

Porous Bodies Changing Worlds

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ABSTRACT

Since the early twentieth century, artists have been making work about socio-political issues concerning the environment. Focusing on the work of LaToya Ruby Frazier, Candice Lin, Patrick Staff, and Judy Chicago, this paper discusses the complex relationships between bodies and their environments as reflected in these artist's projects. Early Land and Environmental Art has predominantly centered white, cis, able bodies and continues to dominate this movement in contemporary art. Therefore, my aim is to engage with contemporary art projects these artists address specific identities and expand the consideration of the ways we physically change in poisoned lands and are changed by our environments because our bodies' porosity.

Keywords: Environmental Art, Body, Porosity, Indigenous Environmentalism, Pollution, Ecosystem

Introduction

The dose makes the poison.

—Paracelsus

We are porous bodies, made up of holes that allow us to breathe air, drink water, and feel the warmth of sunshine. These orifices—our eyes, mouths, nostrils, ear canals, anuses, urethras, vaginas, nipples, and sweat glands—are all channels leading in and out of our bodies. All these openings of ours are directly linked to our senses which, with the help of our brains, dictate how we exist in the world. A porous body is one that absorbs and releases substances: our eyes tear up when particles irritate them, and we sweat when we overheat. Not only do we exist in a world in relation to other beings, but we are also an ecosystem, a universe for non-human microorganisms known as microbes. Our overall well-being is dependent on the health of our microbiome. Porosity is essential to sustaining all forms of life.

What we do to this planet, we ultimately do to ourselves. Both the nourishment we receive from our food and the viruses that infect us result from our interconnectedness with the planet we inhabit. Being part of the Earth means contributing to an ongoing cycle of give and take. The nature of our porosity leaves some of us at greater risk than others. The effects of environmental pollution disproportionately challenge the lives of marginalized people, including but not limited to low-income Black and brown people. If these bodies are seen as toxic, so too are those of LGBTQ folks who stray from social-political norms and people with disabilities who struggle to live in a society created for the able-bodied. When disenfranchised communities are filled with toxic waste, their bodies also come to be viewed as pollution in relation to the cis,

white, able body. As our environments undergo rapid changes, our relationship with the environment will shift. Thus, in this dissertation, I explore how artists render visible our porous bodies and contemplate how might our varied circumstances complicate our reliance and vulnerability to our environments. With intersectionality as a guiding framework, I attempt to dismantle the discourses that aim to keep environmental justice discourses in art separate from those of race, gender, and disability. With this research, I hope to complicate common ideologies that suggest a disconnection of bodies from the environment, arguing that Candice Lin and Patrick Staff's *Hormonal Fog*, Judy Chicago's recent performance *Forever de Young*, and LaToya Ruby Frazier's work, *Detox (Braddock U.M.P.C.)*, are expanding contemporary discourses on environmental art practice.

Chapter 1

In the corner of a white cube gallery, set on a concrete floor, is a contraption. The assemblage of everyday objects includes a worn wooden crate turned on its side and containing three mason jars, each filled with different dried herbs: licorice root sticks, hops, Black cohosh root, dong quai. On top of the crate is a gallon-sized water bottle with a blackcap. The bottle contains tea brewed from a brownish-yellow herb and has a metal spigot inserted near the bottom for convenient dispensing. A funnel attached to a rubber tube drapes over the top of the bottle. Slightly behind and to the right of the crate is a transparent cylindrical container containing a lighter-yellow liquid with the herbs strained out. Another rubber tube and a clear plastic tube feed into the container through a hole in the top. Not pictured is a hacked fog machine attached to the back of the crate via two bungee cords. An aluminum hose runs for several feet into the gallery from the left, with the end facing up toward the ceiling. It is periodically emitting opaque,

white smoke into the air. This artwork is Candice Lin and Patrick Staff's *Hormonal Fog* (2016–ongoing), which takes the body's porosity and malleability as its point of departure. *Hormonal Fog* shows how environmental resources can be used as herbal medicine and challenges the dominant environmental discourse suggesting that nature is something that needs to be protected from humans.

In order to situate this research in contemporary environmental discourses, I will begin by examining the problematic origins of the ecological movement in the United States. In the book *As Long as Grass Grows*, Dina Gilio-Whitaker discusses the fraught relationship between the environmental movement and indigenous peoples. Gilio-Whitaker traces modern environmentalism to the formation of the National Park Service in the mid-1800s and ideas of preserving an uninhabited American wilderness, even though an untouched wilderness never existed. The history of the National Park Service is also the history of the forced removal of native peoples from the ancestral land they inhabited and stewarded for hundreds of years. Ideas of preservation and conservation rooted in white supremacy and settler privilege failed to consider Native Americans' knowledge about caring for the land and maintaining a healthy ecosystem for all species. Ultimately, the National Park System removed indigenous people from

their homes, leaving the landscape unrecognizable and vulnerable to ensuing industrialism,¹ despite their agenda to protect the lands.

Gilio-Whitaker states,

The idea of wilderness as conceived by preservationists was a white settler social construct. It imagined an unpeopled wild landscape as pristine, pure, and unspoiled, and, as the environmental historian Carolyn Merchant asserts, reflected values that equated wilderness with whiteness and after postbellum Black urban migration, cities with darkness and depravity. These tropes, rooted in policies of removal and segregation, she argues, led to the ideal of an American “colonized Eden,” a “controlled, managed garden” from which colonized Indigenous peoples, immigrants, and people of color were systematically excluded and which led to patterns of toxic waste dumping in communities of color.²

Gilio-Whitaker offers an essential insight into a system that was concerned with producing a false narrative of a pure wilderness for the enjoyment of white citizens. Meanwhile, the world outside this designated “wilderness” was subjected to rapid development in the name of economic progress. These policies formed the modern environmental movement, which still largely prioritizes saving the land from people rather than emphasizing a symbiotic relationship between humans and non-humans.

