivate growth through planting and controlling weather. Almost purely gameplay, the exhibit focuses both on interconnectivity and the ways that humans influence their surroundings. Located in the urban jungle of New York City, *Connected Worlds* may be the best representation of ecology in action for many visitors. With populations increasingly urbanizing, *Connected Worlds* may be unwittingly speculating on the future of environmental education.[9]

Regardless of intention, *Connected Worlds* does imply a certain type of future. The exhibit is not a replacement for nature, nor does it attempt to be; aesthetically, the six environments are filled with cartoonish, animated organisms sporting bright colors. The scenes are unmistakably digital but still depi scientific phenomenon in a way that engages and educates. However, the focus on human impact and manipulation of the environment leads to questions concerning the exhibit's main intention: if the goal is sustainability, is such an anthropocentric approach effective for reframing the problematic narrative that has caused the climate crisis? While it is certainly true that systems thinking is an important component of deep ecological thinking, *Connected Worlds* does not address the fundamental worth of the environment.

As earlier mentioned, *Connected Worlds* must also contend with the environmental contradictions that occur whenever new media technology is involved, and inherently provokes critique about the possibility of deep ecological thinking in a built environment. Further, continuing to position humans as able to control nature

[9] "68% Of the World Population Projected to Live in Urban Areas by 2050, Says UN | UN DESA Department of Economic and Social Affairs," United Nations (United Nations), accessed May 5, 2020, https://www.un.org/development/desa/en/news/population/2018-revision-of-world-urbanization-prospects.html)

reinforces the human-first attitude that has caused such detrimental impact to the ecosystem. In *Connected Worlds*, humans are largely in control of the environment, either causing negative change or helping it to thrive. Reinforcing the idea that nature lives or dies at the hands of humans continues to position us as separate from nature with the god-like ability to control our surroundings. Living in the age known as the Anthropocene, this position becomes complicated; on one hand, humans as a whole *do* have control over their negative impact on the environment and need to understand how actions ripple outward. However, humans often have little knowledge of their impact before the damage is done. Systems thinking must go both ways, and in *Connected Worlds*, the environment is not acting on humans so much as they are acting on the environment. The exhibit toes the line between educating a new generation about environmental impact, conservation, and connection, and reinforcing the myth that humans have predictable control over the world we live in. While there are merits to this project– and an indication of widespread interest in systems learning– we must also be critical about what narratives we are reproducing as we teach a younger generation, and if those narratives ultimately support a sustainable future.

Eco-art pioneers Helen and Newton Harrison are an interesting example of a transition from anthropocentric environmental speculation to increased inclusion of deep ecology principles. Discussed in Linda Weintraub's book "To Life!: Eco Art in the Pursuit of a Sustainable Future," the Harrisons created a series of work collectively called *Survival Piece* that focused on reconnecting urban people with their food. The sculptures were responses to the speculative future the Harrisons imagined where it

would become necessary for urbanites to grow their own food. Realizing that they did not have these tools, the various works that comprise *Survival Piece* are experiments in food growing and the creation of small ecosystems.[10] Speaking on the evolution of this idea, Newton Harrison said “Try to imagine.... Earth is being wrecked globally, we are in 1968 or 1969. What’s earth? It’s where everything grows. But I wanted to see for myself”.[11] Born of environmental speculation, these works ultimately lead to a deeper connection between the Harrisons and the food they cultivated.

The Harrisons are unique in their rigorous self-critique, creating their work with active awareness of ethical and ecological considerations that ultimately lead to them abandoning this mode of bio-art. With several sculptures in *Survival Piece*, the artists produced two texts; one focuses on their successes with the project and the other critiques the narrative of the first. This indicates that the Harrisons were constantly recontextualizing their work, shifting between modes of shallow and deep ecological thinking. While the intent behind *Survival Piece* is largely anthropocentric, their self critique suggests that a constant evaluation of the work and its place in the world is carefully considered. Ultimately the Harrisons decided to forgo further work on *Survival Piece* because they worried the works were oversimplifying the issue they were trying to educate on.[12] Recognizing the complexity of these ecosystems and then acknowledging the vast amount that is unknown about the world is an embodiment of deep ecological

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[10] Linda Weintraub, “Helen and Newton Harrison: Strategies to Sustain Life,” in *To Life!: Eco Art in Pursuit of a Sustainable Planet*(Berkeley, CA: The Regents of the University of California Press, 2012), pp. 74-80)

[11] Weintraub, “Helen and Newton Harrison” pp 75.

