Ellie Irons

Qualifying Exam: Fields, Forests, Meadows and Margins: Situating Ecosocial that (Re)Disturbs, 1960 to Today

Electronic Arts Ph.D. program
Rensselaer Polytechnic Institute
11/25/2018

Committee Chair: Kathy High
Committee Members: Branda Miller, Leila Nadir, Mary Anne Staniszewski

TABLE of CONTENTS

Fields, Forests, Meadows and Margins: Situating Ecosocial that (Re)Disturbs, 1960 to Today

A Grounding in Contaminated Earth: Cracking the Patriarchy

Day is breaking over a postindustrial patch of land in Crown Heights, Brooklyn. I'm walking from the Franklin Avenue shuttle train, past informal car repair garages and parking lots full of heavy machinery. I can hear a rhythmic pounding—metal clanging on metal—ringing through the chilly air as steam rises off rooftops and sidewalks. Approaching the entrance to the Environmental Performance Agency headquarters—a former auto body yard sandwiched between a warehouse and a makeshift parking lot—I sense that the clanging is accompanied by the dull thud of a chisel striking asphalt. As I slide open the heavy metal gate, with its banner asking "In a time of extinction, how do we make space for more life?" I begin to detect the labored breathing of a human exerting herself. The crouched forms of my collaborators Andrea Haenggi and Catherine Grau come into view across a stretch of asphalt dotted with patches of mugwort and sweet clover. Andrea is swinging a heavy mallet that makes a satisfying clank-thud each time it connects with the chisel she has embedded in the decomposing asphalt. Catherine hovers at her side, ready to take a turn. I notice our third collaborator, Christopher Kennedy, lies prone on the dusty ground documenting the scene with his phone. The crew is deep in the process of (re)disturbing an already disturbed landscape. Pulling up squares, circles, and triangles of asphalt in random patterns across the yard, they are creating an opportunity for new life to spring up in the gaps, accelerating the process of rewilding that has taken place gradually since Andrea became the land's temporary steward in 2013. Each year the yard looks more like a meadow and less like a wasteland. This meditative early morning activity is being carried out in preparation for a public workshop exploring means and metaphors for "cracking the patriarchy." I lean my backpack against the fence, nestling it between stands of heath aster and a massive bull thistle, preparing my muscles and my mind to take part in the productive disturbance unfolding before me.

Section 1: What to Expect: An Introduction to Structure and Organization

This paper explores a category of artistic practice I've termed *critical ecosocial art that (re)disturbs*. While I won't refer to my personal work in the formal portions of the paper, vignettes like the one above serve to ground my analysis in my own lived experience as a practitioner of this form. The paper falls into roughly five sections, although topics from each are interwoven and bleed between sections. After using this portion to introduce the paper's structure, I'll move on to Section 2, where I'll outline the geographic, temporal and disciplinary

terrain we'll traverse, alongside theoretical frames I'll be using to make ecology and landscape a metaphorical and literal presence throughout.

From there I'll move on to Section 3, where I'll outline and analyze the evolution of the broad field of artistic practice that has variously been described as land art, earth art, environmental art and eco-art. I'll establish overlaps and distinctions between these related fields in preparation for defining why the set of artistic practices I'm exploring are worth singling out from these broader historical movements. Introducing and defining the category of *critical ecosocial art* will allow me to sketch a genealogy for contemporary work that addresses sociopolitical concerns in an incisive way that does not separate them from ecological and environmental issues. I will argue that this is a form of artistic practice that can help move us towards the goal of a truly intersectional environmentalism based in feminist, antiracist and decolonial practices that prioritize multispecies solidarity and environmental equity. Defining intersectional environmentalism and its relationship to critical ecosocial art will involve establishing a historical and cultural context for the environmental movement. I will start with a North American focus and expand to a more global lens as the paper progresses.

Following this contextual grounding and defining of terms, I'll move on to Section 4, which makes up the bulk of the second half of the paper. Here I'll focus on close readings of ten artworks that I see as key to the evolution of the field I've defined as critical ecosocial art. As will become evident, each of these works engages the vegetal in a material sense, allowing us a window into human-nonhuman relationships and shifting attitudes towards plant-based forms of life. I will present these works roughly in chronological order, although related projects and

practices will take us forward and back in time when appropriate. As we examine these artworks, we'll also pause for interludes of historical context to help flesh out key aspects of intersectional environmentalism. These will include the rise of the Environmental Justice Movement, postcolonial and decolonial scholarship, and the debate around the so-called Anthropocene.

My approach to these diverse fields and the stories they tell together will be grounded in my engagement with the ongoing evolution of feminist thought, with contributions from ecofeminism, feminist posthumanism, and feminist science and technology studies. I will define each of these as we encounter them. In the closing section I will return to some of the broad themes introduced in Section 2 and 3, attempting to focus more closely on how critical ecosocial art is part of the narrative we tell ourselves about the environment in our contemporary moment, a narrative inflected by overlapping, sometimes complementary and sometimes contradictory, contributions from decolonial, feminist, environmental justice and Anthropocene-related discourses.

Section 2: Nomenclature and Scope (Geographic, Temporal, Disciplinary)

Why "Critical Ecosocial Art"?
A focus on Socially Engaged Eco-Art that (Re)Disturbs (and other notes on nomenclature)

Art that engages with environmental or ecological themes has been subsumed under a range of monikers over the last half century. These range from earth art to systems art, environmental art to eco-art, to more specific labels like Critical Art Ensemble's "contestational biology" or Sue Spaid and Amy Lipton's "ecovention."[1] While I'll engage with each of these labels as important

---

[1] Critical Art Ensemble, "Contestational Biology," in *Nature*, ed. Jeffrey Kastner, Documents of Contemporary Art (London: Cambridge, Mass: The MIT Press, 2012); Sue Spaid and Amy Lipton, *Ecovention, Current Art to Transform Ecologies*, 1st edition (S.l.: Cincinnati, OH: S.l.: Contemporary Arts Center, 2002).

precedents, my interest here lies in a particular range of work that is not precisely described by any of them, and thus my use of the phrase critical ecosocial art. The artworks I explore in Section 4 will help illuminate this mode of artistic practice more fully through concrete examples. For now, I'll provide a brief explanation of how I came to this terminology, and how I hope it functions. Generally, I see critical ecosocial art as a re-evaluation of ecological or environmental art with a focus on lineages that lead to contemporary practices that have certain qualities, including:

1. A commitment to incisive socio-political framing that does not shy away from the biopolitical realities of the global ecological crises.
2. Public-facing and/or community-based methodologies, with an emphasis on relational practices.
3. Justice-based approaches to environmentalism drawing on feminist, decolonial and multispecies strategies, what I'm terming "intersectional environmentalism."
4. Address human and extra-human natures as a single system in a way that challenges the Western framing of (some) humans as above and outside of the rest of nature.[2]

The "critical" subtitle in critical ecosocial art is not completely satisfactory to me, but I use it here in the spirit in which I find it applied in critical animal studies or critical ecofeminism: as a marker acknowledging precedents for the term that follows, identifying this critical version as

---

[2] The plural use of "nature", modified here with human and extra-human, is meant to highlight and push back against a common and problematic use of the term. Without modification, the term invokes a culturally constructed category that has provided the rationale for centuries of subordination of systems and life forms held to be outside of "civilized society," including, of course, certain categories of human beings. While this critical reading of nature is important across feminist and ecofeminist discourse, which I draw on heavily, I take this particular terminology from Jason W. Moore, who uses it to describe his formulation of a "capitalist world-ecology," which he describes as "not the ecology of the world, but a patterned history of power, capital and nature, dialectically joined" in "the web of life." Drawing on feminist and Marxist theory, Moore emphasizes how capitalist appropriation of "human and extra-human natures" forms through this web, not outside of it. Related terminology includes "nonhuman nature" and "more than human nature," phrases that are more commonly applied in fields like multispecies ethnography and feminist posthumanism, among others. I use Moore's phrasing here because I find that it strikes a good balance between the affirmative tone of "more than human" and the negating lack suggested by "nonhuman." In other contexts I will apply other terminology. Jason W. Moore, *Capitalism in the Web of Life: Ecology and the Accumulation of Capital* (New York: Verso, 2015), 18.

related to but in some way revisionist or ameliorative of the term at hand.[3] This suggests to me an awareness that the terms that follow it have parallel uses that are perhaps too general, have been misunderstood or mis-applied, or lack an incisive ethical stance to the broader field within which they operate. My lack of satisfaction with my use of the term critical has partially to do with my sense that it has been dulled by overuse, and can advance the sentiment of deconstructing without offering alternatives.[4]

With that in mind I'd like to introduce the term *disturbance* as an enlivening companion for my use of critical, as in *critical ecosocial art that (re)disturbs*. Of course disturbance has multiple meanings, which I appreciate, but I draw here on the meaning and quality of the term as it is used in the discipline of ecology.[5] In ecosystem science, disturbance refers to "any relatively discrete event in time that disrupts ecosystem, community, or population structure and changes resources,

---

[3] Critical ecofeminism refers to both a subset and a reappraisal of pioneering ecofeminist literature and theory from the 1980s in the context of renewed interest in multispecies interactions and intersectional approaches. This interest has arisen in the wake of new materialist and Anthropocene-related debates and dialogues. While I will elaborate further on the status and implications of this renewed interest, basic tenants of the conversation are outlined in Dominic Boyer and Cymene Howe, *Ep. #76 – Greta Gaard*, Cultures of Energy, accessed August 29, 2018, http://culturesofenergy.com/ep-76-greta-gaard/ and Greta Gaard, "Ecofeminism Revisited: Rejecting Essentialism and Re-Placing Species in a Material Feminist Environmentalism," *Feminist Formations* 23, no. 2 (2011): 26–53.

[4] Bruno Latour, "Why Has Critique Run out of Steam? From Matters of Fact to Matters of Concern," *Critical Inquiry* 30, no. 2 (2004): 225–48, https://doi.org/10.1086/421123.

[5] As I've explored in other contexts, I find ecological concepts, applied both literally and metaphorically, to be exceptionally rich terrain for thinking with and through. As a student of environmental science and a lover of more-than-human-nature from my early years, I've long been romanced by abstract ideas that can be extracted from and applied to muddy, earthy, organic systems. It's only in the past ten years, as I've developed my own affinities with ecosocial art, multispecies ethnography and ecofeminism, that I've discovered the work of others who find them to be equally productive partners for thinking across disciplines, cultures, languages, and ways of being. My engagement with such concepts has been especially enriched and extended through exposure to the work of Donna Haraway and Anna Tsing, alongside many others. For an exploration of these overlaps, see: Ellie Irons, "Edge, Boundary, Assemblage, Territory: From Ecology to STS and Back Again (with Stops in Socially Engaged Art and Critical Plant Studies)" (Seminar Paper: Science Studies, 2018), https://ellieirons.com/wp-content/uploads/2018/11/Irons-Science-Studies-FINAL.pdf.

substrate availability, or the physical environment."[6] In the wake of disturbance, whether a large-scale forest fire or a single uprooted tree in a dense forest, a portion of land is reset to bare earth or otherwise reduced in terms of biotic complexity. While destructive, disturbances also create an opportunity for different ecological systems to sprout in their wake. If disturbance is frequent, ecosystems are constantly reset and don't get the opportunity to mature beyond what ecologists refer to as the "pioneer stage", an emergent stage that plays an important role in ecosystem renewal but only supports specific species and relationships. If disturbances are rare, ecosystems may reach a climax state in which a few species dominate and overall biodiversity declines.[7]

I hope that as we explore the artistic practices described in the following pages, it will be evident that they are critical in the sense that they disturb the status quo in productive, friction-inducing ways that create opportunities for new ecologies, both metaphorical and literal, to rise in their wake. Even when these practices have shortcomings, they generate possibilities for the

---

[6] Steward T. A. Pickett and P. S. White, eds., *The Ecology of Natural Disturbance and Patch Dynamics*, Revised edition (Orlando: Academic Press, 1987).

[7] Adam D. Miller, Stephen H. Roxburgh, and Katriona Shea, "How Frequency and Intensity Shape Diversity–Disturbance Relationships," *Proceedings of the National Academy of Sciences of the United States of America* 108, no. 14 (April 5, 2011): 5643–48, https://doi.org/10.1073/pnas.1018594108. While the relationship between species diversity and disturbance regimes (i.e. disturbance frequency and severity) has been studied for decades, competing hypothesis still exist. The "intermediate disturbance hypothesis" described above is reflected in many situations, but as human-drive climate change accelerates new patterns may emerge, requiring new models. Miller et. al. suggest a unifying model that has the "potential to reconcile apparently conflicting empirical results on the effects of disturbance on diversity" in the face of intensifying disturbance regimes due to Anthropogenic climate change.

cultivation or renewal of other ways of relating to extra-human natures, and the introduction (or re-introduction)[8] of novel forms of sociality and reciprocity between humans and earth systems.

With or without the critical modifier, the hybrid term ecosocial art is meant to operate on several levels. Perhaps most obviously it references related fields of artistic practice, including socially engaged art and ecological art or eco-art.[9] Practices honed and theorized in these fields have contributed greatly to my understanding of how critical ecosocial art functions. As in eco-art, the *eco* prefix is a stand in for ecological, and is closely associated with the related terms ecology and ecosystem. This group of terms has a historical usage and contemporary valence that I find more useful than *environment* or *environmental*, perhaps the most obvious alternatives.

---

[8] In a theme I will return to throughout this paper, it is important to acknowledge that many "novel" ways of cultivating reciprocity with nonhuman life and earth systems are actually not new. For urban practitioners of ecosocial art, they are enacted in a new context, but many of them echo or even directly reference indigenous ways of knowing that have been hidden, erased or ignored by colonial systems of knowledge production and dissemination. For this reason it is essential to incorporate decolonial approaches to knowledge sharing, especially when approaching issues of land, place, and environment, topics many environmentally engaged artists address. See La Paperson, "A Ghetto Land Pedagogy: An Antidote for Settler Environmentalism," *Environmental Education Research* 20, no. 1 (January 2, 2014): 115–30, for a examination of this topic through the lens of environmental education. Given socially engaged art's frequent use of pedagogical strategies, Paperson's critiques are relevant in the context of ecosocial art.

[9] I've written previously about the genealogy of socially engaged art (SEA) and its relationship to eco-art. I won't go into that kind of depth here, but will outline SEA as a recently ascendent field with precedents in Dada, Surrealism, Fluxus, New Genre Public Art, Relational Aesthetics and Participatory Art. My use of socially engaged art in this context matches what Pablo Helguera lays out in *Education for Socially Engaged Art*. He describes "a form of performance in the expanded field" that has a strong affinity with the field of education. Educators have already honed many of the skills and approaches that come into play in SEA, from inquiry-based methods and participant engagement to facilitation of discussions and hands-on activities. Helguera emphasizes that practitioners of SEA draw on a range of skills from other disciplines, from theater to anthropology to pedagogy. See Pablo Helguera, *Education for Socially Engaged Art: A Materials and Techniques Handbook* (Bethesda, MD: Jorge Pinto Books, 2011) and Ellie Irons, "Social-Ecological Art for Contesting a Disappearing Commons: Tracing the Genealogies of Public Fieldwork as an Artistic Methodology for Navigating the Sixth Mass Extinction" (Graduate Seminar Literature Review, 2017), https://ellieirons.com/wp-content/uploads/2018/11/Irons-Lit-Review.pdf. For a more wide-ranging account of artistic practices that employ participatory strategies see Claire Bishop, *Artificial Hells: Participatory Art and the Politics of Spectatorship*, Original edition (London; New York: Verso, 2012).

Although environment and ecology are sometimes used interchangeably in the visual arts, I find it to be worth distinguishing between them, even in this context. They have distinct origins and meanings, as elucidated by two contrasting entries in *Keywords for Environmental Studies*. Writing on environment, Vermonja R. Alston begins by noting that the term is as complex and contradictory as the term "nature."[10] She traces its origins to the 14th-17th Centuries, drawing on an historical Oxford English Dictionary (OED) definition that suggests it was originally used to refer to "the state of being encompassed or surrounded."[11] It wasn't until the 20th Century that the term came to be associated primarily with so-called natural settings. Since then the complexity of its usage has expanded, leading Alston to define it rather capaciously as a term that "in the broadest sense…connotes contested terrains located at the intersection of economic, political, social, cultural, and sexual ecologies."[12] The contemporary OED definition of environment is much more narrow, including "The surroundings or conditions in which a person, animal, or plant lives or operates," and "The natural world, as a whole or in a particular geographical area, especially as affected by human activity."[13] In this second OED definition a nod to the term's association with environmentalism is clear.

---

[10] Vermonja R. Alston, "Environment," in *Keywords for Environmental Studies* (New York: New York University Press, 2016), 93-96, http://www.jstor.org/stable/j.ctt15zc5kw.34; "Environment," Oxford Dictionaries | English, accessed November 11, 2018, https://en.oxforddictionaries.com/definition/environment

[11] Ibid., 93.

[12] Ibid., 95.

[13] Angus Stevenson, ed., *"environment." In Oxford Dictionary of English* (Oxford University Press, 2010), http://www.oxfordreference.com/view/10.1093/acref/9780199571123.001.0001/m_en_gb0268810.

The term ecology has a more recent and specific origin. Writing on the term for *Keywords for Environmental Studies*, Seidler and Bawa cite the term's 1866 coinage by German Zoologist Ernst Haeckel. In their estimation, its meaning has not changed much since its origin. It continues to refer primarily to "the study of the functional interrelationships of living organisms, played out on the stage of their inanimate surroundings."[14] The authors spend much of their entry elaborating on the various strands of practice within the scientific field of ecology, before acknowledging that in the 1960s "the terms 'ecology' and 'ecological'—vocabulary drawn from what had been until then a rather esoteric scientific discipline—exploded into popular use, almost as terms of approbation."[15] In this context ecological became a stand in for holistic, inclusive approaches to thinking and living, contrasted positively against narrow, reductionist or overly scientific modes. It continues to have similar connotations today.

The collision between popular conceptions of what it means to live "ecologically" and the ongoing evolution of the ecological sciences as a field of scientific inquiry make ecology a compelling term with which to associate the artistic practices explored in these pages. I will continue to reference environmental art when I am seeking to convey the broadest possible subset of artistic practice (within the temporal and geographic scope I've defined) that evokes, intervenes in or responds to extra-human natures as a primary theme, material or method.

I will expand on the overlapping fields of eco-art and environmental art in the following section, but before doing so, I'd like to excavate another meaning embedded in my use of "ecosocial."

---

[14] Reinmar Seidler and Kamaljit S. Bawa, "Ecology," in *Keywords for Environmental Studies* (New York: New York University Press, 2016), 71.

[15] Ibid., 72.

Like Donna Haraway's naturecultures or Robin Wall Kimmer's biocultural, ecosocial is meant to emphasize that these are artistic practices that strive to break down false dichotomies between ecology and sociality, nature and culture.[16] As Haraway describes:

> Biological and cultural determinism are both cases of misplaced concreteness—i.e. the mistake of taking provisional and local category abstractions like 'nature' and 'culture' for the world, and second, mistaking potent consequences to be preexisting foundations.[17]

Combining the two terms in one challenges the tendency to speak of them as "polar opposites" or "universal categories", which also effects how we conceptualize and engage with world.[18]

For Kimmerer, biocultural similarly acknowledges the entanglement of human culture with biological systems, but from a more hands on, practice-based perspective. In *Braiding Sweetgrass* she draws on indigenous teachings and plant biology to make the case for a biocultural approach to restoring damaged ecosystems, one that relies on the understanding that humans are part of nature. To restore ecosystems, we must restore reciprocally beneficial interactions between species. This includes human interaction and engagement, which can

---

[16] The widespread use of naturecultures across disciplines, from primatology to computer-human interaction, makes it clear how integral the binary-breaking, typology-skeptical orientation represented by the term has become across the Humanities and beyond. As I will analyze more fully later, this orientation grows largely out of foundational work in feminist and ecofeminist circles that has, for various reasons and to various degrees, been adopted by contemporary scholarship without reference to feminism as its original proving ground. For an example of the breadth of fields in which the term is applied, see: Nicholas Malone and Kathryn Ovenden, "Natureculture," in *The International Encyclopedia of Primatology* (American Cancer Society, 2016), 1–2, https://doi.org/10.1002/9781119179313.wbprim0135; Nancy Smith, Shaowen Bardzell, and Jeffrey Bardzell, "Designing for Cohabitation: Naturecultures, Hybrids, and Decentering the Human in Design," in *Proceedings of the 2017 CHI Conference on Human Factors in Computing Systems*, CHI '17 (New York, NY, USA: ACM, 2017), 1714–1725, https://doi.org/10.1145/3025453.3025948; John Law, "Enacting Naturecultures: A Note from STS," *Centre for Science Studies, Lancaster University*, 2004, 1-12.

[17] Donna Haraway, *The Companion Species Manifesto* (Chicago: University of Chicago Press, 2003), https://www.press.uchicago.edu/ucp/books/book/distributed/C/bo3645022.html, 6.

[18] Ibid., 6.

include positive, productive forms of disturbance, such as harvesting, burning, flooding and planting.[19] Thus, while I've chosen ecosocial in order to refer to the field of eco-art, ecology and socially engaged art, I will occasionally use biocultural and naturalcultural in the context of indigenous practices, ecofeminism, and feminist science studies, depending on which terminology is used more readily in those discussions.

Continuing my mapping of relevant nomenclature, there is another useful term to add to this list of hybrids. Artistic works and practices that operate ecosocially strive to dissolve rather than reinscribe hierarchies and boundaries between human-made and nature-made objects, artifacts, and systems. Many strive to engender a syncretic understanding of ecosystems not just as naturalcultural and biocultural, but also as *biopolitical*. While clearly related to these other hybrid terms, biopolitical as a different valence than the others outlined here. I choose to invoke it now, and will use it occasionally throughout these pages, for its ability to connect broadly to dynamics of power, technology and governmentality.[20] When paired with a critical ecosocial approach, an awareness of the biopolitical means of regulation and control at work in a particular setting or situation can sharpen a work's potential for effective critique or incitement to action.

---

[19] Robin Wall Kimmerer, *Braiding Sweetgrass: Indigenous Wisdom, Scientific Knowledge and the Teachings of Plants* (Milkweed Editions, 2015), 156-66.

[20]As noted by Hughes, the term biopolitical has several overlapping genealogies that can be traced back to the early 20th Century. Although there are significant uses in the social and biological sciences, the use most relevant here derives from the work of Michel Foucault and has been applied most influentially in the Humanities. From the 1960s, Foucault defined and elaborated on the concept of biopower, outlining how institutions garner it through collecting and accessing information about bodies and populations. Hughes describes Foucault's biopolitics as "the effort of states to regulate bodies to ensure their productivity as workers, their obedience as citizens, and their conformity to social norms." The term's meaning has continued to evolve, generating new associations as the biotechnological possibilities confronting power-wielding institutions have accelerated in the age of synthetic biology and geo-engineering. James J. Hughes, "Biopolitics," in *Keywords for Environmental Studies* (New York: NYU Press, 2016), 22–24, https://www.jstor.org/stable/j.ctt15zc5kw.11.

As we will see in the coming pages, scholars writing about arts and environment, including Yates McKee and T.J. Demos, draw on Michel Foucault to reference the biopolitical when discussing the complex role of contemporary artists who engage environmental issues.[21] While Foucault does not explicitly mention environmentalism, for McKee, the connection is clear: the struggle waged by grassroots activists and nongovernmental organizations (NGOs) as they make demands for certain life sustaining rights from various state, national and international governing bodies is a struggle that takes place in the realm of the biopolitical. As he writes,

> It (the planet) has been bound up with a model of ecosystemic feedback loops between populations, territories and resources in need of adjustment and management at both national and international levels—an expanded field of biopower, in the precise sense given to the this term by Michel Foucault when he characterized it as that which "brought life and its mechanisms into the realm of explicit calculation."[22]

As we will see, for both Demos and McKee, today's environmental art practitioners bear a responsibility to move beyond the niche of one-dimensional ecological or environmental issues to deal with the realities of how power and inequity shape our relationship to human and extra-human natures. Engaging the nuances of state power through a biopolitical lens is one way to do this.

---

[21] Yates McKee, "Art and the Ends of Environmentalism: From Biosphere to the Right to Survival," in *Nongovernmental Politics*, ed. Michel Feher, Gaëlle Krikorian, and Yates McKee (New York: Zone Books, 2007), 583-639; T. J. Demos, *Decolonizing Nature: Contemporary Art and the Politics of Ecology* (Berlin: Sternberg Press, 2016).

[22] McKee, "Art and the Ends of Environmentalism," 551. The Foucault quotation included here comes from Michel Foucault, *The History of Sexuality, Volume 1: An Introduction*, trans. Robert Hurley (New York: Pantheon Books, 1978), 143. The full passage reads "If one can apply the term bio-history to the pressures through which the movements of life and the processes of history interfere with one another, one would have to speak of bio-power to designate what brought life and its mechanisms into the realm of explicit calculations and made knowledge-power an agent of transformation of human life. It is not that life has been totally integrated into techniques that govern and administer it; it constantly escapes them." I find this aside on "constant escape" to be an intriguing one, and resonant with what Jason W. Moore refers to as "the taming cycle", wherein "the more natural processes are tamed, the more they spin out of control, provoking new and more aggressive taming measures." Moore, *Capitalism in the Web of Life*, 273-274.

Challenging Binaries: Returning to a Grounding in Ecofeminism

With this exploration of nomenclature behind us, we'll return to critical ecosocial art's binary-breaking orientation. As we will see, dispelling, shifting or softening the boundaries that solidify and stabilize modern, Western human identity is also an essential responsibility for today's environmentally-oriented artists. Poking holes in the veneer that sets (certain) humans apart as rational individuals living outside of and dominant over the rest of nature can be a powerful move. It can destabilize and disturb conventional interpretations that normalize business as usual trajectories of infinite progress and growth, trajectories which occur at the expense of extra-human natures and the majority of humans who are intimately entangled with it. There are various lineages in which to ground a challenge to dualistic thinking, including, as Demos points out, various indigenous cosmologies that never conceived of nature and culture as separate entities to begin with.[23] While I will address this perspective later, for now, one solid and relevant place to start given the concerns of this paper is the weaving together of environmentalism and feminist thought in the form of ecofeminism.

As chronicled by Greta Gaard, both in her recent book *Critical Ecofeminism* and in a series of articles published over the past two decades, the basic tenets of ecofeminism were forged in the 1980s.[24] She outlines how the field solidified out of overlapping concerns in feminist research

---

[23] Demos, *Decolonizing Nature*, 23.

[24] Greta Gaard, *Critical Ecofeminism* (Latham, Maryland: Lexington Books, 2017); Greta Gaard, "From Cli-Fi to Critical Ecofeminism," 2014, https://www.academia.edu/25924087/From_Cli-Fi_to_Critical_Ecofeminism; Greta Gaard, "Ecofeminism Revisited: Rejecting Essentialism and Re-Placing Species in a Material Feminist Environmentalism," *Feminist Formations* 23, no. 2 (2011): 26–53; Greta Gaard, "Toward a Queer Ecofeminism," *Hypatia* 12, no. 1 (February 1, 1997): 114–37, https://doi.org/10.1111/j.1527-2001.1997.tb00174.x.

and various movements for public health and social justice. It came to prominence in the early 1990s, then rapidly fell out of favor after being critiqued as essentialist.[25] Turmoil in the field and rifts between key practitioners lead to its fracture, and by the end of the 1990s the term ecofeminism was largely discarded. Even so, many of its foundational concepts, based in "the uncovering of linked oppressions of gender, ecology, race, species, and nation" were not forgotten.[26] Rather they were renamed and reapportioned in an attempt to gain distance from the downfall of cultural feminism and certain branches of ecofeminist thought associated with it. In Gaard's account, this aspect of feminist thought had been roundly and accurately critiqued for its commitment to gender essentialism.[27]

In tracing the evolution of ecofeminism in the 1980s and early 1990s, Gaard sketches a vibrant and diverse range of practitioners working in this period, many bridging scholarship and activism. Activists used ecofeminist perspectives to link militarism, corporatism and energy sustainability in the peace and antinuclear movements in England, and to ground feminist actions for forest preservation and indigenous sovereignty on the West Coast of the United States.[28]

---

[25] For an overview of the various flavors of essentialism critiqued in the 1980s and 1990s, see Charlotte Witt, "Anti-Essentialism in Feminist Theory," *Philosophical Topics* 23, no. 2 (1995): 321–44. For an analysis of the subtleties of essentialist versus other forms of ecofeminism, see: Kari Marie Norgaard, "The Essentialism of Ecofeminism and the Real," *Organization & Environment*, no. 4 (1998): 492. For an analysis of the performative and socially constructed nature of gender, see Judith Butler, "Performative Acts and Gender Constitution: An Essay in Phenomenology and Feminist Theory," *Theatre Journal* 40, no. 4 (1988): 519–31, https://doi.org/10.2307/3207893.

[26] Gaard, "Ecofeminism Revisited," 28.

[27] Ibid., 31. As Gaard describes it, "Focusing on the celebration of goddess spirituality and the critique of patriarchy advanced in cultural ecofeminism, poststructuralist and other third-wave feminisms portrayed all ecofeminisms as an exclusively essentialist equation of women with nature, discrediting ecofeminism's diversity of arguments and standpoints." This diversity is still being reclaimed today.

[28] Erica Smith, "Reclaim the Earth. Women Speak Out for Life on Earth. Léonie Caldecott and Stephanie Leland (Eds.).," *Atlantis: Critical Studies in Gender, Culture & Social Justice* 12, no. 2 (April 1, 1987): 124–25.

Ecofeminist attentiveness to early developments in public health and environmental justice related to Lois Gibbs's Love Canal activism in upstate New York helped further refine the justice-oriented direction of the field. Global perspectives arrived via the voices of activist scholars like Vandana Shiva and Bina Agarwal, who were engaged with anticolonial environmental movements in India, particularly the Chipko movement.[29] Also relevant here are the many robust critiques developed in reference to what Gaard describes as "the male-dominated Western environmentalisms, deep ecology…and bioregionalism."[30] Here we see an intersection with critiques of place coming out of ecocriticism and environmental humanities, which will be addressed shortly.

We'll return to the foundational contributions of ecofeminism throughout the coming pages, but in summary, major thinkers in ecofeminism, from Carolyn Merchant to Val Plumwood to Stacy Alaimo, continue to be relevant today, and many early works from the 1980s and 1990s are being revisited. The knee-jerk reaction against ecofeminism still lingers, but it may be dissipating. The concepts it forged are certainly having a renaissance in fields from the environmental humanities to critical animal studies. As scholars in these fields explore the intersection of gender, class, and indigeneity in relationship to racism, sexism, classism, colonialism and speciesism, they rely on concepts and insights growing out of feminist and ecofeminist thought. I will draw on expand on

---

[29] Bina Agarwal, "The Gender and Environment Debate: Lessons from India," *Feminist Studies* 18, no. 1 (1992): 119–58, https://doi.org/10.2307/3178217; Maria Mies and Vandana Shiva, *Ecofeminism*, 1st Edition (London: Zed Books, 1993); T. J. Byres, "Chipko, the Environment, Ecofeminism and Populism/ Neopopulism," *The Journal of Peasant Studies* 25, no. 4 (July 1, 1998): 33–35, https://doi.org/10.1080/03066159808438682;

[30] Gaard, "Ecofeminism Revisited," 30.

the various ways these ideas inform and can be applied to the evolution of critical ecosocial art in the coming pages.

An Explanation for Temporal, Geographic and Thematic Scope (with Asides on Place and Time)

For the artistic practices covered in Section 4, I will focus on artworks that help delineate the evolution of critical ecosocial art. Additionally, I will single out works that intervene in the land in a physical, rooted and/or engage plant life in a material sense. Reasons for this filter will be elaborated on in the coming pages. For now I will simply state that the (relatively recent, Western) tendency to regard plants as decorative, passive, and inert rather than agential, lively beings is one indicator of a profound disconnect from a reciprocal understanding of human entanglement with earth systems. There are many laudable environmental art actions, practices and objects that will be excluded by this filter. There is essential work taking place on issues from global petrocultures to indigenous land rights that resonate deeply with my notions of critical ecosocial art.[31] However, a filter that accumulates only those works that engage physically with plants and/or soil allows me to sharpen my focus while also interrogating what Michael Marder has described as the historic marginalization of plants within Western philosophy and culture.[32] As outlined by scholars of critical ecofeminism and critical plant

---

[31] Examples include collaborative projects like the Natural History Museum and Liberate Tate that address the complicity of cultural institutions in taking funding from climate change deniers and petroleum companies, to artists working on issues of indigenous sovereignty, as seen in Urusula Biemann and Paulo Taveras' Forest *Law/Selva Juridica* and Anishnaabe artist Rebecca Belmore's *Ayum-ee-aawach Oomama-mowan: Speaking to Their Mother.* See: *The Natural History Museum*, 2014-ongoing, http://thenaturalhistorymuseum.org/*; Liberate Tate*, 2010-ongoing, http://www.liberatetate.org.uk/; Paulo Taveras and Ursula Biemann, *Forest Law/Selva Juridica*, 2014, 2 channel video essay, photo-text assemblage, artist book, 38 minutes, https://www.geobodies.org/art-and-videos/forest-law; Rebecca Belmore, *Ayum-Ee-Aawach Oomama-Mowan: Speaking to Their Mother*, 1991, Sound installation - wood, megaphone, 1991, http://www.rebeccabelmore.com/exhibit/Speaking-to-Their-Mother.html.

[32] Michael Marder, *Plant-Thinking: A Philosophy of Vegetal Life* (Columbia University Press, 2013).

studies, this marginalization is integrally connected to issues of colonialism, patriarchy, ecological degradation and environmental justice.[33] Throughout I will draw heavily on strands of theory and practice that inform what I've termed intersectional environmentalism, an aspirational valence for mainstream environmentalism to reach that employs feminist, environmental justice and decolonial approaches to the wicked problems of living well together in the face of encroaching climate chaos. I will elaborate on the precedents and framing of this term in the coming pages. The artworks I've selected to analyze are those that help illuminate the character of this hoped for intersectional environmentalism, many doing so through their failures or blindspots as much as their strengths and achievements.