¹Industrialism in the United States is tied to complicated economic systems that extract resources from poor countries and leave them without the wealth that results from turning the resources into capital. See *Immanuel Wallerstein's World-systems Theory Summary*. “According to Wallerstein, the world economic system is divided into a hierarchy of three types of countries: core, semiperipheral, and peripheral. Core countries (e.g., U.S., Japan, Germany) are dominant, capitalist countries characterized by high levels of industrialization and urbanization. Core countries are capital intensive, have high wages and high technology production patterns and lower amounts of labor exploitation and coercion. Peripheral countries (e.g., most African countries and low income countries in South America) are dependent on core countries for capital and are less industrialized and urbanized. Peripheral countries are usually agrarian, have low literacy rates and lack consistent Internet access.” PDF document from <https://www.boundless.com/sociology/textbooks/boundless-sociology-textbook/global-stratification-and-inequality-8/sociological-theories-and-global-inequality-2072/world-systems-theory-429-205371>. This website is no longer active. I found the PDF at the following URL: https://www.moundviewschools.org/cms/lib/MN01909629/Centricity/Domain/418/Wallerstein_Core_Periphery_Activity.pdf

² Dina Gilio-Whitaker, *As Long as Grass Grows: The Indigenous Fight for Environmental Justice from Colonization to Standing Rock* (Boston: Beacon Press, 2019), 100.

Hormonal Fog is a sculptural installation and DIY hormone treatment that aligns with indigenous practices of living off and stewarding the land.³ Visual descriptions included in this paper refer to an image of the work shown in the exhibition *A Kingdom of Hours* at Gasworks in London in 2016.

Although Lin and Staff are known for their separate artistic practices, the pair have a history of collaboration in Los Angeles. During their time in the Artist Lab Residency at the 18th Street Art Center in 2015, they held a series of workshops about the different hormonal properties of plants. The artists were interested in applying the “practice of queer counter reading of text to herbalist texts that talk about herbs for hormone regulation or normalization.”⁴ Out of this research came the tincture that became the basis of *Hormonal Fog*.

The installation *Lesbian Gulls, Dead Zones, Sweat, and T*, created to look like someone was squatting at a construction site, was featured at *Human Resources* in 2017. This installation contained an early iteration of *Hormonal Fog*. For Lin, this was a significant part of her artistic practice in thinking about the “porosity of boundaries,” whether between geographical locations, between species, or between materials. In a lecture, the artist specified, “In this case: the illusion that our body is self-contained when it is a porous sack.”⁵ As I have outlined in the previous chapter, our bodies are subject to the world around us, absorbing toxins but also nutrients and medicine through the air we breathe, the water we drink, and the food we eat.

Composed of herbs, miscellaneous hardware, and a hacked fog machine, the artwork physically occupies only a few feet. It sits directly on the floor in the corner of the gallery,

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⁴ Hammer Museum, “Candice Lin: UCLA Department of Art Lecture,” YouTube, uploaded January 29, 2019, <https://www.youtube.com/watch?v=CTdgHACo-U8>.

⁵ Ibid.

making it feel less like an art object and more like a science experiment.⁶ In order to run, the artwork needs a connection to a power outlet. A transparent, ribbed plastic, gallon-sized water bottle containing a deep yellowish-brown liquid that resembles urine but was brewed from licorice root sticks, hops, black cohosh root, dong quai, and fog machine fluid sits on top of a wooden crate displaying three glass jars full of the dried herbs. A yellow tube with a metal funnel attached dangles out of the top of the water bottle and is secured with the black lid of the bottle. The fog machine is attached via two bungee cords on the other side of the crate (not pictured in the image). A strained version of the tea in a transparent cylindrical plastic container set on the floor is transported to the fog machine through another yellow tube. Finally, the mixture disperses into the air via a silver aluminum hose. The seemingly innocuous contraption fills the gallery with opaque smoke. As the smoke wafts through the air, a viewer can walk through it, causing the fog to disperse further throughout the gallery space.

Initially, the installation appears to be a simple visual effect, considering the public's familiarity with fog machines, which are standard appliances in films and theme park attractions. The dried herbs suggest medicinal properties, while the plastic bottles and tubes read as rudimentary. Using everyday objects helps the machine feel familiar and unthreatening to the viewer and also promotes a feeling of utility. The herbs and gentle fog even resemble a larger-scale diffuser.⁷ However, fog in itself is known to obstruct vision. It can cause car accidents or keep planes grounded. In this case, the fog is not thick enough to obscure the gallery

⁶ Of note is that the piece is assembled in response to a series of instructions and specific materials provided by the artists to the curator and staff installing each exhibition.

⁷ Diffusers are used with essential oils and emit a vapor into the air. They are often used for relaxation and stress relief.

space, even as it creates an atmospheric haze. If anything, the fog serves as a metaphoric veil for something unclear and blurry.



Figure 1

The experience of witnessing *Hormonal Fog* goes beyond the visual sense. I can only imagine the way the vapors would gently caress the skin as the faint smell of the herbs mixed with the fog liquid teases the beholder's nostrils. I would like to bend down, to get as close to the aluminum hose as possible and let my lungs fill with the atomized particles. Unlike the smoke emitted from the mills' industrial pipes, as seen in Frazier's pieces, this fog is delicately crafted through extensive research on herbal remedies. In this case, the cloud enveloping the room releases atomized anti-antigens that suppress testosterone production.

Lin and Staff's medicinal mist lowers the testosterone levels of all those who come through the space, and symbolically, the gallery itself. These anti-antigens come directly from plants grown in the ground and not from the refined medicine of Big Pharma. The piece raises ethical questions. Is a viewer entitled to disclosure when an experience or environment can alter their bodies, or does participating in the viewing of contemporary art provide enough consent in

itself? In this case, the goal is that testosterone production will be suppressed via simple inhalation through the nose and mouth rather than through more invasive methods, such as injections, pills, or implants.

Many of the myths associated with testosterone fail to acknowledge its essential role in both male and female bodies. The definition of an abnormally high or low amount of testosterone remains unclear. The symptoms associated with high amounts of testosterone in men can lead to low sperm counts, shrinking testicles, impotence, heart muscle damage, and an increased risk of a heart attack, prostate enlargement with difficulty urinating, liver disease, acne, fluid retention with swelling of the legs and feet, weight gain perhaps related to an increased appetite, high blood pressure and cholesterol, insomnia, headaches, increased muscle mass, increased risk of blood clots, stunted growth in adolescents, uncharacteristically aggressive behavior (although not well studied or proven), mood swings, euphoria, irritability, impaired judgment, and delusions.⁸ Meanwhile, among women, polycystic ovary syndrome is a common cause of high testosterone production.⁹

However, too little testosterone in men can also cause reduced body and facial hair, a loss of muscle mass, low libido, impotence, small testicles, reduced sperm count and infertility, increased breast size, hot flashes, irritability, poor concentration and depression, loss of body hair, brittle bones, and an increased risk of fracture.¹⁰ Harvard Health Publishing notes that low testosterone is not always a bad thing and that medications that lower testosterone levels, such as leuprolide, are typically used to treat men with prostate cancer.¹¹ In women, the ovaries and

⁸ “Testosterone—What It Does And Doesn’t Do,” Harvard Health, Harvard University Medical School, August 29, 2019, <https://www.health.harvard.edu/drugs-and-medications/testosterone--what-it-does-and-doesnt-d>.