[12] Weintraub, “Helen and Newton Harrison” pp 74-80.

thinking; through their anthropocentric experimentation, the Harrisons were able to cultivate appreciation for complexity that could not have been reached without critique.

Alternatively, artist groups such as Gelitin begin their work from a very different starting point. Gelitin's 2009 work *Klunk Garden* began with the phrase "One with Nature".[13] Also highlighted in Weintraub's "To Life!", the piece references the goal of finding harmony with nature and borrows from Zen Buddhism, which places high value in meditation and contemplation. In this piece, the members of the Gelitin position themselves within a large sculptural zen garden, taking the usual place of rocks to become part of the landscape that they created. Part sculpture and part performance, Linda Weintraub draws attention to the tongue-in-cheek nature of this work; subverting the zen garden, the artists become rocks by baring their bare buttocks and other "rock-resembling body parts". She writes, "while *Klunk Garden* can be enjoyed as a parody of Zen Buddhism, it also visualizes a fundamental tenet of deep ecology".[14] In this assertion, Weintraub is calling attention to a literal interpretation; Gelitin is physically making themselves part of nature and thereby claiming themselves as part of a whole.

Klunk Garden challenges the concept of the landscape of a zen garden, which assumes a certain type of tranquility; this can be likened to William Cronan's criticism of the myth of untouched "wilderness".[15] As the members of the group use their body parts as rocks, the question arises: can humans be separated from the environment? Gelitin brings attention to the concept of humans being of the environment rather than apart

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[13] Linda Weintraub, "Gelitin: One with Nature," in *To Life: Eco Art in Pursuit of a Sustainable Planet* (Berkely, CA: The Regents of the University of California Press, 2012), pp. 177-182)
[14] Weintraub, "Gelitin" pp.178.
[15] William Cronon, "The Trouble with Wilderness: Or, Getting Back to the Wrong Nature," *Environmental History* 1, no. 1 (1996): p. 7, https://doi.org/10.2307/3985059)

from or tangential to it. By appropriating the role of rocks in a zen garden, the group attempts to assume an identity that is not focused on the human experience. As compared to *Survival Piece* or *Connected Worlds*, *Klunk Garden* begins with a deep ecological or possibly sacred understanding of nature and presents it in an almost humorous format. While *Klunk Garden* does not attempt to solve aspects of the climate crisis through education, it does provide an alternative way to look at the human body in relation to its environment.

When thinking about the human body in relation to ecology, Jae Rhim Lee's creation *Mushroom Death Suit* must be mentioned. This work can be viewed as a speculative technology that uses deep ecological understanding to create a more sustainable afterlife alternative. The work seeks to solve the problem created by the toxicity of the decaying human body, decentering the human experience and reimagining human integration with nature after death.

Made of cotton and specially cultivated flesh- consuming fungi, the suit encases the body and prevents toxins from escaping into the soil. The fungi used, called the Infinity mushroom, can absorb, process, and break down toxins, which

allows a human's negative impact on the environment to stop at death.[16] Listed in *Foreign Policy* as one of "The Top 10 TED Talks They Should Have Censored", Lee's talk on the mushroom death suit was termed "too ahead of [our] time".[17]On the contrary, Lee not only brings light to the issue of toxicity in death but merges technology and ecology that speak to present concerns and potential futures. Her design combats anthropocentric attitudes by encouraging a re-evaluation of the relationship between the human body and surrounding environment.

Perhaps Lee's creation was considered too ahead of our time because it differs so drastically from the modern human understanding of our place in nature. The *Mushroom Death Suit* is designed with the goal of re-integrating our bodies with a larger system once we are finished using them. Lee prioritizes the wellbeing of the system over the wellbeing of a decaying body and recognizes that death is an opportunity for regeneration. The deep ecology mindset of humans integrated within a wider ecosystem is made more possible through this technology. Without the suit, the human body may leach more toxins than resources, and Lee is responding to that issue by creating a neutralizing agent; she is not only addressing a present issue but also speculating on the ecosystem's future needs. Ultimately all living beings will cease to live, and Jae Rhim Lee's creation prioritizes that the aftermath of this decomposition be helpful in nurturing new life.