With a few exceptions, I will limit the geographic scope of my review to work produced in a North American context, often an urban one, and the temporal scope to works produced since 1960. Work included will frequently engage with global concerns related to climate change, environmental justice, colonialism and nationalism, but I will use the microcosm of local, place-based work to examine these themes. I will refer to a sampling of works produced under different conditions across the globe to compare and contextualize cases from the North American context, but given my interest in site-specificity and the role of place, I feel it is most effective to focus on work for which I understand the local milieu more readily. Practices that are visible

---

[33] Critical plant wtudies (CPS) is an emerging field of scholarship that makes that case for vegetal life as the next frontier in challenging anthropocentric and patriarchal understandings of the hierarchy of life. It finds its genesis in the work of philosopher Michael Marder but also has roots in critical animal studies and multispecies ethnography. Critical ecofeminists and intersectional feminists are often overlooked for their contributions to these fields by scholars who relate more directly to new materialist and object oriented ontology trajectories. The same argument can be made with regard to CPS, so I will take care to note when ecofeminist thinking is paralleled by or overlooked in relation to CPS. For an overview of the evolution of CPS in relationship to visual art, see the introduction of Prudence Gibson's recent book, *The Plant Contract: Art's Return to Vegetal Life* (Brill Rodopi, 2018), 1-20, https://brill.com/abstract/title/35267

globally are often those that appear in the international biennial and festival circuit, where, with some exceptions, spectacle and art-as-destination are rewarded, while intimate and understated connections to community and place are more difficult to achieve. Any attempt to understand how community-based practices function on their home turf would require more extensive (ideally on the ground) research. As a practitioner of critical ecosocial art with a commitment to reflexivity in the feminist sense, I am committed to acknowledging my situated perspective as a white, female, mid-career artist and academic based in the North Eastern United States. I see plenty of nuance and complexity to explore, and privilege and positionality to interrogate, in limiting my scope to critical ecosocial work produced in a North American context.

Temporally, a close focus on a range of works produced between 1960 and today will allow me to examine and analyze the evolution of what is commonly described as the modern environmental movement. The formation of this movement brings together strands emerging out of the growing field of ecosystem science, the legacy of the particularly North American wilderness ethic with its roots in the colonial era and manifest destiny, and the growing

imperative to integrate global, decolonial, feminist and justice-based frameworks into our understanding of environmental politics and movements today.[34]

The artworks I've selected provide the opportunity to examine the give and take between mainstream environmentalism, ecology, and justice. While I'll draw on a diverse range of texts to supplement and fill in narratives of how environmentalism and environmental art have developed over the past half century, there are several texts I will refer to regularly to aid in this endeavor. These include Yates McKee's detailed and well-researched 2004 article *Art and the Ends of Environmentalism*, Sue Spaid's series of insightful essays and timelines included in the *Green Acres* catalog in 2012, and T.J. Demos' 2016 book *Decolonizing Nature: Contemporary Art and the Politics of Nature*. Each of these texts takes a macro view on the interaction between culture, extra-human natures, environmentalism and aesthetic practice, while also providing analysis of key artworks, exhibitions and events from 1960 to today. Even as I refer to texts from a wide range of sources and disciplines, I will use these survey texts as a baseline from which to compare and contrast.

---

[34] The American wilderness ethic refers both to an attitude that only "wild" (i.e. unpeopled) landscapes are worth preserving, and to a period of time in the development of environmental consciousness that Ramachandra Guha describes as par of the "first wave" of environmentalism in the United States, when beginning in the late 1800s, advocates like John Muir and later Aldo Leopold lamented the disappearing American frontier and called for the establishment of protected wilderness zones in the form of the nation's first national parks. While we owe much to this movement in terms of contemporary access to undeveloped land, of course, as Guha points out, the backstory for the push for wilderness conservation was "the despoliation of the American continent by the westward movement of European settlers" as they carried out the young nation's "manifest destiny." Unpeopled so-called wilderness only existed in post-genocide setting where indigenous peoples were either killed or contained. The problematic nature of the wilderness ideal is thoroughly explored in William Cronin's influential essay "The Trouble with Wilderness; or, Getting Back to the Wrong Nature." Ramachandra Guha, *Environmentalism: A Global History*, 1 edition (New York: Pearson, 1999), 49; Cronon, William, ed. "The Trouble with Wilderness; or, Getting Back to the Wrong Nature." In *Uncommon Ground: Rethinking the Human Place in Nature*, 1st edition., 69–90. New York, NY: W. W. Norton & Company, 1996.

An Aside on Place: Global Flows and Local Realities

In reference to geographic scope, I mentioned the role of place and context specificity in my own practice and in the works I will be reviewing. As *place* is actually a multifaceted term with its own set of associations, it is worth a brief pause to explain why I've invoked it and how I hope it functions here. In many strains of environmentally-oriented discourse, "cultivating a sense of place" between the individual and the environment they inhabit is portrayed as inherently positive and worth pursuing.[35] Accompanying this orientation is a robust narrative suggesting environmental degradation is due in some part to human alienation from longterm, cyclical exposure to the local rhythms of extra-human natures. Reconnecting in a physical, sensorial way to the so-called natural patterns that define a particular geographic location is presented as ameliorative of this alienation, leading to better stewardship of the ecosystem. Well known proponents of this position range from bio-regionalists Wendell Berry and Kirkpatrick Sale to deep ecologists Bill Devall and George Sessions.[36] While many of these tenants play an important role in eco-art and mainstream environmentalism, there is cause to question them in certain scenarios, especially in terms of their relationship to questions of global equity.[37]

My interpretation of the term, while informed by my own hands-on practice in shifting urban ecosystems, resonates closely with more critical interpretations of place I've encountered in

---

[35] "5 Tips for Cultivating a Sense of Place This Summer," Northwest Earth Institute, July 12, 2016, https://nwei.org/5-tips-cultivating-sense-place-summer/; "Cultivating Your Sense of Place," News Item, Deschutes Land Trust, accessed November 18, 2018, https://www.deschuteslandtrust.org/news/blog/2017-blog-posts/cultivating-sense-of-place;

[36] Wendell Berry, *Home Economics* (San Francisco: North Point Press, 1987); Kirkpatrick Sale, *Dwellers in the Land: The Bioregional Vision* (Athens: University of Georgia Press, 2000); Bill Devall and George Sessions, *Deep Ecology: Living as If Nature Mattered* (Salt Lake City, Utah: Gibbs Smith, 2001).

[37] Ramachandra Guha, "Radical American Environmentalism and Wilderness Preservation: A Third World Critique," *Environmental Ethics* 11, no. 1 (1989): 82.

certain strains of ecocriticism and the environmental humanities. While I won't be able to go into an analysis of place and its role in the shifting terrain of these fields in any depth, I find the critiques of localism and bioregionalism, often core to mainstream environmentalism, to be quite useful. Ecocritic Ursula Heise and anthropologist Anna Tsing both echo feminist geographer Deborah Massey when they address the implications of cultivating a highly localized and enduring sense of place in the context of environmental consciousness.[38] While there are distinctions among their approaches, in short, they each call for an understanding of place that is fluid. Used in this valence, place is a "meeting place" (Massey's term) in time between biotic and abiotic elements at a specific geographic location.[39] This meeting place forms a unique confluence, but is not harshly delimited in time or space, and takes into context global connectivity as relevant to the character of a place.

For Tsing, Heise, and Massey, places have soft edges that shift based on the criteria or tools one uses to analyze them. Tsing finds a multilayered approach to place that evolves over time in the naturalcultural landscape of Swidden agriculture in Indonesia. In this continually shifting landscape, the continuity of place, while clear to indigenous locals, is invisible to outsiders who

---

[38] Ursula Heise, *Sense of Place and Sense of Planet: The Environmental Imagination of the Global* (Oxford, New York: Oxford University Press, 2008); Anna Lowenhaupt Tsing, *Friction: An Ethnography of Global Connection* (Princeton University Press, 2011); Doreen Massey, *Space, Place, and Gender*, NED-New edition (University of Minnesota Press, 1994), https://www.jstor.org/stable/10.5749/j.cttttw2z.

[39] Doreen Massey, "A Global Sense of Place," in *Space, Place, and Gender*, NED-New edition (University of Minnesota Press, 1994), 153, https://www.jstor.org/stable/10.5749/j.cttttw2z. As Massey describes it, place is also inherently social. While outside of the scope of what I can explore here, I'm interested in contemplating how multispecies sociality contributes to her framing of place: "It is, indeed, a meeting place. Instead then, of thinking of places as areas with boundaries around, they can be imagined as articulated moments in networks of social relations and understandings, but where a larger proportion of those relations, experiences and understandings are constructed on a far larger scale than what we happen to define for that moment as the place itself, whether that be a street, or a region or even a continent. And this in turn allows a sense of place which is extroverted, which includes a consciousness of its links with the wider world, which integrates in a positive way the global and the local."

apply a Western lens of private property and strong, static divisions between land that is cultivated agriculturally and so-called wild places.[40] Like Tsing, Heise emphasizes the significance of connecting the local and the global. She argues for complementing "a sense of place" with "a sense of planet," an ethic she terms "eco-cosmopolitanism."[41] She acknowledges that the process of "deterritorialization" that is occurring as individuals, communities and whole populations become more transient—both through choice and due to the pressures of unrest and global climate change—is a challenge for forms of environmentalism based on localized understandings of place:

> The challenge deterritorialization poses for the environmental imagination, therefore, is to envision how ecologically based advocacy on behalf of the nonhuman world as well as on behalf of greater socioenvironmental justice might be formulated in terms that are premised no longer primarily on ties to local places but on ties to territories and systems that are understood to encompass the planet as a whole.[42]

I appreciate this fluid understanding of place on multiple levels. Certainly the emphasis on intertwined local and global naturalcultural flows is relevant to my aspirations for ecosocial art, and is important as we figure out how to respond to a rapidly changing climate. Additionally, these critical articulations of place are helpful in countering understandings of place that privilege purity, stability and stasis. A focus on place that prioritizes its enduring features, be they people, architecture, or nonhuman life forms, can be used to stoke reactionary, xenophobic sentiments, whether at local or national scales. Forms of environmentalism that are nationalist or even fascist in their attempts to limit or manipulate migration and population shifts, both in

---

[40] Anna Lowenhaupt Tsing, "A History of Weediness," in *Friction: An Ethnography of Global Connection* (Princeton University Press, 2011), 171-202.

[41] Heise, *Sense of Place and Sense of Planet*, 50-53.

[42] Ibid., 8.

human and nonhuman populations, are buoyed by such interpretations of place.[43] As Heise notes, "The political consequences, therefor, of encouraging people to develop a sense of place, are far from straightforward and predictable, and environmentalists need to be aware that place awareness can be deployed in the service of political ideals they may not find desirable." Forging ties to local habitats that encourage stewardship and reciprocity without fomenting protective or purist approaches can play a role in creating the conditions for just responses to those seeking refuge in the face of shifting ranges of habitability.

Additionally, the shift to a fluid, dynamic perception of place mirrors shifts in ecosystem science over the past half century. The conception that ecosystems are ideally static and in perfect balance, only changing when they are negatively influenced by "unnatural" outside forces, has been gradually debunked within the ecological sciences.[44] It has been replaced by concepts that incorporate dynamic flux and disturbance, in which points of stasis do occur, but are embedded in constant change, especially when looked at over longer periods of time. In popular environmental consciousness, romantic notions of the biosphere's homeostasis that may have lingered are being dramatically challenged as it becomes clear that a roughly 11,000 year period

---

[43] Ibid., 48. For a contemporary analysis of this phenomenon with regard to environmentalism in post-Brexit Britain, see Out of the Woods, "Lies of the Land: Against and beyond Paul Kingsnorth's Völkisch Environmentalism," libcom.org, March 31, 2017, http://libcom.org/blog/lies-land-against-beyond-paul-kingsnorth's-völkisch-environmentalism-31032017. The connection to indigeneity is complex in such scenarios, as historical indigenous human populations maybe held up as ideals, even as their current struggles for sovereignty maybe overlooked.

[44] Heise, 63.

of relative climactic stability referred to as the Holocene is coming to a close.[45] As ecologists move away from models of homeostasis as the "natural" state of ecosystems and the global biosphere, some are looking back at the Holocene to reassess its climate patterns. Of course this unit of geologic time has seen the global growth and expansion of the human population. It covers the time period when agriculture and eventually urban civilization became widespread in the wake of the last ice age, which coincided with beginning of the Holocene.[46] Recent research, while still preliminary, suggests that this relative stability was the result of human activity in the form of increasing production of carbon dioxide and methane, which offset the arrival of the next ice age.[47]

An Aside on Time: Debating the So-Called Anthropocene

While Holocene stability is still debated, more widely agreed upon is the notion that Earth is entering a period of climate change that is linked to human activity, described in the scientific literature as "anthropogenic global warming" (AGW).[48] Framing the impending (and some

---

[45] While often used colloquially to refer to recent human history, the Holocene is actually a "chronostratigraphic unit" referring to the body of strata (sedimented rock layers) formed during a specific interval of geologic time stratigraphers (geologists who read the rock record) have defined as distinct from the previous Pleistocene Epoch. Recently ice core studies have been submitted as an additional method for establishing a precise date for the Pleistocene-Holocene Boundary, dating it to 11,700 before AD 2000. Mike Walker et al., "The Global Stratotype Section and Point (GSSP) for the Base of the Holocene Series/Epoch (Quaternary System/Period) in the NGRIP Ice Core" 31, no. 2 (June 2008): 264–67.

[46] Christopher R. Gignoux, Brenna M. Henn, and Joanna L. Mountain, "Rapid, Global Demographic Expansions after the Origins of Agriculture," *Proceedings of the National Academy of Sciences of the United States of America* 108, no. 15 (April 12, 2011): 6044–49, https://doi.org/10.1073/pnas.0914274108.

[47] Jeff Tollefson, "The 8,000-Year-Old Climate Puzzle," *Nature*, March 25, 2011, https://doi.org/10.1038/news.2011.184.

[48] Dana Nuccitelli, "Is the Climate Consensus 97%, 99.9%, or Is Plate Tectonics a Hoax?," *The Guardian*, May 3, 2017, sec. Environment, https://www.theguardian.com/environment/climate-consensus-97-per-cent/2017/may/03/is-the-climate-consensus-97-999-or-is-plate-tectonics-a-hoax.

would argue already extant) phenomenon as "climate chaos", recent reports suggest that the demise of climatic stability will involve not just "global warming" but also generally less stable, more unpredictable climate patterns with effects ranging from more extreme and frequent storms to sea level rise to ocean acidification.[49] Also associated with these climactic trends is a massive die off of species diversity that has been called the Sixth Extinction.[50] Overwhelming propositions like these challenge us to envision periods of time that reach well beyond the duration of a single human life. Throughout the last half century, environmental artists have taken up this challenge, which, in recent parlance, is often referred to as engaging "deep time."[51] This thematic current brings us to another temporal phenomenon that can't be ignored when discussing the topics at hand: the arrival of the so-called Anthropocene.

The basic premise for the Anthropocene term comes out of stratigraphy, the practice of reading the rock record to make guesses and determinations about Earth's history. Stratigraphers divide this history into sections, like the Holocene, based on clearly demarcated divisions in the rock record. These may be in the form of layers of sediment or ash, or sudden changes in the diversity and quantity of fossilized life, each indicating a major shift in biospheric conditions across the globe. When stratigraphers can date these clearly distinctive layers in the rock record and attach

---

[49] Jonathan Watts Global environment editor, "We Have 12 Years to Limit Climate Change Catastrophe, Warns UN," *The Guardian*, October 8, 2018, sec. Environment, https://www.theguardian.com/environment/2018/oct/08/global-warming-must-not-exceed-15c-warns-landmark-un-report; "Climate Chaos to Continue in 2018, UN Chief Warns; Will the World Rise to Challenge?," *United Nations: UN News* (blog), March 29, 2018, https://news.un.org/en/story/2018/03/1006271.

[50] Elizabeth Kolbert, *The Sixth Extinction: An Unnatural History*, 1st edition (New York: Henry Holt and Co., 2014).

[51] Elizabeth Ellsworth, Jamie Kruse, and Reg Beatty, *Making the Geologic Now: Responses to Material Conditions of Contemporary Life* (New York: Punctum Books, 2013); Vincent Ialenti, "Embracing 'Deep Time' Thinking," *NPR.Org* (blog), September 18, 2014, https://www.npr.org/sections/13.7/2014/09/28/351692717/embracing-deep-time-thinking.

them to a period of climactic change, they identify the layer as a Global Boundary Stratotype Section and Point (GSSP)—with the base point colloquially known as a "golden spike" or "boundary marker"—and declare it to be the start of a new geologic time period.[52]

While there are earlier precedents for related terms, the Anthropocene's current use can be traced to the year 2000, when geochemist Paul Crutzen made an apparently off-the-cuff proposition at a climate conference.[53] Frustrated with constant references to the Holocene, he suggested that given the current impact of humans on the global ecosystem, the Anthropocene would be more appropriate.[54] Translated variously as the "Age of Man" or the "Age of Human Impact," the term reflects the hypothesis that Earth is entering a period of geologic time in which "the collective impact of human activities is sufficient to significantly alter the conditions of life."[55]

Stratigraphers have quibbled over the meaning and efficacy of this move since the day it was proposed, and the debates are ongoing. Many agree that humans are unquestionably the biggest geologic force in play today, but some argue that our impacts won't translate into a significant mark in the rock record, which is key for establishing the golden spike that designates a new

---

[52] Colin N. Waters et al., "Global Boundary Stratotype Section and Point (GSSP) for the Anthropocene Series: Where and How to Look for Potential Candidates," *Earth-Science Reviews* 178 (March 1, 2018): 379–429, https://doi.org/10.1016/j.earscirev.2017.12.016.

[53] Will Steffen et al., "The Anthropocene: Conceptual and Historical Perspectives," *Philosophical Transactions of the Royal Society of London A: Mathematical, Physical and Engineering Sciences* 369, no. 1938 (March 13, 2011): 842–67, https://doi.org/10.1098/rsta.2010.0327.

[54] Elizabeth Kolbert, "Enter the Anthropocene—Age of Man," *National Geographic*, 2011, https://www.nationalgeographic.com/magazine/2011/03/age-of-man/.

[55] Noel Castree, "Anthropocene and Planetary Boundaries," in *International Encyclopedia of Geography* (American Cancer Society, 2016): 1, https://doi.org/10.1002/9781118786352.wbieg0027.

epoch.[56] While it remains unclear if hypothetical future stratigraphers might detect a proliferation of chicken bones and plastic particles, or a signature of radioactivity from nuclear testing, many have found the utility of the term to be worth pursuing outside of its geological context. The concept has gained widespread currency beyond stratigraphic circles, from the life sciences more generally to the humanities.[57] In all quarters it has been widely debated.

In the humanities the term initially seemed a welcome umbrella under which to bring together wide-ranging concerns around climate change, consumerism, biodiversity loss, technological progress, and the future of life on earth. Under such an umbrella, these issues can be tackled jointly from diverse corners, bringing fields like art, science and technology studies, environmental humanities and environmental history into dialogue with evolutionary biology, geology and climate science. From the early 2010's interdisciplinary conferences, exhibitions and special issues abounded and as they did, so did the critiques.[58] These began with the charge that the term is anthropocentric, once again centering humans even in its attempt to point out our damaging impact on the biosphere.[59] Others proposed alternative terms, from the Capitalocene to

---

[56] Will Steffen, Paul J. Crutzen, and John R. McNeill, "The Anthropocene: Are Humans Now Overwhelming the Great Forces of Nature?," *Ambio* 36, no. 8 (2007): 614–21.

[57] Castree, "Anthropocene and Planetary Boundaries," 5, 8-10.

[58] "The Anthropocene Campus 2014," Anthropocene Curriculum, accessed November 19, 2018, https://www.anthropocene-curriculum.org/pages/root/campus-2014/; "Anthropocene Feminism | April 10-12, 2014," Center for 21st Century Studies, accessed November 19, 2018, https://c21uwm.com/anthropocene/; Eleanor Heartney, "Art for the Anthropocene Era," *Art in America*, January 30, 2014, https://www.artinamericamagazine.com/news-features/magazines/art-for-the-anthropocene-era/; D. De Cristofaro and D. Cordle, "Introduction: The Literature of the Anthropocene," *C21 Literature: Journal of 21st-Century Writings* 6 (February 12, 2018), https://doi.org/10.16995/c21.73.

[59] Eileen C. Crist, "On the Poverty of Our Nomenclature," in *Anthropocene or Capitalocene?: Nature, History, and the Crisis of Capitalism*, ed. Jason W. Moore, 1 edition (Oakland, CA: PM Press, 2016), 14-33.

the Plantationocene, arguing for a label that doesn't universalize blame on all of humanity, but rather singles out the dynamics of power and influence leading to environmental degradation and its unequal burden on poor and marginalized communities and populations.[60] Still others called for aspirational renamings in the form of the Chthulucene or the Eocene, striving, as Donna Haraway has suggested, to "make the Anthropocene as thin as possible" and reach some better future on the other side.[61]

In addition to challenges to the concept as a whole, there have been disputes about when the Anthropocene begins, and the implications of various dates for placing the golden spike demarcating its start. The standard for other boundary markers has been one of a "clear synchronous signal" that forms a "distinctive stratigraphic boundary" in sedimentary layers of rock around the world.[62] All prior boundaries have been defined in periods of time that predate written historical records. This will be the first golden spike to be embedded in a time period for which we have a written historical record and firsthand sense of the naturalcultural context. As Heather Davis and Zoe Todd point out, writing from feminist and indigenous perspectives, this

---

[60] Jason W. Moore, "The Capitalocene, Part I: On the Nature and Origins of Our Ecological Crisis," *The Journal of Peasant Studies* 44, no. 3 (May 4, 2017): 594–630, https://doi.org/10.1080/03066150.2016.1235036; Donna Haraway, "Anthropocene, Capitalocene, Plantationocene, Chthulucene: Making Kin," *Environmental Humanities* 6 (May 1, 2015), https://doaj.org.

[61] Donna J. Haraway, *Staying with the Trouble: Making Kin in the Chthulucene*, First Edition edition (Durham: Duke University Press Books, 2016), 100; Richard Steiner, "From Anthropocene To Ecocene By 2050?," *Huffington Post* (blog), October 18, 2017, https://www.huffingtonpost.com/entry/from-anthropocene-to-ecocene-by-2050_us_59e7b66ce4b0e60c4aa3678c.

[62] Colin N. Waters et al., "Global Boundary Stratotype Section and Point (GSSP) for the Anthropocene Series: Where and How to Look for Potential Candidates," *Earth-Science Reviews* 178 (March 1, 2018): 379–80, https://doi.org/10.1016/j.earscirev.2017.12.016.

means the chosen date will have political implications.[63] In an article originally drafted specifically for the committee members of the Anthropocene Working Group (AWG), who will make the ultimate decision, they elaborate on the implications of a range of dates, from the 1950s and the advent of the great acceleration (the timing preferred by the AWG) to the onset of the industrial revolution, to the 1610 "Orbis Spike," based on the sudden elevation of carbon dioxide levels that occurred due to the genocide of indigenous people's throughout the Americas.[64] For Davis and Todd, this latter date is the most in-sync with their epistemological perspective, one that foregrounds a decolonial approach that takes into account the differential responsibility among more and less powerful groups of humans. They seek a date that highlights the role of colonialism and capitalism without placing blame on "humanity" as a whole.

> The Anthropocene is the epoch under which 'humanity' – but more accurately, petrochemical companies and those invested in and profiting from petrocapitalism and colonialism – have had such a large impact on the planet that radionuclides, coal, plutonium, plastic, concrete, genocide and other markers are now visible in the geologic strata.[65]

As I will elaborate on shortly, for me their logic fits with Alexis Shotwell's impetus for settlers in (post)colonial settings to take part in relational memory practices that acknowledge complicity and complexity on a community level.[66] A global geologic period named in a way that

---

[63] Heather Davis and Zoe Todd, "On the Importance of a Date, or, Decolonizing the Anthropocene," *ACME: An International Journal for Critical Geographies* 16, no. 4 (December 20, 2017): 761–80.

[64] Ibid., 767. Drawing on Lewis and Maslin, they note that in 1492 there were between 54 to 61 million peoples in the Americas and by 1650 that number had dropped to roughly 6 million. Simon L. Lewis and Mark A. Maslin, "Defining the Anthropocene," *Nature* 519, no. 7542 (March 2015): 171–80, https://doi.org/10.1038/nature14258.

[65] Heather Davis and Zoe Todd, "On the Importance of a Date, or, Decolonizing the Anthropocene," *ACME: An International Journal for Critical Geographies* 16, no. 4 (December 20, 2017): 765.

[66] Alexis Shotwell, *Against Purity: Living Ethically in Compromised Times*, 1 edition (Minneapolis: Univ Of Minnesota Press, 2016).

acknowledges colonial violence, while couched in the language and structure of the colonial state apparatus, would provide a sizable community indeed with whom to recall colonial horrors in service of building a more just future.[67]

While a deeper analysis of the many proposals and practices growing out of the Anthropocene debate is beyond the scope of this section, I will return to the implications of this narrative of deep time futures and pasts as we explore the precedents for and practices of critical ecosocial art. As demonstrated in the work of Davis and Todd, some of the most insightful and incisive critiques of the mainstream environmental imaginary, whether Anthropocene-related or otherwise, have come out of the intersection between feminism and decolonial practices. This leads me to the final theoretical device I'll be using to explore the evolution of critical ecosocial art: intersectional environmentalism.

Intersectional Environmentalism: Overlapping Oppressions and Optimisms

[67] It can't be denied that the all powerful International Council on Stratigraphy, run as it is by predominantly by white men from locations in Europe and North America, is an institutional structure ripe for decolonization. See Kate Raworth, "Must the Anthropocene Be a Manthropocene?," *The Guardian*, October 20, 2014, sec. Opinion, https://www.theguardian.com/commentisfree/2014/oct/20/anthropocene-working-group-science-gender-bias.

As we explore precedents and practices related to critical ecosocial art, I will refer frequently to an aspirational form of environmentalism that is *intersectional* in nature.[68] To fully flesh out what I mean by this will require a more in depth look at the history and present status of the environmental movement, both its radical offshoots and its more mainstream iterations. I will relate that story throughout Section 3, but here I would like to preface that analysis with a summary of what I mean by *intersectional*. This will provide a solid foundation from which to explore what it means to modify environmentalism with this descriptor.

---

[68] Precedents for my use of "intersectional environmentalism" are scant but informative. A Google Scholar search pulls up mostly references to intersectional *ecofeminism* and intersectional *climate justice* rather than "environmentalism". One intriguing use of the term comes from a 2012 review of Rob Nixon's *Slow Violence and the Environmentalism of the Poor*, where Wenzel notes that intersectional environmentalism is one of several "suggestive concepts not fully developed" in Nixon's influential book. I'll address some of the core concerns of Nixon's bridging of postcolonial theory and environmentalism when I address colonial, postcolonial and decolonial theory. Here I'll note that I can only find one place where Nixon uses the term, and that is in Chapter 4, the only chapter that explicitly addresses gender. Discussing Kenya's Greenbelt Movement (a woman-lead tree-planting activist project co-founded by Wangari Maathi), Nixon describes how Maathi and her cohort "made strategic used of what one might call 'intersectional environmentalism,' broadening their base and credibility by aligning themselves with —and stimulating—other civil rights campaigns…for women's rights, for the release of political prisoners, and for greater political transparency." As Nixon explains, he employs "intersectional environmentalism" as a way of distinguishing the women's activist tree-planting from the conservation practices of the colonial state. This resonates with my use of the term, which I apply partially in order to contest versions of mainstream environmentalism that seek to preserve a stagnant vision of "nature" as a pristine recreation site for the affluent, an idea I'll expand upon later. As an additional precedent, there are a handful of blog posts and articles in the popular press that use the term, and I find a thread of intersectional environmentalism under another name in the current reawakening of MLK's Poor People's Campaign and recent calls for a "Green New Deal" in the United States. These revivals call for the fight on poverty to encompass racial, gender, climate and environmental equity as all are implicated in a struggle against the inequities of late capitalism. Jennifer Wenzel, "Slow Violence and the Environmentalism of the Poor," *Safundi* 13, no. 3–4 (July 1, 2012): 439–43, https://doi.org/10.1080/17533171.2012.716933; Rob Nixon, "Slow Violence, Gender, and the Environmentalism of the Poor," in *Slow Violence and the Environmentalism of the Poor* (Cambridge, Mass: Harvard University Press, 2011), 128-149. See "intersectional environmentalism" discussed on pages 138–41; Adam Ramsay, "My Environmentalism Will Be Intersectional or It Will Be Bullshit," *OpenDemocracyUK* (blog), March 25, 2014, http://www.opendemocracy.net/ourkingdom/adam-ramsay/my-environmentalism-will-be-intersectional-or-it-will-be-bullshit; "Poor People's Campaign: A National Call for Moral Revival," Poor People's Campaign, accessed November 11, 2018, https://www.poorpeoplescampaign.org/; Matt Huber, "Building a 'Green New Deal': Lessons From the Original New Deal," *Versobooks.Com* (blog), accessed November 19, 2018, https://www.versobooks.com/blogs/4131-building-a-green-new-deal-lessons-from-the-original-new-deal.

Grounded in black feminist thought, *intersectionality* was first used by legal scholar Kimberlé Crenshaw in 1989, in an influential paper in which she argues that flattened protected categories systematically oppress black women, not just in legal antidiscrimination cases, but also in feminist and antiracist scholarship.[69] She calls for a multidimensional axis for black feminism that takes into account diverse, intersecting forms of oppression. Over recent decades the term has become an essential, if contested and perhaps over-used, analytic for revealing relationships between difference and oppression.[70] While the term may have outlived its usefulness for some, I find it to be an incisive and efficient way to refer to what feminist scholar Vivian M. May describes, drawing on Crenshaw, Combahee and Lorde, as "matrix-thinking:"

> (Intersectionality) approaches lived identities as intermixed and systems of oppression as enmeshed and mutually reinforcing: one aspect of identity and/or form of inequality is not treated as separable or superordinate. The "matrix" worldview contests "single-axis" forms of thinking about subjectivity and power (Crenshaw 1989), and rejects hierarchies of identity and oppression (Combahee 1983; Lorde 1984; B. Smith 1983). An intersectional justice approach is thus wide in scope and inclusive: it repudiates additive

---

[69] Kimberlé Crenshaw, "Demarginalizing the Intersection of Race and Sex: A Black Feminist Critique of Antidiscrimination Doctrine, Feminist Theory and Antiracist Politics," *The University of Chicago Legal Forum* 140 (1989): 139–167.

[70] Jennifer C. Nash, "Intersectionality and Its Discontents," *American Quarterly; College Park* 69, no. 1 (March 2017): 117-129. While describing what she terms the "intersectionality wars" in which "everything about intersectionality has been disputed" in debates among feminists, Nash acknowledges that "intersectionality generates unease even though it has become institutionalized, made into a defining analytic across the humanities and a core program-building initiative in women's studies, even as it has become a theory, method, and analytic used across the humanities and social sciences, and the primary way that so-called difference is theorized and described." Nash connects the "unease" she diagnoses to "anxiety over feminist theory's key symbol: black woman," a figure that insists that the interdisciplinary field of feminist theory tackle gendered racism and radicalized sexism (118).

> notions of identity, assimilationist models of civil rights, and one-dimensional views of power.[71]

An insistence on the inseparability of overlapping oppressions is useful in contesting what I see as an often uni-dimensional approach to environmentalism, one that tends to bifurcate, divide, and categorize to the detriment of forming the social and political cohesion required to build mass movements. In a move that relates to Haraway's use of naturecultures, May looks to Alison Bailey's characterization of how language functions to buttress or undermine an intersectional lens: "Race and gender should be conceptualized not as 'race+gender,' instead they should be thought of as 'gendered racism' or how 'gender is racialized.' It makes sense to talk about capitalist patriarchies rather than capitalism and patriarchy."[72] This leads May to the conclusion, with Bailey, that intersectionality, while rejecting essentialism and universalism, is not divisive or fragmenting, but rather coalition-oriented: "to contest shared logics across systems of domination, solidarities need to be forged via mutual commitments, not principles of homogeneity or sameness."[73]

While themes related to environmental ills go unmentioned in the texts referenced here, the decolonial, feminist, and justice-based approaches to environmental challenges I appreciate are

---

[71] Vivian M. May, *Pursuing Intersectionality, Unsettling Dominant Imaginaries*, 1 edition (New York: Routledge, 2015), 3; Combahee River Collective, "The Combahee River Collective Statement," in *Home Girls: A Black Feminist Anthology*, ed. Barbara Smith (New York, NY: Kitchen Table: Women of Color Press, 1983), 264–73; Audre Lorde, *Sister Outsider: Essays and Speeches* (Crossing Press, 1984).

[72] Alison Bailey, "On Intersectionality, Empathy, And Feminist Solidarity: A Reply To Naomi Zack," *Journal for Peace and Justice Studies* 19, no. 1 (2009), 17.

[73] May, *Pursuing Intersectionality, Unsettling Dominant Imaginaries*, 4.

sympathetically attuned to the logic and practice of intersectionality.[74] Thus as a means of calling for an approach to environmentalism that incorporates these logics and practices, I choose intersectional environmentalism. It allows me to cast a wide net that incorporates feminist theory's strengths in defying typological and dualistic thinking, while insisting on the essential contributions of black feminist thought in establishing practices that are attentive to power and inequality in ways that emphasize matrix thinking and complexity. As I hope will become apparent, such an approach is vital to creating an environmentalism that is up to the task of guiding us through ecological crises with a compass pointed toward justice and mutual thriving.

Starting from Contamination: Complicity, Privilege and Ecological Degradation

Before we jump into the history of environmental and ecological art and move on to close readings of individual artworks, I'd like to offer one additional theoretical frame that is helpful to me in conceiving of (and troubling) my own relationship to intersectional environmentalism and critical ecosocial art. This framing has to do with allyship, privilege, and purity. As a white woman with myriad privileges, from my educational background to my relatively secure economic situation, it is incumbent upon me to interrogate how I approach difference and inequity. While there are many resources and strategies to employ in this exercise, one that resonates particularly well with the themes covered here comes from Alexis Shotwell's recent

---

[74] In her wide ranging defense of intersectionality, May reminds us that it's meant to be a practical, working theory, one that will continue to develop through practice, not armchair scholarship alone: "Intersectionality is meant to be applied to real-world problems, to unsettle oppressive logics, to plumb gaps or silences for suppressed meaning and implications, and to reinvent how we approach liberation politics. This requires examining intersectionality not merely as a content area, fixed idea, or historical moment, but as a sustained and ongoing practice, a way of perceiving and engaging the world that runs against the grain of established (and oppressive) imaginaries." Ibid., vii-viii.

book *Against Purity: Living Ethically in Compromised Times*.[75] Writing about colonialism and ecological degradation from the perspective of a white settler in North America, Shotwell begins with an acknowledgement that we are all in a state of "living after disturbance, being already polluted," asserting that she will "champion the usefulness of thinking about complicity and compromise as a starting point for action."[76] In other words, we have to take a clear-eyed look at where we are, however contaminated, before we can move forward.

For Shotwell, one obstacle to this clear-eyed appraisal of the present is what she describes as "purism," a problematic tendency that operates on interconnected physical and ethical levels. She invokes the obsession with purity as a knee jerk reaction against the complicity and complexity involved facing contamination, especially among the privileged settler demographic. For Shotwell, attempts at purity, while impossible, are part of an individualist response that divides the individual from communal responsibility and the possibility of communal repair, whether on a physical or political level. The seeker of purity attempts to isolate herself in a bubble she can control, whether that be built with juice cleanses and meditation, antibacterial hand soap and climate control, or the disavowal of historical and ongoing injustices wrought by the intersection of colonialism, racism, sexism, and industrialization. Shotwell cites this focus on individual

---

[75] Shotwell, *Against Purity*.