⁹ Ibid.

¹⁰ Ibid.

¹¹ Ibid.

adrenal glands produce testosterone as one of several androgens in females.¹² These hormones are thought to have important effects on ovarian functioning, bone strength, and sexual behavior. The proper balance between testosterone and estrogen is important for ovaries to work normally. While the specifics are uncertain, androgens also possibly play an important role in normal brain function (including mood, sex drive, and cognitive function).¹³

Since no scientific consensus has emerged to date on what constitutes a normal amount of testosterone, deciphering when it becomes too much or too little is impossible. Many fears around testosterone stem from social perceptions of what constitutes a man or woman. To some who identify as queer, trans, or non-binary, lowering testosterone can be a tool for expansion beyond the limits that society has prescribed as normal; moreover, such therapy can help with self-realization. Queer, trans, and gender non-conforming people welcome the symptoms of testosterone suppression that allow them to push beyond a limiting gender binary. In an audio clip from the exhibition *Trigger: Gender as a Tool and a Weapon* accessed through the New Museum's digital archive, Staff discusses the piece, stating,

I think for those of us who want to suppress the testosterone in our body there's this pleasure in it or almost a joyousness in this environment or self-actualization. But obviously at the same time in the work, there's this suggestion of fear, and fear of pollution and fear of paranoia and a kind of, not fear of paranoia but paranoia of the environment around us.¹⁴

Staff's comments suggest dismissing the good/bad binary view of testosterone suppression and, instead, viewing hormone disruption as one potential for human beings to initiate change in the body. The fog lives in ambiguity, neither completely harmless nor harmful. Changing the body's

¹² Ibid.

¹³ "Testosterone—What It Does."

¹⁴ Patrick Staff, "115 Trigger: Patrick Staff and Candice Lin," Sounds, New Museum Digital Archive, 2017, <https://archive.newmuseum.org/sounds/13453>.

chemical composition can have consequences, but we do not fully understand this specific component. The apparatus becomes a way for Lin and Staff to enact a will on the gallery. They have recreated a situation where the body becomes malleable through its surroundings, and notions of what is considered medicinal or harmful become blurry based on a wide variety of viewers' subjectivities.

Lin and Staff are among many other artists and scholars who have considered the impact of environmental hormones on the body. In her article, "Bodies in the System," Vanessa Agard-Jones discusses and applies the scholarship of anthropologist Michel-Rolph Trouillot while considering the effect of pollution on her friend's body and the body's subjugation to global power. Among the topics of Agard-Jones's discussion is chlordécone, a chemical found in the pesticides used by the wealthy elite who dominate the agricultural sector on the island of Martinique.

Further, chlordécone is understood to be an endocrine disruptor: a compound that generates estrogen-like hormones in the environment and consequently in people's bodies. Given this last effect, chlordécone has been the source of an emergent gender and sexual politics on the island, where local suspicions about the contamination's relationship to male effeminacy include new convictions about what some are calling a "genocide by sterilization" and a new hospital-based initiative to document intersex births.¹⁵

Agard-Jones calls attention to chlordécone's ability to increase estrogen production in the body. Martinicans fear that the increase in estrogen is transforming the gender and sexual identities of the population and affecting gender politics in the country. Furthermore, residents fear that chlordécone consumption might cause prostate cancer, infertility, and other related ailments. This fear is linked to the cultural climate of Martinique, but I want to make a distinction: homophobia

¹⁵Vanessa Agard Jones, "Bodies in the System," *Small Axe* 17, no. 3 (42) (November 2013): 182–192, <https://doi.org/10.1215/07990537-2378991>.

is not the same as the fear of disease. Pesticides, including chlordécone, have been banned in the global North, but their use continues in Martinique despite scientific evidence of harm.

In contrast to the unseen nature of chlordécone's distribution, with the bodies of residents of Martinique being changed via their consumption of this chemical through their food and water sources, *Hormonal Fog* attempts to make the agent of change visible to the human eye in this work. Both show that while we may view our bodies as our own, our individualism is a hoax. While chlordécone's effects induce symptoms of a lack of regulation and careless pollution, *Hormonal Fog* is an intentional illustration of the disruption of the boundaries of our bodies, highlighting a deeper connection to the world around us and using the materials of the Earth for a self-initiated transformation.

Martinican's fears of estrogen-fueled sex changes are not the first but represent a global trend of alarm that is exacerbated by stories presented by the media. Malin Ah-King and Eva Hayward speak to a growing fear of endocrine-disrupting chemicals and try to frame changing sex as a potential.

Sex potential is just that, an opening out, a responsiveness that is ontologically more dynamic than static. While some organisms have a narrow regular range of sex possibilities—their potential is more delimited—the effects of endocrine disruption provide a reworking of even these limits. In other words, while some species of fish more easily shift from female to male as an environmental response to pollution, other species, such as polar bears, shift with more trouble. And yet, hormonal disruption assures changes across borders of sexes.¹⁶

Rather than give in to the growing anxiety concerning the sexual changes spurred by environmental pollution, Ah-King and Hayward challenge readers to think more expansively about a world where our changing environment has shaped us. This specific text does not discuss

¹⁶Malin Ah-King and Eva Hayward, "Toxic Sexes: Perverting Pollution and Queering Hormone Disruption," *O-Zone: A Journal of Object-Oriented Studies* 1 (Autumn 2013): 1–12.

the wide variety of identities outside biological notions of sex. Gender is more expansive than male/female and fails to address pertinent social constructs. For example, most medical experts would agree that between 1 in 1500 to 1 in 2000 children are born with noticeably atypical genitalia, and a 2016 report by the Williams Institute at the University of California Los Angeles estimates that 1.4 million adults identify as transgender.¹⁷ Some individuals may seek medical intervention for gender affirmation, while some denounce systems that praise one's ability to pass and give in to social pressures.