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[16] Jae Rhim Lee, "How the Mushroom Death Suit Will Change the Way We Die," Medium (TED Fellows, July 7, 2016), https://fellowsblog.ted.com/how-the-mushroom-death-suit-will-change-the-way-we-die-a52f486dc816)

[17] Joshua E. Keating, "The 10 TED Talks They Should Have Censored," Foreign Policy, May 17, 2012, https://foreignpolicy.com/2012/05/17/the-10-ted-talks-they-should-have-censored/)

In the broadest sense, deep ecology is the basic belief that all beings, human or non-human, have value. Despite its seeming simplicity, it has become apparent that humans are not living their life in accordance with this principle. While deep ecology is not a dominant philosophy guiding environment action, it is also not merely an esoteric way of thinking. Deep ecology activates a connection to lifeforms outside of ourselves; it allows us to acknowledge the unexplainable “larger-than-me” sensation triggered by sublime landscapes, encounters with animals, and looking at the stars. Instead of providing us with a new way of approaching the world, deep ecology is reminding us of an older way that insisted upon wise use and appreciation for the present while also prioritizing the maintenance of a sustainable system.

The planet that we are born of is hurtling towards catastrophic changes that most organisms are not evolved to cope with. Not just a warming of the globe, actions of human beings are causing mass extinction. At this point I am not sure how realistic it is to imagine a future with minimum harm done. However, that doesn’t necessarily matter; the future is still being imagined. In particular, artists have the chance to draw attention to our constructs surrounding our place within nature and inspire us to create futures that promote wellness and balance for all forms and organisms. It is not feasible that humans will collectively decide to return to hunter-gatherer ways, nor could we; instead, we must take what knowledge and abilities we have in modern times and consider them through a frame much wider than our own. In paraphrasing Naess, Max Oelschlaeger writes, “deep ecologists must keep the faith that constructive, ameliorative changes leading to sustainability, social justice, and peace are possible, whatever the difficulties

in realizing them. True enough, no doubt, as pessimism is a self-fulfilling prophecy."[18] This has stuck with me: the only assurance that you cannot impact the world is to not try. Despite it feeling self defeating, frustrating, sorrowful, or hopeless, change in how humans relate to the environment can only come about through imagining a deep ecological future and then working to bring it into the world.

[18] Max Oelschlaeger, "Deep Ecology and the Future of the Wild in the Anthropocene," *The Trumpeter*30, no. 2 (2014): pp. 231-246)

The Museum of Natural History (MoNH) project began as a collection of aesthetic and experience-based feelings that were struggling to fit within the larger context of urgent environmental destruction. My early research focused largely on nature's benefit to humans, but became entangled in increasingly complex definitions of nature and arguments surrounding the best course of action for a sustainable future. Fall of 2019 marked the United State's withdrawal from the Paris Climate accords[19] and hammered another nail in the coffin of my optimism for timely environmental action. Despite feeling more passionate than ever about environmental science, justice, and communication, I was overwhelmed with an onslaught of news further stressing the severity of our environmental situation.

The scale of problems like the great pacific garbage patch[20] and burning Amazon rainforest[21] felt too large to tackle. From my perspective, any action I could take would not make the garbage patch smaller or the largest rainforest in the world stop burning; the most I could hope for was to not make it worse.

It was exhausting to develop a project about something I cared so much about while feeling extreme bouts of helplessness and guilt. There is no right way to live sustainably in the world, and we are all tied into economic and social systems that are

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[19]Drew Kann, "US Begins Formal Withdrawal from Paris Climate Accord," CNN (Cable News Network, November 4, 2019), https://www.cnn.com/2019/11/04/politics/trump-formal-withdrawal-paris-climate-agreement/index.html)

[20]National Geographic Society, "Great Pacific Garbage Patch," National Geographic Society (National Geographic Society, October 9, 2012), https://www.nationalgeographic.org/encyclopedia/great-pacific-garbage-patch/

[21] Sarah Cahlan Meg Kelly, "Analysis | The Brazilian Amazon Is Still Burning. Who Is Responsible?," The Washington Post (WP Company, October 7, 2019), https://www.washingtonpost.com/politics/2019/10/07/brazilian-amazon-is-still-burning-who-is-responsible/)

detrimental to environmental health. With complexity and depth of entanglement in a world so focused on consumption, I do not foresee humans learning to achieve balance with their surroundings in the near future. The earth has been altered by human action and the future will be noticeably different from our present.