[76] Ibid., 9. Here Shotwell draws on Anna Tsing, who has also explored the ecology-derived concept of the "disturbance regime" to invoke our current biopolitical and naturalcultural moment. Searching for "hope in the ruins", Tsing writes that "we need to be able to differentiate between forms of disturbance that are inimical to life and those that offer multispecies opportunities." Clearly this is related to my own assertion that artistic practice that "disturbs" can be generative. Tsing's point that we need to learn to distinguish between productive and deleterious disturbance is well taken, and I hope that the artworks I've chosen to outline fall on the productive end of the spectrum, regardless of their flaws. Anna Lowenhaupt Tsing, *The Mushroom at the End of the World: On the Possibility of Life in Capitalist Ruins* (Princeton: Princeton University Press, 2015), 108.

purity as a force that paralyses us in our attempts to make incremental improvements in the face of intertwined sociopolitical and environmental devastation:

> What is needed, instead of a pretense to purity that is impossible in the actually existing world, is something else. We need to shape better practices of responsibility and memory for our placement in relation to the past, our implication in the present, and our potential creation of different futures…(purism) is a bad approach because it shuts down precisely the field of activity that might allow us to take better collective action against the destruction of the world in all its strange, delightful, impure frolic. Purism is a de-collectivizing, de-mobilizing paradoxical politics of despair. The world deserves better.[77]

One answer for Shotwell is what she calls "critical memory practices," a kind of active "insurgent remembering" shaped to aid (primarily white) settlers in taking up anticolonial and decolonial praxis.[78] She emphasizes relational memory, the capacity to remember socially, in groups, as paramount. She draws on practices of critical whiteness and indigenous sovereignty that are beyond the scope of this paper, but are relevant to some of the threads I will explore as we unpack the artworks to come.[79]

Looking at critical ecosocial art practices, I see overlaps with Shotwell's approach, due to the inherently social, experiential platform these practices offer, and the way that many are focused on the historical legacies of land and place and their potential futures. For reasons that I will elaborate on later—linked to the history of environmentalism, oppression and privilege—many instances of critical ecosocial art are created by settlers, often white settlers. Even when, or

---

[77] Ibid., 7-9.

[78] Ibid., 40-46.

[79] Pamela Perry, "White," *Keywords for American Cultural Studies*, 2014, https://keywords.nyupress.org/american-cultural-studies/essay/white/. Critical whiteness studies is a field of scholarship that, since the 1990s, has attempted to reveal and critique whiteness as a socially constructed category of shifting meaning. It draws on the legacy of critical race studies and antiracist scholarship to unveil, as Perry writes, "whiteness as a set of cultural, political, and behavioral norms by which difference, deficiency, truth, and justice are determined."

perhaps especially when, created by white settlers for a largely white settler audience, they can offer the opportunity to uncover hidden histories and face them communally. Shotwell asserts that "the purpose of reckoning with the social organization of forgetting—how and what gets remembered—and the differential distribution of present harm is, if it is anything, to craft a future different than the horrific past we have inherited and the resultant present we currently live."[80] In many instances the goals of critical ecosocial art are parallel, and I will draw on Shotwell's framework where appropriate throughout my analysis.

Section 3: Intertwined Histories of Environmentalism and Art in North America

From Environmental Art to Eco-Art to Biopolitics (via Earth Art, Land Art, Systems Art)

With these frameworks in mind, it's time to move on to an analysis of the history of environmental art, eco-art, and their relationship to rise of the mainstream environmental movement. The reference to eco-art (generally understood to be a shorthand for ecological art) contained in my phrasing of critical ecosocial art dredges up a fairly broad category of practice. The evolution of the term is worth examining in depth as it moves from a more general association with "nature" or an alignment with systems thinking to the more activist, restorationist practice it becomes by the mid-1990s.[81]

Also worth distinguishing is the overlap between what is meant by environmental art at different points in the evolution of critical ecosocial art. While Agnes Denes announced her commitment

---

[80] Shotwell, *Against Purity*, 18.

[81] Systems thinking, while it has many connotations, here relates to the emergence in the 1950s and 1960s of the popular notion of feedback loops and interconnectivity as a defining paradigm for understanding modernity. As I'll explore later, the concept evolved out of the popularization of the emergent field of cybernetics, and has been applied broadly in art and design contexts.

to an "eco-logic" as early as 1968, when she declared her work would support "environmental issues and human concerns," in many cases environmental and ecological art remain interchangeable terms in the 1960s and 70s and do not necessarily connote a particular ethical stance towards environmental degradation.[82]

Both ecology and environment are in play in György Kepes influential 1972 book *Arts of the Environment*, which includes the essay "Art and Ecological Consciousness."[83] As founder of MIT's experimental, systems thinking-oriented Center for Advanced Visual Studies (CAVS)—influenced by the likes of Buckminster Fuller, Norbert Weiner and James Lovelock—Kepes sees a new role for the artist in an era of technological progress and environmental degradation, declaring "clearly the artist's sensibility has entered a new phase of orientation in which its prime goal is to provide a format for the emerging ecological consciousness…giving sharpness and definition to the need we sense for union and intimate involvement with our surroundings."[84] He goes on to describe a variety of practices ranging from contributing "to the creative shaping of the earth's surface on a grand scale" to applying new technology, from microscopy to space flight, to "present nature's processes in their phenomenological aspects" as the province of this new breed of artistic practitioner.[85]

---

[82] Agnes Denes, "Rice/Tree/Burial, 1979," in *Agnes Denes*, ed. Jill Hartz, First Edition edition (Herbert F. Johnson Museum Of Art, Cornell University, 1992), 106-07.

[83] Gyorgy Kepes, *Arts of the Environment*, First edition (New York: G. Braziller, 1972).

[84] Gyorgy Kepes, "Art and Ecological Consciousness," in *Arts of the Environment*, ed. Gyorgy Kepes, vol. Vision plus value series (London: Henley (Cobb House, Nuffield, Henley, Oxon.), 1972), 9.

[85] Kepes, *Arts of the Environment*, 10.

As far as I can tell, Kepes does not suggest that artists are working "ecologically" or that naturalcultural ecosystems themselves might be a medium for collaboration or exchange. Rather "arts of the environment" are part of a trajectory (in both science and art) towards processes that "dematerialize the object world" and emphasize processes and systems.[86] This attitude is fairly in sync with that expressed by the curators of Cornell University's 1969 exhibition *Earth Arts*, an early attempt to corral and present a group of disparate practices arising through out the 1960s. Common themes across these diverse practices involve site-specificity and process, dematerialization of the art object, use of non-traditional materials ranging from earth and ice to asbestos and sand, and in some cases the evocation of systems thinking.[87] For those involved with systems thinking, from Hans Haacke to Dennis Oppenheim, an interest in "the environment" and ecological systems was often evinced, but necessarily not in the sense that we might assume today.[88]

---

[86] Kepes, *Arts of the Environment*, 11.

[87] Willoughby Sharp, "Notes towards an Understanding of Earth Art," *in Earth Art: Jan Dibbets, Hans Haacke, Neil Jenney, Richard Long, David Medalla, Robert Morris, Dennis Oppenheim, Robert Smithson, Günther Uecker*., ed. Nita Jager (Ithaca, NY: Cornell University, 1970), 16–25, http://hdl.handle.net/2027/coo.31924020514380. In his catalog essay for this influential 1969 show Sharp describes a multitude of motivations and ideologies for creating the included work, from"antiurbanism" and "pantheism" to "systems thinking" and "growth cycles". He claims that "there is no earth art, just a number of earthworks" (19). Drawing these diverse motivations together he sees a focus on "physical materiality… an intimate relationship to site…an emphasis on time and process, and antiobject orientation, and a desire to subvert style". Further into the essay he claims the artists share a "strong environmental sensibility and concern for man-nature interaction" but ecology or environmental concerns are never mentioned overtly. Sharp's "environment" seems to be of the more general kind, a space "out there" that holds and foregrounds human activity. If these artists are agitating for or against anything, it seems to be containment in an art market based on objects, which was perhaps more related to general anti-consumerist sentiments of the late 1960s.

[88] Etienne Benson, "Environment between System and Nature: Alan Sonfist and the Art of the Cybernetic Environment," *Communication +1* 3, no. 1 (September 11, 2014): 2, https://doi.org/10.7275/R5HT2M7T. Exploring the "environmentalism" of artists working in the 1960s and 1970s, Benson describes a layered meaning. For artists engaged with systems thinking, he sees "an interest in the relationships between individuals (or groups) and their environments that was not necessarily committed either to environmental determinism or to a political program for saving the environment — the two senses in which the term 'environmentalism' has conventionally been used."

Kepes' evocation of ecology is consistent with statements by other critics and artists involved in early earth art and what might loosely be described as systems art. Jack Burnham's 1969 *Art Forum* piece "Real Time Systems" describes work by Dennis Oppenheim as invoking a "broad use of interacting ecologies" when he repurposes functional farming systems as art, for instance documenting the planting, harvest, bailing, trucking and sale of a 300 x 900 foot oat field.[89] Burnham invokes the term "ecological" to refer to the readymade networks of logistical, transportation and economic systems Oppehneim engages with and reframes as art. Although Oppenheim is involved in working with a living organism as an art practice, his interest is not ecological in the sense of the life of plants, or soil, or even the people who work the land or consume the crop. Oppenheim himself uses the term "ecological" metaphorically, to describe his own art-making practice, and that of others similarly engaged, as a kind of migration from one habitat to another, suggesting that as some artists move away from the gallery system and find "alternative homesites," those who remain are experiencing something akin to that of "an organism curtailed by disturbances of environmental conditions…the loft organism works on, not realizing that his output is waning."[90] This application of disturbance ecology and waning productivity is ironic read through a contemporary critical ecosocial lens. The individualistic male abandons the stifling, rigid "homesite" to conquer new terrain in the landscape beyond. The colonial, extractive and patriarchal rhetoric is pervasive and flies in the face of the valence for "ecological" I seek in defining critical ecosocial art.

---

[89] Jack Burnham, "Real Time Systems," *Art Forum*, 1969, 52.

[90] Dennis Oppenheim quoted ibid., 53.

Where Kepes' (and to some degree Burnham's) narrative diverges somewhat from the one coalescing around the nascent earth art movement is in a focus on computational technologies and what we might now call a speculative role for the artist. Kepes lays out a scenario where, as scientists move ahead with processes that emphasize cybernetic feedback loops and holistic systems, the artist's role is one of using imagination to provide a means of "pre-experiencing alternative futures," both social and technical, thus allowing what he calls "desirability, in terms of human values" to select the "right" alternatives.[91] While imagining and enacting desired futures an important thread in critical ecosocial art practice, using a lens of intersectional environmentalism we must ask who it is that is doing the imagining, and whose "human values" get applied to choosing these so-called desirable alternatives.

Following this thread, it is essential to acknowledge that the 1969 *Earth Arts* exhibition was made up exclusively of the work of white men, and that the Kepes' book included at least twelve contributors, all of whom were male. It primarily featured the artistic practices of white men, even in the seven member anonymous collective Pulsa, who, as described in a gushing *New York Times* article in 1970, lived "with their wives and girlfriends in a big country house called Harmony Ranch."[92] The work of Pulsa is an excellent example of the kind of work that was described as "environmental" in the 1970s but is distinct from what we might call eco-art today: non-referential, ephemeral, experience-based and interested in creating "energies that flow into

---

[91] McKee, "Art and the Ends of Environmentalism," 546. For an in-depth look at the precedents for and development of Norbert Weiner's cybernetic theories and how they were taken up by Kepes, see Reinhold Martin, "The Organizational Complex: Cybernetics, Space, Discourse," *Assemblage*, no. 37 (1998): 103–27, https://doi.org/10.2307/3171358.

[92] David L. Shirey, "Pulsa: Sound, Light and 7 Young Artists," *The New York Times*, December 24, 1970, sec. Archives, https://www.nytimes.com/1970/12/24/archives/pulsa-sound-light-and-7-young-artists.html.

the environment", often using "computer-based programs of light and sound output."[93] For me what is relevant about Pulsa is their commitment to creating collaboratively and eschewing the cult of individual genius, alongside the mixture of practitioners involved, ranging from "mathematicians and computer specialists to painters."[94] There is a strand in critical ecosocial art that embraces this way of working, as we'll see when we look at more contemporary collectives like the Guerrilla Grafters or Critical Art Ensemble (CAE). Given the activist orientation of CAE and Guerrilla Grafters, perhaps collectively-oriented projects like the Guerrilla Girls or other feminist-infused practices connected to New Genre Public Art in the 1980s are just as apt as precedents, despite their lack of focus on issues that are obviously environmental or ecological in nature.

To return to the 1960s and early 1970s, Kepes' awareness of the growing environmental crises is clear when he writes that "we have contaminated our lakes and rivers through unrestricted dumping of human and industrial waste, and poisoned our sky, sea, and land with radioactive waste."[95] Even so, the practices he emphasizes are oriented towards revealing and connecting, and towards engaging with technological progress and experimentation, rather than striking an ethical or political stance with regards to this crises. It's not until the early 1990s that art

---

[93] Burnham, "Real Time Systems," 55.

[94] Yates McKee, "The Public Sensoriums of Pulsa: Cybernetic Abstraction and the Biopolitics of Urban Survival," *Art Journal* 67, no. 3 (September 1, 2008): 46–67, https://doi.org/10.1080/00043249.2008.10791313.

[95] Kepes, "Art and Ecological Consciousness", 7.

historian Barbara Matilsky attempts to differentiate an ethically driven vision of ecological art, one that continues to inform aspects of what is commonly conceived of as eco-art today.[96]

In the catalog essay for the 1992 exhibition *Fragile Ecologies,* Matilsky makes the case that the broad category of environmental art (art that evokes, intervenes in or responds to nonhuman nature as its primary theme or methodology) has a subset of work that is underpinned by an ethical orientation. For Matilsky this subset is grounded in a practice of active restoration in partnership with damaged landscapes—these are the "ecological artworks" that she seeks to distinguish and elevate.[97] Looking back from the early 1990s, she claims some practices affiliated with land art, minimalism, conceptual and performance art, namely those that "provide solutions to the problems facing natural and urban ecosystems", including the work of Alan Sonfist, Agnes Denes, Helen and Newton Harrison, Merle Laderman Ukeles, Mel Chin and Hans Haacke.[98] She frames them as artists who interact with ecology as "the science of planetary housekeeping" and take an approach of actively repairing or restoring damaged landscapes.[99]

As Demos describes in his critique of *Fragile Ecologies*, looking back from 2016, it's possible to see that Matilsky's formulation of eco-art as interested in ecological flows between "culture" and "nature" is generally (with exceptions) distinct from both Kepes' and Burnham's systems art and from the overlapping but distinct practices of land or earth art, as practiced by artists like

---

[96] Barbara Matilsky, *Fragile Ecologies - Contemporary Artists' Interpretations and Solutions*, First Edition edition (New York: Rizzoli, 1992).

[97] Ibid., 56-58.

[98] Ibid., 56.

[99] Ibid., 4. As noted by Demos in his analysis of *Fragile Ecologies*, Matilsky draws on Barry Commoner, *The Closing Circle* (New York: Knopf, 1971) for this definition of ecology.

Michael Heizer, Walter de Maria, Robert Morris or James Turrell. Practitioners of land art were generally more interested in the aesthetic experience of the modernist sculptural object transferred to and sometimes merged with, the non-urban landscape than in engaging with damaged landscapes or their potential restoration.[100] As described above, much systems art took ecological metaphors and applied them to networks and systems that were framed, at that time, as distinctly human enterprises, from computer-based feedback loops to the global economic system.[101] While Matilsky's exhibition has been lauded by many practitioners of eco-art as ground-breaking, her framing of "nature" and culture" as separate spheres that can repair one another has been questioned by scholars of decolonial and justice-oriented approaches to environmental art, including McKee and Demos.[102]

Writing in 2007 McKee agrees that *Fragile Ecologies* was influential, but critiques it for exhibiting a problematic attitude he identifies as "the ecology of affluence."[103] This phrase, drawn from the work of Indian ecologist and environmentalist Ramachandra Guha, and built upon by American ecocritic Rob Nixon in *The Environmentalism of the Poor*, is used by McKee

---

[100] Demos, "*Decolonizing Nature*," 40.

[101] The work of Robert Smithson is of course one point of overlap for all three of these areas. While falling outside the scope of what I can cover here, a recently published monograph on Smithson re-evaluates his relationship to ecology and the environmental movement. See Robert Smithson, Ingrid Commandeur, and Trudy van Riemsdijk-Zandee, "Art, Research, Ecology," in *Robert Smithson: Art in Continual Movement* (Amsterdam: Alauda Publications, 2012), 45-62.

[102] Ruth Wallen, "Ecological Art: A Call for Visionary Intervention in A Time of Crisis," *Leonardo*, no. 3 (2012): 234, https://doi.org/10.1162/LEON_a_00365. Writing in favor of a more robust role for eco-art, Wallen cites many of the artists included in *Fragile Ecologies* as exemplary of the tradition. Her conception of eco-art will be examined later.

[103] McKee, "Art and the Ends of Environmentalism," 548.

to identify a romantic, preservationist, even reactionary strain he sees in eco-art.[104] For McKee the formulation of art that seeks to heal "nature" as something apart from humans while also seeking to purify and decontaminate the "human" environment is possible only in affluent, largely Euro-Western societies. In this context, the luxury of preserving a separate, pristine nature for recreation, pleasure and science is seen as a different endeavor from creating a healthy, livable environment for humans.

As McKee suggests, Guha articulates this concept lucidly in his 1989 critique of deep ecology and radical American environmentalism.[105] His logic provides an important theoretical stepping stone towards intersectional environmentalism which can be applied in critiquing what Demos terms the "eco-restorationist" strand of eco-art.[106] Well-meaning activities like beach cleanups and recycling campaigns lead to a NIMBY-flavored acts. Artists and communities remediate in small doses in affluent parts of the United States while depending on the so-called Global South

---

[104] Ramachandra Guha, "Radical American Environmentalism and Wilderness Preservation: A Third World Critique," *Environmental Ethics* 11, no. 1 (1989): 71–83; Rob Nixon, *Slow Violence and the Environmentalism of the Poor* (Cambridge, Mass: Harvard University Press, 2011).

[105] Guha, "Radical American Environmentalism and Wilderness Preservation," 71–83. Deep ecology was first articulated by Norwegian Philosopher Arne Naess in 1973 in his article *The Shallow and the Deep, Long-Range Ecology Movements: A Summary*. In Guha's reading, the concept had many worthwhile tenets in Naess' articulation of it, but was taken up in a more narrow and provincial way in the radical American context. Arne Naess, "The Shallow and the Deep, Long‐range Ecology Movement. A Summary," *Inquiry* 16, no. 1–4 (January 1, 1973): 95–100, https://doi.org/10.1080/00201747308601682.

[106] T. J. Demos, "The Art and Politics of Sustainability," in *Decolonizing Nature: Contemporary Art and the Politics of Ecology* (Berlin: Sternberg Press, 2016), 42. In this chapter Demos characterizes early ecological art of the 1960s and 70s as manifesting an "restorationist eco-aesthetic" that presents extra human natures as separate from humanity and in need of protection through projects that isolate it and restore it to the state of perfection it existed in prior to degradation by human activities. While it's unclear at times whether it's the work itself or curator Barbara Mitilsky's framing of it in the 1992 exhibition *Fragile Ecologies* that Demos is critiquing, generally I agree with this assessment, and his assertion that this framing of eco-art is tied to problematic elite, Western conceptions of environmentalism that link it to wilderness in ways that preclude environmental justice and decolonial approaches to eco-social entanglement.

to suffer massive ecological damage to support Northern lifestyles. This critique connects back to Heise's eco-cosmopolitanism, which is critical of the bio-regional flavor of local environmentalism in which a privileged population chooses to "opt out", using their relative affluence to live off the land in an ecologically conscious way that is predicated on generations of colonial and racial privilege.[107]

Ten years later, writing about the 2016 exhibition *Social Ecologies*, McKee continues his critique of eco-art. He goes a step further, describing the genre of eco-art as all but obsolete, defining a hopelessly narrow category of practice that is no longer viable in the face of the current moment's complexity:

> From the perspective of art history, we have arguably reached a metabolic rift wherein ecology cannot be considered merely one among many other topics with which art might seek to engage (as was long the case with the subgenre of "eco-art"). Ecology should be rethought in terms of a general biopolitical struggle against capitalism, setting the horizon for any possible avant-garde concern with art and life.[108]

Here McKee tasks artistic innovators, the so-called avant-garde operating between art and life, with the responsibility to tackle systemic ecological challenges. In effect, McKee seems to be

---

[107] Heise, *Sense of Place and Sense of Planet*, 50-53.

[108] Yates McKee, "From Eco-Art to Biopolitical Struggle: An Expansion of Social Ecologies," in *Social Ecologies*, ed. Greg Lindquist (Brooklyn Rail, 2016). I should note that the exhibition to which this essay refers included my own work. Curated by artist and writer Greg Lindquist, it was a strong exhibition in terms of evoking a broad historical field, including early work by Smithson and Ukeles alongside more contemporary work by Martha Rosler and Mary Miss and a sampling of early career and emergent practitioners like myself. However, in my estimation it failed to live up to the critique of environmental art lodged by McKee's essay. While Lindquist invoked the Marxist-inflected environmentalism of Mel Bookchin's "social ecology" and the environmental justice movement, the heavy weight of the real estate industry that owned the space where the show was held, the relative lack of racial diversity in the exhibiting artists, and the focus on objects and documents over process or socially engaged work made the show feel more like a traditional environmental art show than a leap into an expanded and intersectional life for eco-art. See "Social Ecologies," Brooklyn Rail Curatorial Projects, accessed November 20, 2018, http://curatorialprojects.brooklynrail.org/social-ecologies.

making an argument similar to many who have come before who argue that specialist genres can become siloed, isolated, and provincial (as in Claire Bishop's controversial critique of new media art)[109], but with greater urgency, for the future of humanity may depend on our ability to expand ecological (or perhaps McKee would say biopolitical) thinking beyond niche settings and into every mundane facet of life.

McKee's centering of ecology as a concept integral to biopolitical struggles against Capitalist extraction, exploitation and climate chaos is echoed throughout Demos' *Decolonizing Nature*. In terms of eco-art and its framing by Matilksy, for Demos Matilsky's exhibition is caught up in an eco-restorationist aesthetic that romanticizes nature as other and in need of protection. Thus she reinscribes the problematic binary that is responsible for the environmental crises to begin with. For both Mckee and Demos, it is this failure to see nonhuman and human nature, the social and natural, as one system, that is the cardinal sin of much early eco-art. While I find some of their arguments to be overly simplified and lacking contextual precedents, as I'll elaborate later, tracing the gradual awakening of ecologically oriented artists to concepts and strategies that dissolve binaries rather than build them is an essential part of tracing the development of critical ecosocial art.

While McKee and Demos seem ready to consign the genre of eco-art to history, for many practitioners it is alive and well. Writing in 2012, artist Ruth Wallen makes a spirited case for

---

[109] Claire Bishop, "Digital Divide: Contemporary Art and New Media," *Artforum International*, September 2012, https://www.artforum.com/print/201207/digital-divide-contemporary-art-and-new-media-31944.

eco-art as an under-appreciated practice that is more essential than ever.[110] Lamenting the "scant" body of theoretical writing about topic, she uses her article to work "toward a definition of eco-art", implying that the term (and the field it references) are under-defined.[111] It's worth excerpting her definition at length:

> Drawing on broad interdisciplinary knowledge and appealing to both heart and mind, ecological art is grounded in an ecological ethic and systems theory, addressing the web of interrelationships between the physical, biological, cultural, political and historical aspects of ecosystems. Asking probing questions, fashioning potent metaphors, identifying patterns, weaving stories, offering restoration and remediation, inventively using renewable materials and re-envisioning systems, ecological artists inspire, advocate and innovate, revealing and/or enhancing ecological relationships while modeling ecological values. Ecological art inspires caring and respect for the world in which we live, stimulates dialogue, sparks imagination and contributes to the socio-cultural transformations whereby the diversity of life forms found on earth may flourish.[112]

There are overlaps between her vision for eco-art and my aspirations for critical ecosocial art, but I find her definition simultaneously broader in some ways and less capacious in others. There is plenty of space for work that heals and restores, but very little mention of friction, difficulty or contestation. Eco-artists inspire and innovate, but they don't disrupt or disturb. They probe but they don't dismantle.

The base upon which Wallen builds her case for eco-art is inclusive of its broad history: she starts from Ernst Haeckle's 1870 definition of ecology as "the body of knowledge concerning the economy of nature—the investigation of the total relations of the animal both to its inorganic and

---

[110] Ruth Wallen, "Ecological Art: A Call for Visionary Intervention in A Time of Crisis," *Leonardo*, no. 3 (2012): 234-242, https://doi.org/10.1162/LEON_a_00365.

[111] Ibid., 234.

[112] Ibid., 235.

to its organic environment."[113] Like Kepes she emphasizes the primacy of relationality and systems thinking. The concept that functioning ecosystems are built of feedback loops that self-regulate is presented as foundational. Understanding this allows eco artists to create works that use, invoke, or describe an "ecological aesthetic," which she frames as a "continuous resource cycle" rather than a linear one.[114] She does build in a more complex vision of ecological flows, acknowledging that the discipline of ecology has evolved away from an insistence on perfect balance, the kind of homeostasis that characterized early biospheric thinking, to a vision of "dynamic equilibrium" with multiple stable points. While this model has the potential to dovetail with my interest in disturbance ecology, she remains more interested in artistic practices that seek to identify patterns of balance and harmony, rather than those that emphasize or contend with what she describes as the "chaotic and complex" nature of ecosystems encountering "severe perturbations."[115]

Although she doesn't cite him, this invocation of an ecological aesthetic focused on balance, pattern and harmony leads me to an oft-quoted phrase from ecologist Barry Commoner's influential 1971 book *The Closing Circle: Nature, Man and Technology*. In it he delineates "The four laws of Ecology," with the first law being "Everything is connected to everything else."[116]

---

[113] Haeckle quoted in ibid., 237. Haeckle's original text was in German and translations vary, but to see this quotation in context alongside a more in-depth look at his contributions to the early development of what is now ecology, see Frank N. Egerton, "History of Ecological Sciences, Part 47: Ernst Haeckel's Ecology," *The Bulletin of the Ecological Society of America* 94, no. 3 (July 1, 2013): 222–44, https://doi.org/10.1890/0012-9623-94.3.222. Of course in the context of vegetal agency, its worth noting the zoocentric framing of Hackle's definition, or perhaps of this translation.

[114] Ibid., 237.

[115] Ibid., 238.

[116] Barry Commoner, *The Closing Circle: Nature, Man, and Technology*, 1st edition (New York: Random House Inc, 1971), 16.

While Commoner is often cited as the more activist-oriented and socially engaged of systems thinkers, this quotation taken out of context can lead to the watering down of the power dynamics that define these connections. This is a sentiment Donna Haraway relates with her 2016 rebuttal "Nothing is connected to everything; everything is connected to something."[117]

As suggested by Haraway's retort, as we enter the so-called Anthropocene, it won't do to understand the world as interconnected and nothing more. We need to attend to leverage points and nodes of power in the web of life. This brings us right to justice and equity, ingredients that are key to my aspirations for critical ecoscocial art. Wallen does mention both terms at various points in her article, but they are presented as possible orientations for the practice of eco-art, rather than foundational. She mentions a potential orientation towards "ecological justice," for instance, but offers it as one of several possible philosophical orientations towards the ecological:

> Ecoart can play a significant role by encouraging dialogue and offering visions of desirable sustainable futures, both informed by and informing an "environmental value system," or "ecological ethic," as well as the concept of ecological justice.[118]

While it's not made explicit, based on sentiments expressed in the article, I believe her definition of ecological justice incorporates what is more commonly called environmental or social justice alongside justice for extra human natures. My aspirations for critical ecosocial art would be to

---

[117] Donna J. Haraway, *Staying with the Trouble: Making Kin in the Chthulucene*, First Edition edition (Durham: Duke University Press Books, 2016), page.

[118] Ibid., 239.

present these multiple forms of justice as integral to and inseparable from one another, and as an essential foundation from which to create.

To make her point about what works in ecoart, Wallen draws on many of the same artists included in Matilsky's *Fragile Ecologies* show, as well as more recent work by Jackie Brookner and Natalie Jeremijenko. She offers several modes of operation for ecoart, including "physical innovation, transformation and restoration," catalyzing "sociopolitical activism" and functioning conceptually to inspire "ecological values and perspectives," emphasizing that in her view the most impactful works incorporate multiple of these approaches, as found in Brookner's *Prima Lingua* or Mel Chin's *Revival Field*.[119] This lineage for eco-art largely matches those laid out by Demos, McKee and Spaid. Wallen's perspective on the field has more in common with Spaid in terms of a continued dedication to a field that defines itself as distinct from other sociopolitically engaged art forms. McKee and Demos suggest that the ecological imperative has now exceeded the confines of any single genre, pushing environmentally engaged artists to tackle biopolitical and justice-based concerns as foundational aspects of their practice.

Personally I am happy to let eco-art continue to evolve and find a more critical, incisive flavor, one that foregrounds decolonial, multispecies and justice-oriented frameworks. For my own purposes here, I think it is important to carve out a more precise and demanding definition for artistic practice that embraces the friction-generating work of striving for intersectional environmentalism in the contaminated present through work with living soil and plants. While there is certainly work described as eco-art that does this, too much of it falls into the traps

---

[119] Ibid., 237; Jackie Brookner, *PRIMA LINGUA*, Concrete, volcanic rock, mosses, ferns, wetland plants, fish, steel, 64 x 101 x 80″, accessed November 20, 2018, http://jackiebrookner.com/project/prima-lingua/; Mel Chin, *Revival Field*, 1991-ongoing, installation.

elaborated by Demos and McKee, and fails to take up the charges outlined by Shotwell, Tsing, and Haraway in terms of "staying with the trouble" and facing the complicity and complexity bound up in a contaminated present built on the injustices of the past. Additionally, as foregrounded in the work of Tsing and Haraway, I am interested in particular in forms of practice that engage sociality within and across species. My version of "social" is a multispecies sociality as elaborated upon by scholars of multispecies ethnography, ecofeminism, and feminist posthumanism. For these reasons, *critical ecosocial art that engages the vegetal*, while a bit clunky, is an apt description of the works I'll be examining in the next section.

Section 4: A Close Reading of Precedents and Practices in Critical EcoSocial Art, 1960-2018

Proto-ecosocial art and Its Discontents: Agnes Denes' Wheatfield (1982), Alan Sonfist's Time Landscape, (proposed 1965, realized 1978)

This section will involve close readings of a range of artworks that exemplify aspects of my aspirations for critical ecoscocial art. I'll start with an in depth look at two foundational works that have been influential helping me refine my understanding of how critical ecosocial art that engages the vegetal can function in urban and otherwise human-impacted settings. The development of these major, large-scale works spans a time period that was critical in the development of the Western environmental movement and environmental art, so a deep analysis of these two pieces will allow us to review a range of other practices and perspectives that co-evolved alongside them. Before we jump into the work, I'll provide a brief contextual grounding for the evolution of environmentalism in the 1960s, specifically in the United States.

While it possible to look back further, as Guha does in Environmentalism: A Global History, the 1960s are a good place to look for the genesis of what became the modern environmental

movement.[120] Often cited as the movement's catalyst, 1962 saw the publication of Rachel Carson's *Silent Spring* in the *New Yorker* magazine. Of course other events were resonant with Carson's unblinking look at the chemical-industrial complex, including the lingering effects of the Second World War and the advent of the nuclear age with its unprecedented destruction of human life at the hands of technological progress.[121] Throughout the decade, as the space race took shape, leading to iconic photographs of "spaceship earth" floating in an inhospitable universe, early promoters of the biosphere concept, from Buckminster Fuller to George E. Hutchison, came into public view.[122] They drew on the newly popularized disciplines of ecology and cybernetics to advance a notion of Earth as a single system—a complex, delicately balanced organism in danger of loosing its (or often "her") homeostatic balance.

Alongside the rise of theoretical and popular notions of the biosphere and systems thinking, the decade also saw some of the first environmental regulations at the Federal level in the United

---

[120] Guha, *Environmentalism*. Adam Rome, "'Give Earth a Chance': The Environmental Movement and the Sixties," *Journal of American History* 90, no. 2 (September 1, 2003): 525–54, https://doi.org/10.2307/3659443. Rome asserts that many environmental historians overlook the importance of the 1960s for the formation of the Environmental movement. Alongside the history as charted by McKee, my assessment of the important events and connected social and cultural trends largely matches Rome's account as outlined in the first section of this article, 525-527. For an overview of precedents for the rise of environmentalism in the 1960s, what Guha calls the "second wave," see the summary of what he terms the "first wave" of environmentalism in *Environmentalism: A Global History*, 1 edition (New York: Pearson, 1999), 10-59.

[121] Rome, "'Give Earth a Chance'", 542.

[122] McKee, "Art and the Ends of Environmentalism," 543-547. As McKee notes, the biosphere concept was formulated by Russian Geochemist Vladimir Verdansky in 1926, but only became well known in the United States through a 1968 article by zoologist George Hutchinson *Scientific American*. Subsequently picked up in the early 1970s in books by landscape architect Ian MgHarg and NASA physicist James Lovelock, the concept was popular among the public but often side-stepped by the scientific community due to its cosmological and quasi-vitalist overtones. See also: "Editorial: Gaia: The Death of a Beautiful Idea," *New Scientist* (blog), October 2013, https://www.newscientist.com/article/mg22029401-800-gaia-the-death-of-a-beautiful-idea/; R. Buckminster Fuller, *Operating Manual for Spaceship Earth*, ed. Jaime Snyder, 1 edition (Carbondale, IL: Southern Illinois University Press, 1969).

States. In 1963 the nuclear testban treaty passed along with the first Clean Air Act. In the nongovernmental context these were accompanied by proto-environmental justice protests of toxic dumping in 1966–67, and increasing national publicity received by environmental disasters, peaking with coverage of the Cayuhoga River Fire in Cleveland, Ohio, and the Santa Barbara Channel oil spill in California, both in 1969.[123] An increasing focus on curbing environmental degradation was consolidated in 1970 with the establishment of the U.S. Environmental Protection Agency (EPA) on the regulatory side and major international turnout for the first Earth Day on the grassroots and non-governmental action side.[124]

While neither Sonfist or Denes realized major public pieces in the 1960s, both *Wheatfield* and *Time Landscape* have roots in this decade. It is well-documented that Sonfist proposed the concept for planting a pre-colonial forest in New York City in 1965, and Denes first declared her commitment to "eco-logic" during an event that involved cultivating grain as art in 1968. Thus we can chart the developing environmental consciousness of a certain milieu of the Western contemporary art world alongside the broader shift in environmental consciousness that took place across the 1960s. This shift lead to the realization of major works of proto-ecosocial art by the end of following decade.