Lin and Staff's *Hormonal Fog* gives power back to the individual, showing how you can transform your body to reflect who you understand yourself to be. A porous body is not only vulnerable but malleable. The same characteristic that allows us to thrive in the world can also be a threat to our safety.

Chapter 2

On October 16, 2021, Judy Chicago held a performance entitled *Forever de Young*. Assembled in the front of the de Young Museum in the middle of San Francisco's Golden Gate Park was a large skeletal pyramid structure composed of metal pipes. When I arrived, a large crowd with hundreds of people- some accompanied by children and pets, some masked to stop the spread of COVID-19- had already gathered to witness the free performance. Chicago provided a short pre-recorded introduction that offered little context, and then the performance began with a dozen loud bangs of fireworks that silenced the crowd. Imposing clouds of colored smoke slowly began to creep from the red flares toward the onlookers. I blinked—and found

¹⁷Andrew R. Flores, Jody L. Herman, Gary J. Gates, and Taylor N. T. Brown, "How Many Adults Identify as Transgender in the United States?" *Williams Institute* (June 2016), <https://williamsinstitute.law.ucla.edu/publications/trans-adults-united-states/>.

myself enveloped in white, yellow, and pink smoke. My eyes began to water as the putrid smell of sulfur burned my nose. Within seconds, the people all around me seemed to disappear behind the thick, colored clouds. The colors kept coming, one after another, mixing together: purples, green, blue, yellow, pink, and then orange. The orange was reminiscent of September 9, 2020, the day the sky turned orange all over the Bay Area. Fire season that year was particularly devastating, with over five hundred thousand acres burning in the Pacific Northwest.¹⁸ My body felt as if it had been transported back in time to September 9 and then forward to a future where our air is unbreathable.



Figure 2

Forever de Young was both mesmerizing and terrifying. As it lasted only several minutes, the discomfort experienced by the crowd was soon forgotten. The genius of this piece was its ability to masquerade as a simple, joyous celebration of color when, in fact, the experience of the work forced the viewer to reckon with the ways in which human beings have altered our living environment so radically that, eventually, we might one day be no longer be able to live. Chicago

¹⁸Kelsey Rexroat, “The Day the San Francisco Sky Turned Orange,” *New Yorker*, April 20, 2021, <https://www.newyorker.com/culture/video-dept/the-day-the-san-francisco-sky-turned-orange>.

worked with similar methods and fireworks in her “Atmosphere” projects, which took place from 1968 to 1974.¹⁹ These works were often performed as protests and referenced subjects from the war in Vietnam to female liberation.²⁰

However, this performance was heavily criticized by Bay Area writer Dodie Bellamy, who reviewed the performance for *Art Forum*. Bellamy describes *Forever de Young* as a “shitshow.” Her main concern is that the piece was traumatic for both the crowd gathered that day and the surrounding neighborhood. Bellamy compares the performance to several historic disasters, saying,

After the isolation of lockdown, to flee a site-specific shitshow with strangers was an awesome communal experience. I was reminded of walking through the intense quiet that followed the 1989 Loma Prieta earthquake here in San Francisco, when random people would make eye contact and say hello. Over and over, we who were living through a real disaster said it was like being in a disaster movie. Each and every member of the shocked populace felt like my friend.²¹

Bellamy goes on to describe the crowd as families, children, dogs, and hipsters. While her description is spot on, I feel she missed the point. This project was conceived to make the viewer uncomfortable. Art should challenge and cross boundaries. Often, the most marginalized people in society are the ones who experience the most discomfort. In a letter to the editor, Chicago responded,

These works can highlight the beauty of our environment, but they can also suggest a myriad of meanings including *sati*, self-immolation, terrorism, and in relation to *Forever de Young*, performed just a few weeks ago in San Francisco, the terrible forest fires experienced in the Bay area.²²

¹⁹Judy Chicago, “Forever de Young: A Judy Chicago Performance,” *Fine Arts Museums of San Francisco*, October 16, 2021, livestream video, 1:13. <https://www.youtube.com/watch?v=qIkdKbH1NhI&t=3875s>.

²⁰Donna Jeanne Haraway, “Sowing Worlds: A Seed Bag for Terraforming with Earth Others,” in *Staying with the Trouble: Making Kin in the Chthulucene*, Experimental Futures: Technological Lives, Scientific Arts, Anthropological Voices (Durham: Duke University Press, 2016), 117–125.

²¹ Dodie Bellamy, “Up in Smoke,” *ArtForum* (blog), October 26, 2021, <https://www.artforum.com/slant/dodie-bellamy-on-judy-chicago-s-forever-de-young-87040>.

²² *Ibid.*

It feels to me appropriate that the predominantly white, upper-middle-class, art-going public should experience some discomfort, even if it is manufactured in the name of art. The piece was so volatile to some because it made each of us reckon with our past, present, and future. Chicago produced a sensory experience that mirrors the conditions many of us are already experiencing. Frazier considers the consequences of polluting our environment in terms of our bodies and the disease that ensues.

Chapter 3

The initial efforts to establish the National Park Service in the mid-1800s came as the Industrial Revolution was already transforming the landscape and economy of the United States. Braddock, Pennsylvania, is just one example of how cities throughout the Rust Belt became hubs of economic expansion. I look to Braddock precisely because of its relevance in the work of artist LaToya Ruby Frazier. In 1872, the Edgar Thomson Steel Works began operations in Braddock, and when white workers went on strike, the region's mills would hire African Americans to fill labor shortages.²³

The possibility of better wages led to mass Black migration, especially from the South, and many found jobs on sites along the Monongahela, Allegheny, and Ohio Rivers in western Pennsylvania.²⁴ Despite setbacks from the Great Depression, Black steelworkers and their families persisted. With help from the New Deal and later WWII, material demand reignited Black migration from the South.²⁵ On the surface, the steel industry maintained a facade of racial

²³ LaToya Ruby Frazier, Dennis C. Dickerson, Laura Wexler, Dawoud Bey, and Lesley S. Martin, *The Notion of Family* (New York: Aperture Foundation, 2014), 137–140.