With this in mind, I thought about what it would look like to live in a rapidly changing world if we refused to collectively change our ways. The MoNH is a response to this less-than-hopeful future.

In the time leading up to the end of first semester of senior year, I read the dystopian novel “Station Eleven”.[22] The book is set during and 20 years after a pandemic that eradicated 98% of the human population. Twenty years later, several small colonies had built up, one containing a makeshift museum with artifacts from the old world. As we teeter on the brink of many possible world crises, I could not stop thinking about what would be left behind to commemorate society and nature as we know it. In thinking about what might be construed as natural history in the future, the idea of the museum was born. Combining my pre-existing ideas surrounding aesthetic and experience, the museum concept allowed me to speculate instead of hope to educate.

The MoNH was to be a museum set in a speculative future where “wild” spaces have been largely destroyed. To “experience” what it felt and looked like to be in an untouched environment, humans must visit museums that contain “experience rooms” with different ecosystems. Although these rooms are made using human processed

[22]Emily St. John Mandel, *Station Eleven: a Novel*(New York: Vintage Books, 2015).

materials, they intend to evoke an impression through a combination of senses, and use smell and sound to deepen the experience. The museum gallery would contain artifacts, mostly in the form of living plants and organic specimens that can no longer be found occurring naturally. These “artifacts” would be displayed traditionally on podiums in glass with the exception of a small plot of grass that visitors have the opportunity to touch. It was important that the museum was clearly set in the future but not at a defined time, as it felt more speculative than predictive. The museum would serve as an example of a discomfitingly real possible future but would allow visitors to form their own, individual conclusions.

My intention was to produce a gallery that transformed the space into this museum. In March 2020, COVID-19 struck the United States, dismantling the idea of this museum as a physical place for the foreseeable future. As the work could no longer exist as an installation prior to my graduation, I chose to present my work as a museum project proposal and utilized 3D modeling. Although the physical project had to be delayed in its presentation, I look forward to bringing the museum and its various components into physical reality in the future.

Theory

Prior to conceiving of the MoNH, I read theory on human/nature interaction hoping that the benefits provided by nature could be used to convince humans of its importance. I quickly realized that this is an anthropocentric approach that continues to

prioritize human benefit over all else.[23] I was also influenced by Viktor Shklovsky's 1917 essay "Art as Device", which introduced the idea that art's power lay in its ability to estrange reality.[24] Shklovsky writes, "the goal of art is to create the sensation of seeing, and not merely recognizing things; the device of art is the "estrangement" of things and the complication of the for, which increases the duration and complexity of perception".[25] To make this more accessible, I began to consider actions as simple as placing a plant on a pedestal as estrangement. Do I now view this plant as more important and innately different in this context? Would ecosystems be seen as art if they were replicated in art museums? The many ways in which "nature" as a concept could be "made strange" felt ripe with potential; if feelings could be created through artistic estrangement, could care towards a subject also be cultivated in this way?

Furthering the theme of estrangement and entanglement, I read William Cronon's essay "The Trouble With Wilderness; or, Getting Back to the Wrong Nature".[26] Cronon develops the argument that wilderness is a human creation, founded on the action of sectioning the planet into definable, marketable pieces. Wilderness, originally representing the dangerous and unknown, was a neat way to divide the boundaries of human and nature. Cronan carefully charts the construction of wilderness and its changed definitions, beginning as a simile for evil to the representing Eden itself,

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[23] This mindset was a guiding force in imagining the museum: what might a nature museum be in society that cares about nature as a concept but fails to think outside of its own desires?

[24] Viktor Shklovsky, "Art, as Device," trans. Alexandra Berlina, *Poetics Today*36, no. 3 (September 2015): https://doi.org/10.1215/03335372-3160709)

[25]V̇iktor Shklovsky, "Art, as Device," trans. Alexandra Berlina, *Poetics Today*36, no. 3 (September 2015): p. 162, https://doi.org/10.1215/03335372-3160709)

[26] William Cronon, *The Trouble with Wilderness: or, Getting Back to the Wrong Nature*(New York: Norton, 1995))

serving as an escape for those with the resources to visit. Along the way, “the concept of wilderness had to become loaded with some of the deepest core values of the culture that created and idealized it: it had to become sacred”.[27] As tourism increased, wilderness became less of a sublime experience than a spectacle. Although wilderness is no longer conflated with such negative emotions, its awe-provoking qualities have been tamed through media documentation and increased tourism leaving a much more controlled “wilderness” in its wake.