Alongside Denes and Sonfist, it should be acknowledged that other important practitioners who would shape the field were already at work in the 1960s, building bodies of artistic practice that

---

[123] Aaron Mair, "A Deeper Shade of Green," *Sierra Club* (blog), March 9, 2017, https://www.sierraclub.org/change/2017/03/deeper-shade-green.

[124] "The Forgotten Legacy of Earth Day and the Founding of American Environmentalism," *Beacon Institute for Rivers and Estuaries* (blog), April 25, 2016, https://www.bire.org/news/the-forgotten-legacy-of-earth-day-and-the-founding-of-american-environmentalism.

continue to resonate today. As early as 1962, the same year Carson's *Silent Spring* became a best seller, Jospeh Beuys proposed an art "action" to clean up the river Elbe in Germany.[125] By the late 1960s Hans Haacke and Helen and Newton Harrison were making work explicitly linked to concerns around ecological degradation.[126] As noted earlier, many foundational figures who are cited as creating environmental art at this time did not express a deep commitment to environmental concerns as we now understand them. While they often worked site-specifically and used so-called natural materials, many actually expressed more interest in responding to Minimalism and conceptual art by exploring the dematerialization of the art object and the bucking of the gallery system. At the time these tendencies lead critics to define these new practices broadly as earth art, land art, or environmental art, without articulating a specific ethical stance for the practice vis a vis the status of the environment as it was being defined by the nascent environmental movement.[127]

Both Sonfist's forest and Denes' field are works that are generally described, even today, as land art or environmental art. I would argue that both are proto-ecosocial art that, at the time, had the potential to create generative disturbance. They have much in common: both intervene in the pattern of Manhattan's grid, conforming to and confronting its linear logic. Each fills in a rectangular space, with the land reduced to a minimalist canvas then filled with disruptive living content, carefully organized by human-defined logic, but unable to exist without the logic of plant growth and ingenuity. Both include a socio-political dimension in that they occupy space in

---

[125] Spaid and Platow, *Green Acres,* 16.

[126] Ibid., 16.

[127] Demos, "*Decolonizing Nature*," 40; Sharp, "Notes towards an Understanding of Earth Art." See notes 85 and 87 for additional context.

public view, and involve transitioning human-dominated land (a vacant lot owned by the DOT, a construction site) into a plant-dominated ecosystem. Both were initially conceived in the mid 1960s, in the tumult of the nascent North American Environmental movement, and only realized more than a decade later, when the institutionalization of environmentalism, land art and conceptual art made them more legible and palatable. As we shall see, they diverge in the methodological and aesthetic strategies they use to reach their audience, the ways they address naturalcultural systems, and how they attend to the intersection of biopolitical and ecosocial concerns.

As noted above, Alan Sonfist, a New York City-based artist born and raised in the Bronx, worked to realize *Time Landscape* over a period of twelve years. He was influenced by burgeoning systems theory as he experienced it at Kepes' MIT, but was also driven by a sense that natural spaces were disappearing from New York City.[128] He cites the personal experience of the destruction of a Hemlock forest on the edges of the Bronx—one that was important to him in childhood and lost to arson and subsequent development—as a motivator for his environmental orientation.[129] He was also aware of the nascent land art movement, but convinced that art should take place in the built environment among dense human populations.[130]

---

[128] Etienne Benson, "Environment between System and Nature: Alan Sonfist and the Art of the Cybernetic Environment," *Communication 1* 3, no. 1 (September 11, 2014): 1–26, https://doi.org/10.7275/R5HT2M7T. As described here, Sonfist spent several years involved with Kepes CAVS lab at MIT the linked organization and art space the Automation House in New York City, where he carried out several works experimenting with living systems, including *Army Ants: Patterns and Structures (1972)*, which ironically failed due the "intelligent" feedback system that provided climate control in the building, freezing the tropical ants during closing hours.

[129] Ann Landi, "Separating the Trees from the Forest," *ARTnews* (blog), August 15, 2011, http://www.artnews.com/2011/08/15/separating-the-trees-from-the-forest/.

[130] Benson, "The Environment Between System and Nature," 4.

Mourning the disappearance of forests from New York City, Sonfist researched the history of Manhattan Island as a stream-laced forest bordered in marshlands, and developed a plan for reforesting portions of the city. He proposed *Time Landscape* as a first step in the implementation of this plan: a block of Manhattan would be reverted to what he conceived of as "precolonial native woodland." When the ambitious project was completed in 1978 at the corner of West Houston and LaGuardia place in Greenwich Village, it was described by the city as "the first environmental land art sculpture for New York City."[131]

Despite shortcomings that will be fleshed out momentarily, in many ways *Time Landscape* was a groundbreaking piece, and established modes of working that continue to be important to some forms of critical ecoscocial art. It involved collaborating with local volunteers and a city agency (the Department of Transportation) in order to procure, plant, and maintain the 25 x 40 foot rectangular plot. It was also an interdisciplinary undertaking: Sonfist partnered with architect Charles Libby and botanist Larry Purdue to construct this "pre-colonial forest." These strategies, of interdisciplinary teams and partnership with a city agency, remain important precedents for critical ecosocial art. Of course, the forest the team built was a completely manufactured landscape. It was built from a "palette" of native trees and shrubs, arranged in three sections to mimic the evolution of a forest from herbaceous plants and shrubs to mature forest.[132] The piece was, and continues to be, surrounded by a wrought iron fence that keeps the public at arm's

---

[131] "Exhibition Announcement: Time Landscape ,1978," Public Art Fund, accessed October 20, 2018, https://www.publicartfund.org/view/exhibitions/5985_time_landscape.

[132] Ibid.

reach, while community stewards are allowed inside for occasional landscape maintenance.[133] Sonfist and the piece's commissioners in city government conceived of it as a compliment to the historical landmarks that take the form of buildings and monuments. It is described on its street plaque as "a living monument to the forest that once blanketed Manhattan Island."[134]

Looking back at Sonfist's plans and sketches for the piece reveals assumptions that can now be read as problematic when measuring its alignment with critical ecosocial art and the goals of intersectional environmentalism. The sketches show a bountiful green forest mired in a desaturated gray cityscape, and a lifeless vacant lot adorned with construction debris and litter.[135] The bifurcation between verdant "nature" and the contaminated city couldn't be more clear. It's easy to critique the piece for its stark division between the built environment and so-called nature, and for its nostalgic championing of native plants, what some have come to call "green nativism."[136] It is essential to critique the piece for its sharp bifurcation between so-called nature and for its erasure of indigenous lifeways. While a plaque acknowledging the site as the historic homeland of indigenous peoples in included at the site, I'm thinking here more of the historical impact of biocultural reciprocity as Kimmerer would understand it. The Lenni Lenape people

---

133 "Time Landscape Documentation and Ephemera," Alan Sonfist Studio, accessed November 25, 2018, http://www.alansonfist.com/landscapes_time_landscape.html.

134 Alan Sonfist, *Time Landscape*, 1965-Current, Earth, indigenous trees, bushes and flowers, http://www.alansonfist.com/landscapes_time_landscape_description.html.

135 Alan Sonfist, *Time Landscape Paintings*, n.d., painting, n.d., http://www.alansonfist.com/paintings_time_landscape.html.

136 Divya Gopal, "Green Form and Function versus Green Nativism: In Changing Urban Spaces Full of Novel Ecosystems and Natural Assemblages, Is Native Purity a Viable Option?," *The Nature of Cities* (blog), November 5, 2015, https://www.thenatureofcities.com/2015/11/05/green-form-function-versus-green-nativism-in-changing-urban-spaces-full-of-novel-ecosystems-and-natural-assemblages-is-native-purity-a-viable-option/.

were active on the island of Mannahatta in its precolonial life, participating in the ecosystem in a way that influenced how vegetation inhabited the land.[137] In attempting to create a "pre-colonial forest" that doesn't acknowledge their influence, the piece carries out what Shotwell defines as the kind of "active and ongoing forgetting" that prematurely consigns colonial legacies to the dustbin of history.[138]

Like the originally provocative conceptual ethos of the piece now falls short, the original organization of the plants into a model of succession has dissolved as well. The trees have grown into a fairly unremarkable patch of forest that is easily overlooked by city dwellers who now have access to the High Line and the Lower East Side's many pockets parks and community gardens. The website for the piece notes that volunteers continue their stewardship, cleaning up downed branches and otherwise maintaining the artwork. Through one lens this ongoing community engagement keeps the piece vital, but through another, that of disturbance, it maintains a climax state that is artificial, rendering the piece static, like something in a natural history museum vitrine. In this way it falls into the trap of nostalgia, romanticizing a lost past without offering a mechanism for processing complicity or an alternative vision for the future. It may be time, as per Shotwell, for a contemporary practitioner of critical ecosocial art to offer some relational critical memory work at the site. I will pick up these threads when I close my

---

[137] The Nanticoke Lenni-Lenape, "Our Tribal History...," The Nanticoke Lenni-Lenape: An American Indian Tribe, accessed November 25, 2018, http://www.nanticoke-lenape.info/history.htm; Amy Johnson, "The Saw-Kill and the Making of Dutch Manhattan," *THE GOTHAM CENTER FOR NEW YORK CITY HISTORY* (blog), accessed November 20, 2018, http://www.gothamcenter.org/1/post/2009/08/the-saw-kill-and-the-making-of-dutch-colonial-manhattan.html; Eric W. Sanderson and Marianne Brown, "Mannahatta: An Ecological First Look at the Manhattan Landscape Prior to Henry Hudson," *Northeastern Naturalist* 14, no. 4 (December 1, 2007): 545–70, https://doi.org/10.1656/1092-6194(2007)14[545:MAEFLA]2.0.CO;2

[138] Shotwell, *Against Purity*, 36-38.

analysis of this piece in relation to Denes' *Wheatfield,* applying the lens of intersectional environmentalism to both pieces.

In summary, when it was proposed in 1965, *Time Landscape* was a striking gesture in an era when American progress was linked with imperial expansion, economic growth and military might. Today Sonfist's attempt to turn back time through planting trees reads differently. It can be seen as an exclusionary act that sets so-called nature away from human activity, where it can only be accessed by expert stewards. While I enjoy the occasional ramble along the borders of *Time Landscape*, and marvel at its continued existence in the midst Manhattan's of soaring real estate prices and rising sea levels, I have to admit it doesn't look like much. Certainly not like "art" in any conventional sense.

This aesthetic underwhelmingness is one challenge for eco-art of a certain flavor. In its penchant for embodying an "ecological" aesthetic it eschews anything that reads as human-constructed in favor of making something "natural" or otherwise untouched. Ironically this can end up creating something that is heavily manipulated but unremarkable in its visual impact. Photographic documentation of the piece fails to reproduce the drama of Sonfist's early sketches.[139] His portrayal of the wasteland of the city vibrating against the liveliness of the forest doesn't come through, and thus the piece fails to create an enduring image that can circulate and represent its conceptual stance. The inability to access the piece physically operates similarly. Standing outside looking in prevents an all encompassing sensorial experience, which is another way the ecological aesthetic could be transmitted. Finally, as I'll explore shortly, the documentation and

---

[139] "Time Landscape Documentation and Ephemera," Alan Sonfist Studio, accessed November 25, 2018, http://www.alansonfist.com/landscapes_time_landscape.html.

artistic narrative around the piece occludes rather than emphasizes process, relationality, and labor. Emphazing these aspects of artistic practice is one way that contemporary ecosocial art overcomes what might be perceived as an underwhelming visual impact.

The long duration and diminished aesthetic impact of Sonfist's *Time Landscape* is countered by the short tenure and enduringly iconic documentation of Agnes Denes' *Wheatfield: A Confrontation*. The piece was realized just a few years later and twenty blocks south, in lower Manhattan. Fields afford grand vistas, and Denes' project does just that, providing ample opportunity for the creation of striking imagery. In one widely circulated photograph, waves of golden grain frame the lower edges of a frame dominated by towering office buildings, while Denes herself strides through the foreground, staff in hand and hair flowing behind her.[140] Born in 1931 in Hungary, Denes spent part of her childhood in Sweden and came to the United States as a young adult, where she studied painting in New York City before expanding into other media.[141] She worked in New York City and the surrounding region for twenty years before creating *Wheatfield* at the age of fifty one. While the piece was not realized until 1982, Denes cites the 1968 piece *Rice/Tree/Burial* as the initial inspiration for *Wheatfield*. This three part piece, which involved planting rice, chaining trees, and burying poetry at an abandoned field in Sullivan County, New York, was a defining act for Denes:

> It was a symbolic event and announced my commitment to environmental issues and human concerns. It was also the first exercise in "eco-logic" that served as a the jumping

---

[140] Agnes Denes, *Wheatfield with Agnes Denes Standing in the Field*, 1982, photograph, http://www.agnesdenesstudio.com/works7_5_popup.html.

[141] Carol Kino, "Agnes Denes Stretches the Canvas as Far as Can Go," *The New York Times*, November 28, 2012, sec. Art & Design, https://www.nytimes.com/2012/12/02/arts/design/agnes-denes-stretches-the-canvas-as-far-as-can-go.html.

> off point for an ongoing interest in cultivating plants as an environmental and political statement.[142]

A modified second iteration of *Rice/Tree/Burial* was created in 1979 at ArtPark in Lewiston, New York, a sculpture park located on a postindustrial site above Niagara Falls Gorge. Looking back at Denes' supplemental material for this iteration of the piece is telling. Rather than a dualistic system of nature versus culture as we find in Sonfist's sketches, she offers a three point diagram around the poles of *thesis*, *antithesis*, and *synthesis*.[143] Terms associated with the three points range from "creation" and "cultivation" (thesis), to "restraint" and "mutation" (antithesis), to "evolution" and "transcendance" (synthesis). The vocabulary she selects reflects the aesthetic and philosophical orientation of the piece, which provides much more room for contingency, friction and collapse between categories. As recounted in a poem that supplements and reflects on the piece, she acknowledges contamination and faces it, rather than pushing against it in a naive attempt at purity. Two excerpts from the longer piece are representative:

> The Ritual of Preparing
> The Seedbed
> Trucks Dumping Dirt
> Roto Tiller Digs
> Bites into Rocky Clay Soil
> Removing Rocks
> Shoveling Raking Sifting Soil
> Trying to Level the Ground with No Success
> Without Levees Can't Flood the Field
> …
> Hundred and Fifty Feet Below Me the Fastmoving
> Swirling River Gorge
> Where Niagara Passed 12,000 Years Ago
> How was it then? Did the Birds Sing?

---

[142] Jill Hartz and Agnes Denes, "Jill Hartz and Agnes Denes," in *Agnes Denes*, ed. Jill Hartz, First Edition (Herbert F. Johnson Museum Of Art, Cornell University, 1992), 102–8.

[143] Agnes Denes, "Rice/Tree/Burial, 1979," in *Agnes Denes*, ed. Jill Hartz, First Edition edition (Herbert F. Johnson Museum Of Art, Cornell University, 1992), 106–7.

Who saw? Who Heard?
I Keep Vigil
Behind Me the Full Grown Field
Rich and Lush I Listen to It
Rustling in the Wind Quivering in the Summer Rain
Only Two Months Later Will I learn
That My Field was Contaminated
That in spite of
One Foot of Fresh Soil
I Grew Radioactive Rice.[144]

Her emphasis in the first passage on the process of creating the piece, which relates the struggle, and even the violence, of laying out the field, is evident. The land is recalcitrant, machinery and technology attempt to shape it. In her closing lines she reveals the literal contamination of her rice harvest. The piece was created, both temporally and geographically, right in the midst of the Love Canal saga, an important point of synergy for the evolving intersection of public health, feminism, and environmental justice.[145] While Denes does not reference these events explicitly, it seems likely she found herself responding to and in dialogue with these developments.[146]

While the bulk of Denes' approach to this piece is in tune with my aspirations for critical ecosocial art, as with Sonfist's piece, there are issues when it comes to questions around indigenous sovereignty. In the poem excerpted above, the 12,000 year old Niagara River gorge

---

[144] Ibid., 107.

[145] David Rosner, "Love Canal Revisited: Race, Class, and Gender in Environmental Activism. By Elizabeth D. Blum. (Lawrence: University Press of Kansas, 2008. Xiv, 194 Pp, ISBN 978-0-7006-1560-5.)," *Journal of American History* 96, no. 1 (June 1, 2009): 311–12, https://doi.org/10.2307/27694894; Reviewing Blum's text, Rosner points out that while the Love Canal crises is often seen through a feminist and class-based lens, Blum provides an important revision in looking at how patriarchy and race played out in the marginalization of African American families within the movement.

[146] She does point to local industrial contamination in her accompanying essay, and was, by this date, a founding member of A.I.R. gallery, an organization with a feminist orientation. Denes, "Rice/Tree/Burial, 1979", 106; "A.I.R.: A Short History," A.I.R., accessed November 20, 2018, https://www.airgallery.org/history/.

prompts Denes to muse on deep time. She offers what can possibly be interpreted as an acknowledgment of precolonial human history for the site, asking "Did the Birds Sing? Who Saw? Who heard?" Support for this possibility can be found in another supplemental text that accompanies the piece, which takes the form of a short essay. Here she writes that the tree-chaining aspect of the piece was carried out nearby "in a sacred forest that was once an Indian burial ground, long since looted and desecrated."[147] Denes describes feeling that she worked "under the watchful eyes of the Indians who seemed to hover over us in the trees." Here she faces the complexity and darkness of history as Shotwell encourages settlers to do, but falls into the trap of consigning indigenous life to a ghostly past, rather than an ongoing, resilient and adapting way of life that should be acknowledged in the present tense. As with the plaque at *Time Landscape,* which acknowledges the indigenous history of Manhattan, by today's standards this gesture falls short for me. Today I would expect a critical ecosocial artist to seek contact and cooperation with the living members of the stolen land upon which she hopes to work. Despite failings like these, I find Denes' actions and the way she frames them in her pursuit of "eco-logic," to resonate in many ways with the friction-inducing and contestational orientation of critical ecosocial art. With these precedents in mind, we'll move ahead to 1982 to explore the process and reception for what is arguably Denes' most well known piece.

Wheatfield: A Confrontation was supported by the Public Art Fund's "Urban Environmental Site Program" and their aim to bring "interest to empty or abandoned areas along the city's waterfront."[148] Over the course of six months in the spring and summer of 1982, Denes and a

---

[147] Denes, "Rice/Tree/Burial, 1979," 106.

[148] "Wheatfields for Manhattan," Public Art Fund, accessed October 21, 2018, https://www.publicartfund.org/view/exhibitions/5706_wheatfields_for_manhattan.

team of assistants and volunteers worked to cultivate a 1.5 acre field of wheat on the lower edge of Manhattan. The field was located just a block from Wall Street, and constructed on the site of the Battery Park Landfill. This was newly built land in transition, formed from rubble and debris excavated during earlier construction projects, ranging from the World Trade Center to the dredging of a nearby marina.[149] The site is now home to a manicured park and several museumes, but for six months during its transition from landfill to development, it hosted Denes' efforts.

The project was a massive undertaking that involved not just planting and harvesting the wheat, but bringing in soil (more than 80 truckloads worth), building furrows and putting in an irrigation system to prepare the site to be suitable for germinating wheat seeds. Site preparation started in March, wheat was planted in June, and Denes and her team worked throughout the summer months weeding, applying anti-mildew treatments, and otherwise coddling the wheat to maturity until it was harvested in mid-August.[150] The harvested grain then traveled the world as part on the exhibition "Ending World Hunger," where smaller versions of the piece were staged and visitors were invited to take the grains and plant them in their home locales.[151]

---

[149] Edith Iglauer, "The Biggest Foundation," *The New Yorker*, 1972, 130.

[150] Agnes Denes, "Wheatfield--A Confrontation: The Philosophy," in *Agnes Denes*, ed. Jill Hartz, First Edition edition (Herbert F. Johnson Museum Of Art, Cornell University, 1992), 118.

[151] In a 2016 interview Denes expressed dissatisfaction with the scale and impact of many of the recreations, although she was glad to spread the concept behind the original piece. Only a 2015 recreation in Milan in a similarly iconic scale and positioning in relationship to a major city center satisfied her, pointing to the twinned conceptual and aesthetic requirements of the piece. See Kevin Benham, "Wheatfield: A Confrontation-The Work of Agnes Denes," in *Landscape Research Record*, vol. No. 5 (Council of Educators in Landscape Architecture (CELA), Salt Lake City, Utah, 2016), http://thecela.org/lrr-5/.

While simplified narratives of this piece describe it as a confrontation between "nature" and "man" or between rural and urban, certainly the piece can be read in more nuanced and provocative ways.[152] Denes' brief, direct writing on the piece makes it clear she has much more in mind than a confrontation between false binaries like humans and the rest of nature. Denes is contemplating inequity, power, empire and economics when she writes "Planting and harvesting a field of wheat on land worth $4.5 billion created a powerful paradox…It referred to mismanagement, waste, world hunger and ecological concerns."[153] Tied up in this complex package is Denes' status as an immigrant woman over fifty working 16 hour days with a small group of volunteers to prepare, plant, maintain and harvest wheat, a symbol of Western civilization and sustenance. And doing all this against the backdrop of global finance in the form of the World Trade Center and Wall Street. This was not a coincidence, but rather a carefully planned and hard fought for collision of worlds, as Denes was apparently offered other sites in the outer boroughs but insisted the piece could only be realized in Lower Manhattan.[154] One must don a broad, eco-social reading of "nature" in order to define a two acre monoculture of

---

[152] This is a favorite trope in describing *Wheatfield*. In a 2016 conference paper Professor of Landscape architecture Kevin Benham describes the piece as "a masterpiece imbued with symbolism and confrontational power. In it, nature reclaims the city through a simple, yet compellingly ecological image". See Kevin Benham, "Wheatfield: A Confrontation-The Work of Agnes Denes," in Landscape Research Record, vol. No. 5 (Council of Educators in Landscape Architecture (CELA), Salt Lake City, Utah, 2016), http://thecela.org/lrr-5/; Similarly, a 2018 *New York Times Magazine* piece, while musing over how Denes created "one of the most significant artworks in New York City history" then seemed to "largely vanish from the city's consciousness" (until being recently rediscovered) describes the piece as "a meditation on the tension between the man-made and the natural". See Karrie Jacobs, "The Woman Who Harvested a Wheat Field Off Wall Street," *The New York Times*, June 18, 2018, sec. T Magazine, https://www.nytimes.com/2018/06/14/t-magazine/agnes-denes-art.html.

[153] Agnes Denes, *Wheatfield - A Confrontation: Battery Park Landfill, Downtown Manhattan*, 1982, installation, 1982, http://www.agnesdenesstudio.com/works7.html.

[154] Karrie Jacobs, "The Woman Who Harvested a Wheat Field Off Wall Street," *The New York Times*, June 18, 2018, sec. T Magazine, https://www.nytimes.com/2018/06/14/t-magazine/agnes-denes-art.html.

carefully tended wheat, co-evolved with humans over millennia as "natural." This is clearly not the "nature" that many reviewers are referring to in discussing Denes' piece.

A more complex and critical reading of the piece is offered by T.J. Demos in *Decolonizing Nature*, but in his eagerness to categorize a subset of early environmental art as naively "eco-restorationist" he too argues that the piece falls into the trap of "a conventional nature-culture opposition" alongside related works by Sonfist, Helen and Newton Harrison, Mel Chin, Bonnie Ora-Sherk and Hans Haacke.[155] Citing Denes' essay on *Wheatfield*, where she writes that the piece pits "a leisurely wheatfield" against "an island of achievement crazed culture and decadence," he critiques the piece for inadvertently mimicking the industrialization and commodification of the food supply under capitalism and thus undermining what he interprets as Denes' otherwise "anticapitalist stance."[156] Perhaps my reading is too generous, but to me it's clear from Denes' writing and from her prior work that she is aware of the paradox of creating a monoculture field in the shadow of Wall Street. While her field may appear "leisurely," as she makes clear in her documentation and in her writing about the piece, both landscapes, the city and the field, are heavily constructed and formed with human labor:

> To attempt to plant, sustain, and harvest two acres of wheat here (in Manhattan), wasting valuable real estate, obstructing the machinery by going against the system, was an effrontery that made it the powerful paradox I had sought…the soil was not rich loam, but dirty landfill full of rusty metals, boulders, old tires, overcoats…the absurdity of it all, the risks we took, and the hardships we endured were all art of the basic concept.[157]

---

[155] Demos, "The Art and Politics of Sustainability," 42. See note 106 for a an expansion on Demos' concept of restorationist eco-aesthetics.

[156] Denes quoted in Demos, *Decolonizing Nature*, 42. For the original text, see Agnes Denes, *Wheatfield: A Confrontation, The Philosophy*, in *Agnes Denes*, ed. Jill Hartz, First Edition edition (Herbert F. Johnson Museum Of Art, Cornell University, 1992), 118.

[157] Denes, "Wheatfield—A Confrontation", 118.

While Denes could have planted a permaculture garden, or rewilded the land to create a temporary haven for multispecies interactions, as a contemporary critical ecosocial artist might do, her choice to cultivate wheat created an effective confrontation. While echoing the strategies of industrial farming, it touched on issues of labor, efficiency, scale, and economy. Rather than an act of "eco-restoration" it was indeed a confrontational gesture, especially when viewed through an ecofeminist lens that takes into account the politics of care, maintenance, and multispecies reciprocity.

A Feminist Framing of Maintenance and Care in Land Art (Or: Naming without Claiming?)

In Demos' analysis of the work of Denes and Sonfist, both of whom he describes as employing an eco-restorationist aesthetic, the lens of maintenance and care is not invoked critically. While he cites feminist thinkers throughout *Decolonizing Nature*, I can't find any substantial engagement with feminism or ecofeminism in the main body of his text. The theorists he draws on are revealed as rooted in feminist thought when one takes the time look at article titles in the footnotes, or investigate how the authors describe their epistemological stances in biographical statements or primary sources. This is not a practice unique to Demos' text, and has been described as "naming without claiming" by feminist scholars exploring citational practices in fields like the environmental humanities and new materialism.[158] As a means of pushing back on

---

[158] Astrida Neimanis and Jennifer Mae Hamilton, "Weathering," *Feminist Review* 118, no. 1 (April 1, 2018): 80–84, https://doi.org/10.1057/s41305-018-0097-8. Neimanis and Hamilton argue that feminist conceptual labors are have contributed foundational concepts to the environmental humanities in the form of concepts like the nature/culture divide and situated knowledges. They observe how names like Donna Haraway and Val Plumwood have a tendency to appear in bibliographies while their feminist commitments remain unmentioned and unclaimed. Paralleling my own inquiries about what critical ecosocial art in search of intersectional environmentalism should look like, they put forth the task of enacting "an explicitly feminist environmental humanities." This phenomenon is also noted by ecofeminist Greta Gaard in reference to fields like posthumanism and new materialism.

this tendency, what would it mean to look at *Time Landscape* and *Wheatfield* through the lens of intersectional environmentalism with an explicit focus on the contributions of feminism and ecofeminism?

As noted, *Wheatfield* required a sustained commitment, in the form of labor (human and nonhuman!), to be maintained over the course of its existence, unlike a sculpture or painting that is created and then becomes (mostly) autonomous. Feminist Science and Technology Studies (STS) scholar María Puig de la Bellacasa's exploration of care in the face of what she terms "antiecological times" is relevant here.[159] Defined as "the concrete work of maintenance, with ethical and affective implications, and as a vital politics of interdependent worlds," Bellacasa's notion of care is nuanced.[160] It takes into account feminist critiques of gendered expectations around care-giving, while also exploring how "feminist interest in care has brought to the forefront the specificity of care as a devalued doing, often taken for granted, if not rendered invisible."[161] Part of her task in *Matters of Care* is to redefine care as a set of "as well as possible" relations, rather than a strict normative code based on moral obligations.[162] Like Shotwell, she frames our current moment as rife with contradictions and impurities, challenging

---

[159] María Puig de la Bellacasa, *Matters of Care: Speculative Ethics in More than Human Worlds* (University of Minnesota Press, 2017), http://www.jstor.org/stable/10.5749/j.ctt1mmfspt.

[160] Ibid., 5.

[161] María Puig de la Bellacasa, "Matters of Care in Technoscience: Assembling Neglected Things," *Social Studies of Science* 41, no. 1 (February 1, 2011): 92, https://doi.org/10.1177/0306312710380301.

[162] As she acknowledges, Bellacasa's use of "Matters of Care" is formulated in response to Bruno Latour's "Matters of Concern." As Bellacasa describes it, Latour in turn formulated this concept in response to "matters of fact", to emphasize that a "constructive way of exhibiting matters of fact as processes of entangled concerns" is an effective way to proceed in STS. Ibid., 89.

scholars and activists not to shy away from issues that feel important (like care) just because they've been recuperated by hype or power.

This philosophy fits well with the paradoxical orientation of Denes' piece. Her decision to foreground "the absurdity" of the whole process of creating *Wheatfield*, from clearing the landfilled soil of rubble and metal, to installing irrigation, to weeding, to harvesting, as part of the artwork, foregrounds labor, maintenance, and ultimately, care. As Denes reminds us in her description of planting and maintaining *Wheatfield*, "it's so simple, yet we tend to forget basic processes."[163]

Turning to *Time Landscape*, while retaining the identity of the piece as an artwork, we might start by reframing Sonfist's precolonial forest as a carefully constructed garden that reflects the value system of the humans who designed and maintain it. Drawing on Val Plumwood's logic for "adaptive gardening" in settler colonial situations, we can question the interspecies power balance and the enforcement of an all-native plant population.[164] In this setting, as is often the case for nonhumans kept or cultivated in urban spaces, there is an imperative to inhabit "carefully contrived interstices in a predominantly human life space."[165] Writing specifically about attitudes towards gardening in her home of Australia, Plumwood advocates a framework with more give and take, in which the gardener attunes herself to the local environment and is willing to adapt her plans and desires in concert with the inputs she receives from nonhumans

---

[163] Denes, "Wheatfield—A Confrontation: The Philosophy," 118.

[164] Val Plumwood, "Decolonising Australian Gardens: Gardening and the Ethics of Place – AHR," *Australian Humanities Review*, no. 36 (2005), http://australianhumanitiesreview.org/2005/07/01/decolonising-australian-gardens-gardening-and-the-ethics-of-place/.

[165] Ibid., Section 4 "Interspecies garden ethics," par. 6.

who participate in the shaping of the garden. In her examples this can mean ceding certain portions of the landscape to "wombat lawn mowers" or allowing vegetation to decay in place to provide habitat for decomposers. She also offers a more flexible frame for the coexistence of native and introduced species:

> On these sorts of critical and ecological grounds, I would reject the reversal all-native ideal and propose an alternative and less self-consciously nationalist decolonised ideal: the adaptive garden – which, in our continent of drought and fire, is not at all the same as the local-native garden. In place of a commodity aesthetic or an aesthetic of national or local purity, I suggest, we need a critical, ecological, interspecies and place-sensitive ethics of gardening as our guide.[166]

Of course Sonfist set out to make an artwork, not a garden, but in the case of a piece meant to catalyze awareness of human destruction of extra human natures, in the form of disappearing forests, it seems fitting to point out how human manipulation of the landscape functions here. Because Sonfist chooses not to emphasize process or labor in the narrative offered about the piece (at least compared to Denes) human labor is treated as insignificant or irrelevant to the reading of the piece. Reinserting a narrative of care and maintenance is one way of viewing the piece through an ecofeminist lens.

The question of human labor also brings us back to how the piece addresses history and indigeneity. Returning to our garden logic, Sonfist's forest replaces indigenous human interaction with the precolonial landscape with that of contemporary humans (himself, his collaborators, community volunteers), but fails to acknowledge this bait and switch. Demos points out this problematic move effectively. It aligns well with his section on *Decolonizing Methodologies,* where he draws on thinkers like Zoe Todd and Kim Tallbear, who have eloquently articulated

---

[166] Ibid., Section 1 "The Colonial Dynamic – Reversal or Adaptation?" par. 12.

how the erasure of indigenous pasts and presents functions. He is thorough in making the point that forms of new materialism, like Jane Bennett's vitalism, and forms of posthumanism, like Rosi Braidotti's "postanthropocentric creation of a new pan-humanity," have been critiqued for their failure to acknowledge indigenous precedents that were already, and continue to be, nonanthropocentric.[167] He uses these examples to caution against "general academic tendencies of nonacknowledgement" that fail to engage past and current precedents and resources. Musing on Braidotti, he asks:

> ….whether her futurism overlooks present resources located in, for instance, Indigenous heritage and current political engagements that were never anthropocentric in the first place. The point, however, isn't to focus on specific intellectuals who importantly contribute to comprehending political ecology today, but to become sensitive to the general academic tendencies of non-acknowledgment that continue the exclusion of traditions and populations that have historically suffered centuries of colonial violence.[168]

All four of the scholars he addresses in this section on *Decolonizing Methodologies* list "feminist" as one of the defining epistemological features of their scholarship. Demos cites Todd's "An Indigenous Feminist Take on the Ontological Turn" and Tallbear's "Beyond Life/Not Life: A Feminist-Indigenous Reading of Cryopreservation, Interspecies Thinking and the New Materialisms."[169] As noted prior, while feminists have long struggled among themselves (and continue to struggle) about what constitutes a truly intersectional feminism, one thing that has been made amply clear is that historical marginalization of women alongside side so-called

---

[167] Demos, *Decolonizing Nature*, 22-25.

[168] Ibid., 23.

[169] Zoe Todd, "An Indigenous Feminist's Take On The Ontological Turn: 'Ontology' Is Just Another Word For Colonialism," *Journal of Historical Sociology* 29, no. 1 (March 1, 2016): 4–22, https://doi.org/10.1111/johs.12124; Joanna Radin and Emma Kowal, eds., "Beyond Life/Not Life: A Feminist-Indigenous Reading of Cryopreservation, Interspecies Thinking and the New Materialisms," in *Cryopolitics: Frozen Life in a Melting World* (MIT Press, 2017), https://www.jstor.org/stable/j.ctt1n2ttqh.

nature should be taken into account as inseparably entangled with colonial frameworks that oppress indigeneity of all kinds. Crenshaw made her influential argument for intersectionality in order to call to account not just white feminism, but also misogyny in anti-racist and postcolonial scholarship. Demos brings intersectionality into the conversation in critiquing Braidotti and Bennett, and cites Crenshaw, but again, black feminism is mentioned only in the footnotes. Posthumanist and new materialist scholars who have been critiqued for undervaluing feminist precedents, from Timothy Morton to Graham Harman, go unmentioned in this section.[170]

Thus we can redouble Demos' critique of "general academic tendencies of non-acknowledgement" back on itself: In drawing on Tallbear, Todd, Bennett and Braidotti, he does not address how feminism informs the analysis they make. It is not solely a decolonial lens they offer, but a deep critique of hierarchies of power as reflected in patriarchal societies that group women and the colonized together with the rest of nature and thus view them as exploitable. This is a basic tenet of the work of major ecofeminist thinker Carolyn Merchant.[171] Applying Merchant's logic in combination with Demos' astute observations about decolonizing methodologies, we can read Sonfist's attempt to recreate an edenic forest as reinscribing the fallacy of an unpeopled wilderness, coded as female, and made available for (white, male) domination. Drawing on intersectional feminism we can remind ourselves that this is not in

---

[170] Read in a generous light, this could be Demos engaging here with a politics of citationality that seeks to redefine the canon by naming important feminist thinkers and skipping over white men. However, given that Latour, Harman, and Morton are amply cited (and critiqued, it should be noted) in his "Beyond Anthropocentrism" section I think this is not the case. He's grouped these thinkers together because they have dialogue with one another around feminist epistemologies that connect directly to the ecofeminist precedents of the likes of Haraway, Merchant, and Plumwood, but has failed to acknowledge the epistemological field from which they arose.