²⁴ *Ibid.*

²⁵ *Ibid.*

equity. But in reality, it kept Black steelworkers from promotions, leaving them to execute demanding low paying and dangerous labor throughout their careers.

While the majority of the steelworkers of the time were men, other residents of Braddock who were living in close proximity to the mills experienced constant exposure to the toxic debris emitted by the plant, transforming the land and their bodies. For decades, discriminatory redlining practices kept Black and brown people segregated in these areas in Braddock as well as all over the country. Mel Y. Chen's seminal text, "Toxic Animacies, Inanimate Affections," informs my arguments about environmental racism and relationships between the human body and environmental toxins. Chen urges the reader to "consider how vulnerability, safety, immunity, threat, and toxicity itself are sexually and racially instantiated in the recent panic about lead content in Chinese manufactured toys exported to the United States."²⁶ The author goes on to note that the media abandons efforts to tie lead poisoning to Black children because they have been racially categorized as being closer in proximity to the toxic. Focusing on media concern for lead levels in white children's toys, Chen shows how only some identities are deemed worthy of protection from chemicals, while others are left with a severe contamination of their resources, including air and water. Environmental racism, a term coined by the Rev. Dr. Benjamin Chavis, can describe practices of toxic waste dumping that disproportionately affect Black and brown communities.²⁷ Through racial othering, bodies become victims alongside the places that receive these chemicals.

²⁶ Mel Y. Chen, "Toxic Animacies, Inanimate Affections," *GLQ* 17 (June 1, 2011): 265–286, <https://doi.org/10.1215/10642684-1163400>

²⁷Linda Villarosa, "Pollution Is Killing Black Americans. This Community Fought Back." *New York Times*, July 28, 2020, <https://www.nytimes.com/2020/07/28/magazine/pollution-philadelphia-Black-americans.html>.

Our complex and destructive relationship with the Earth can be understood to start with the desire for individual ownership of land. In his *Discourse on Inequality*, philosopher Jean-Jacques Rousseau observes,

The first man who, having enclosed a piece of ground, to whom it occurred to say this is mine, and found people sufficiently simple to believe him, was the true founder of civil society. How many crimes, wars, murders, how many miseries and horrors Mankind would have been spared by him who, pulling up the stakes or filling in the ditch, had cried out to his kind: Beware of listening to this impostor; You are lost if you forget that the fruits are everyone's and the Earth no-one's.²⁸

Rousseau was not the first to understand that ownership of land and the entitlement that allowed the human race to believe that the Earth is something to claim and tear apart for its resources formed the foundation of the practice of denying the interconnectedness essential to true prosperity. Indigenous peoples led lives in which their use of the planet allowed them to thrive without destroying the balance of our delicate ecosystems.²⁹ Contrary to popular belief, human beings have played a critical role in land maintenance and care—a relationship of give and take.³⁰ However, capitalists exploited the land and the workers who took on dangerous jobs in industrial factories.

LaToya Ruby Frazier's *Detox (Braddock U.P.M.C.)*, from 2011, is a video piece (22:24 in duration) chronicling Frazier and her mother Cynthia receiving an ionic foot cleanse. *Detox* appears in Frazier's first book, *The Notion of Family*, as a series of stills along with self-portraits, images of her family, and Braddock. The majority of Frazier's work takes the form of

²⁸Jean Jacques Rousseau, "On the Origin of the Inequality of Mankind," in *A Dissertation on the Origin and Foundation of the Inequality of Mankind and Is It Authorised by Natural Law?*, trans. G. D. H. Cole, rendered into HTML by Jon Roland of the Constitution Society, 1754, <https://www.marxists.org/reference/subject/economics/rousseau/inequality/ch02.htm>.

²⁹ Kat M. Anderson and Michael J. Moratto, "Native American Land-Use Practices and Ecological Impacts," in *Sierra Nevada Ecosystem Project: Final Report to Congress*, vol. 2 (Davis: University of California, 1996): 187–206.

³⁰ *Ibid.*

black-and-white staged photographs and portraits. However, *Detox* is presented in color and in a style that resembles that of a home movie. The recent display of the video work in the 2021 exhibition *Contact Traces* at the CCA Wattis Institute of Contemporary Art in San Francisco was simple. An old television sits on a white pedestal approximately four feet off the ground. The viewer can sit on a small wooden bench a few feet from the screen. Unlike watching a personal television set, the viewer wears a pair of black headphones to hear the audio from conversations between the physician's office, Cynthia's bedroom, and the sounds of a steel mill. The piece is also available to stream online, making it available anytime, anyplace. The quality of the picture dates the piece to the early 2000s.

The video alternates between three central locations: a doctor's office, Cynthia's bedroom, and external shots of Braddock near the steel mill. Not directly addressed in the video is the complicated history of Braddock, Pennsylvania, and how this place has shaped Frazier's family for generations. Frazier grew up in Braddock, one of hundreds of towns in the United States that was once bustling and full of steelworkers. Frazier's ancestors escaped the South and found economic prosperity in Braddock. Her great grandfather worked at the very mill depicted in the film. By the time Frazier was born, Braddock was already in decline, and the once-thriving community was gone. Many of the city's businesses were shuttered, families were torn apart by the war on drugs, and those who could, moved away to find work elsewhere.³¹

In 2010, the city's largest employer and last remaining hospital closed, leaving the residents without proper health care. Both Frazier and her mother Cynthia struggle with illness; Frazier has lupus, while her mother (and grandmother) have been diagnosed with cancer. In *The*

³¹ Frazier et al., *Notion*, 137–140.