Cronan argues that “wilderness” preserves the idea that untouched, sacred land still exists, giving the impression that humans can return. In the future, I speculate that these attitudes towards nature will not change nearly as quickly as the environment itself. Cronan aptly points out the arbitrary division between human and nature, civilization and wilderness, exists only as constructions, but this deep-ecology approach to wilderness is not widespread. Instead, it seems possible that these barriers will continue to exist, leading to forest and desert museums as we cling to the last notions of wild land.

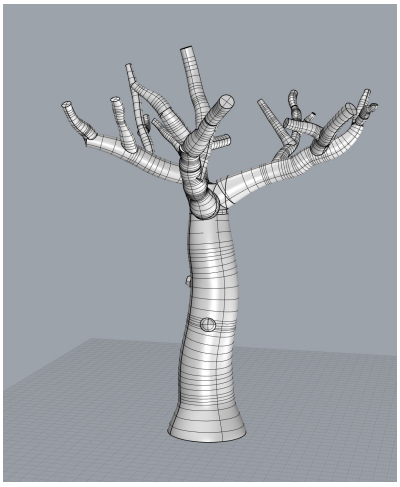
Work

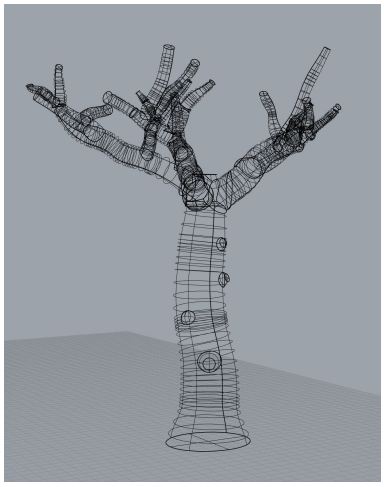
---Tree

Prior to solidifying the format of a museum set in a speculative future, I was focusing heavily on Shklovsky’s concept of estrangement and how it could be applied to material in my work. In fall 2019, my Digital Dimensions sculpture class was assigned a

[27] William Cronon, *The Trouble with Wilderness: or, Getting Back to the Wrong Nature*(New York: Norton, 1995): p.6)

laser cutting product where we were restrained to using only four sheets of cardboard. In the 3d modeling program Rhinoceros (Rhino) I designed a tree that was then divided up to be cut and then reassembled from cardboard. Because cardboard is originally





borne from trees, this seemed like an obvious connection; the cardboard used to make my tree only existed because another tree was taken as a resource. The idea of using a processed material to recreate its original form was compelling and estranged both the cardboard and tree from their usual roles.

Standing at approximately 24inches, my cardboard tree was a 1/4–1/5 scale figure of its intended size. The process of laser cutting and reassembly was evident in its structure; a digital hand was clearly present from the uniformity of shapes and cuts, but it also looked too organic to be machine assembled. When all the pieces of cardboard were stacked to assemble the tree, the material took on an almost bark-like texture caused by the corrugation within the cardboard. The

process of assembly was a labor of love; with approximately 200 individual shapes, the act of building felt like reconstructing a tree from the cardboard pulp it was reduced to. I was happy to find that the cardboard no longer felt like cardboard in this context; while cardboard could be seen as estrangement from a tree, the tree was now estranging the cardboard.

Because I was uncertain how I would incorporate the sculpture into my senior project, I used the form to experiment with growing moss. This was unfortunately not very successful (nor did it end up making sense in the context of my ultimate project idea), but is a concept that I would like to return to. When The Museum of Natural History idea developed I decided to use the tree form in full scale to make 4-5 laser cut trees that would become the basis of my forest “experience room”. While adjustments would have been made, the cardboard trees represented a digital procedure using processed materials that stand in for natural forms. This juxtaposition between the naturally occurring and manufactured sculpture components well illustrated the anthropocentric viewpoint that I was trying to inhabit when designing the museum, and I would like to use a similar construction process when the museum can become physical.