[171] Carolyn Merchant, "Dominion over Nature," in *The Death of Nature: Women, Ecology, and the Scientific Revolution* (Harper Collins, 1990), 164–90.

addition to, in place of, or more significant than oppression based on race or indigenous status, but rather co-constituted and inseparable.

Returning to the lens of care and maintenance, it is also important to acknowledge another artist whose practice touched on these themes in this time period. Also working in New York City, Merle Laderman Ukeles published her *Manifesto for Maintenance Art!* in 1969, had her documentation of sanitation workers reviewed in the *Village Voice* in 1976 and carried out her famous *Touch Sanitation* piece as an artist in residence at the Department of Sanitation (DSNY) in 1979-80.[172] It seems likely both Denes and Sonfist would have been aware of this work, and the notion of reframing the importance of maintenance-oriented labor, both of women and people of color, would have been in circulation. As Jillian Steinhauer notes in a recent review of Ukeles' work from the 1970s, the artist offered "her own emotional labor as a way of validating their manual work."[173] Viewed from a contemporary perspective, the approach has its shortcomings, which Steinhauer identifies as related to Ukeles' relative privilege, and to her focus on the personal and conceptual over the political in terms of her engagement with matters of labor:

> Ukeles came to understand the workings of New York's sanitation system, but she failed to grasp the larger social system in which she and it existed. Artists—even disempowered female ones—had (and still have) the social capital to turn their maintenance work into maintenance art, simply by saying so; sanmen do not. What's personal is political, but personal politics cannot replace mass organization. Ukeles was able to use art to transform the conditions of her own life…but doing the same for the sanmen would have required a more radical leap.[174]

---

[172] Jillian Steinhauer, "How Mierle Laderman Ukeles Turned Maintenance Work into Art," *Hyperallergic* (blog), February 10, 2017, https://hyperallergic.com/355255/how-mierle-laderman-ukeles-turned-maintenance-work-into-art/; Mierle Laderman Ukeles, *Manifesto for Maintenance Art, 1969!*, Text work, 1969.

[173] Steinhauer, "How Mierle Laderman Ukeles Turned Maintenance Work into Art."

[174] Ibid.

Shortcomings acknowledged, Ukeles' logic and approach still provide much to examine in contemplating the evolution of critical ecosocial art. Her ongoing commitment to staying with the DSNY as an artist in residence lead eventually to a new role in caring for the combined waste products of all of New York City when she became involved in planning the transition of the Fresh Kills Landfill to a restored landscape of fields, marshes and forests designed with human and nonhuman use in mind. As she wrote in a 2001 proposal, she sees the project as "a true social sculpture composed of 150 million tons from literally billions of individual decisions and acts of rejection."[175] The scale of this project, with its clear focus on acknowledging the site's history as a landfill, and its future as a publicly accessible park, prevents it from falling into the precious and inaccessible realm of *Time Landscape*, and it is visually striking and mesmerizing in the way that *Wheatfield* was, but with a much longer arc of time.

The Fresh Kills restoration will require ongoing care from a huge team of laborers, some of them artists, some of them parks employees and sanitation workers, and many of them nonhuman. I wonder what Val Plumwood would say about the colonial/decolonial possibilities of this huge, rewilded gardening project. Is it the epitome of the colonial project, built as it is on the detritus of generations of industrial and domestic waste, without attending to reparations for the displaced indigenous population, or is it a success based on the multispecies benefits it brings? Certainly part of this question can only be answered when the massive park/social sculpture opens fully. Only then will it become clear how multispecies reciprocity is incorporated into maintenance schemes, and how meaningful and accessible it is for poor and historically marginalized communities.

---

[175] Ibid.

Returning to the early 1980s, by the time the last grains of wheat were harvested from Denes' *Wheatfield* in late summer 1982, *Time Landscape* would have been filling out in its fourth season of growth, loosing its freshly planted look, and its structure of human-prescribed succession. Across the Atlantic, young oak trees planted as part of Joseph Beuys' ambitious *7,000 Trees* would have been entering their first fall of urban living.[176] Already known for coining the medium of "social sculpture" and co-founding the German Green Party, Beuys' proposed the re-forestation of Kassel through a massive project that launched as part of Documenta 7.[177] The artist donated 7,000 oak seedlings to the city, with the condition that the city administration would take responsibility for planting them in 7,000 locations around Kassel. Each was to be paired with a basalt stone marker, procured from a pile of 7,000 stones that were gradually depleted from in front of the Museum Fridericianum. The hugely influential project would stretch over the next five years, with the last tree planted by Beuy's son after his death in 1986.

Given Beuys' 1962 proposal to clean up the Elbe, and his involvement with the Green Party, it's clear he had environmentalism in his sights. Given his emphasis on social sculpture, I would be curious to know how he understood the overlaps between human health and ecosystem health. Perhaps he wasn't just introducing trees as a romantic act to reforest a city, but as an ecosocial act that put humans and trees in contact, living and breathing together in the city center. Regardless of Beuy's orientation, the period of time bridged by the establishment of Sonfists'

---

[176] *7000 Oaks – City Forestation Instead of City Administration*, 1982-1987, https://documenta-historie.de/en/artworks/7000-eichen.

[177] Heather Ackroyd and Dan Harvey, "Beuys' Acorns," ed. Giovanni Aloi, *Antennae: The Journal of Nature in Visual Culture*, no. 17 (2011): 63–71.

Time Landscape in 1978 and the gradual maturation of *7,000 Trees* throughout the 1980s paralleled the beginnings of some important shifts in environmentalism seen in the rise of the Environmental Justice Movement.

Environmental Justice and Toxic Landscapes: From Lead in the Soils to Xenophobia in the Air
Mel Chin's Revival Field (1991-ongoing) and Mei-ling Hom's Invasive Aliens (1994)

Returning to the evolution of the environmental movement in the United States, after many successes in the 1960s and early 1970s, with new legislation nearly every year at the federal level, the late 1970s and early 1980s saw stagnation at the governmental level. Anne Gorsuch was appointed to head the EPA under Reagan, dramatically curtailing the agency's effectiveness and reach.[178] Pressures from oil embargoes in the Middle East connected to the Iranian revolution and other regional instability were paralleled by high profile environmental disasters, like 3 Mile Island, Love Canal, The Bhopal tragedy, Chernobyl, and publicity garnered by the discovery of the ozone hole.[179] Concurrent with these events was the rise of more radical environmental action groups like Greenpeace and Earth First!, whose high profile acts of civil disobedience gained widespread media coverage.[180] Litigation oriented groups like the Rain Forest Alliance and the Sierra Club Legal Defense Fund also gained traction during this time period.[181] With some exceptions, these groups pursued goals that failed to break with the

---

[178] Branko Marcetic, "The Long War on the EPA," *Jacobin*, February 3, 2017, http://jacobinmag.com/2017/02/trump-epa-environment-conservation-reagan-bush.

[179] Thompson, Roger. "Environmental Conflicts in the 1980s." In *Editorial Research Reports 1985*, vol. I, 121-44. Washington, DC: CQ Press, 1985. http://library.cqpress.com/cqresearcher/cqresrre1985021400.

[180] Trip Gabriel, "If a Tree Falls in the Forest, They Hear It," *The New York Times*, November 4, 1990, sec. Magazine, https://www.nytimes.com/1990/11/04/magazine/if-a-tree-falls-in-the-forest-they-hear-it.html.

[181] Riley E. Dunlap and Angela G. Mertig, *American Environmentalism: The US Environmental Movement*, 1970-1990 (Taylor & Francis, 2014), 18.

wilderness ethic and remained focused on ecocentric approaches to protecting nonhuman nature with the baseline assumption that all human activity is bad and must be routed. Attached to this atmosphere of anxiety around environmental concerns and the ongoing cold war, concern around growth and sustainability abounded, reflected in popularity of Paul and Anne Erlich's *The Population Bomb*, which stoked fear of the growth of the human population and Earth's carrying capacity, to E.M. Schumacher's *Small is Beautiful*, which was focused on degrowth from an economic standpoint.[182]

Gradually out of this milieu of environmental disasters and high profile environmental activism, like that centered around Love Canal and the antinuclear movement, new strands of environmentalism began to coalesce. These strands solidified into the Environmental Justice Movement, a response to environmental racism, or the unequal distribution of environmental hazards in poor communities of color. Although the term environmental racism was first used in 1982 in the context of protests over the relocation of toxic roadside waste to a predominantly African American community in Warren County, North Carolina, there were precedents in the preceding decades.[183] The United Farmworkers fight over labor conditions including pesticide exposure in California, around the fulcrum of the 1966 Delano Grape Strike, and city garbage dump protests in Houston, Texas in 1967, began to make the connection between social, racial

---

[182] Paul R. Ehrlich, *The Population Bomb*, Rev Ed edition (London: MACMILLAN, 1971). Anne Ehrlich was uncredited at the time but participated in the writing of the book and was credited in later writing the couple did together; E.F. Schumacher, *Small Is Beautiful: Economics as If People Mattered* (New York, NY: Perenial Library /Harper & Row, 1975)

[183] Dale Russakoff, "As in the '60s, Protesters Rally," *Washington Post*, October 11, 1982, https://www.washingtonpost.com/archive/politics/1982/10/11/as-in-the-60s-protesters-rally/47e2d0e3-8556-4d9f-8a77-8a78ab51ca61/.

and economic marginalization and higher exposure to environmental hazards.[184] After the Warren County protests, at the prodding of founding member of the Congressional Black Caucus Walter Faunteroy, in 1983 the U.S. Government Accountability Office issued a report that confirmed that hazardous waste sites were disproportionately located in African American communities.[185]

These issues were taken into account as the Congressional Black Caucus met with the EPA in 1990, a meeting that resulted in the formation of the Environmental Equity working group. Also in 1990, the decade old SouthWest Organizing Project (SWOP), formed by young activists of color in 1980, facilitated the release of a highly publicized letter calling on the "Big 10" environmental organizations to incorporate the needs and perspectives of people of color and indigenous communities into their work.[186] This was followed in 1991 by the National People of Color Environmental Leadership Conference in Washington, D.C., a historic gathering that culminated in the drafting and adoption of an enduring document, 17 Principles of Environmental Justice.[187] This progression of events in the environmental movement towards

---

[184] Inga Kim, "The 1965-1970 Delano Grape Strike and Boycott," *UFW* (blog), March 7, 2017, https://ufw.org/1965-1970-delano-grape-strike-boycott/; Julia Felsenthal, "Dolores Huerta Is Finally Getting Her Due," *Vogue*, 2017, https://www.vogue.com/article/dolores-huerta-documentary; John D. Harden, "Forgotten Fight: Sunnyside Community Draws on History in Fight over Landfill Site," *Houston Chronicle*, February 12, 2018, https://www.houstonchronicle.com/news/houston-texas/houston/article/Forgotten-fight-Sunnyside-community-draws-on-12574213.php.

[185] U. S. Government Accountability Office, "Siting of Hazardous Waste Landfills and Their Correlation With Racial and Economic Status of Surrounding Communities," no. RCED-83-168 (June 14, 1983), https://www.gao.gov/products/RCED-83-168.

[186] Aaron Mair, "A Deeper Shade of Green," *Sierra Club* (blog), March 9, 2017, https://www.sierraclub.org/change/2017/03/deeper-shade-green. The organizations targeted in the letter included Sierra Club, National Wildlife Federation, Nature Conservancy, Natural Resources Defense Council, Environmental Defense Fund, National Audubon Society, Wilderness Society, National Parks Conservation Association, and Friends of the Earth.

[187] Dana Alston, "The Summit: Transforming a Movement," *RP&E Journal Reimagine!* Vol. 17, no. No. 1 (Spring 2010), http://www.reimaginerpe.org/20years/alston.

intersectional environmentalism is paralleled by related developments in ecosocial art. In the late 1980s and 1990s, toxicity, plant life, and nascent environmental justice concerns come together in pieces like Oliver Kellhammer's 1988 *Lead down the Garden Path* and Mel Chin's 1991 *Revival Field*.

Kellhammer's piece, produced in a working class neighborhood in Toronto, Cananda, preceded Chin's by several years, indicating that heavy metal soil contamination was a concern—at least among informed, social justice-oriented artists—before Chin began his groundbreaking work with *Revival Field*. Kellhammer, who grew up the child of a factory worker in Toronto in the 1970s, saw his father sicken due to likely chemical exposure on the job.[188] He started working with plants as collaborators early in his career. In 1988, for *Lead Down the Garden Path* he converted the front yard of a Toronto gallery into a field of buckwheat as a means of publicizing lead contamination in the neighborhood.[189] Accompanied by a large sign that read "Eat and Get Lead" the piece was a response to lead advisories that had been circulated neighborhood-wide. Residents were advised not to consume food grown in local soils, or allow children to play in it, due to contamination caused by the melting down of discarded car batteries at a nearby factory. In addition to functioning as a kind of public service announcement, the artist cites this piece as an early experiment in phytoremediation, as he was aware that the buckwheat might be able to withdraw some lead from the soil. Since creating that piece, Kellhammer has continued working

---

[188] Dan Phiffer, *Weedy Resistance with Oliver Kellhammer*, You Would Have Love It: The FOMO Podcast, accessed November 21, 2018, https://fomopodcast.org/2017/05/01/weedy-resistance/.

[189] Oliver Kellhammer, *Lead Down the Garden Path*, 1988, soil, signage, buckwheat plats, 1988, http://oliverk.org/art-projects/land-art/lead-down-the-garden-path.

with plants in a permaculture and community-oriented capacity that traces the community-engaged development of ecosocial art.

While Kellhammer and perhaps others were experimenting with phytoremediation for art and social justice in the late 1980s, it was Mel Chin's 1991 *Revival Field* that raised the profile of the practice both in art and science spheres. Chin, born in 1951 in Houston, Texas to Chinese immigrant parents, has had a multivalent career that spans large-scale sculpture, video, and socially engaged art. For our purposes here we'll trace his career-long engagement with toxic heavy metal contamination of soils and bodies, and apt example of the development of critical ecosocial art from the late 1980s to today. *Revival Field* is exemplary in the way that it bridged disciplines, connected ecological processes and social effects, challenged mechanisms for funding innovative art-science work in the midst of the culture wars, and drew attention to the agency of vegetal life.

Throughout the 1980s Chin addressed a variety of social, environmental and political issues in his work, from species extinction to state censorship.[190] His growing interest in environmental toxins lead him to early research on the phenomenon of hyperaccumulation, or the ability of plants to sequester heavy metals in their tissues. He came across the research of botanist Dr. Rufus Chaney, who was studying the phenomenon at the University of Michigan. Chaney's work was underfunded, so the two hatched a plan to garner arts funding for further research. Working with an environmental organization in his hometown of Houston, in 1989 Chin applied for funding from the National Endowment for the Arts (NEA) to collaborate with Chaney on an art-

---

[190] Saul Ostrow, "Mel Chin by Saul Ostrow," *BOMB Magazine*, September 15, 2016, https://bombmagazine.org/articles/mel-chin/.

science project that would investigate hyperaccumulation in a field scenario (in situ, outside the lab), something Chaney had not been able to do thus far due to funding constraints.[191]

To move the work out of the laboratory setting, Chen and Chaney needed longterm access to a contaminated site where they could carry out the research in situ. Chen envisioned the project as a multiyear sculptural installation with the plants as the sculptors, creating what he termed an "invisible aesthetic."As he wrote in a 1990 essay about how he envisioned the piece,

> Conceptually, this work is envisioned as a sculpture involving the reduction process, a traditional method when carving wood or stone. Here the material being approached is unseen and the tools will be biochemistry and agriculture. The work, in its most complete incarnation (after the fences are removed and the toxic-laden weeds harvested) will offer minimal visual and formal effects. For a time, an intended invisible aesthetic will exist that can be measured scientifically by the quality of a revitalized earth. Eventually that aesthetic will be revealed in the return of growth to the soil.[192]

Here we see an echo of the commitment to process and duration apparent in the work of Denes and Ukeles, with a focus in this case on the labor of the nonhuman forces of biochemistry and plant growth.

Eventually Chaney and Chin settled on the Pig's Eye Landfill near St. Paul Minnesota to site the piece. An un-permitted dumping site from 1956-72 , then used to store wastewater treatment sludge ash from 1977-85, the land had recently been declared a Superfund Site under the United States decade old CERCLA legislation. By 1989 the soil at the site was awash in heavy metals due to decades of accumulation. Chin drew up plans and built maquette for the piece, which

---

[191] Petere Boswell, "Invisible Aesthetic: Peter Boswell Revisits Mel Chin's Revival Field," *Walker Art Center: Sightlines (Art + Science)* (blog), October 9, 2017, https://walkerart.org/magazine/mel-chin-revival-field-peter-boswell-rufus-chaney-eco-art.

[192] Mel Chin, "Artist Writing: Revival Field," 1990, http://melchin.org/oeuvre/artist-writing-revival-field.

would take the form of a sixty foot diameter circular enclosure divided into wedges cut by access paths. He described the design as reminiscent of the Mayan numeral system, with different plant species arrayed for toxicity absorption, surrounded by a larger square enclosure that would form the control, where the land would remain untreated. Reviewing the piece in 2017, curator Peter Boswell writes, "The motif of a circle in a square divided into quadrants is a recurrent symbol of cosmic wholeness or centeredness in a number of cultures," and was meant to signify the return of the site to "its original, natural state."[193] Whether or not this is how Chin conceived of the design conceptually, he linked the design to the Mayan Numeral system by including 96 markers of lead, copper and zinc to mark 96 sections of the circle.[194]

As Chin exhibited plans for the piece in a survey show at the Walker Art Center in late 1990, the NEA grant was provisionally approved and then denied in the wake of other high profile denials of funding over obscenity.[195] Rather than "decency" the denial of funding to Chin's project was based on "questionable artistic merit," wherein NEA chairman John Frohnmayer went against

---

[193] Boswell, "Invisible Aesthetic: Peter Boswell Revisits Mel Chin's Revival Field," note 2.

[194] Although there is little information available for this reference to indigenous cultures in the layout of the piece, as with the work of Denes and Sonfist, from a contemporary decolonial perspective it is worth considering how the reference functions with regard to cultural appropriation. While Denes and Sonfist dealt explicitly with temporal and geographic terrain that invoked specific indigenous populations, as positioned by Boswell, Chin's reference is much more broad. It can be linked to a general attraction mystical "wholeness" and "harmony" that is a thread in the work of many environmental artists that Demos describes as eco-restorationist. Often this association is linked to a problematically vague association with Eastern philosophy and culture or precolonial indigenous cultures in the West. While still perhaps problematic, in Chin's work this tendency is somewhat mitigated by his Chinese American identity, and his commitment to working with toxicity and social justice. For an elaboration the appropriation of Eastern cosmologies by Western Environmentalism, see Guha, "Radical American Environmentalism and Wilderness Preservation," 8. For Demos' perspective on eco-restorationist aesthetics see Demos, *Decolonizing Nature*, 38-45.

[195] James F. Cooper, "A Review of the Culture Wars," *American Arts Quarterly* 33, no. 4 (Fall 2016), http://www.nccsc.net/essays/review-culture-wars.

the advisory committee's approval and declared that Chin's "invisible aesthetic" of plants sculpting the soil underground over time was not actually art.[196] An uproar ensued, which brought publicity to the project and to Chaney's research on hyperaccumulation, which was largely unknown at the time. The denial was eventually reversed, and the project proceeded.

When Chin, Chaney and their team started working on the site, it was off limits to all but specially trained technicians due to extreme toxicity. The team was required to undergo forty hours of hazardous material training before they could access the site. Instead of adding fresh soil to the site, or bringing in native plants, they used an assortment of what might ordinarily be thought of as weeds, ranging from alpine pennycress (*Thlaspi caerulescens*) to Virginia pepperweed (*Lepidium virginicum*).[197] It's worth noting that despite the site's toxicity, it had rewilded into a meadow dotted with the trees and brush, which actually looks quite verdant in the far-ground of Chin's documentation, which of course makes me question the assertion that the test grounds would be returned to a "natural" state through human intervention. Clearly the site was recovering on its own, although questions about how such sites fair longterm are legitimate.[198] Additionally, lack of public access to the to the site made thorough documentation and outreach essential. Through writing in a variety of outlets (including scientific journals), maquettes, photography, and demonstrations at less toxic sites, Chin found ways to share the

---

[196] Boswell, "Invisible Aesthetic: Peter Boswell Revisits Mel Chin's Revival Field," par. 4.

[197] Teresa E. Pawlowska et al., "Effects of Metal Phytoextraction Practices on the Indigenous Community of Arbuscular Mycorrhizal Fungi at a Metal-Contaminated Landfill," *Appl. Environ. Microbiol.* 66, no. 6 (June 1, 2000): 2526–30, https://doi.org/10.1128/AEM.66.6.2526-2530.2000.

[198] Adam Higginbotham, "Is Chernobyl a Wild Kingdom or a Radioactive Den of Decay?," *Wired*, April 14, 2011, https://www.wired.com/2011/04/ff-chernobyl/.

project, but in terms of experiential impact it perhaps suffers from some of the same impediments as *Time Landscape*.

While the remediation process put in place by *Revival Field* proved too slow to fully detoxify the soil in the initial two years the project was active, the team did publish results on the hyperaccumulation potential of many of the plants they worked with, and in the intervening decades the technique has become quite well known and widely studied.[199] Chin has continued his engagement with this theme, not through further work with plants or hyperaccumulation, but through socially engaged environmental justice-oriented work with communities negatively effected by lead contamination, as in his *Fundred Dollar Bill* and *Operation Pay Dirt* projects.[200]

In 1991 as Chin was working on the first phase of *Revival Field* other artists were also at work restoring ecosystems with plant growth in ways that looked beyond planting forests or wheat fields. Kellhammer started work on *Cottonwood Gardens* in 1991, a garden squatting project that appropriated city land in Vancouver and restored it over ten years into a verdant permaculture-oriented garden, discouraging the city from routing a highway through the area.[201] In Los Angeles, also in 1991, biologist turned artist Kathryn Miller began manufacturing seed bombs

---

[199] Pawlowska et al., "Effects of Metal Phytoextraction Practices on the Indigenous Community of Arbuscular Mycorrhizal Fungi at a Metal-Contaminated Landfill"; Itziar Alkorta and Carlos Garbisu, "Phytoremediation of Organic Contaminants in Soils," *Bioresource Technology*, Reviews Issue, 79, no. 3 (September 1, 2001): 273–76, https://doi.org/10.1016/S0960-8524(01)00016-5; Jae Heung Lee, "An Overview of Phytoremediation as a Potentially Promising Technology for Environmental Pollution Control," *Biotechnology and Bioprocess Engineering* 18, no. 3 (June 1, 2013): 431–39, https://doi.org/10.1007/s12257-013-0193-8.

[200] Mel Chin, *Fundred Dollar Bill Project*, 2006-ongoing, https://fundred.org/; Mel Chin, *Operation Pay Dirt*, 2006-ongoing, http://www.operationpaydirt.org/.

[201] Oliver Kellhammer, *Cottonwood Community Gardens*, 1991-ongoing, http://oliverk.org/art-projects/land-art/cottonwood-community-gardens.

that functioned both as sculptural displays in galleries and takeaways to be deployed in damaged landscapes as a means of jump-starting restoration.[202]

As both McKee and Demos note, the early 1990s were an important time for the internationalization of the environmental movement. The high profile environmental disasters of the 1980s and the rising profile of environmental activism in the Global South and in poor communities in the United States paved the way for the first widely publicized and widely attended U.N. Climate Summit, held in Rio de Janeiro in June 1992.[203] For the first time activist groups and artists held their own counter summit nearby and challenged the official summit to take environmental and climate justice into account. With high profile demonstrations by Greenpeace and speakers like activist and ecofeminist Vandanda Shiva, the summit sent the message that global accountability couldn't be premised on "sustainable development" at the cost of the poor and so-called Global South.

As the echoes of Rio reverberated into the decade to come, artists continued to expand their interactions with human-impacted landscapes, from post-industrial urban centers to carefully maintained lawns. In 1993 Mark Dion started his first activities with the Urban Ecology Action Group in Chicago. The artist collective Haha, also in Chicago, created a hydroponic farm to supply AIDS patients with safe, sterile produce, and Susan Liebovitz Steinman organized mini-orchards of "antique" apple varieties under a freeway overpass in San Francisco.[204] By 1994,

---

[202] Kathryn Miller, "SEED BOMBS," 1991-2002, http://www.kathrynamiller.com/seedbombs.html.

[203] McKee, "Art and the Ends of Environmentalism," 552-555.

[204] Spaid and Platow, *Green Acres*, 16.

artist Mei-ling Hom was responding to toxicity of a different sort, through the creation of an unusual forest on the campus of Rosemont College in Pennsylvania. *Invasive Aliens*, Hom's intervention consisting of 285 non-native saplings, addressed the deleterious effects of nativist rhetoric and anti-immigrant policies, as applied to both plants and people.

Like Chin, Hom is also the child of Chinese immigrant parents, but grew up in New Haven, Connecticut, where her family ran a Chinese grocery store. She began exploring Asian American cultural identity through her work in the early 1990s, and while she does not explicitly identify herself as affiliated with environmental or ecological art in the materials I've reviewed, much of her work revolves around the translation of forms created by nonhuman nature (cocoons, branches, clouds) into traditional artistic materials, as well as work with living systems, often through farming.[205]

Hom's *Invasive Aliens* is the earliest work I've encountered that addresses the cult of green nativism as intertwined with cultural xenophobia.[206] The 285 saplings Hom used to disrupt the monoculture of a lawn were "alien" (or introduced, non-native) tree species, planted in a long, winding strip where the lawn was removed and bare earth surrounds the young trees.[207] Each was tagged with what looks an ordinary yellow nursery tree tag from a distance, but upon closer

---

[205] Mei-ling Hom, "About | MEI – LING HOM," accessed October 31, 2018, http://www.meilinghom.com/about-2.

[206] Gopal, "Green Form and Function versus Green Nativism."

[207] Biological, botanical and horticultural discourse has been analyzed for its use of value laden language in relation to plant migration and naturalization. See Banu Subramaniam, "The Aliens Have Landed! Reflections on the Rhetoric of Biological Invasions," *Meridians* 2, no. 1 (2001): 26–40 and Stephen Jay Gould, "An Evolutionary Perspective on Strengths, Fallacies, and Confusions in the Concept of Native Plants," *Arnoldia 58*, no. 1 (1998): 2–10.

inspection, reads “INVASIVE ALIEN” along with the species name of the plant in question. According to the limited background information available on the project, each tree was also labeled with the name of an imprisoned undocumented immigrant, and Hom arranged for each of the 285 trees to be adopted by local families and neighbors when the project ended.[208]

While I can’t find explicit evidence of the ecological statement Hom sought to make with this project, her current work is focused on soil fertility and permaculture-based community farming, so it’s possible that in 1994 she understood the implications of disturbing the authority of a perfectly maintained, ecologically depauperate lawn with a community of introduced tree species. Invasion Biology was a rapidly emerging field in the 1990s, and its concepts were gaining currency both in university settings and in popular culture.[209] The hysteria around the spread of introduced species, occasionally justified but often overblown (or misattributed to the organism rather than larger ecological patterns), has lead to the entrenchment of the fallacy that “introduced” or “non-native” is synonymous with “invasive,” an orientation that has lead to the blind privileging native species over all others.[210]

---

[208] Spaid, *Green Acres*, 156; “Mei-Ling Hom, and Kim Yasuda: Celebrating the U.S. - Japan Creative Artists Exchange Fellowship Program,” Japanese American National Museum, 1996, http://www.janm.org/exhibits/jusfc/mei-ling_hom/hom.html..

[209] Sarah Hayden Reichard and Peter S. White, “Invasion Biology: An Emerging Field of Study,” *Annals of the Missouri Botanical Garden* 90, no. 1 (2003): 64–66, https://doi.org/10.2307/3298526; Alan Burdick, “Attack of the Aliens: Florida Tangles With Invasive Species,” *The New York Times*, June 6, 1995, sec. Science, https://www.nytimes.com/1995/06/06/science/attack-of-the-aliens-florida-tangles-with-invasive-species.html.

[210] Gould, “An Evolutionary Perspective on Strengths, Fallacies, and Confusions in the Concept of Native Plants.”

As I've described in previous writing on this issue, plant migration and naturalization is a complex topic where context-specificity is key and binary divisions really don't serve us well.[211] Any organism—whether evolved over geologic time in a specific locale or recently introduced via human activity—can act invasively in conditions that facilitate such behavior. Whether whipping up nationalist fears around invading hoards (be they human or nonhuman) or motivating municipalities and individuals to douse the landscape in herbicides, many see reasons for reining in and reappraising the way introduced species are discussed and engaged with.[212] Hom's 1994 piece, by cleverly intervening int the colonizer's green rug with vulnerable seedlings from around the globe that then get adopted locally is an early example of the kind of public-facing productive disturbance that can be offered by critical ecosocial art.

As questions around plant mobility and adaptation have continued to evolve, and waves of anti-immigrant sentiment have escalated, artists have continued to tackle both the metaphorical and ecological implications of plant migration. In 1997, for *Documenta X* in Kassel, Germany, Austrian artist Lois Weinberger transplanted "foreign immigrant" plants collected from throughout Central and Eastern Europe to the train tracks of the Kassel central station, where the

---

[211] Ellie Irons, "Why Say 'Weed' in the Anthropocene?," *Inhabiting the Anthropocene* (blog), September 12, 2018, https://inhabitingtheanthropocene.com/2018/09/12/why-say-weed-in-the-anthropocene/; Ellie Irons, "Feral Landscape Love: Novel Ecosystems in the Studio and the Street," *The Brooklyn Rail* (blog), accessed November 2, 2018, https://brooklynrail.org/2015/11/criticspage/feral-landscape-love-novel-ecosystems-in-the-studio-and-the-street; Stefan Helmreich, "How Scientists Think; About 'Natives', for Example. a Problem of Taxonomy Among Biologists of Alien Species in Hawaii," *Journal of the Royal Anthropological Institute* 11, no. 1 (March 1, 2005): 107–28, https://doi.org/10.1111/j.1467-9655.2005.00228.x.

[212] Tomaz Mastnak, Julia Elyachar, and Tom Boellstorff, "Botanical Decolonization: Rethinking Native Plants," *Environment and Planning D: Society and Space* 32, no. 2 (April 1, 2014): 363–80, https://doi.org/10.1068/d13006p; Mark A. Davis et al., "Don't Judge Species on Their Origins," *Nature* 474 (June 8, 2011): 153–54, https://doi.org/10.1038/474153a; Tao Orion and David Holmgren, *Beyond the War on Invasive Species: A Permaculture Approach to Ecosystem Restoration* (White River Junction, Vermont: Chelsea Green Publishing, 2015)

"spontaneous vegetation" lived among native perennial plants, an intervention the artist connected to immigration and hierarchies among organisms and groups of people.[213] In 2011 New York City-based Jan Mun took to the streets of the city to issue "green card" seed packets declaring non-native invasive plants as permanent residents, and holding conversations with the public about plant life and immigration policy in the United States.[214]

More recently, with the controversial practice of assisted migration in the news—helping plants that can't migrate fast enough to keep up with climate change move to new habitats before their current habitat drives them to extinction—have generated new practices, both among artists and community activists. As a community action group in Florida begins moving the endangered Torreya pine northward despite scientists' concerns and governmental condemnation, artist Miriam Simun's 2014 meditation on the endangered species *Agalinis acuta* points out the poetic absurdity of attempts to preserve a doomed plant species that may not be a species at all.[215] Concurrently, Jenny Kendler's ongoing *Gardens for a Changing Climate* are dragged around Chicago by people-power, while Oliver Kellhammer's 2017 *Neo-Eocene (Malmö)* brings *Ginko biloba* back to Sweden, introducing it to geographic territory it hasn't inhabited since prehistoric times when the climate was much warmer than we think of as "normal" today.[216]

---

[213] Lois Weinberger, *Lois Das Über Pflanzen Ist Eins Mit Ihnen*, 1997, http://www.loisweinberger.net/; Tom Trevor, "Lois Weinberger – The Three Ecologies," in *Tom Trevor*, ed. Hatje Cantz and Philippe van Cauteren (Ghent: SMAK, 2013), https://tomtrevor.net/2014/03/09/lois-weinberger-the-three-ecologies/.

[214] Jan Mun, *Model Citizen: Assimilation*, 2011, http://janmun.com/model-citizen/.

[215] Chris Berdik, "Driving Mr. Lynx," Boston.Com, October 12, 2008, http://archive.boston.com/bostonglobe/ideas/articles/2008/10/12/driving_mr_lynx/; Miriam Simun, *Agalinis Dreams*, 2014, multisensory experience/installation, 2014.

[216] Jenny Kendler, *Garden for a Changing Climate*, 2017-2018; https://jennykendler.com/section/453504-Garden-for-a-Changing-Climate.html; Oliver Kellhammer, *Neo-Eocene (Malmö)*, 2017, spiral forest planting, http://oliverk.org/art-projects/land-art/neo-eocene-malm%C3%B6.

Certainly work like Hom's and Kellhammer's, where plants are purposefully introduced outside their current range, raises questions regarding ecological effects. Where did the trees come from? Were they cultivated locally, or transported from elsewhere? Did they benefit the local ecosystem or perhaps harbor plant pathogens or other deleterious organisms? Were they properly adapted for the region or will they need inefficient amounts of care to survive? The questions sparked are myriad, but are the kinds of questions we *should* be contemplating. They don't have clear answers. In a globalized world full of contamination and cross-pollination, how do we acknowledge and repair historic inequities while also working with what we have and finding space to thrive?

These are the questions of much recent theory coming out of ecofeminism, multispecies and decolonial scholarship, fields that have a reciprocal relationship with ecosocial artistic practice. Many scholars in these fields reference artists, respond to artistic provocations, and analyze the implications of artistic practice. Texts that have been particularly influential in ecosocial art over recent years include Tsing's 2015 *The Mushroom at the End of the World: On the Possibility of Life in Capitalist Ruins,* Haraway's 2016 *Staying with the Trouble: Making Kin the Chthulucene*, and Macarena Gomez-Barris' 2017 *The Extractive Zone: Social Ecologies and Decolonial Perspectives*. Each scholar offers valuable takes on the predicament of living in contaminated

times.[217] They write about damaged landscapes and toxicity under colonialism and late capitalism, but also about the life forces of the ecosocial/biocultural networks that grow up in and around disturbance. They emphasize, as Gómez-Barris describes it, the importance of "epistemological autonomy and embodied knowledge" in moving "beyond a paradigm of mere resistance into the more layered realm of potential" to "reorganize and refute the monocultural world."[218] In sentiments like this I find ample space for ecosocial art practices that can both prefigure and respond to the realizations of research like that practiced by Tsing, Haraway, and Gómez-Barris. Countering hegemonic narratives of inevitable apocalypse or universal human guilt in the Anthropocene era, these scholars offer alternative stories, from a decolonial femme analysis of extractivism to the muddy entanglement of the Chthulucene. Ecosocial art can help identify and hone the skills, sensory tools, and embodied strategies that bring these stories into the realm of fleshy, lived experience. It can facilitate connections across difference and help unearth submerged histories and care for "ruined" ecosystems, be they monoculture lawns or superfund sites.