Notion of Family, Frazier recounts, “One afternoon Mom and I went to Braddock Hills Medicine Shoppe to pick up her prescriptions. Upon our visit, we learned about the ionic foot detox from the pharmacist. Skeptical, we tested the procedure, each placing our feet in a separate bath for thirty minutes.”³² Frazier discusses their doubt but ultimate willingness to try anything that might provide relief from disease. Frazier’s disbelief, as well as her mother’s, is not unfounded. Shortly before the time of the video, the University Medical Center of Pittsburgh was shuttered because it was unprofitable, leaving strained marginalized bodies without proper treatment. When the hospital closed, any ideas about being cared for by the medical establishment dissolved with the building. Even though there is little research proving the efficacy of the ionic foot cleanse’s ability to detox the body, offering the procedure gives the illusion of care regardless of whether or not it can genuinely cleanse the body and provide substantial relief.³³

In a still from 5:36 in the video, Frazier gives us a wide shot of the doctor’s office. Frazier and her mother, wearing casual clothing, are seated in office chairs. Cynthia wears a white bandana, glasses, a leather jacket, and army-print pants. Frazier wears a black fedora, black sweatshirt, white tank top, and light-wash jeans. Both women’s pants are rolled up, and their feet are soaking in white basins that rest on white towels. Between them is a small wooden table that holds two devices connected via black cords to apparatuses in the basins; the devices seem to be monitoring the procedure. Diplomas line the wall behind them, along with a few pictures. Against the wall behind Cynthia is a bookshelf cluttered with books, photographs, and

³² Ibid., 111.

³³Deborah A. Kennedy, Kieran Cooley, Thomas R. Einarson, and Dugald Seely, “Objective Assessment of an Ionic Footbath (IonCleanse): Testing Its Ability to Remove Potentially Toxic Elements from the Body,” *Journal of Environmental and Public Health* 2012, <https://doi.org/10.1155/2012/258968>.

pill bottles. Behind Frazier, on the sidewall, is a gray filing cabinet, a shelf holding miscellaneous boxes, and folders filled with papers.

A clinician in a white lab coat kneels between the women, pointing down to the basin containing Cynthia's feet. The women both look down to see what he is pointing out. Frazier captures as much of the office space as possible, grounding the viewer in the setting. The clutter that characterizes the space makes it feel as if the space has not been staged or set up to look a certain way, while the diplomas and the white lab coat give the medical professional credibility. The room itself feels claustrophobic and uncomfortable. There are enough details to signal that the procedure has some credibility in the medical community. However, the juxtaposition with the office disarray seems to showcase an unsustainable medical system where the professionals are underfunded, overworked, and short-staffed.



Figure 3

In another still from 17:44 in the video, Frazier's camera lingers on her basin. At this moment, the treatment is complete. The still image almost reads as an abstract painting. Toxic

materials often become abstracted because the elements that compose them are unable to provide visceral reactions of fear and disgust through their visual forms. Chen’s description of lead paint being identifiable through the bright colors used on children’s toys operates similarly to how Frazier’s basin debris makes toxins in the body comprehensible. “Thus lead was an invisible threat whose material loci and physical provenance, much like the sleeper cell, needed to be presumed in advance and mapped—not only geographically but sensorily, sometimes through visual coding schemes like color itself.”³⁴ The basin debris offers a visualization of the toxins the body has absorbed through air and water.



Figure 4

The camera mimics Frazier’s gaze, looking down as it hovers over the basin’s contents without showing the white container itself. A reddish-green sludge resides on the water’s surface, while under it is a murky yellow-brownish color. Flecks of black and brown float at the bottom of the basin. Patches of bubbles reflecting an overhead light add dimension to an otherwise flat image. The accumulated waste feels foreign and vile. Frazier holds the camera at this shot to give

³⁴ Chen, “Toxic Animacies,” 265–286.

the viewer a good look at the debris that has been removed from her system. She mobilizes disgust and draws the viewer's attention to it. The color feels dirty and suggests abnormalities, disease, and uncleanliness. I find myself curious about what my own body would expel if I received the same treatment. The name of the piece, *Detox*, refers to releasing or expelling the contaminants we see here with nothing else to distract us. In *The Notion of Family*, Frazier shares the results.

Upon inspection, the pharmacist read the following differences: My water was lighter, slightly translucent with a large amount of brownish-orange yeast debris, thin lymphatic mucus, and black chips of heavy metals floating on top. "That's all heavy metal that's come out of your system," the doctor stated. "You didn't live downwind of the mill, did you? Could've picked a lot of the metal up from the steel mill. It's atomized in the air you don't even realize you're breathing it and exposed to it." Areas cleansed: liver, gallbladder, kidneys, intestinal tract, and the lymphatic system. Mom's water was pretty dark with lymphatic mucus, indicating a congested liver and shredded lettuce-like particles from her intestinal tract.³⁵

If seeing is believing, this is the only visible evidence Frazier has of the poisoning of the residents of Braddock. We know that she spent a good chunk of her life close to the mill. She shows us the contaminants as if to say, see it with your own eyes, what is happening to us, this is what is lingering within us. There is a moment when Cynthia is in bed, and she talks with a stutter about how miserable she is because of the pain. Although this video does contain images of her mother's suffering, I surmise that Frazier has come to understand through her own experiences that Black bodies in pain never seem to inspire the outrage we would hope for. Chen goes on to ponder, "One wonders to what degree any newfound alarmism about the vulnerability of Black children to environmental lead can succeed, given the abiding construction of the mentally deficient, impulsive, and spastic Black body."³⁶ Cynthia, with her stutter, becomes

³⁵ Frazier et al., *Notion*, page number?.

³⁶ Chen, "Toxic Animacies," 265–286.

characterized as a spastic Black body when, in reality, she is a victim of the environmental pollution destroying countless bodies like her own through the air.

Finally, in a still from 20:08 minutes into the video, Frazier aims the camera at the center of a street lined with multi-story brick houses, telephone poles, and streetlights. On the ground, there is a light dusting of snow. The shadow of the steel mill falls over the homes at the end of the road. Several stacks release billowing clouds of chemical smoke that obstruct the sun, producing a gray sky. Not a single person is visible, and the street feels abandoned. The factory's proximity to this residential street is troubling, especially after the doctor's comments.