---Logo:

When designing the museum, it was important to me to develop the illusion of legitimacy and professionalism. that many institutions present. To establish branding, I looked at several museum logos and drew a simple emblem to represent the MoNH:

My font choice was guided by observation that many institutions use an academic feeling, serif text, which implies it should be taken seriously.[28] While simple, this logo was created to be used on promotional materials and on the museum's website.

---Moss:

Moss became an important part of my work in part because of its textural qualities. Material confusion, such as the cardboard appearing bark-like, was an important goal of the moss I made. Alexandra Kehayoglou was a huge inspiration in this process. Kehayoglou creates large scale tapestries and rugs using a tufting gun that remarkably resemble the landscapes they mimic[29]. Although I did not have access to a tufting gun or a history of crochet, I began to experiment with "moss-making" through a combination of many shades of yarn and glue. After making several patches, I started to make pompoms that were then combined and attached to fabric to create longer moss. The variance in color and texture helped the yarn take on a more realistic mossy quality. In the physical museum, the patches would be attached to trees and rocks, as well as

[28] This is a personal interpretation of the connotations of this style of font. Font choice was altered when the project became fully online to give the logo a digital, modern feeling.
[29] Work can be found here: https://alexandrakehayoglou.com

act as ground cover. When the project had to take a turn to fully digital, these patches were unfortunately unusable and have been repurposed. [30]

---Foley/Sound:

In conceiving of the forest experience room, it was clear that audio would be needed to create an immersive sensation. Gules Asperti, a senior Music and Composition major at SUNY Purchase, helped to develop realistic foley that mimicked sounds heard when sitting in a forest environment. We used pre-recorded audio of birdsong that we had collected and Asperti mixed all of the tracks together to create a loopable forest soundtrack. Although this could not be used in the physical space, it plays on the project's website automatically when visiting.

---3D Renderings:

When it became clear that a gallery show format was no longer an option, I decided to create basic renderings of the MoNH to bolster my project proposal on the museum's website. Using the student version of Cinema4D (C4D), I built an environment that resembled the layout of the forest experience room as I had imagined it. Because I had very little prior experience with C4D, I used free 3d objects found on internet repositories and focused on designing the digital materials from scratch. The result was a rendered room that appeared more uncanny than my physical museum would have, but succeeded in illustrating my general concept of experience rooms. The inclusion of seating intended for visitors asserts that this space exists because of humans, for humans. This forest exists inside of a fairly small room with walls covered

[30] Image in appendix

in an image of a forest. Further, I intentionally did not consider native location when choosing which trees to use because I wanted to maintain the falseness of the

environment. In the speculative future I was cultivating, I imagined that a world without forests would also be a world where environmental accuracy was not particularly important, even in a museum.

To better depict the gallery aspect of my museum, I created a simple room whose primary characteristic was plants placed behind glass on podiums. In part, this was inspired by thinking about how perceptions of objects change when they are placed on podiums and seen in museums. Because the MoNH exists in a speculative future, I imagined that plants would not be plentiful, meaning that specimens would live in and be protected by museums. As such, the only live plant that visitors were allowed to touch is a patch of grass, which can be regrown reliably. The museum gallery is depicted as clinical and sparse, which is how I imagine a society that attempts to

exclude nature from its daily life. The presence of this type of showroom in the museum is important because it provides a sharp contrast to the “experience rooms” and helps to affirm a sense of time and place in the speculative world I am building.

Moving Forward

The Museum of Natural History has not been realized in its fullest potential. In the midst of a worldwide pandemic, the museum lives only online. However, I am committed to bringing it into the physical world when possible. Although it is disappointing to not be able to show my work in its intended form, I am using this time to continue developing this speculative future and its attitudes towards natural history. Currently I am focusing on adding to the museum’s website and exploring the option of additional experience rooms, which I would then build in digital 3d and render. Ultimately, I would like to make my renderings walkable and include an audio guide that enhances the museum’s feeling of legitimacy. I see the absence of a gallery show as an opportunity to create more realistic trees, experiment with new methods of sculpture, and refine the future that I have created. While I do not wish to address questions about the world outside of the museum, I hope that visitors will do their own speculating and that this act of imagining can inspire alternatives to the future I present.

Work can be found at : monh.cargo.site

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Appendix

Footnote 30

Background Reading

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