---

[217] Anna Lowenhaupt Tsing, *The Mushroom at the End of the World: On the Possibility of Life in Capitalist Ruins* (Princeton: Princeton University Press, 2015); Donna J. Haraway, *Staying with the Trouble: Making Kin in the Chthulucene*, First Edition edition (Durham: Duke University Press Books, 2016); Macarena Gómez-Barris, *The Extractive Zone: Social Ecologies and Decolonial Perspectives* (Durham; London: Duke University Press Books, 2017). Texts that take this approach negotiating entanglement with contamination and damaged ecosystems abound, and reach back at least a decade, with influential precedents laid by Rob Nixon's *Slow Violence: The Environmentalism of the Poor* (Cambridge; Mass: Harvard University Press, 2011), Shotwell's *Against Purity* and earlier work by Haraway and Tsing that combines theory and ethnographic research. More contemporary examples by early career scholars also contribute to the field, from Heather Davis' writing on plastics in "Toxic Progeny: The Plastisphere and Other Queer Futures," *PhiloSOPHIA* 5, no. 2 (2015): 231–50, to Max Liboiron's cross-disciplinary work with critical discard studies, feminist environmental science and STS, and activism, as chronicled on her website and in a forthcoming book, see "Max Liboiron", accessed October 31, 2018, https://maxliboiron.com/.

[218] Gómez-Barris, *The Extractive Zone*, xv-xvi.

The Expansion of Ecological Art post 2000: Solidarity, the Biopolitical Imaginary and the Post-Natural Condition: Critical Art Ensemble's Molecular Invasion (2002–2004) and Claire Pentecost's soil erg (2012)

Returning to our timeline of the evolution of critical ecosocial art, clearly the late 1980s and 1990s were an important time for the flowering of collaborative, interdisciplinary approaches to the development of ecosocial art. In some veins of environmental art, practices addressing immigration, colonization and environmental justice began to take root during this time. However it wasn't until the early 2000s—with the appearance of tactical media and tactical biopolitics, as developed by collectives like the Yes Men, Critical Art Ensemble, and Future Farmers—that the critical force of ecosocial art practice is further refined, making it an increasingly salient medium for addressing injustice on the way to intersectional environmentalism.

Sue Spaid frames this shift in *Green Acres* over the course of several short essays on how, from the 1990s to the early 2000s, solidarity-oriented community engagement practices with a sociopolitical flavor replace "survival strategies" typical of earlier ecological art.[219] For Spaid, early ecological art practitioners sought innovative solutions to environmental ills ("survival strategies") *and* radically new ways of making art. This focus on innovation at the hands of iconic individuals lead to approaches that fit neatly, if inadvertently, into an antigovernment DIY solutions mentality that prioritized individual survivalist tactics over people powered movements.

---

[219] Sue Spaid, Green Acres, 25-28

Spaid links this to what was described around the turn of the century as a "post-political ideology" that has gradually been replaced by the imperative to rediscover solidarity. She sees this return to solidarity in high profile movements like Occupy and in everyday actions like barter systems and local markets.[220] Writing in 2012, she muses "one could argue that the Arendtian notion of requiring groups of people to band together to resist authority figures has not been more in vogue since anti-Vietnam protests protests four decades ago."[221] While critics might argue that these forms of solidarity are still inconsequential, al la Jodi Dean's well known quip "Goldman Sachs doesn't care if you raise chickens in your backyard," Spaid's point is that artists and communities aren't engaging in these actives merely as means to an end (acquiring produce to eat or bartering a haircut to get a yoga class) but rather these are sociopolitically motivated acts. For Spaid, they give art the chance to prefigure political change, building solidarity for potential communal action, rather that lulling the public into a post-political paradigm that acquiesces to replacement of democracy by capitalism.

While not articulated in exactly the same way, the shift Spaid notes in artistic approaches from the mid 1990s to the 2000s is also taken up by McKee in *Art and the Ends of Environmentalism*, and by Demos in "The Post-Natural Condition," the third chapter of *Decolonizing Nature*. For McKee this shift has to do with the arrival of a biopolitical consciousness that no longer sees ecology as a niche topic but rather as a driving force animating sociopolitical issues worldwide.[222] He cites the coalition of artists, activists, and NGOs who coalesced around the Rio

---

[220] Ibid., 32-34.

[221] Ibid, 34.

[222] McKee, *The Ends of Environmentalism*, 552-562.

Summit in 1992 and further solidified ranks at the 1999 Seattle WTO protests as a new coalition of agitators for a "Global Justice Movement."[223] Critical of the rhetoric of sustainable development, which overlooks power imbalances between the Global North and the postcolonial world, this movement critiqued those who named poverty and overpopulation as root causes for environmental degradation. They reframed the conversation, putting over-consumption and resource extraction driven by the so-called developed world center stage. This sentiment of course dovetails with the rise of the Environmental Justice Movement in the United States, which McKee also acknowledges, describing how the Principles of Environmental Justice drafted in 1991 were adopted at the Rio counter summit. For Mckee, this infusion helped shape a new "biopolitical imaginary" that demands accountability from governments and mainstream environmentalism, calling out the ecology of affluence and foregrounding the inclusion of the human "right to survival."[224]

The new imaginary McKee articulates has a corollary in an expanded field of aesthetic practice, where artists operate alongside and overlap with "media strategists and investigative journalists, photographers and videographers, web and graphic designers, charismatic spokespeople and

---

[223] Ibid., 552.

[224] McKee, *The Ends of Environmentalism*, 552. As McKee notes, the "right to survival" as a human right in the context of extractivist environmental devastation is first articulated by Vandana Shiva in the wake of the Bhopal Disaster, and amplified by Shiva's high profile participation as a spokesperson of sorts at the Rio Countersummit.

ordinary movement members, organizers and demonstrators."[225] Artists operating in this field, taking up the task of "environmental" work are no longer seeking global biospheric homeostasis as Kepes called for, or collaborating with "natural" systems to restore nature, as in Matilsky's framing. Now the task of McKee's "new environmental artist" is to "unsettle the self-evidence of 'environment' itself, addressing it as a contingent assemblage of biological, technological, economic and governmental concerns whose boundaries and agencies are perpetually exposed to conflict."[226] This charge fits well with my understanding of the responsibilities born by the critical ecosocial artist. McKee takes up the Yes Men's 2004 Dow Chemical intervention as a primary example of the opening up of biopolitical art practice through tactical media strategies. He also examines *Landmark*, a 2002 project by the collaborative duo Allora and Calzadilla.[227] Facilitating a series of community-based interventions in the militarized landscape of Puerto Rico's Vieques, Allora and Calzadilla took on the role of community organizers, producing a body of work McKee describes as a contemporary strain of earth art.[228]

---

[225] McKee, *The Ends of Environmentalism*, 557-58. McKee defines "aesthetic" broadly, drawing on Jaques Ranciere's concept of the "partition of the sensible", which concerns perceptual abilities in terms of what can be sensed, or received, as political "speech" versus becoming lost or invisible private "noise". McKee contends that aesthetic practices have the potential to "disturb the configuration of the 'common' itself," allowing new ideas to become sayable, audible and visible in public, thus becoming politically perceptible. See Jacques Rancière, *The Politics of Aesthetics: The Distribution of the Sensible* (London: Continuum, 2004), 12-19.

[226] McKee, The Ends of Environmentalism, 557.

[227] "Dow Does the Right Thing," The Yes Men, June 30, 2018, http://www.theyesmen.org/project/dow-does-right-thing; Jennifer Allora and Guillermo Calzadilla, *Landmark (Foot Prints)*, 2002 2001, photographic documentation of performance, 2002 2001, http://artmuseum.princeton.edu/collections/objects/58068.

[228] McKee, The Ends of Environmentalism, 565-573.

While McKee sees the defining characteristics of environmental art around the turn of the century as oriented towards nongovernmental action and a commitment to organizing at the grassroots level, Demos sees artists getting more playful, ironic and biting after the self-conscious earnestness of 1980s and 1990s ecoart.[229] This quality can certainly be found in the work of the Yes Men, and Demos elaborates on theirs and other related practices in a section of his text entitled "Political Ecology."[230] Here he describes how this new breed of artistic practitioner addresses flows of power at the global and local level.

For Demos this sensitivity is akin to the conception of ecology elaborated in Felix Guattari's *The Three Ecologies*, where so-called "natural ecosystems" are no longer understood as outside social and economic systems, but deeply entangled with and co-created with each other.[231] Like McKee's artists who contest a single, monolithic understanding of "the environment," Demos focuses on artists who attend to the "post-natural" condition, troubling the category of self-evident "nature" separate from humanity. Demos' list of artists who operate this way includes a number of collectives mentioned by Spaid and McKee, from the Yes Men to Allora & Calzadilla to Laboratory for Insurectionary Imagination (Labofii).[232] All three theorists also cite the collective Critical Art Ensemble (CAE) as key to this era. Their early work on genetically modified organisms (GMOs) in the food supply provides a productive stop in our tour of critical ecosocial artists engaging vegetal matter.

---

[229] Demos, *Decolonizing Nature*, 52-62.

[230] Demos, *Decolonizing Nature*, 116-120.

[231] Ibid., 60-61; Felix Guattari, *The Three Ecologies*, trans. Ian Pindar and Paul Sutton, Reprint (London: Continuum, 2008).

[232] Demos, *Decolonizing Nature*, 116-120.

Thus far our close readings of artworks that provide precedents for critical ecosocial art have involved plant life on a macro scale—artists working with whole organisms embedded in ecosystems, forming or disrupting forests, fields and their margins. This has allowed us to explore how proto-ecosocial art charts shifting conceptions of what is "natural" and "native," "cultural" or "exotic" alongside developments towards intersectional environmentalism. To understand one aspect of the shift in practice towards a more sociopolitically engaged eco-art around the turn of the millenium, it is helpful to look at work that engages vegetal biopolitics on a smaller scale. In the early years of the new millennium, CAE turned their focus to the genetic material of plants engineered to suit the monoculture conditions of the industrial food system. This takes us into a realm of artistic practice that overlaps productively with the evolution of critical ecosocial art, although it is more commonly referred to as bio-art.[233] This movement was chronicled and theorized in the 2004 collection *Tactical Biopolitics* and is well-represented by the early GMO-related work of CAE and collaborators.[234]

Founded in 1987 in Tallahassee Florida by a group of art students attending Florida International University, CAE initially worked with media activism and electronic art, leading to well known

---

[233] Bio-art and eco-art have many overlaps, but the term bio-art is more commonly associated with artistic practices that take up the tools and techniques of the laboratory sciences. Some also use it to refer to artwork that involves the direct manipulation of life as a medium, but most uses of the term are more general and also include practitioners who engage with and examine the biological sciences. For a survey of the evolution of bio-art see Eduardo Kac, Roger F. Malina PhD, and Sean Cubitt, eds., *Signs of Life: Bio-Art and Beyond* (Cambridge, Mass.: The MIT Press, 2009).

[234] Beatriz Da Costa and Kavita Philip, eds., *Tactical Biopolitics: Art, Activism, and Technoscience* (Leonardo Books) (Hardback) - Common (MIT Press, 2008). This collection takes on a subset of artistic practices that can be described as bio-art but that, similarly to critical ecosocial art versus eco-art, take a critical stance or disruptive approach to the topic at hand.

publications like *Electronic Civil Disobedience*.[235] In 2002, along with Beatriz de Costa and Claire Pentecost, CAE presented their first piece focused on GMOs in the food supply. Described by the artists as "a participatory science-theater work" done in cooperation with students at the Corcoran School of Art and Design, *Molecular Invasion* invited the public to join in CAE's attempts to reverse the herbicide resistance of GMO crops through the use of non-toxic, low tech chemical disrupters.[236] This was their first attempt to put into practice a mode of "contestational biology" in which gray areas in the legal system are exploited through "fuzzy biological sabotage."[237] They orient this practice in contrast to traditional direct action or civil disobedience, which they suggest would be ineffective against the massive corporations and opaque government regulations they target. In this work CAE also grapple with what it means to marshal nonhuman lifeforms as part of the resistance, acknowledging that there are "various positions on what constitutes an acceptable relationship between humans and other living creatures." As they promise not to send any "sentient organisms on suicide missions" as a disruptors, they raise concerns that have become the focus of recent work in multispecies

---

[235] Brian Holmes, *Critical Art Ensemble: Disturbances*, Slp edition (Four Corners Books, 2012): 12-14. Critical Art Ensemble, *Electronic Civil Disobedience: And Other Unpopular Ideas*, 1st edition (New York; London: Autonomedia, 1997).

[236] Critical Art Ensemble, Beatriz Da Costa, and Claire Pentecost, *Molecular Invasion*, 2002-2004, http://critical-art.net/?p=1.

[237] Critical Art Ensemble, *Molecular Invasion* (New York; London: Autonomedia, 2001), 97-115.

ethnography and critical plant studies (CPS), both of which draw on theoretical work forged by ecofeminism in the 1980s and 1990s.[238]

Demos situates CAE's public GMO hacking experiments within the context of other works that confront what he terms the post-natural condition.[239] Also included here are Amy Balkin's *Public Smog* and Tue Greenfort's *Exceeding 2 Degrees*. He positions all three practices as revealing and contesting often invisible global flows of finance, regulation and technology. These artists single out flows that negatively impact nonhuman nature and its reciprocal relationship with vulnerable humans, be they poor people of color living with high levels of air pollution or consumers whose choice to consume (or not consume) GMO products is limited by corporate obfuscation and unclear international regulations. He cites them as an example of how artists make the corporate control of life more transparent and tangle with the bureaucratic forms of biopower that govern life under late capitalism.

Another important aspect of practices like CAE's (one that is mentioned but little elaborated on by Demos or McKee) is a focus on demonstrating that biotechnological literacy is not outside the

---

[238] A deep analysis of the fields of multispecies ethnography, CPS, and their connection to early work by CAE is out of the scope of this paper, but there is a range of literature that would be relevant to review. Critiques of the commodification of vegetal life and the tendency to instrumentalize plants have been lodged by various practitioners within and outside these fields. For an examination of the role of plants in bioart and biotechnology, see Monika Bakke, "Art for Plants' Sake? Questioning Human Imperialism in the Age of Biotech," *Parallax* 18, no. 4 (November 1, 2012): 9–25, https://doi.org/10.1080/13534645.2012.713196. For a survey of recent vegetally-oriented art through the lens of CPS, see Prudence Gibson, *The Plant Contract: Art's Return to Vegetal Life* (Brill Rodopi, 2018), https://brill.com/abstract/title/35267. For an overview of multispecies ethnography, an emergent discipline that grows out on Anthropology with an "emphasis on the subjectivity and agency of organisms whose lives are entangled with humans" see S. Eben Kirksey and Stefan Helmreich, "The Emergence of Multispecies Ethnography," *Cultural Anthropology* 25, no. 4 (November 1, 2010): 545–76, https://doi.org/10.1111/j.1548-1360.2010.01069.x.

[239] Demos, *Decolonizing Nature*, 101-132.

grasp of the non-expert. An emphasis on sharing expertise and cultivating confidence among non-experts is an important part of how I see the evolution of critical ecosocial art in the intervening decade and a half since CAE's GMO experiments. Longtime CAE collaborator Claire Pentecost has made this an explicit part of her practice, operating as a "public amateur" exploring fields as broad as agriculture, biotechnology, and economics.[240] While Demos discusses Pentecost's Documenta 13 project *soil erg* in *Decolonizing Nature,* he does not emphasize this aspect of her practice.[241] He does go to some length to explain why he sees *soil erg* and related work involving plants and soil as distinct from the eco-restorationist aesthetics he critiques in earlier eco-art. Pentecost's sculptures, vertical pillars of compost that sprout vegetables, are "sites of political antagonism" in which the artist addresses "the financialization of nature by agricultural and pharmaceutical corporations."[242] The term "erg" refers to a unit of measurement for work or energy. Demos admits that one must be familiar with the artist's "politico-ecological commitments" to understand this dimension of the work when encountering it in the Documenta context. Without knowledge of the artist's interest in asking questions like "Can soil be distinguished from realestate?" the lush columns of vegetation take on a decorative role, embellishments to the 18th Century Baroque design of the park in which they were installed. For Demos this is a curatorial failure. To function properly the work is meant to be

---

[240] Claire Pentecost, "Oh! The Public Amateur Is Not Afraid to Let on That She Just Figured It Out.," *The Public Amateur* (blog), March 26, 2007, https://publicamateur.wordpress.com/about/. As Pentecost describes here, in this mode of artistic practice "the artist becomes a person who consents to learn in public. It is a proposition of active social participation in which any nonspecialist is empowered to take the initiative to question something within a given discipline, acquire knowledge in a noninstitutionally sanctioned way, and assume the authority to interpret that knowledge, especially in regard to decisions that affect our lives. The motive is not to replace the specialist, but to augment specialization with other models that have legitimate claims to producing and interpreting knowledge."

[241] Demos, *Decolonizing Nature*, 232-233; Claire Pentecost, s*oil-erg*, 2012, http://www.publicamateur.org/?p=85.

[242] Ibid., 233.

sited in dense urban areas that lack access to arable land for cultivating food. Soil manufactured through composting so-called waste products creates a new kind of value, a new form of land, that disconnects arable land from private property as the plants grow vertically into unclaimed airspace.

For me the failure of Pentecost's sculptures to translate to the global biennial scene highlights an aspect of critical ecoscocial art addressed in Section 1. Site-specificity—perhaps better referred to as site-responsiveness or site-embeddeness—and a connection to place is an essential component of many of these works. It creates the conditions against which friction can be generated. Rooting *soil erg* sculptures, and the infrastructure to create them, in the concrete and asphalt laden landscape of Chicago's poorer neighborhoods dramatically shifts their aesthetic and conceptual meaning. I have to take Demos' assessment at face value since I have little context for the atmosphere and setting of Documenta 13. Questions like these, around food justice, urban land use, and the value (social, economic, and political) of cultivating greenspace in underserved urban neighborhoods are common themes in recent critical ecosocial art. We will return to them in the next section as we explore work that is firmly rooted in the place from which it arose.

To return briefly to the value of cultivating amateur expertise through critical ecosocial art, *soil erg* also involved collaboration with a Chicago-based nonprofit dedicated to training urban gardeners. This pedagogical approach is a thread running through the work of CAE and affiliated artists, from Pentecost to Beatrice Da Costa. Da Costa's 2004 *Pigeon Blog* project marshaled an assemblage of humans and non-humans to collect air quality data for under-monitored

populations in Los Angeles.[243] Working with engineers, artists, pigeon fanciers and pigeons wearing DIY electronics, the team gathered important air quality data that government experts and institutions weren't collecting. An influential model for community-based science, Da Costa's work has been described by scholars of interdisciplinary art and science Georgina Born and Andrew Berry as exemplifying a methodology of the "public experiment".[244] For Born and Berry the public experiment is an inherently political form of practice that forges "relations between new knowledge, things, locations, and persons that did not exist before."[245] This model is one in a range of interdisciplinary, community-based strategies that are well-attuned to the goals of critical ecosocial art, and will be addressed further in the coming section when I explore the work of Maria Theresa Alvarez.

(Re)Turning to New and Old Forms of Knowledge Production: Decolonizing Environmental Art? Guerrilla Grafters (2011-ongoing), Mary Mattingly, Swale: A Floating Food Forest (2016–ongoing), Maria Theresa Alves, Seeds of Change (1999-ongoing)

As established in the prior section, practices that fit my characterization of critical ecosocial art are active in their search for more open, less disciplinary modes of knowledge production and dissemination. Practices like contestational biology and the public experiment are forms that continue to be tested and iterated upon, drawing on strategies honed in community-based science, socially engaged art, and experimental pedagogy. Another important vein in the way critical ecosocial art approaches knowledge production brings us back to feminism and ecofeminism. These fields emphasize the siting of knowledge production and retention in the

---

[243] Beatriz Da Costa, *Pigeon Blog*, 2006, participatory project, 2006.

[244] Georgina Born and Andrew Barry, "Art-Science: From Public Understanding to Public Experiment," *Journal of Cultural Economy* 3, no. 1 (March 1, 2010): 103–19, https://doi.org/10.1080/17530351003617610.

[245] Ibid., 103.

lived experience of bodies, human and otherwise.[246] I find this concept to be an essential one for critical ecosocial art. Emphasizing a multisensorial, embodied approach to knowing the world is one strength of the projects we'll look at in the next section.

Artistic practice is an essential field for exploring alternative forms of knowledge production. As Zakiyyah Iman Jackson points out in a critique of contemporary posthumanist scholarship, many attempts to challenge Enlightenment epistemologies are carried out in a medium that is still deeply colonial and Western.[247] Addressing scholars of posthumanism, many of whom have connections to ecofeminism, Jackson challenges her audience to put other ways of knowing, including non-Western cosmology and nonhuman lifeways, on the table right beside Western scientific and cultural-academic knowledge.

---

[246]There are many threads through which to follow the development of embodied knowledge and the feminist challenge to body/mind dualism. One traces its way through ecofeminism and feminist posthumanism, from Haraway's cyborg feminism to the new materialist and post humanist perspectives N. Katherine Hayles, Rosi Braidotti and Stacy Alaimo. Donna Haraway, "Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective," *Feminist Studies* 14, no. 3 (1988): 575–99, https://doi.org/10.2307/3178066; Rosi Braidotti, *Nomadic Subjects* (New York: Columbia University Press, 1994); N. Katherine Hayles, *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature and Informatics* (Chicago: University of Chicago Press, 1999); Stacy Alaimo, *Bodily Natures: Science, Environment, and the Material Self* (Bloomington: Indiana University Press, 2010).

[247] In "Animal: New Directions in the Theorization of Race and Posthumanism," Zakiyyah Iman Jackson, cites ecofeminist and feminist posthumanist theorists, like Haraway, Katherine N. Hayles and Stacy Alaimo as groundbreaking in their critique of Enlightenment humanism and body/mind dualism, but argues that (alongside posthumanism more generally) these feminisms fall short when it comes to addressing race, colonialism and slavery. She offers an alternative genealogy that draws on key decolonial scholars including Aimé Césaire and Sylvia Wynter to challenge posthumanism regarding what she sees as the field's ongoing commitment to rational modes of knowing based in Enlightenment humanism. "Animal: New Directions in the Theorization of Race and Posthumanism," ed. Kalpana Rahita Seshadri, Michael Lundblad, and Mel Y. Chen, *Feminist Studies* 39, no. 3 (2013): 669–85; Gómez-Barris, *The Extractive Zone*, xvi.

Jackson's critique is aimed at an audience of academics whose means of creating and disseminating knowledge flows largely through the academy.[248] Even so, it is worth asking in what ways critical ecosocial art meets her challenge, and in what ways it fails. Like posthumanists and ecofeminists, contemporary practitioners of critical ecosocial art are tasked with finding ways to center decolonial and antiracist practices as a means of building solidarity across marginalized groups. As part of this process, practitioners must build multiple ways of knowing into strategies for cultivating and disseminating information and experiences. This process is is key for the building of an intersectional environmentalism, but much environmental art stills falls short in terms of representation, from practitioners, to participants to the audience reached. While the projects we'll look at next are more successful than many in this regard, I still find that white-lead or at least settler-lead projects predominate in environmental art, even of the critical ecosocial variety.

As I suggested earlier, drawing on Alexis Shotwell, there is much work for white settlers to do in terms of facing our own complicity in colonial structures and preparing to build a decolonial future. Even so, the relative whiteness of mainstream environmentalism and the art that

---

[248] While Jackson does not cite Gómez-Barris I would imagine that Gómez-Barris' "decolonial femme methodology" with an emphasis on the "importance of epistemological autonomy and embodied knowledge" drawn from indigenous phenomenology and multispecies knowledge provides a version of this this union in scholarly form. An expanded version of this paper would benefit from additional analysis of the overlaps and contrasts between Jackson's critique and Gómez-Barris' approach. See Gómez-Barris, *The Extractive Zone*, xvi.

addresses it is still worth interrogating.[249] As Ramachandra Guha points out in his concise history of environmentalism, American environmentalism has repeatedly sidelined issues of race and class in favor of galvanizing middle class, white Americans to protect National Parks and other landscapes conceived of as wilderness.[250] As McKee and Demos agree, this is a form of "the ecology of affluence" operating in the Global North to render the protection of "the environment" as separate from the concerns of poor and marginalized human populations.

Writing from a more personal perspective in her recent book *Farming While Black*, activist, farmer, and educator Leah Penniman cites alienation from so-called nature as a response of black and brown communities to a history of enslavement that dictated negative, traumatic, connotations to working the soil and being close to the land.[251] As she writes, "many of us confused the terror our ancestors experienced on the land with the land herself, naming her the oppressor and running toward paved streets without looking back."[252] For Penniman, reclaiming joy, expertise, and a legacy of working the land for black and brown people is central to the work she does with Soul Fire Farm. Of course Penniman's project is a functioning farm, not an art

---

[249] While this is in no way a definitive survey, a Google search for "environmental art" or "ecological art" brings up work made almost exclusively by white artists, primarily working with "natural", recycled or repurposed materials, including, most prominently, Andy Goldsworthy and Nils Udo. Linda Weintraub's recent survey text *To Life! Eco Art in Pursuit of a Sustainable Planet* profiles 49 artists, 39 of whom appear to be of European descent. A more rigorous analysis of this phenomenon is outside the scope of this paper, but anecdotal evidence for the whiteness of mainstream environmentalism and environmental art is strong. The point here is not to single out a particular author, editor or practitioner, but rather to emphasize, once again, how the history of who has the ability to engage with ecological concerns in a Western context is based on systemic issues of oppression and access. Linda Weintraub, *To Life!: Eco Art in Pursuit of a Sustainable Planet*, First edition (Berkeley: University of California Press, 2012).

[250] Guha, *Environmentalism*, 69-97.

[251] Leah Penniman and Karen Washington, *Farming While Black: Soul Fire Farm's Practical Guide to Liberation on the Land* (White River Junction, Vermont: Chelsea Green Publishing, 2018), 263-265.

[252] Ibid., 263.

project, but her approach has many overlaps with the critical ecosocial art we'll look at in the next section. Her focus on experimental, experiential pedagogy and her many interdisciplinary collaborations with artists and experimental educators have more in common with critical ecosocial art practice than many instances of more mainstream environmental art, from Andy Goldsworthy's ephemeral sculptures to Maya Lin's "What is Missing?"[253] Firmly rooted in an intersectional understanding of environmentalism, practices like Penniman's avoid the pitfalls of the ecology of affluence and the resulting narrowness of mainstream environmentalism.

Critical Ecosocial Art and the Receding Urban Commons: Crafting Food Forests in the Streets and Farming on the Water

With these caveats in mind regarding the ongoing limitations of environmentalism and environmental art, the three projects I will address from the past decade are successful examples of critical ecosocial art in many regards. They include Mary Mattingly's *Swale: A Floating Food Forest*, the ongoing work of the Guerrilla Grafters collective, and Maria Theresa Alvarez's *Seeds of Change*. Each evidences a commitment to site-responsiveness, community engagement, environmental justice and multispecies solidarity through work that engages urban land, soil, and vegetation. The practitioners have incorporated an approach to fighting the nature/culture divide in a way that integrates the tenets of critical ecofeminism and privileges multiple ways of knowing in accordance with an expansion towards intersectional environmentalism.

We'll begin with Guerrilla Grafters and *Swale*. Both of these projects are focused on making urban spaces more livable for human and nonhuman inhabitants through work with edible plants,

---

[253] "Andy Goldsworthy," Galerie Lelong, accessed November 24, 2018, http://www.galerielelong.com/artists/andy-goldsworthy; Maya Lin, *What Is Missing?*, multi-site, multiform memorial, accessed November 24, 2018, https://www.whatismissing.org/.

habitat creation, and food justice. Both also deal with legal gray areas that point out the tragic absurdities of the way capitalist and colonialist frameworks for property ownership have foreclosed on communal resources, creating narratives of scarcity over abundance and further alienating city dwellers from both food production and nonhuman nature.

Guerrilla Grafters is the more radical outfit. With the tagline "undoing capitalist civilization one branch at a time" they are an interdisciplinary group of artists and activists who choose to remain psuedo-anonymous.[254] Operating on the illegal side of the gray haze that engulfs foraging and cultivation of food in urban public space in much of the United States, they work to shift "sterile" cityscapes into food forests by grafting fruiting branches onto ornamental street trees.[255]

---

[254] *Guerilla Grafters*, 2011-ongoing, http://www.guerrillagrafters.org/; Tom Levy, "Guerrilla Grafters Go out on a Limb," *SFGate*, August 24, 2012, https://www.sfgate.com/homeandgarden/article/Guerrilla-Grafters-go-out-on-a-limb-3813876.php. The Guerrilla Grafters website does not specify names of founders or members, and includes a cryptic group portrait that shows the grafters only from the neck down, holding the various tools of their trade. A little digging in their extensive media trail reveals that the collective was founded in 2011 by Tara Hui, in some instances described as a "Beijing-born gray water activist and urban gardener with a computer science degree", who was joined by "dot commer" Miriam Goldberg, and Bay Area artists Margaretha Haughwout and Ian Pollock who gathered a loose-knit group of participants around them. While from the outside the project may not even appear to be art (Pollock likens it to "street theater" or "street art" and sees parallels to graffiti culture, much of the coverage of the project does not mention art) the project has been featured in art and design venues, including the Venice Biennale's 13th International Architecture Exhibition, where it was presented as an example of "participatory urbanism", and at Open Engagement, the influential conference on socially engaged art that started in Portland in 2011 and has since expanded to other cities. Guerrilla Grafters were present at its most recent instantiation at the Queens Museum in New York City in Spring 2018.

[255] Jenny Cunningham, "Hungry for Change: Urban Foragers Take the Law into Their Own Hands," *The Guardian*, August 7, 2018, sec. Cities, https://www.theguardian.com/cities/2018/aug/07/hungry-for-change-urban-foragers-take-the-law-into-their-own-hands. Ranging from no "molesting vegetation" rules to $75.00 fines for plucking dandelions, many cities in the United States have strict regulations against foraging. As the urban foraging movement has intensified, some cities have enforced regulations more aggressively, while others have been rolled back or modified them. One response for municipalities has been to respond to this demand by setting aside or purposefully cultivating city property for foraging purposes, but this remains rare.

Active since 2011, their initial work was focused in working class neighborhoods in San Francisco lacking good local options for fresh produce. Like many cities, San Francisco has regulations against fruit baring trees in public space, especially along streets. Falling fruit is described as "messy" and dangerous, potentially creating "slippery" conditions that can lead to injury, or attract rats and other "vermin."[256] However, as the grafters point out, many so-called ornamental trees create similar conditions. Even when not edible to humans, trees drop fruit and leaves that provide food to animals and create slippery conditions on sidewalks—this is a fact of living among trees and cultivating an urban forest in our cities. By and large municipalities have decided these are inconveniences worth dealing with and provide at least surface-level support for expanding urban forests.

More salient critiques of the street tree as a food source come from urban foresters who point out distinctions between cultivating an urban forest for food production versus other ecological benefits. To be productive and easy to harvest from fruit trees require good access to nutrition and water, and should be trimmed to small stature, not always desirable or practical when taking into account street clearance for vehicles, the shading function of a larger stature urban forest

---

[256] Amy Biegelsen, "Should Public Trees Bear Fruit?," *CityLab* (blog), accessed November 5, 2018, http://www.theatlanticcities.com/arts-and-lifestyle/2012/02/should-public-trees-bear-fruit/1175/; Lanny Shavelson, "Guerrilla Grafters Bring Forbidden Fruit Back To City Trees," *NPR.Org* (blog), 2012, https://www.npr.org/sections/thesalt/2012/04/07/150142001/guerrilla-grafters-bring-forbidden-fruit-back-to-city-trees. In these articles municipal foresters are quoted regarding the city regulations against fruit-baring trees, arguing that cleaning up after fallen fruit and dealing with "vermin" outbreaks are not and should not be within the purview urban forestry departments. While I would argue that the ultimate answer might be to shift more resources to urban forestry departments to allow them to incorporate food producing trees into their urban forestry programs, Guerrilla Grafters addressed this challenge initially by working with local communities to cultivate stewards for each graft, guaranteeing the program is monitored, runs smoothly, and has local community buy in.

along streets, and the harsh conditions faced by many street trees. They argue urban food forests are better situated on park and community garden land.[257]

While logical, arguments like these make the Guerrilla Grafter's intervention all the more salient, even if it is impractical in some regards. Through their illegal actions and the conversation that bubbles up around them, they contest not only the law that regulates fruiting trees, but also the conditions of our cities that privilege automobiles and a certain vision of "cleanliness" over a multispecies ecosystem and food justice. While urban parks and gardens may be a more suitable location for fruit trees, the sad reality is that in many neighborhoods, street trees may provide the only semblance of green for blocks. However impractical in the long run, the Guerrilla Grafters intervention asks us to consider why the best alternative for providing accessible food is a somewhat absurd action like illegally grafting fruit onto a sterile tree. Their subversive approach raises the visibility of the issue, creating public demand for fruit bearing trees and space that allows others to step in to fill the void in ways that and are more readily sanctioned by municipalities.[258]

Certainly it could be a novel and delightful experience to pluck ripe fruit from a street tree while strolling along the sidewalk. But Guerrilla Grafters is after bigger ideas that have to do with food

---

[257] Ellyn Shea, "Cool Gray City of Trees Interview with Mei Ling Hui," *DeepRoot Blog* (blog), February 16, 2016, http://www.deeproot.com/blog/blog-entries/cool-gray-city-of-trees-interview-with-mei-ling-hui.

[258] Shea, "Cool Gray City of Trees Interview with Mei Ling Hui." Speaking in 2016, after Guerrilla Grafters had been running for five years and received fairly high profile media coverage, Hui, an agricultural coordinator with San Francisco's Department of Environment, describes how "people want to plant fruit trees in the city…I hear a lot of interest in planting fruit trees as street trees". While she argues against fruiting street trees for the reasons described prior, she cites several new programs that are working to bring fruiting trees to public space in ways the city's Urban Forestry and Agriculture programs see as more practical.

sovereignty, recognizing interrelationships with the more-than-human world, and re-commoning.[259] They intervene in the city as a site "of late capitalism, where historical natures are appropriated in such a way so as to constrain the co-production of viable resources both to humans and to plants and critters; where ornamentality is produced to support property."[260] For the grafters, this kind of decorative role for nonhuman life supports what they describe as a "classist practice of looking, but not seeing, and certainly not engaging."[261] This brings us back to the root of our original thematic for this section, the cultivation of embodied ways of knowing the landscape and its myriad extra human natures. Cultivating fruit in the city entangles human health with the health of the food supply, and requires hands-on engagement where human inhabitants literally ingest the city's fabric as one way of knowing it differently.