Figure 5

Despite everything, Frazier has shown us that the mill continues to pollute the air at an alarming rate, but without the job security it once represented. More troubling is that the industry has evaded regulation. A recent *New York Times* article from September 2021, titled “Pollution Is Killing Black Americans, This Community Fought Back,” discusses the environmental pollution harming residents of Grays Ferry, just outside of Philadelphia, a community that has similar

racial and socioeconomic demographics to those of Braddock, which is just outside of Pittsburgh. In the article, journalist Linda Villarosa reports that

according to 2016 E.P.A. data, the refinery that looms over Grays Ferry was responsible for the bulk of toxic air emissions in the city. The E.P.A. found that the refinery had been out of compliance with the Clean Air Act nine of the past 12 quarters through 2019 with little recourse. From 2014 to 2019, P.E.S. was fined almost \$650,000 for violating air, water and waste-disposal rules.³⁷

Frazier's image emphasizes corporate gains over the well-being of communities all over the country. What was once the source of hope for a better future has led to widespread disease and suffering. While the companies have profited, the people have been left to deal with the biological repercussions. These environments do not get the same protections as national parks, as if these specific areas are separate from the complex ecologies that they are intertwined with. More insidious are the acts of redlining that have kept marginalized communities disproportionately living next to toxic industrial waste sites for over a century. Villarosa's article presents staggering statistics, such as,

In 1987, the United Church of Christ Commission for Racial Justice, then headed by Chavis, issued a report, "Toxic Wastes and Race in the United States," that was the first to examine race, class and the environment on a national level. The study revealed that three out of five Black and Hispanic-Americans, or more than 23 million people, resided in communities blighted by toxic-waste sites and found that while socioeconomic status was an important correlation, race was the most significant factor.³⁸

The article continues,

In 2007, the United Church of Christ updated its research, this time with Bullard as a principal author, in "Toxic Wastes and Race at Twenty: 1987–2007," finding that racial disparities in the location of toxic-waste facilities were "greater than previously reported." People of color made up a majority of the population in communities within 1.8 miles of a polluting facility, and race—not income or property values—was the most significant predictor.³⁹

³⁷ Villarosa, "Pollution Is Killing."

³⁸ Villarosa, "Pollution Is Killing."

³⁹ Villarosa, "Pollution Is Killing."

While not all disabilities result from pollution, a great many of them may. Compelling evidence shows that residents living in close proximity to industrial plants and toxic dumping grounds contract higher rates of asthma, and an overwhelming amount of them develop cancer. On this topic, Villarosa notes, “According to data collected by the National Cancer Institute, each year 501 people in every 100,000 in Philadelphia will get cancer, compared with 449 in the United States and 485 in Pennsylvania.”⁴⁰ The difference is that people in Philadelphia have been living in closer proximity to pollution, often for generations. Nevertheless, despite overwhelming amounts of data, it is impossible to link individual cancer cases to toxic air.

In her 2016 film, *Flint Is Family*,⁴¹ Frazier documents the Flint water crisis through the experience of the Cobb Family. The film is composed of black-and-white portraits and photographs, along with a poem and narration by Shea Cobb. Much like the *Notion of Family*, *Flint Is Family* chronicles the lives of three generations of women: Cobb, her mother, and Shea’s daughter, Zion. Cobb’s narration discusses the water crisis and the daily struggles of living in Flint, Michigan, but she also makes a point that they still live their lives to the fullest. She discusses her life as a bus driver, poet, activist, and mother. Additionally, she describes the material realities of Flint and her experience attending a family member’s wedding at the courthouse in Flint. She talks about how, in moments of joy, it feels like the crisis does not exist. Cobb also mentions that she will be moving away from Flint with Zion to live with her father in Newton, Mississippi, to have a better life. Frazier continues to photograph Cobb throughout the move and when the family returns to Flint because of the racist school system they encountered in Mississippi. Frazier ultimately grew so close to the community that, after the news in the

⁴⁰ Ibid.

⁴¹ I viewed *Flint Is Family* on Frazier’s website. <https://latoyarubyfrazier.com/work/flint-is-family/>

summer of 2019 that the attorney general had dropped all criminal charges in the Flint water crisis investigation, she could no longer stand by and simply take photographs.

A close friend of Cobb, Amber Hasan, discovered a man named Moses West in Puerto Rico who designed a machine that creates clean water out of thin air.⁴² Government officials showed no interest in bringing the 26,000-pound atmospheric water generator to Flint to provide the community with relief, so Frazier decided to take the proceeds from her exhibition *Flint Is Family* and a matched grant from the Robert Rauschenberg Foundation to bring the generator to Flint.⁴³ This generator is able to provide over 2,000 gallons of water daily for free to the community.⁴⁴ Water is a basic human need and essential to life. Flint, Michigan, is not the first or last community that will experience contaminated water, but creative solutions, like Moses' atmospheric water generator, offer hope.

Frazier's film *Detox* shows how the human body is vulnerable to our environment through its ability to absorb environmental pollution.

Conclusion

The experience of our corporeal bodies is still one of our best assets in understanding and combating our changing world. The results of pollution will continue to transform so many different aspects of our world, and human beings are not immune to such changes. Our interconnectedness with our environments becomes visible in the body through disease and

⁴² LaToya Ruby Frazier, "A Creative Solution for the Water Crisis in Flint, Michigan," filmed November 20, 2019, in New York, NY, TED video, 11:26, https://www.ted.com/talks/latoya_ruby_frazier_a_creative_solution_for_the_water_crisis_in_flint_michigan#t-4730

⁴³ Frazier, "A Creative Solution."

⁴⁴ Ibid.

disability, over the course of generations, and even through sex. However, the same porousness that makes us vulnerable is the exact same characteristic that allows us to live.

In “Sowing Worlds: A Seed Bag for Terraforming with Earth Others,” Donna Haraway proposes “symposis.” She defines the term as “a carrier bag for ongoingness, a yoke for becoming with, for staying with the trouble of inheriting the damages and achievements of colonial and postcolonial natural cultural histories in telling the tale of still possible recuperation.”²¹ While Haraway is not indigenous, her work is very much in line with the practices these communities advocate for. Moreover, Haraway is honoring indigenous environmentalism by proposing a thoughtful coming together with the world around us. Going forward, the only way for humanity to survive will be to radically shift the way we exist in the world. In other words, in caring for the world, we will better care for ourselves as a species.

This prospect is not a new way of thinking but an ancient way of being, practiced by indigenous people all over the world. Indigenous environmentalism is difficult to define, but a quote from the article “Why Indigenous Resistance Is More Important than Ever” by Kaitlin Grable summarizes it well.