---

[259] Both Guerrilla Grafters and Mattingly's *Swale* approach the question of the commons from a perspective that builds on Elinor Ostrom's well known rebuttal to the oversimplification of Garret Hardin's "Tragedy of the Commons". The Guerrilla Grafters expand the concept to embrace what contemporary scholars sometimes refer to as "re-commoning." This contemporary re-evaluation of the term addresses not only an approach to sharing resources among humans, but also strategies for, as Garcia-Lopez describes "fostering other-than-capitalist ways of being and relating to the more-than-human world – of nurturing subjectivities of 'being-in-common' with the rest of the world." For an example of how the concept of re-commoning is used in relation to global food justice, see Jose Luis Vivero Pol, "Transition Towards a Food Commons Regime: Re-Commoning Food to Crowd-Feed the World," SSRN Scholarly Paper (Rochester, NY: Social Science Research Network, January 13, 2015), https://papers.ssrn.com/abstract=2548928; For a broader interdisciplinary use of the term, see the 2018 AAG conference session organized by Gustavo Garcia-Lopez, Ursula Lang, and Neera Singh, "The Commons, Commoning and Co-Becomings IV: Re-Commoning and Reclaiming," in *Session IV: Land, Care and Commons*, accessed November 6, 2018, https://aag.secure-abstracts.com/AAG%20Annual%20Meeting%202018/sessions-gallery/11319; Elinor Ostrom, *Governing the Commons: The Evolution of Institutions for Collective Action*, 1st edition (Cambridge; New York: Cambridge University Press, 1990); Garrett Hardin, "The Tragedy of the Commons," *Science* 162, no. 3859 (December 13, 1968): 1243–48, https://doi.org/10.1126/science.162.3859.1243.

[260] Margaretha Haughtwout, "In Colombia: Conflict Collapse and Care / Natural Resistance," *BeforeBefore.Net* (blog), 2017, http://beforebefore.net/in-colombia-conflict-collapse-and-care-natural-resistance/.

[261] Ibid.

In addition to actively grafting and maintaining grafts in under-served urban areas, members of Guerrilla Grafters also spread their ethic of a public fruit commons through workshops, publications and kits that seek to expand the practice nationally and internationally. In this way they touch on aspects of re-skilling, combating what the collective EcoArtTech has aptly described as "industrial amnesia."[262] The grafters also emphasize plants as collaborators with whom we can live productively and reciprocally, reviving them from the status of ornaments to the increasingly sterile city. In doing so, they ask for an expansion or shift of our aesthetic and sensory expectations for plants in the city, asking us to know (or re-know) plants as productive (and even messy) members of our multispecies urban community.

A related approach to living reciprocally with plants in the city is taken on by Mary Mattingly's ambitious public project *Swale: A Floating Food Forest*. While the Guerrilla Grafters operate anonymously in the shadows, a distributed network of food sovereignty activists carrying out small interventions anchored in city sidewalks, Swale is a singular spectacle. With it Mattingly challenges the absurdity of foraging laws and the tragedy of food apartheid through a mobile food forest and garden sited on an oversized barge that plies the waters of New York City.

Founded in 2015, the project builds on Mattingly's long record of working with sculpture, DIY architecture and community building in the face of climate change, from *Waterpod* (2006-2010)

---

[262] Leila Christine Nadir and Cary Peppermint, "EdibleEcologies: Healing Industrial Amnesia with Endangered Food Practices (Art & Social Practice)," accessed November 26, 2018, https://www.academia.edu/17980723/EdibleEcologies_Healing_Industrial_Amnesia_with_Endangered_Food_Practices_Art_and_Social_Practice_.

to the *Flockhouse project* (2012-13) to the recent *Arctic Food Forest* (2017).[263] While *Waterpod* and *Flockhouse* pieces addressed consumerism, water as a commons, and adaptation to sea level rise, as Mattingly describes it, each was also an experiment in self-sufficiency, an attempt to "exist in a way that's independent from the global supply chain."[264] Swale incorporates these concerns, but is instead an experiment in "how to be dependent on interdependence," tapping into a network of people enthusiastic about food sovereignty and social justice at the community and city-wide level. In her description I sees a shift that mirrors Spaid's observation of the shift from individualist survivalist tactics towards forging interdependent solidarity.

As with the Guerilla Grafters, the project is a response to the fact that foraging edibles from city parks and public rights of way is illegal in New York City. Like Haughwout of the Guerrilla Grafters, Mattingly connects this regulation to class, aesthetics, and the utilization, or exploitation, of common resources: "The law dates from a time around the late 1800s, when a certain ideal of beauty was being established" in relationship to the first large-scale public parks like Central Park and Prospect Park.[265] Planners were focused on the decorative and recreational potential of these public spaces, and feared that foraging would lead to disorder, over-harvesting, and the ever-dreaded "messiness." Because New York City's waterways are regulated differently than land, under marine common law, Mattingly was able to find a loophole through which she could cultivate a publicly accessible food forest and garden on water without breaking the law.

---

[263] Mary Mattingly, "Work," Mary Mattingly, accessed November 6, 2018, http://www.marymattingly.com/html/MATTINGLYWork.html.

[264] Eillie Anzilotti, "Now You Can Gather Fresh Food From a Barge in New York City's Rivers," *CityLab* (blog), April 15, 2016, http://www.citylab.com/navigator/2016/04/an-urban-food-forest-takes-to-the-water/478479/.

[265] Ibid.

Through a huge fundraising and logistical effort supported by a range of nonprofit organizations and grants and a team of interdisciplinary assistants and volunteers, Mattingly managed to get the project off the ground and onto the water. She acquired a 130 x 40 foot barge which was then gradually converted over three growing seasons into a fertile bed of soil supporting a range of perennial fruiting bushes and trees along with an assortment of herbs, vegetables, wild flowers and bee hives. The project has been covered extensively in the media, generally garnering a more complex reading than was granted to Agnes Denes' *Wheatfield*, although the projects are similar in terms of their iconic impact. I've yet to see a story that poses Mattingly's project as "an intervention of nature in the city" as happened with Denes' work. The majority of coverage, however brief, mentions food justice as an anchoring tenet of the project. Much coverage also relates the project to issues of urban land use, multispecies habitats, and environmental justice. Some features the voices of youth stewards and community volunteers who are an essential part of keeping the project running.[266]

Importantly, *Swale's* first docking site, to which it has returned each season, is at Concrete Plant Park in the Bronx. The park is located along the Bronx River in a neighborhood inhabited largely by people of color and saddled with a long legacy of environmental injustice, from poor air quality to lack of public transportation to food apartheid.[267] Swale has joined forces with

---

[266] Anisha Nandi, "'Floating Food Forest' Docked in New York at One of the Largest 'Food Deserts,'" CBS News, September 15, 2017, https://www.cbsnews.com/news/swale-floating-food-forest-docked-in-new-york-at-one-of-the-largest-food-deserts/.

[267] Danielle Pasquel, "Health Disparities and Environmental Justice in the Bronx," *The EJBM Blog (Blog of The Einstein Journal of Biology and Medicine)* (blog), March 23, 2015, https://theejbm.wordpress.com/2015/03/23/health-disparities-and-environmental-justice-in-the-bronx/.

community groups already active in the neighborhood, helping amplify their work with urban farming and greenspace initiatives. As of 2017, under the auspices of the "Bronx River Foodway," the park has become the first in New York City to host a city-sanctioned pilot program and educational initiative to "examine how a sustainable food landscape can be integrated into a public park."[268] Mattingly's highly visible project, which she calls "both a sculpture and a tool" played a role in the arrival of this long overdue attempt by the city to bring public landscapes—and the plants that inhabit them—back from the role of decorative backdrop and into the role of reciprocal co-creators of urban livability.

There is a sea change underway in terms of public attitudes towards foraging and demand for locally available produce. Artists, alongside activist groups, urban farmers, and non-profits like New York's 596 acres and Beacon Food Forest in Seattle, have been at the forefront of pushing this struggle forward and making it visible. Providing friction-inducing catalysts, in the form of evocative (if ultimately impractical) solutions, artists and activists disturb the status quo by working around impediments to free access to publicly grown food. In the years since Swale and Guerilla Grafters have been active, regulations have been shifting in the direction of less restrictive attitudes towards publicly grown and foraged food. Of course many other artists have also engaged these issues, from the foundational work of Helen and Newton Harrison and Bonnie Ora Sherk in California in the early 1970s and 80s, to Lonnie Graham and Haha in Chicago in the 1990s, and the ongoing work carried out by the Future Farmers, Fritz Haeg, Juanli Carrión, and Tattfoo Tan, all of whom have experimented with integrating edible landscapes into urban ecosystems.

---

[268] "Bronx River Foodway," Bronx River Alliance, accessed November 6, 2018, http://bronxriver.org/?pg=content&p=aboutus&m1=1&m2=4&m3=134.

Vegetal Agency and Decolonial Strategies in the So-Called Anthropocene

Projects that engage urban agriculture, dovetailing with the growth of the local food movement and potential (although not always realized) alignments with movements for food justice, find fairly broad support in the current climate. Artists who choose to engage the value and agency of urban plant life outside of its role as food or medicine to be foraged, cultivated, and consumed have a more complex case to make. For these artists, an alignment with multispecies agency, and an awareness of the deep time historical implications of place—including an understanding of our own complicity in the legacies of colonialism and industrialization—is key. Urban plant life provides the ideal medium and mentor through which to explore these questions. While I will focus here on the work of Maria Theresa Alves, there are a range of practitioners deeply invested in this conversation, including Ash Arder, Simone Johnson, Oliver Kellhammer, Lucia Monge, Bridget Quinn, Jill Sigman, Candace Thompson (the C.U.R.B.), and collectives like Eating in Public (Gaye Chan and Nandita Sharma) and Common Studio. A more comprehensive version of this paper would include analysis of their work in relationship to my aspirations for critical ecosocial art as practiced in my collaborative work with the Environmental Performance Agency and the Next Epoch Seed Library. For this text a cursory review of Alves' work will have to suffice.

Brazilian-born Maria Theresa Alves has been active internationally since the 1980s, working on projects designed to unmask hidden histories, often tied to issues of colonialism, oppression and migration. Like Mei-Ling Hom, whose *Invasive Aliens* was covered earlier, Alves' work is not

conspicuously associated with the development of environmental or eco-art.[269] Although the project explored here is an apt example of critical ecosocial art engaging the vegetal, Alves' broad concerns are not aligned with ecology or environmentalism in an obvious sense. They do not subscribe to the eco-restorationist model critiqued by Demos, but rather address ecology in the broader sense McKee called for when he asked for environmental art that understands that "ecology…is the grounding space, discipline and ideology from which to address contemporary biopolitical struggles" in ways that promote intersectional environmentalism that strives for a more equitable future.[270]

Although I was only exposed to the work in 2018 when it came to New York City, as early as 1999, Alves turned to seeds and plants as a guide to re-framing the history of the trade in Europe. Starting with the Port City of Marseilles, she has collaborated with botanists and historians, seeds, and plants to do original research on ballast soil and flora. Since then *Seeds of Change* has grown into an international project taking place at port cities around the world. In 2017–18 the

---

[269] Alves' work is not represented in the accounts I've looked at that cover the past fifty years, or in recent surveys, ranging from the *New Earth Art* to *To Life!* to *Ecovention*. This could be in part due to a selectively parochial geographic range: Alves has been active largely in Latin America and Europe until recently. But the Harrisons, Beuys, and more recently Neils Norman work largely in Europe, and all are readily integrated into the North American canon of environmental art, however porous and multifaceted such a "canon" may be. Demos, with his decolonial focus, does address Alves' community-based work with indigenous peoples in Mexico in Chapter 4 of *Decolonizing Nature, "*¡Ya basta! Ecologies of Art and Revolution in Mexico," 133-165. Twylene Moyer and Glenn Harper, eds., *The New Earthwork: Art Action Agency* (Hamilton, NJ: Seattle, WA: International Sculpture Center, 2012); Weintraub, *To Life!*; Spaid and Lipton, *Ecovention, Current Art to Transform Ecologies*.

[270] Yates McKee, "From Eco-Art to Biopolitical Struggle: An Expansion of Social Ecologies," in *Social Ecologies*, ed. Greg Lindquist (Brooklyn Rail, 2016).

project came to New York City in a multi-pronged, multi-site effort under the title of "Seeds of Change: New York – A Botany of Colonization."[271]

The structure of this ongoing project fits well with Born and Berry's concept of the public experiment. As described on the extensive documentation on Alves' website, the project does not replicate scientific research as art, but rather contributes new research that can be presented in an artistic context.[272] The project began when Alves learned that during the colonial era, dirt, rocks and other materials seen as expendable were used to fill the hulls of merchant ships, stabilizing them in accordance with the weight of the cargo they carried. Referred to as ballast, these materials were often discarded portside when no longer needed. Of course soil used for this purpose was not sterile or inert. It was a living substance filled with all manner of inhabitants, some of whom managed to survive the trip. All along ports in Europe, early botanists working in the 17th and 18th centuries began to marvel at the emergence of new, novel species of plants whose seeds had hitched a ride in ballast, then sprouted on foreign shores.

Upon discovering this history, Alves was fascinated too, especially when she learned that some seeds could remain dormant and sprout many years later, meaning that seeds that arrived on European shores during the colonial era could sprout today. As she describes, she was drawn to "the potential of (these seeds) to alter our notions of the identity of place as belonging to a defined bioregion…the project is, therefore, designed to question those discourses that define the

---

[271] Maria Thereza Alves, *Seeds of Change: New York - A Botany of Colonization*, 2017–2018, Installation, water paintings, texts, linen paintings, potted plants, ballast gardens, http://www.mariatherezaalves.org/works/seeds-of-change-new-york-a-botany-of-colonization?c=47.

[272] Alves, "Seeds of Change Project Guide," 2-10.

geographical and 'natural' history of place: At what moment do seeds become 'native'? What are the socio-political histories of place that determine the framework of belonging?"[273] With these questions in mind, she has carried out what has become a nearly two decade engagement with ballast flora and the alternative stories they can tell about submerged histories of trade, colonialism, slavery and resistance.

Her process involves archival research to locate old ballast dumping sites and the points they originated from, sampling the soil in those locations to see what plant species they hold, and a variety of strategies for documentation, display and outreach, ranging from carefully designed floating gardens to community-based cultivation projects to more traditional gallery-based exhibitions. Importantly, the project frames these plants not as resources to be consumed or as passive decoration, but as active agents co-evolved with humans and entangled with the troubling histories that embody the ongoing effects of colonial violence and indigenous resistance into the current moment.

Seeds of Change asks those who experience it to consider urban greenery not just as a feel-good antidote to environmental ills, or a resource for improved public health and multispecies relationships, but as the living legacy of histories and practices we may not always want to face. Global plant migration is tied up in the movement of people and goods, and much of that movement is tied to the still unfolding ecological changes rippling from the advent of the so-

---

[273] Alves, "Seeds of Change Project Guide," 2.

called Columbian Exchange.[274] Due to growth in global trade, plants that evolved in the Americas now thrive in Europe and Asia, and vice versa.[275] Attending to critical readings of the Anthropocene demands we acknowledge this juncture is not just as an ecological "exchange" divorced from sociopolitical implications, but rather as a period defined by the genocide and enslavement of indigenous peoples. Trade routes that facilitated the movement of nonhuman life were tightly tied to the trans Atlantic slave trade, and the plants that were moved were often bioculturally connected to the life ways of indigenous peoples who were kidnapped from their homelands.[276] As Alves writes on the webpage for the New York City iteration of the project,

> Slave trade was the cornerstone of the New York economy, much of it via the West Indies. And the transport of bodies in ships required ballast to offset their movement. In New York, ships arrived from England with ballast material such as English flint, iron, and soil, and from other areas of the world with ballast consisting of large chunks of coral as well as coral sands from the Caribbean, volcanic sand, bricks, stones, and rocks. Much of England, specifically chunks of Devon, Cornwall, Poole, and Bristol ended up in New York.[277]

Thus enjoying the verdant greenery of Alves' ballast gardens sits alongside the imperative to acknowledge their existence as tied up in the tragic history of colonialism and its ongoing legacies.[278] The educational programs, texts, and didactic materials that contextualize the plants

---

[274] Megan Gambino, "Alfred W. Crosby on the Columbian Exchange," *Smithsonian Magazine* (blog), October 4, 2011, https://www.smithsonianmag.com/history/alfred-w-crosby-on-the-columbian-exchange-98116477/. The Columbian Exchange refers to the period of ecological and biological exchange between Europe and the Americas that began, ostensibly, with the arrival of Columbus in the Americas in 1492 and is ongoing. Of course there are other narratives around which to organize this period of exchange that do not valorize colonial powers.

[275] Ibid.

[276] Charles C. Mann, 1493: Uncovering the New World Columbus Created, Reprint edition (New York: Vintage, 2012); Londa Schiebinger, *Plants and Empire: Colonial Bioprospecting in the Atlantic World* (Cambridge, MA.: Harvard University Press, 2007); Judith Ann Carney, *Black Rice: The African Origins of Rice Cultivation in the Americas* (Harvard University Press, 2009), 153-154.

[277] Alves, *Seeds of Change: New York - A Botany of Colonization*, par. 10.

[278] Maria Thereza Alves, "Seeds of Change Project Guide," n.d., http://www.mariatherezaalves.org/assets/files/alves-seeds-of-change-hq_small_web_nopage30.pdf.

she works with are designed to ask viewers to "begin by looking at these plants that both indicate ballast ground and are witnesses to the submersion of New York into a colonialized earth. As such, they teach us that we are in spaces of coloniality which, however, must not become the sole defining feature of these places. At the same time, we must acknowledge that these are landscapes of violence."[279] As Shotwell reminds us, remembering is an important part of the work of decolonization.[280] I would argue that Alves' focus on experiencing these plants, watching them grow, attending to their histories of migration and adaptation, is one way to remember the past as a means of shaping a different, more just multispecies future.

Renewals and Fairwells on Contaminated Land: Fertilizing Fire Circle

Almost a year ago, on December 1st, 2017, the Environmental Performance Agency held a storytelling and fire keeping circle on postindustrial land in Crown Heights, Brooklyn. Through this "Fertilizing Fire Circle," we were preparing ourselves and our community to loose access to the land that had been our headquarters for several years. On contaminated earth, unceded by the Lenni Lenape and rented to us by a real estate developer, we scratched out a crude fire pit. We created a ring of asphalt chunks and decomposing bricks, then bundled together sheaves of mugwort (Artemisia vulgaris) and scavenged scrap wood. In the gritty earth around the fire pit we acknowledged the presence of Virginia pepperweed (Lepidium Virginicum) an indigenous plant that has been present in the area for millennia. Pepperweed has adapted to tolerate heavy metals, compacted soil, and constant human disturbance. It also thrives in the wake of fire, an important indigenous land management strategy suppressed under colonial rule.

As night fell, invited storytellers related stories of multispecies entanglement and stolen land, food justice and ecological resilience. As a group, we said farewell to land we'd become intimate with through our research-based artistic practice. The night closed with the burning of a mugwort torch, which flared brightly as we danced to the rhythms of a Caribbean steal drum band practicing in a parking lot across the street. Within a few months our fire pit and the plants that witnessed it with us were sealed below a layer of fresh asphalt. The former auto body yard, which had been an immigrant rooming house in the 1900s, and marshland 400 years before that, began its new life as a private party venue. The complexity of that night lingers. The loss we felt was real, but is clearly a loss that pales in comparison to the histories of violence and

---

[279] Alves, *Seeds of Change: New York - A Botany of Colonization*, par. 14.

[280] Alexis Shotwell, *Against Purity: Living Ethically in Compromised Times*, 1 edition (Minneapolis: Univ Of Minnesota Press, 2016).

dispossession we contemplated as we sat among the pepperweed plants and watched the flames. We left that space aware of our own privilege and committed to addressing environmental ills from a critical ecosocial perspective.

In Closing: Ecosocial Art Telling Stories for Intersectional Environmentalism (Overcoming the Ecology of Affluence)

As a practitioner of critical ecosocial art, experiences like the one described above, while initially difficult to parse, help me understand how art can form, hold and share knowledge that grows from sites of contingency and complexity. Currents of mourning and celebration, complicity and collective resistance can come together in a single event or experience. Their effects ricochet out from nodes like these into the lives of participants and practitioners, who carry on their own routines and work. At least personally, I carry renewed resolve and reaffirmed commitments into my personal life and practice when I leave an event like this one.

In reviewing key environmental and ecological artworks from the 1960s to today, we've traced the evolution of a form of artistic practice I've termed critical ecosocial art. This form of artistic practice is attentive to the need to cultivate a forms environmentalism that are intersectional in nature. Key to this endeavor is a method of working that builds in multispecies equity and environmental justice from the foundation, attending to the local contingencies of place and context without losing sight of the biopolitical flows of power and privilege at a global level.

I hope it is clear that effective critical ecosocial art practice provides a starting place from which to create and share new narratives about past, present, and future environmentalisms. Throughout this paper, overlapping narratives from the history of environmental art, mainstream environmentalism (or the ecology of affluence), environmental justice, decolonial practice and

the Anthropocene debate have come together in way that highlights the complexity of the environmental imaginary in the current moment. While narratives growing from these strains of discourse at times contradict, ignore, or discount one another, a focus on complicity and complexity allows us to hold them together, however uncomfortably. As conservationists valorize the restoration of so-called natural habitats, environmental justice advocates demand access to clean water, and indigenous activists call for the repatriation of stolen land. Critical ecosocial art has the potential to hold these narratives together, weaving them into a single, complex story that prepares the way for intersectional forms of environmentalism.

As Lucy Lippard suggested during a featured presentation at the 2018 Open Engagement Conference, the motto "downsize or die" might be a fitting one with which to approach the current task of socially engaged artistic practice.[281] Asking questions like "Is radical optimism possible when embedded in voracious capitalism?" and "How much history do you want to know? Is it art? Does it matter? Who's it for?" Lippard's self-described polemic was delivered from the perspective of an elder stateswoman who has seen many movements come and go.[282] She recognized in the Open Engagement crowd a commitment to social justice and equity, and reminded us that these goals are explicitly linked to environmental concerns. Her approach fit with the logic of intersectional environmentalism.

---

[281] Lucy Lippard, "'What Do We Want to Say? How Do We Want to Say It?'" (Open Engagement Featured Presentation, May 12, 2018), http://openengagement.info/session/lucy-lippard-featured-presentation/.

[282] Ibid.

Wrapped up in the imperative to "downsize or die" is the call to find strategies that encourage degrowth rather than consumption, and facilitate small scale community work that can be iterated upon and repeated. Such an approach, predicated upon "social energies" will never produce the spectacle driven artworks that headline international art fairs and large-scale biennials.[283] While the work of Olafur Eliasson or Damien Hirst might engage environmental thematics of apocalypse and environmental decline in highly visible ways, the investment (conceptually and economically) in creating novel, innovative experiences that spring from the genius of a single heroic (white, male) individual tells the wrong story.[284] Critical ecosocial art tells stories that are based in experiential, grassroots methodologies that can be repeated and iterated upon both within and outside of the artistic context. Downsizing on global ambitions for spectacle, these methodologies upsize their potential to make collaborative, community driven connections at the local level. They create productive disturbances that prepare the ground for the growth of a new environmental imaginary. Emerging through a collectively-oriented network of practitioners who share their processes as eagerly as they share their products, together we contribute to an upwelling of stories building towards intersectional environmentalism.

---

[283] Ibid.

[284] Rena Silverman, "Europe's Largest Glacier Comes to New York," *National Geographic News* (blog), June 30, 2013, https://news.nationalgeographic.com/news/2013/06/130629-glacier-art-exhibit-moma-science-climate-change-global-warming/; Laura Cumming, "Damien Hirst: Treasures from the Wreck of the Unbelievable Review – Beautiful and Monstrous," *The Observer*, April 16, 2017, sec. Art and design, https://www.theguardian.com/artanddesign/2017/apr/16/damien-hirst-treasures-from-the-wreck-of-the-unbelievable-review-venice.

WORKS CITED

"5 Tips for Cultivating a Sense of Place This Summer." Northwest Earth Institute, July 12, 2016. https://nwei.org/5-tips-cultivating-sense-place-summer/.

7000 Oaks – City Forestation Instead of City Administration. 1987 1982. https://documenta-historie.de/en/artworks/7000-eichen.

Ackroyd, Heather, and Dan Harvey. "Beuys' Acorns." Edited by Giovanni Aloi. *Antennae: The Journal of Nature in Visual Culture*, no. 17 (2011): 63–71.

"A.I.R.: A Short History." A.I.R. Accessed November 20, 2018. https://www.airgallery.org/history/.

Alaimo, Stacy. *Bodily Natures: Science, Environment, and the Material Self*. Bloomington: Indiana University Press, 2010.

Alkorta, Itziar, and Carlos Garbisu. "Phytoremediation of Organic Contaminants in Soils." *Bioresource Technology*, Reviews Issue, 79, no. 3 (September 1, 2001): 273–76. https://doi.org/10.1016/S0960-8524(01)00016-5.

Allaby, Michael. "Intermediate Disturbance Hypothesis." In *A Dictionary of Ecology*. Oxford University Press, 2015. http://www.oxfordreference.com/view/10.1093/acref/9780191793158.001.0001/acref-9780191793158-e-2977.

Alston, Dana. "The Summit: Transforming a Movement." *RP&E Journal Reimagine!* Vol. 17, no. No. 1 (Spring 2010). http://www.reimaginerpe.org/20years/alston.

Alston, Vermonja R. "Environment." In *Keywords for Environmental Studies*, 93–96. New York: New York University Press, 2016. http://www.jstor.org/stable/j.ctt15zc5kw.34.

Alves, Maria Thereza. *Seeds of Change: New York - A Botany of Colonization*. 2018 2017. Installation, water paintings, texts, linen paintings, potted plants, ballast gardens. http://www.mariatherezaalves.org/works/seeds-of-change-new-york-a-botany-of-colonization?c=47.

———. "Seeds of Change Project Guide," n.d. http://www.mariatherezaalves.org/assets/files/alves-seeds-of-change-hq_small_web_nopage30.pdf.

"Andy Goldsworthy." Galerie Lelong. Accessed November 24, 2018. http://www.galerielelong.com/artists/andy-goldsworthy.

Anzilotti, Eillie. “Now You Can Gather Fresh Food From a Barge in New York City’s Rivers.” *CityLab* (blog), April 15, 2016. http://www.citylab.com/navigator/2016/04/an-urban-food-forest-takes-to-the-water/478479/.

Bailey, Alison. “On Intersectionality, Empathy, And Feminist Solidarity: A Reply To Naomi Zack.” *Journal for Peace and Justice Studies* 19, no. 1 (2009): 14–36.

Bakke, Monika. “Art for Plants’ Sake? Questioning Human Imperialism in the Age of Biotech.” *Parallax* 18, no. 4 (November 1, 2012): 9–25. https://doi.org/10.1080/13534645.2012.713196.

Bellacasa, Maria Puig de la. “Matters of Care in Technoscience: Assembling Neglected Things.” *Social Studies of Science* 41, no. 1 (February 1, 2011): 85–106. https://doi.org/10.1177/0306312710380301.

Belmore, Rebecca. *Ayum-Ee-Aawach Oomama-Mowan: Speaking to Their Mother*. 1991. Sound installation - wood, megaphone. http://www.rebeccabelmore.com/exhibit/Speaking-to-Their-Mother.html.

Benson, Etienne. “Environment between System and Nature: Alan Sonfist and the Art of the Cybernetic Environment.” *Communication +1* 3, no. 1 (September 11, 2014): 1–26. https://doi.org/10.7275/R5HT2M7T.

Berdik, Chris. “Driving Mr. Lynx.” *Boston.Com*, October 12, 2008. http://archive.boston.com/bostonglobe/ideas/articles/2008/10/12/driving_mr_lynx/.

Berry, Wendell. *Home Economics*. San Francisco: North Point Press, 1987.

Biegelsen, Amy. “Should Public Trees Bear Fruit?” *CityLab* (blog). Accessed November 5, 2018. http://www.theatlanticcities.com/arts-and-lifestyle/2012/02/should-public-trees-bear-fruit/1175/.

Bishop, Claire. *Artificial Hells: Participatory Art and the Politics of Spectatorship*. Original edition. London; New York: Verso, 2012.

———. “Digital Divide: Contemporary Art and New Media.” *Artforum International*, September 2012. https://www.artforum.com/print/201207/digital-divide-contemporary-art-and-new-media-31944.

Boswell, Petere. “Invisible Aesthetic: Peter Boswell Revisits Mel Chin’s Revival Field.” *Walker Art Center: Sightlines (Art + Science)* (blog), October 9, 2017. https://walkerart.org/magazine/mel-chin-revival-field-peter-boswell-rufus-chaney-eco-art.

Boyer, Dominic, and Cymene Howe. *Ep. #76 – Greta Gaard*. Cultures of Energy. Accessed August 29, 2018. http://culturesofenergy.com/ep-76-greta-gaard/.

Braidotti, Rosi. *Nomadic Subjects*. New York: Columbia University Press, 1994.
"Bronx River Foodway." Bronx River Alliance. Accessed November 6, 2018. http://bronxriver.org/?pg=content&p=aboutus&m1=1&m2=4&m3=134.

Brookner, Jackie. *PRIMA LINGUA*. Concrete, volcanic rock, mosses, ferns, wetland plants, fish, steel, 64 x 101 x 80″. Accessed November 20, 2018. http://jackiebrookner.com/project/prima-lingua/.

Burdick, Alan. "Attack of the Aliens: Florida Tangles With Invasive Species." *The New York Times*, June 6, 1995, sec. Science. https://www.nytimes.com/1995/06/06/science/attack-of-the-aliens-florida-tangles-with-invasive-species.html.

Burnham, Jack. "Real Time Systems." *Art Forum*, 1969.

Butler, Judith. "Performative Acts and Gender Constitution: An Essay in Phenomenology and Feminist Theory." *Theatre Journal* 40, no. 4 (1988): 519–31. https://doi.org/10.2307/3207893.

Carney, Judith Ann. *Black Rice: The African Origins of Rice Cultivation in the Americas*. Harvard University Press, 2009.

Castree, Noel. "Anthropocene and Planetary Boundaries." In *International Encyclopedia of Geography*, 1–14. American Cancer Society, 2016. https://doi.org/10.1002/9781118786352.wbieg0027.

Chin, Mel. "Artist Writing: Revival Field," 1990. http://melchin.org/oeuvre/artist-writing-revival-field.

———. *Fundred Dollar Bill Project*. 2006. https://fundred.org/.

———. *Operation Pay Dirt*. 2006. http://www.operationpaydirt.org/.

———. *Revival Field*. ongoing 1991. Installation.

"Climate Chaos to Continue in 2018, UN Chief Warns; Will the World Rise to Challenge?" *United Nations: UN News* (blog), March 29, 2018. https://news.un.org/en/story/2018/03/1006271.

Combahee River Collective. “The Combahee River Collective Statement.” In *Home Girls: A Black Feminist Anthology*, edited by Barbara Smith, 264–73. New York, NY: Kitchen Table: Women of Color Press, 1983.

Commoner, Barry. *The Closing Circle: Nature, Man, and Technology*. 1st edition. New York: Random House Inc, 1971.

Cooper, James F. “A Review of the Culture Wars.” *American Arts Quarterly* 33, no. 4 (Fall 2016). http://www.nccsc.net/essays/review-culture-wars.

Crenshaw, Kimberlé. “Demarginalizing the Intersection of Race and Sex: A Black Feminist Critique of Antidiscrimination Doctrine, Feminist Theory and Antiracist Politics.” *The University of Chicago Legal Forum* 140 (1989): 139–167.

Critical Art Ensemble. “Contestational Biology.” In *Nature*, edited by Jeffrey Kastner. Documents of Contemporary Art. London: Cambridge, Mass: The MIT Press, 2012.
Critical Art Ensemble, Beatriz Da Costa, and Claire Pentecost. *Molecular Invasion*. 2004 2002. http://critical-art.net/?p=1.

Cronon, William. “The Trouble with Wilderness; or, Getting Back to the Wrong Nature.” In *Uncommon Ground: Rethinking the Human Place in Nature*, edited by William Cronon, 69–90. New York: W. W. Norton & Co, 1995.

Crutzen, Paul J. “Geology of Mankind.” *Nature* 415, no. 6867 (January 3, 2002): 23–23.

“Cultivating Your Sense of Place.” News Item. Deschutes Land Trust. Accessed November 18, 2018. https://www.deschuteslandtrust.org/news/blog/2017-blog-posts/cultivating-sense-of-place.

Cumming, Laura. “Damien Hirst: Treasures from the Wreck of the Unbelievable Review – Beautiful and Monstrous.” *The Observer*, April 16, 2017, sec. Art and design. https://www.theguardian.com/artanddesign/2017/apr/16/damien-hirst-treasures-from-the-wreck-of-the-unbelievable-review-venice.

Cunningham, Jenny. “Hungry for Change: Urban Foragers Take the Law into Their Own Hands.” *The Guardian*, August 7, 2018, sec. Cities. https://www.theguardian.com/cities/2018/aug/07/hungry-for-change-urban-foragers-take-the-law-into-their-own-hands.

Da Costa, Beatriz. *Pigeon Blog*. 2006. Participatory project.

Da Costa, Beatriz, and Kavita Philip, eds. *Tactical Biopolitics: Art, Activism, and Technoscience (Leonardo Books) (Hardback) - Common*. MIT Press, 2008.

Davis, Heather. "Toxic Progeny: The Plastisphere and Other Queer Futures." *PhiloSOPHIA* 5, no. 2 (2015): 231–50.

Davis, Heather, and Zoe Todd. "On the Importance of a Date, or, Decolonizing the Anthropocene." *ACME: An International Journal for Critical Geographies* 16, no. 4 (December 20, 2017): 761–80.

Demos, T. J. *Decolonizing Nature: Contemporary Art and the Politics of Ecology*. Berlin: Sternberg Press, 2016.

———. "The Art and Politics of Sustainability." In *Decolonizing Nature: Contemporary Art and the Politics of Ecology*, 31–62. Berlin: Sternberg Press, 2016.

———. "The Politics of Sustainablity: Art and Ecology." In *Radical Nature - Art and Architecture for a Changing Planet 1969-2009: [Published on the Occassion of the Exhibition Radical Nature - Art and Architecture for a Changing Planet 1969-2009, Barbican Art Gallery, London, 19 June - 18 October 2009]*. Köln: Koenig, 2009.

Denes, Agnes. "Rice/Tree/Burial, 1979." In *Agnes Denes*, edited by Jill Hartz, First Edition edition., 106–7. Herbert F. Johnson Museum Of Art, Cornell University, 1992.