Since nature is at the intersection of most Indigenous peoples’ identity, religion, culture, and community, we are therefore compelled to protect it. Our people have lived here on Turtle Island (also known as North America) since time immemorial, and for just as long we have acted as good stewards of the earth, the life, and the resources it gives us. Our ancestors lived in harmony with the land and with what it provides, while staying mindful of the ecological boundaries of the natural world and not taking from the land more than they needed. We see ourselves as being interconnected with all life forms. This awareness and reverence of where we fit into the world guides us. Mother earth does not have a human voice, therefore we have the ability to use our voices to call to her needs when she gives us warning and needs our help.⁴⁵

⁴⁵Kaitlin Grable, “Why Indigenous Resistance Is More Important than Ever,” <https://www.greenpeace.org/usa/stories/why-indigenous-environmentalism-is-more-important-than-ever/>.

The knowledge that indigenous people have acquired and passed down is invaluable. Their understanding that the human species is tied to the Earth in complicated and beautiful ways can help to restore ecological balance if we are willing to listen and implement changes rapidly. At the core of indigenous culture is gratitude to all members of the natural world. In the book *Braiding Sweetgrass*, Robin Wall Kimmerer includes the “Thanksgiving Address” or, in the Onondaga language, “The Words That Come Before All Else.”

Today we have gathered and when we look upon the faces around us we see that the cycles of life continue. We have been given the duty to live in balance and harmony with each other and all living things. So now let us bring our minds together as one as we give greetings and thanks to each other as People. Now our minds are one. We are thankful to our Mother the Earth, for she gives us everything that we need for life. She supports our feet as we walk about upon her. It gives us joy that she still continues to care for us, just as she has from the beginning of time. To our Mother, we send thanksgiving, love and respect. Now our minds are one.⁴⁶

This practice of gratitude is one that we can carry with us into our daily lives. When human beings make decisions about how to live in this world, it would be wise to consult these words of thankfulness.

Lin and Staff’s *Hormonal Fog* highlights an optimistic read of the porosity of the body and how we can use the materials of our environments for self-actualization. Queer, trans, and non-binary folks use the malleability of the human form to transform it in ways that better suit their complex relationships with their bodies and a society insistent on gender binaries. The entanglement of our bodies with the Earth has allowed human and non-human ancestors to thrive for many generations.

Chicago’s *Forever de Young* immersed a crowd in a colorful cloud of chemicals. The discomfort felt by the audience via their eyes and lungs was pertinent to the interpretation of a

⁴⁶Robin Wall Kimmerer, “Allegiance To Gratitude,” in *Braiding Sweetgrass: Indigenous Wisdom, Scientific Knowledge and the Teachings of Plants* (Minneapolis: Milkweed Editions, 2013), 103–117.

work that could otherwise be written off as a spectacle. The porosity of the human body is essential to how we live in and perceive the world.

In *Detox*, Frazier explores the consequences of prioritizing industry over some lives and some environments. Frazier's project highlights the way that environmental racism leads to disease and the degrading of individual bodies. Through storytelling and using her own and her mother's bodies, the material effects of pollution become visible. While it may seem as if the problems explored here are confined to disenfranchised communities, if humanity continues on this path, more and more populations will suffer. Those whom society has positioned on the margins will no longer be alone in suffering from disease and lacking clean air to breathe, belying the delusion among the privileged that they will be unaffected by these consequences forever.

Aspects of the perspectives represented in these works by Frazier, Lin, Staff, and Chicago align with the ideology of indigenous environmentalism that places humans as an integral part of the natural world.⁴⁷ As mentioned previously, the settler-colonial ideas that placed human beings outside of a pristine wilderness were greatly misleading. Those same ideals were carried into the early history of the artist movement known as Land Art.

Land Art's early origins can be traced to the 1968 exhibition *Earthworks* at Dwan Gallery in New York, which attempted to move art beyond the gallery and showcased collaborations between artists and ecologists in the hopes of bringing people's attention to their relationship with the land.⁴⁸ Early Land Art reflected the ideals of Minimalism, creating a form of sculpture that added and subtracted Earth, using it as their material.⁴⁹ Works such as *Spiral Jetty* by Robert

⁴⁷ None of the artists self-identify as indigenous.

⁴⁸ Jeffrey Kastner and Brian Wallis, eds., *Land and Environmental Art* (London: Phaidon Press, 2005), 21–40.

⁴⁹ *Ibid.*

Smithson, *Mill Creek Canyon Earthworks* by Herbert Bayer, Dennis Oppenheim's *Relocated Burial Ground*, Christo and Jeanne-Claude's *Running Fence*, and Nancy Holt's *Sun Tunnels* are exemplary of the movement. As Land and Environmental Art developed, artists began to engage with the Earth in numerous ways—not merely as a material but as subject matter in object-oriented work, site-specific projects, or social engagements.

Environmental art, also known as ecological art, is difficult to define, as it encompasses a variety of different practices. However, *Land and Environmental Art* by Jeffery Kastner and Brian Wallis provides a detailed survey of the field. A chapter of the book, titled “Implementation,” discusses artists’ engagement with the socio-political issues interconnected with the environment. Ranging from sculpture to performance, the works in this section “demonstrate how human relations with the natural environment are based not only on perception and pleasure, but exploitation, waste and destruction.”⁵⁰ Artist Alan Sonfist was critiqued for his project *Time Landscape*, which aimed to return sites throughout New York City’s five boroughs to the pre-colonial condition they featured in the seventeenth century.⁵¹ Sonfist’s ideas were seen as aligned with the misguided thinking of an uninhabited wilderness and not focused on the environmental problems needing to be solved in the present.⁵²

Today, plenty of artists who are working in the contemporary art world are addressing environmental issues. *Detox*, *Hormonal Fog*, and *Forever de Young* are works that continue the legacy of Land and Environmental Art in ways that are not present in Jeffery Kastner and Brian Wallis’s book. *Land and Environmental Art* centers cis-able bodies that should not and cannot hold the limitless expressions of the human form. While it acknowledges the ways human beings

⁵⁰ Kastner and Wallace, *Land*.

⁵¹ *Ibid.*

⁵² *Ibid.*

change and are changed by the Earth, it fails to address how individual difference contributes to the ways we experience and live in the world. Our planet is changing rapidly, and artists will continue to address our relationship to our environment in artwork. As exemplified in works by Lin, Staff, Chicago, and Frazier that consider how our porous bodies are reliant and vulnerable to the world around them, artwork can make visible the systems within which we are deeply enmeshed that allow all life to exist.

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