———. *Wheatfield - A Confrontation: Battery Park Landfill, Downtown Manhattan*. 1982. Installation. http://www.agnesdenesstudio.com/works7.html.

———. *Wheatfield with Agnes Denes Standing in the Field*. 1982. Photograph. http://www.agnesdenesstudio.com/works7_5_popup.html.

———. "Wheatfield--A Confrontation: The Philosophy." In *Agnes Denes*, edited by Jill Hartz, First Edition edition., 118. Herbert F. Johnson Museum Of Art, Cornell University, 1992.

Devall, Bill, and George Sessions. *Deep Ecology: Living as If Nature Mattered*. Salt Lake City, Utah: Gibbs Smith, 2001.

"Dow Does the Right Thing." The Yes Men, June 30, 2018. http://www.theyesmen.org/project/dow-does-right-thing.

Dunlap, Riley E., and Angela G. Mertig. *American Environmentalism: The US Environmental Movement, 1970-1990*. Taylor & Francis, 2014.

Economopoulos, Beka. "On the Right Side of History: How Can Museums Support Native-Led Climate Justice Initiatives?" *Museum Magazine: American Alliance of Museums*, 2018. https://www.aam-us.org/2018/07/01/how-can-museums-support-native-led-climate-justice-initiatives/.

Watts, Jonathan. "We Have 12 Years to Limit Climate Change Catastrophe, Warns UN." *The Guardian*, October 8, 2018, sec. Environment. https://www.theguardian.com/environment/2018/oct/08/global-warming-must-not-exceed-15c-warns-landmark-un-report.

"Editorial: Gaia: The Death of a Beautiful Idea." *New Scientist* (blog), October 2013. https://www.newscientist.com/article/mg22029401-800-gaia-the-death-of-a-beautiful-idea/.

Egerton, Frank N. "History of Ecological Sciences, Part 47: Ernst Haeckel's Ecology." *The Bulletin of the Ecological Society of America* 94, no. 3 (July 1, 2013): 222–44. https://doi.org/10.1890/0012-9623-94.3.222.

Ellsworth, Elizabeth, Jamie Kruse, and Reg Beatty. *Making the Geologic Now: Responses to Material Conditions of Contemporary Life*. New York: Punctum Books, 2013.

Ensemble, Critical Art. *Electronic Civil Disobedience: And Other Unpopular Ideas*. 1st edition. New York; London: Autonomedia, 1997.

———. *Molecular Invasion*. New York; London: Autonomedia, 2001.

"Environment." Oxford Dictionaries | English. Accessed November 11, 2018. https://en.oxforddictionaries.com/definition/environment.

"Exhibition Announcement: Time Landscape, 1978." Public Art Fund. Accessed October 20, 2018. https://www.publicartfund.org/view/exhibitions/5985_time_landscape.

Felsenthal, Julia. "Dolores Huerta Is Finally Getting Her Due." *Vogue*, 2017. https://www.vogue.com/article/dolores-huerta-documentary.

Foucault, Michel. *The History of Sexuality, Volume 1: An Introduction*. Translated by Robert Hurley. New York: Pantheon Books, 1978.

Fuller, R. Buckminster. *Operating Manual for Spaceship Earth*. Edited by Jaime Snyder. 1 edition. Carbondale, IL: Southern Illinois University Press, 1969.

Gaard, Greta. *Critical Ecofeminism*. Latham, Maryland: Lexington Books, 2017.

Gabriel, Trip. "If a Tree Falls in the Forest, They Hear It." *The New York Times*, November 4, 1990, sec. Magazine. https://www.nytimes.com/1990/11/04/magazine/if-a-tree-falls-in-the-forest-they-hear-it.html.

Gambino, Megan. "Alfred W. Crosby on the Columbian Exchange." *Smithsonian Magazine* (blog), October 4, 2011. https://www.smithsonianmag.com/history/alfred-w-crosby-on-the-columbian-exchange-98116477/.

Garcia-Lopez, Gustavo, Ursula Lang, and Neera Singh. "The Commons, Commoning and Co-Becomings IV: Re-Commoning and Reclaiming." In *Session IV: Land, Care and Commons*. Accessed November 6, 2018. https://aag.secure-abstracts.com/AAG%20Annual%20Meeting%202018/sessions-gallery/11319.

Gibson, Prudence. *The Plant Contract: Art's Return to Vegetal Life*. Brill Rodopi, 2018. https://brill.com/abstract/title/35267.

Gignoux, Christopher R., Brenna M. Henn, and Joanna L. Mountain. "Rapid, Global Demographic Expansions after the Origins of Agriculture." *Proceedings of the National Academy of Sciences of the United States of America* 108, no. 15 (April 12, 2011): 6044–49. https://doi.org/10.1073/pnas.0914274108.

Gómez-Barris, Macarena. *The Extractive Zone: Social Ecologies and Decolonial Perspectives*. Durham; London: Duke University Press Books, 2017.

Gopal, Divya. "Green Form and Function versus Green Nativism: In Changing Urban Spaces Full of Novel Ecosystems and Natural Assemblages, Is Native Purity a Viable Option?" *The Nature of Cities* (blog), November 5, 2015. https://www.thenatureofcities.com/2015/11/05/green-form-function-versus-green-nativism-in-changing-urban-spaces-full-of-novel-ecosystems-and-natural-assemblages-is-native-purity-a-viable-option/.

Gould, Stephen Jay. "An Evolutionary Perspective on Strengths, Fallacies, and Confusions in the Concept of Native Plants." *Arnoldia* 58, no. 1 (1998): 2–10.

Guattari, Felix. *The Three Ecologies*. Translated by Ian Pindar and Paul Sutton. Reprint Used edition. London: Continuum, 2008.

Guerilla Grafters. 2011. http://www.guerrillagrafters.org/.

Guha, Ramachandra. *Environmentalism: A Global History*. 1 edition. New York: Pearson, 1999.

———. "Radical American Environmentalism and Wilderness Preservation: A Third World Critique." *Environmental Ethics* 11, no. 1 (1989): 71–83.

Haraway, Donna. "Anthropocene, Capitalocene, Plantationocene, Chthulucene: Making Kin." *Environmental Humanities* 6 (May 1, 2015). https://doaj.org.

———. "Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective." *Feminist Studies* 14, no. 3 (1988): 575–99. https://doi.org/10.2307/3178066.

———. *The Companion Species Manifesto*. Chicago: University of Chicago Press, 2003. https://www.press.uchicago.edu/ucp/books/book/distributed/C/bo3645022.html.

Haraway, Donna J. *Staying with the Trouble: Making Kin in the Chthulucene*. First Edition edition. Durham: Duke University Press Books, 2016.

Harden, John D. "Forgotten Fight: Sunnyside Community Draws on History in Fight over Landfill Site." *Houston Chronicle*, February 12, 2018. https://www.houstonchronicle.com/news/houston-texas/houston/article/Forgotten-fight-Sunnyside-community-draws-on-12574213.php.

Hardin, Garrett. "The Tragedy of the Commons." *Science* 162, no. 3859 (December 13, 1968): 1243–48. https://doi.org/10.1126/science.162.3859.1243.

Hartz, Jill, and Agnes Denes. "Jill Hartz and Agnes Denes." In *Agnes Denes*, edited by Jill Hartz, First Edition edition., 102–8. Herbert F. Johnson Museum Of Art, Cornell University, 1992.

Haughtwout, Margaretha. "In Colombia: Conflict Collapse and Care / Natural Resistance." *BeforeBefore.Net* (blog), 2017. http://beforebefore.net/in-colombia-conflict-collapse-and-care-natural-resistance/.

Hayles, N. Katherine. *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature and Informatics*. Chicago: University of Chicago Press, 1999. https://www.press.uchicago.edu/ucp/books/book/chicago/H/bo3769963.html.

Heise, Ursula. *Sense of Place and Sense of Planet: The Environmental Imagination of the Global*. Oxford, New York: Oxford University Press, 2008.

Helguera, Pablo. *Education for Socially Engaged Art: A Materials and Techniques Handbook*. Bethesda, MD: Jorge Pinto Books, 2011.

Helmreich, Stefan. "How Scientists Think; About 'Natives', for Example. a Problem of Taxonomy Among Biologists of Alien Species in Hawaii." *Journal of the Royal Anthropological Institute* 11, no. 1 (March 1, 2005): 107–28. https://doi.org/10.1111/j.1467-9655.2005.00228.x.

Higginbotham, Adam. "Is Chernobyl a Wild Kingdom or a Radioactive Den of Decay?" *Wired*, April 14, 2011. https://www.wired.com/2011/04/ff-chernobyl/.

Holmes, Brian. *Critical Art Ensemble: Disturbances*. Slp edition. Four Corners Books, 2012.

Hom, Mei-ling. "About | MEI – LING HOM." Accessed October 31, 2018. http://www.meilinghom.com/about-2.

Huber, Matt. "Building a 'Green New Deal': Lessons From the Original New Deal." *Versobooks.Com* (blog). Accessed November 19, 2018. https://www.versobooks.com/blogs/4131-building-a-green-new-deal-lessons-from-the-original-new-deal.

Hughes, James J. "Biopolitics." In *Keywords for Environmental Studies*, 22–24. New Yorkq: NYU Press, 2016. https://www.jstor.org/stable/j.ctt15zc5kw.11.

Ialenti, Vincent. "Embracing 'Deep Time' Thinking." *NPR.Org* (blog), September 18, 2014. https://www.npr.org/sections/13.7/2014/09/28/351692717/embracing-deep-time-thinking.

Iglauer, Edith. "The Biggest Foundation." *The New Yorker*, 1972.

Irons, Ellie. "Feral Landscape Love: Novel Ecosystems in the Studio and the Street." *The Brooklyn Rail* (blog). Accessed November 2, 2018. https://brooklynrail.org/2015/11/criticspage/feral-landscape-love-novel-ecosystems-in-the-studio-and-the-street.

———. "Social-Ecological Art for Contesting a Disappearing Commons: Tracing the Genealogies of Public Fieldwork as an Artistic Methodology for Navigating the Sixth Mass Extinction." Graduate Seminar Literature Review. Rensselaer Polytechnic Institute, Troy, NY, 2017. https://ellieirons.com/wp-content/uploads/2018/11/Irons-Lit-Review.pdf.

———. "Why Say 'Weed' in the Anthropocene?" *Inhabiting the Anthropocene* (blog), September 12, 2018. https://inhabitingtheanthropocene.com/2018/09/12/why-say-weed-in-the-anthropocene/.

Jackson, Zakiyyah Iman. “Animal: New Directions in the Theorization of Race and Posthumanism.” Edited by Kalpana Rahita Seshadri, Michael Lundblad, and Mel Y. Chen. *Feminist Studies* 39, no. 3 (2013): 669–85.

Jacobs, Karrie. “The Woman Who Harvested a Wheat Field Off Wall Street.” *The New York Times*, June 18, 2018, sec. T Magazine. https://www.nytimes.com/2018/06/14/t-magazine/agnes-denes-art.html.

Johnson, Amy. “The Saw-Kill and the Making of Dutch Manhattan.” *THE GOTHAM CENTER FOR NEW YORK CITY HISTORY* (blog). Accessed November 20, 2018. http://www.gothamcenter.org/1/post/2009/08/the-saw-kill-and-the-making-of-dutch-colonial-manhattan.html.

Kac, Eduardo, Roger F. Malina PhD, and Sean Cubitt, eds. *Signs of Life: Bio-Art and Beyond*. Cambridge, Mass.: The MIT Press, 2009.

Kellhammer, Oliver. *Cottonwood Community Gardens*. 1991. http://oliverk.org/art-projects/land-art/cottonwood-community-gardens.

———. *Neo-Eocene (Malmö)*. 2017. Spiral forest planting. http://oliverk.org/art-projects/land-art/neo-eocene-malm%C3%B6.

Kendler, Jenny. *Garden for a Changing Climate*. 2018 2017. https://jennykendler.com/section/453504-Garden-for-a-Changing-Climate.html.

Kepes, Gyorgy. “Art and Ecological Consciousness.” In *Arts of the Environment*, edited by Gyorgy Kepes, Vision plus value series:1–12. London: Henley (Cobb House, Nuffield, Henley, Oxon.), 1972.

———. *Arts of the Environment*. First edition. New York: G. Braziller, 1972.

Kim, Inga. “The 1965-1970 Delano Grape Strike and Boycott.” *UFW* (blog), March 7, 2017. https://ufw.org/1965-1970-delano-grape-strike-boycott/.

Kimmerer, Robin Wall. *Braiding Sweetgrass: Indigenous Wisdom, Scientific Knowledge and the Teachings of Plants*. Milkweed Editions, 2015.

Kino, Carol. “Agnes Denes Stretches the Canvas as Far as Can Go.” *The New York Times*, November 28, 2012, sec. Art & Design. https://www.nytimes.com/2012/12/02/arts/design/agnes-denes-stretches-the-canvas-as-far-as-can-go.html.

Kirksey, S. Eben, and Stefan Helmreich. "The Emergence of Multispecies Ethnography." *Cultural Anthropology* 25, no. 4 (November 1, 2010): 545–76. https://doi.org/10.1111/j.1548-1360.2010.01069.x.

Kolbert, Elizabeth. "Enter the Anthropocene—Age of Man." *National Geographic*, 2011. https://www.nationalgeographic.com/magazine/2011/03/age-of-man/.

———. *The Sixth Extinction: An Unnatural History*. 1st edition. New York: Henry Holt and Co., 2014.

Landi, Ann. "Separating the Trees from the Forest." *ARTnews* (blog), August 15, 2011. http://www.artnews.com/2011/08/15/separating-the-trees-from-the-forest/.

Leavitt, Thomas, Willoughby Sharp, and William Lipke. *Earth Art:Jan Dibbets, Hans Haacke, Neil Jenney, Richard Long, David Medalla, Robert Morris, Dennis Oppenheim, Robert Smithson, Günther Uecker*. Edited by Nita Jager. Ithaca, NY: Cornell University, 1970. http://hdl.handle.net/2027/coo.31924020514380.

Lee, Jae Heung. "An Overview of Phytoremediation as a Potentially Promising Technology for Environmental Pollution Control." *Biotechnology and Bioprocess Engineering* 18, no. 3 (June 1, 2013): 431–39. https://doi.org/10.1007/s12257-013-0193-8.

Levy, Tom. "Guerrilla Grafters Go out on a Limb." *SFGate*. August 24, 2012. https://www.sfgate.com/homeandgarden/article/Guerrilla-Grafters-go-out-on-a-limb-3813876.php.

Lewis, Simon L., and Mark A. Maslin. "Defining the Anthropocene." *Nature* 519, no. 7542 (March 2015): 171–80. https://doi.org/10.1038/nature14258.

Liberate Tate. ongoing 2010. http://www.liberatetate.org.uk/.

Lin, Maya. *What Is Missing?* Multi-site, multiform memorial. Accessed November 24, 2018. https://www.whatismissing.org/.

Lippard, Lucy. "'What Do We Want to Say? How Do We Want to Say It?'" Open Engagement Featured Presentation, Queens Museum of Art, May 12, 2018. http://openengagement.info/session/lucy-lippard-featured-presentation/.

Lorde, Audre. *Sister Outsider: Essays and Speeches*. Crossing Press, 1984.

Mair, Aaron. “A Deeper Shade of Green.” *Sierra Club* (blog), March 9, 2017. https://www.sierraclub.org/change/2017/03/deeper-shade-green.

Malone, Nicholas, and Kathryn Ovenden. “Natureculture.” In *The International Encyclopedia of Primatology*, 1–2. American Cancer Society, 2016. https://doi.org/10.1002/9781119179313.wbprim0135.

Mann, Charles C. *1493: Uncovering the New World Columbus Created*. Reprint edition. New York: Vintage, 2012.

Marder, Michael. *Plant-Thinking: A Philosophy of Vegetal Life*. Columbia University Press, 2013.

Martin, Reinhold. “The Organizational Complex: Cybernetics, Space, Discourse.” *Assemblage*, no. 37 (1998): 103–27. https://doi.org/10.2307/3171358.

Mastnak, Tomaz, Julia Elyachar, and Tom Boellstorff. “Botanical Decolonization: Rethinking Native Plants.” *Environment and Planning D: Society and Space* 32, no. 2 (April 1, 2014): 363–80. https://doi.org/10.1068/d13006p.

Matilsky, Barbara. *Fragile Ecologies - Contemporary Artists’ Interpretations and Solutions*. First Edition edition. New York: Rizzoli, 1992.

Mattingly, Mary. “Work.” Mary Mattingly. Accessed November 6, 2018. http://www.marymattingly.com/html/MATTINGLYWork.html.

“Max Liboiron.” Max Liboiron. Accessed October 31, 2018. https://maxliboiron.com/.

May, Vivian M. *Pursuing Intersectionality, Unsettling Dominant Imaginaries*. 1 edition. New York: Routledge, 2015.

McKee, Yates. “Art and the Ends of Environmentalism: From Biosphere to the Right to Survival.” In *Nongovernmental Politics*, edited by Michel Feher, Gaëlle Krikorian, and Yates McKee, 583–639. New York: Zone Books, 2007.

———. “From Eco-Art to Biopolitical Struggle: An Expansion of Social Ecologies.” In *Social Ecologies*, edited by Greg Lindquist. Brooklyn Rail, 2016.

"Mei-Ling Hom, and Kim Yasuda: Celebrating the U.S. - Japan Creative Artists Exchange Fellowship Program." Japanese American National Museum, 1996. http://www.janm.org/exhibits/jusfc/mei-ling_hom/hom.html.

Merchant, Carolyn. "Dominion over Nature." In *The Death of Nature: Women, Ecology, and the Scientific Revolution*, 164–90. Harper Collins, 1990.

Mies, Maria, and Vandana Shiva. *Ecofeminism*. 1st Edition. London: Zed Books, 1993.

Miller, Adam D., Stephen H. Roxburgh, and Katriona Shea. "How Frequency and Intensity Shape Diversity–Disturbance Relationships." *Proceedings of the National Academy of Sciences of the United States of America* 108, no. 14 (April 5, 2011): 5643–48. https://doi.org/10.1073/pnas.1018594108.

Miller, Kathryn. "SEED BOMBS," 2002 1991. http://www.kathrynamiller.com/seedbombs.html.

Moore, Jason W. *Capitalism in the Web of Life: Ecology and the Accumulation of Capital*. New York: Verso, 2015.

———. "The Capitalocene, Part I: On the Nature and Origins of Our Ecological Crisis." *The Journal of Peasant Studies* 44, no. 3 (May 4, 2017): 594–630. https://doi.org/10.1080/03066150.2016.1235036.

Moyer, Twylene, and Glenn Harper, eds. *The New Earthwork: Art Action Agency*. Hamilton, NJ: Seattle, WA: International Sculpture Center, 2012.

Mun, Jan. *Model Citizen: Assimilation*. 2011. http://janmun.com/model-citizen/.

Nadir, Leila Christine, and Cary Peppermint. "EdibleEcologies: Healing Industrial Amnesia with Endangered Food Practices (Art & Social Practice)." Accessed November 26, 2018. https://www.academia.edu/17980723/EdibleEcologies_Healing_Industrial_Amnesia_with_Endangered_Food_Practices_Art_and_Social_Practice_.

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

Nandi, Anisha. "'Floating Food Forest' Docked in New York at One of the Largest 'Food Deserts.'" CBS News, September 15, 2017. https://www.cbsnews.com/news/swale-floating-food-forest-docked-in-new-york-at-one-of-the-largest-food-deserts/.

Nash, Jennifer C. “Intersectionality and Its Discontents.” *American Quarterly; College Park* 69, no. 1 (March 2017): 117-129,188.

Nixon, Rob. *Slow Violence and the Environmentalism of the Poor*. Cambridge, Mass: Harvard University Press, 2011.

———. “Slow Violence, Gender, and the Environmentalism of the Poor.” In *Slow Violence and the Environmentalism of the Poor*, 128–49. Cambridge, Mass: Harvard University Press, 2011.

Nuccitelli, Dana. “Is the Climate Consensus 97%, 99.9%, or Is Plate Tectonics a Hoax?” *The Guardian*, May 3, 2017, sec. Environment. https://www.theguardian.com/environment/climate-consensus-97-per-cent/2017/may/03/is-the-climate-consensus-97-999-or-is-plate-tectonics-a-hoax.

Office, U. S. Government Accountability. “Siting of Hazardous Waste Landfills and Their Correlation With Racial and Economic Status of Surrounding Communities,” no. RCED-83-168 (June 14, 1983). https://www.gao.gov/products/RCED-83-168.

Orion, Tao, and David Holmgren. *Beyond the War on Invasive Species: A Permaculture Approach to Ecosystem Restoration*. White River Junction, Vermont: Chelsea Green Publishing, 2015.

Ostrom, Elinor. *Governing the Commons: The Evolution of Institutions for Collective Action*. 1st edition. Cambridge; New York: Cambridge University Press, 1990.

Ostrow, Saul. “Mel Chin by Saul Ostrow.” *BOMB Magazine*, September 15, 2016. https://bombmagazine.org/articles/mel-chin/.

Out of the Woods. “Lies of the Land: Against and beyond Paul Kingsnorth’s Völkisch Environmentalism.” libcom.org, March 31, 2017. http://libcom.org/blog/lies-land-against-beyond-paul-kingsnorth’s-völkisch-environmentalism-31032017.

Paperson, La. “A Ghetto Land Pedagogy: An Antidote for Settler Environmentalism.” *Environmental Education Research* 20, no. 1 (January 2, 2014): 115–30. https://doi.org/10.1080/13504622.2013.865115.

Pasquel, Danielle. “Health Disparities and Environmental Justice in the Bronx.” *The EJBM Blog (Blog of The Einstein Journal of Biology and Medicine)* (blog), March 23, 2015. https://theejbm.wordpress.com/2015/03/23/health-disparities-and-environmental-justice-in-the-bronx/.

Pawlowska, Teresa E., Rufus L. Chaney, Mel Chin, and Iris Charvat. "Effects of Metal Phytoextraction Practices on the Indigenous Community of Arbuscular Mycorrhizal Fungi at a Metal-Contaminated Landfill." *Appl. Environ. Microbiol.* 66, no. 6 (June 1, 2000): 2526–30. https://doi.org/10.1128/AEM.66.6.2526-2530.2000.

Penniman, Leah, and Karen Washington. *Farming While Black: Soul Fire Farm's Practical Guide to Liberation on the Land*. White River Junction, Vermont: Chelsea Green Publishing, 2018.

Pentecost, Claire. "Oh! The Public Amateur Is Not Afraid to Let on That She Just Figured It Out." *The Public Amateur* (blog), March 26, 2007. https://publicamateur.wordpress.com/about/.

———. *Soil-Erg*. 2012. http://www.publicamateur.org/?p=85.

Perry, Pamela. "White." Keywords for American Cultural Studies, 2014. https://keywords.nyupress.org/american-cultural-studies/essay/white/.

Phiffer, Dan. *Weedy Resistance with Oliver Kellhammer*. You Would Have Love It: The FOMO Podcast. Accessed November 21, 2018. https://fomopodcast.org/2017/05/01/weedy-resistance/.

Pickett, Steward T. A., and P. S. White, eds. *The Ecology of Natural Disturbance and Patch Dynamics*. Revised edition. Orlando: Academic Press, 1987.

Plumwood, Val. "Decolonising Australian Gardens: Gardening and the Ethics of Place – AHR." *Australian Humanities Review*, no. 36 (2005). http://australianhumanitiesreview.org/2005/07/01/decolonising-australian-gardens-gardening-and-the-ethics-of-place/.

———. "Decolonizing Relationships with Nature." In *Decolonizing Nature: Strategies for Conservation in a Post-Colonial Era*, edited by Martin Mulligan and William (Bill) Adams, 2002. https://doi.org/10.4324/9781849770927-9.

"Poor People's Campaign: A National Call for Moral Revival." Poor People's Campaign. Accessed November 11, 2018. https://www.poorpeoplescampaign.org/.

Radin, Joanna, and Emma Kowal, eds. "Beyond Life/Not Life: A Feminist-Indigenous Reading of Cryopreservation, Interspecies Thinking and the New Materialisms." In *Cryopolitics: Frozen Life in a Melting World*. MIT Press, 2017. https://www.jstor.org/stable/j.ctt1n2ttqh.

Ramsay, Adam. “My Environmentalism Will Be Intersectional or It Will Be Bullshit.” *OpenDemocracyUK* (blog), March 25, 2014. http://www.opendemocracy.net/ourkingdom/adam-ramsay/my-environmentalism-will-be-intersectional-or-it-will-be-bullshit.

Rancière, Jacques. *The Politics of Aesthetics: The Distribution of the Sensible*. London: Continuum, 2004.

Raworth, Kate. “Must the Anthropocene Be a Manthropocene?” *The Guardian*, October 20, 2014, sec. Opinion. https://www.theguardian.com/commentisfree/2014/oct/20/anthropocene-working-group-science-gender-bias.

Reichard, Sarah Hayden, and Peter S. White. “Invasion Biology: An Emerging Field of Study.” *Annals of the Missouri Botanical Garden* 90, no. 1 (2003): 64–66. https://doi.org/10.2307/3298526.

Rome, Adam. “‘Give Earth a Chance’: The Environmental Movement and the Sixties.” *Journal of American History* 90, no. 2 (September 1, 2003): 525–54. https://doi.org/10.2307/3659443.

Russakoff, Dale. “As in the ’60s, Protesters Rally.” *Washington Post*, October 11, 1982. https://www.washingtonpost.com/archive/politics/1982/10/11/as-in-the-60s-protesters-rally/47e2d0e3-8556-4d9f-8a77-8a78ab51ca61/.

Sanderson, Eric W., and Marianne Brown. “Mannahatta: An Ecological First Look at the Manhattan Landscape Prior to Henry Hudson.” *Northeastern Naturalist* 14, no. 4 (December 1, 2007): 545–70. https://doi.org/10.1656/1092-6194(2007)14[545:MAEFLA]2.0.CO;2.

Schiebinger, Londa. *Plants and Empire: Colonial Bioprospecting in the Atlantic World*. Cambridge, MA.: Harvard University Press, 2007.

Schumacher, E.F. *Small Is Beautiful: Economics as If People Mattered*. New York, NY: Perenial Library /Harper & Row, 1975. https://www.abebooks.co.uk/first-edition/Small-Beautiful-Economics-People-Mattered-E.F/22747031822/bd.

Seidler, Reinmar, and Kamaljit S. Bawa. “Ecology.” In *Keywords for Environmental Studies*, 71–75. New York: New York University Press, 2016.

Sharp, Willoughby. “Notes towards an Understanding of Earth Art.” In *Earth Art: Jan Dibbets, Hans Haacke, Neil Jenney, Richard Long, David Medalla, Robert Morris, Dennis Oppenheim, Robert Smithson, Günther Uecker.*, edited by Nita Jager, 16–25. Ithaca, NY: Cornell University, 1970. http://hdl.handle.net/2027/coo.31924020514380.

Shavelson, Lanny. “Guerrilla Grafters Bring Forbidden Fruit Back To City Trees.” *NPR.Org* (blog), 2012. https://www.npr.org/sections/thesalt/2012/04/07/150142001/guerrilla-grafters-bring-forbidden-fruit-back-to-city-trees.

Shea, Ellyn. “Cool Gray City of Trees Interview with Mei Ling Hui.” *DeepRoot Blog* (blog), February 16, 2016. http://www.deeproot.com/blog/blog-entries/cool-gray-city-of-trees-interview-with-mei-ling-hui.

Shirey, David L. “Pulsa: Sound, Light and 7 Young Artists.” *The New York Times*, December 24, 1970, sec. Archives. https://www.nytimes.com/1970/12/24/archives/pulsa-sound-light-and-7-young-artists.html.

Shotwell, Alexis. *Against Purity: Living Ethically in Compromised Times*. 1 edition. Minneapolis: Univ Of Minnesota Press, 2016.

Silverman, Rena. “Europe’s Largest Glacier Comes to New York.” *National Geographic News* (blog), June 30, 2013. https://news.nationalgeographic.com/news/2013/06/130629-glacier-art-exhibit-moma-science-climate-change-global-warming/.

Simun, Miriam. *Agalinis Dreams*. 2014. Multisensory experience/installation.

Smith, Nancy, Shaowen Bardzell, and Jeffrey Bardzell. “Designing for Cohabitation: Naturecultures, Hybrids, and Decentering the Human in Design.” In *Proceedings of the 2017 CHI Conference on Human Factors in Computing Systems*, 1714–1725. CHI ’17. New York, NY, USA: ACM, 2017. https://doi.org/10.1145/3025453.3025948.

Smithson, Robert, Ingrid Commandeur, and Trudy van Riemsdijk-Zandee. “Art, Research, Ecology.” In *Robert Smithson: Art in Continual Movement*, 45–62. Amsterdam: Alauda Publications, 2012.

“Social Ecologies.” Brooklyn Rail Curatorial Projects. Accessed November 20, 2018. http://curatorialprojects.brooklynrail.org/social-ecologies.

Sonfist, Alan. *Time Landscape*. Current 1965. Earth, indigenous trees, bushes and flowers. http://www.alansonfist.com/landscapes_time_landscape_description.html.

———. *Time Landscape Paintings*. n.d. Painting. http://www.alansonfist.com/paintings_time_landscape.html.

Spaid, Sue, and Amy Lipton. *Ecovention, Current Art to Transform Ecologies*. 1st edition. S.l.: Cincinnati, OH: S.l.: Contemporary Arts Center, 2002.

Spaid, Sue, and Raphaela Platow. *Green Acres: Artists Farming Fields, Greenhouses and Abandoned Lots*. Edited by Marianne Amoss. First edition. Ithaca: Contemporary Arts Center, 2012.

Steffen, Will, Paul J. Crutzen, and John R. McNeill. "The Anthropocene: Are Humans Now Overwhelming the Great Forces of Nature?" *Ambio* 36, no. 8 (2007): 614–21.

Steffen, Will, Jacques Grinevald, Paul Crutzen, and John McNeill. "The Anthropocene: Conceptual and Historical Perspectives." *Philosophical Transactions of the Royal Society of London A: Mathematical, Physical and Engineering Sciences* 369, no. 1938 (March 13, 2011): 842–67. https://doi.org/10.1098/rsta.2010.0327.

Steiner, Richard. "From Anthropocene To Ecocene By 2050?" *Huffington Post* (blog), October 18, 2017. https://www.huffingtonpost.com/entry/from-anthropocene-to-ecocene-by-2050_us_59e7b66ce4b0e60c4aa3678c.

Stevenson, Angus, ed. *"environment." In Oxford Dictionary of English*. Oxford University Press, 2010. http://www.oxfordreference.com/view/10.1093/acref/9780199571123.001.0001/m_en_gb0268810.

Subramaniam, Banu. "The Aliens Have Landed! Reflections on the Rhetoric of Biological Invasions." *Meridians* 2, no. 1 (2001): 26–40.

Taveras, Paulo, and Ursula Biemann. *Forest Law/Selva Juridica*. 2014. 2 channel video essay, photo-text assemblage, artist book, 38 minutes. https://www.geobodies.org/art-and-videos/forest-law.

"The Anthropocene Campus 2014." Anthropocene Curriculum. Accessed November 19, 2018. https://www.anthropocene-curriculum.org/pages/root/campus-2014/.

"The Forgotten Legacy of Earth Day and the Founding of American Environmentalism." *Beacon Institute for Rivers and Estuaries* (blog), April 25, 2016. https://www.bire.org/news/the-forgotten-legacy-of-earth-day-and-the-founding-of-american-environmentalism.

The Nanticoke Lenni-Lenape. "Our Tribal History..." The Nanticoke Lenni-Lenape: An American Indian Tribe. Accessed November 25, 2018. http://www.nanticoke-lenape.info/history.htm.

The Natural History Museum. 2014–ongoing. http://thenaturalhistorymuseum.org/.

"Time Landscape Documentation and Ephemera." Alan Sonfist Studio. Accessed November 25, 2018. http://www.alansonfist.com/landscapes_time_landscape.html.

Todd, Zoe. "An Indigenous Feminist's Take On The Ontological Turn: 'Ontology' Is Just Another Word For Colonialism." *Journal of Historical Sociology* 29, no. 1 (March 1, 2016): 4–22. https://doi.org/10.1111/johs.12124.

Tollefson, Jeff. "The 8,000-Year-Old Climate Puzzle." *Nature*, March 25, 2011. https://doi.org/10.1038/news.2011.184.

Trevor, Tom. "Lois Weinberger – The Three Ecologies." In *Tom Trevor*, edited by Hatje Cantz and Philippe van Cauteren. Ghent: SMAK, 2013. https://tomtrevor.net/2014/03/09/lois-weinberger-the-three-ecologies/.

Tsing, Anna Lowenhaupt. "A History of Weediness." In *Friction: An Ethnography of Global Connection*, 171–202. Princeton University Press, 2011.

———. *Friction: An Ethnography of Global Connection*. Princeton University Press, 2011.

———. *The Mushroom at the End of the World: On the Possibility of Life in Capitalist Ruins*. Princeton: Princeton University Press, 2015.

Vivero Pol, Jose Luis. "Transition Towards a Food Commons Regime: Re-Commoning Food to Crowd-Feed the World." SSRN Scholarly Paper. Rochester, NY: Social Science Research Network, January 13, 2015. https://papers.ssrn.com/abstract=2548928.

Walker, Mike, Sigfus Johnsen, Sune Olander Rasmussen, Jørgen-Peder Steffensen, Trevor Popp, Philip Gibbard, Wim Z. Hoek, et al. "The Global Stratotype Section and Point (GSSP) for the Base of the Holocene Series/Epoch (Quaternary System/Period) in the NGRIP Ice Core" 31, no. 2 (June 2008): 264–67.

Wallen, Ruth. "Ecological Art: A Call for Visionary Intervention in A Time of Crisis." *Leonardo*, no. 3 (2012): 234–42. https://doi.org/10.1162/LEON_a_00365.

Waters, Colin N., Jan Zalasiewicz, Colin Summerhayes, Ian J. Fairchild, Neil L. Rose, Neil J. Loader, William Shotyk, et al. "Global Boundary Stratotype Section and Point (GSSP) for the

Anthropocene Series: Where and How to Look for Potential Candidates." *Earth-Science Reviews* 178 (March 1, 2018): 379–429. https://doi.org/10.1016/j.earscirev.2017.12.016.

Weintraub, Linda. *To Life!: Eco Art in Pursuit of a Sustainable Planet*. First edition. Berkeley: University of California Press, 2012.

Wenzel, Jennifer. "Slow Violence and the Environmentalism of the Poor." *Safundi* 13, no. 3–4 (July 1, 2012): 439–43. https://doi.org/10.1080/17533171.2012.716933.

"Wheatfields for Manhattan." Public Art Fund. Accessed October 21, 2018. https://www.publicartfund.org/view/exhibitions/5706_wheatfields_for_manhattan.

Witt, Charlotte. "Anti-Essentialism in Feminist Theory." *Philosophical Topics* 23, no. 2 (1995): 321–44.