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SITE RESPONSIBILITY:
ECO-ART AND ENVIRONMENTAL ETHICS IN THE ANTHROPOCENE

By

Nicholas Flint Collins
B.A., Hanover College, 2000
M.A., University of Louisville, 2003

A Dissertation
Submitted to the Faculty of the
College of Arts and Sciences of the University of Louisville
in Partial Fulfillment of the Requirements
for the Degree of

Doctor of Philosophy
in Art History

Department of Fine Arts
University of Louisville
Louisville, Kentucky

May 2016

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A Dissertation Approved on

April 12, 2016

by the following Dissertation Committee:

Dr. Susan Jarosi

Ying Kit Chan

Dr. Avery Kolers

Dr. Mark Cheetham

DEDICATION

This dissertation is dedicated to my son

Finn Elliot Collins.

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ABSTRACT

SITE RESPONSIBILITY: ECO-ART AND ENVIRONMENTAL ETHICS IN THE ANTHROPOCENE

Nicholas Flint Collins

April 12, 2016

This dissertation proposes an interdisciplinary theory for examining the ethical dimensions of contemporary eco-art, based on the conceptual interplay between the art historical discourse of site specificity and philosophy of environmental ethics. It considers how eco-art redefines site specificity as eco-ethically-oriented site reform, and argues that eco-artists' site-reformative actions are not only environmentally impactful and beneficial, but are also site-responsible because they realize humankind's moral obligations to respond to the human-caused ecological crises of the present by improving the degraded conditions of specific sites and amending site-destructive conduct. Site-reformative eco-artworks in turn yield variable propositional content that demonstrates site responsibility by giving moral clarity, import, and binding force to specific, actionable, human-behavioral changes conducive to the pursuit of ecological sustainability. I apply this theory of site responsibility to ten different eco-artworks representative of the genre's three predominant modes of site reform: documentary, activism, and remediation. This framework for eco-art ethics is ideally suited for analyzing the morally relevant attributes of the broad spectrum of artistic practices that have developed within the field of eco-art since the late 1960s, and is designed to facilitate well-reasoned assessments of their eco-ethical value.

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INTRODUCTION

It would seem we have never been more sited, more situated, more site-specific. Humankind's collective footprint on Earth's landscape is intrusive to the point that the current geologic epoch now bears the moniker of our species - Anthropocene. The idea of contemporaneity, broadly characterized by Terry Smith as "multiple ways of being with, in, and out of time, separately and at once, with others and without them," inevitably takes on more incisive meanings in view of such circumstances.¹ At present, we are not only the driving force behind the contemporary world currents of hegemonic globalization, accelerating inequity, and technological proliferation, as delineated by Smith; we are also the ascendant ecological agents of the current geological age, and most disconcertedly our collective ecological agency is the dominant mechanism of environmental degradation and climate change.² Consequently, within the spatiotemporal context of in the Anthropocene, eco-contemporaneity denotes our different modes of action (or inaction), being, and co-existing in relation to other organisms and our physical surroundings; our proximity to harm-producing human/non-human assemblages; and our complicity as co-responsible ecocidal epoch-makers.³ Ecologically speaking, anthropogenic, climate altering, harm producing, environmental degradation is the behavioral pattern that connects us in the present; the most

¹ Terry Smith in "Questionnaire on the Contemporary," ed. Hal Foster *et al*, *October* 130 (Fall 2009): 47-8.

² Ibid., 46-55.

³ Ibid., 46-55. Rephrasing both Terry Smith's theorization of contemporaneity and Jane Bennett's new materialist

³ Here I am rephrasing both Terry Smith's theorization of contemporaneity and Jane Bennett's new materialist conceptualization of ethical responsibility in *Vibrant Matter: A Political Ecology of Things* (Durham: Duke University Press, 2010), 37-8.

evident attribute of the current world picture; the thing that ought to matter greatly to us.⁴

Deontologically speaking, the burning ethical question is, “What is the right thing to do about it?” This dissertation is concerned with what kinds of answers we get when we direct this question at contemporary eco-art.

Amid escalating public awareness of the damaging effects of human civilization and industrialization on Earth’s ecosystems, and in response to the manifold ecological crises that have brought about the epochal redefinition Anthropocene, many contemporary artists partial to land-based subject matter, mediums, or outdoor sites have been compelled to reassess the ecological impact and ethical implications of their work. In particular, eco-art’s twentieth-century pioneers such as Betty Beaumont, Agnes Denes, Hans Haacke, Patricia Johanson, Buster Simpson, Alan Sonfist, and Mierle Laderman Ukeles have collectively forged the eco-art genre, and sharpened its focus on documenting, politicizing, and remediating specific sites of anthropogenic ecological degradation. Over the decades since their work was first canonized in the exhibition *Fragile Ecologies* (1992), curated by Barbara Matilsky, eco-art practices and discourse have expanded in scope to address the broader systemic interconnections between ecological crises, global climate change, sustainability, and other urgent sociopolitical matters of concern.⁵ In the course of these developments, eco-artists have ultimately redefined the nature of site-specific land representation and land use in pursuit of more eco-ethically responsible modes of art making. Despite the discernible site-specific and ethical orientations of eco-art’s subject matter, motives, and modes of spectatorship, the pertinent question of what exactly constitutes ethically responsible

⁴ This statement also rephrases Smith.

⁵ See Barbara Matilsky, *Fragile Ecologies* (New York: MIT Press, 1992.)

behavior on the part of eco-artists with regard to specific sites has not been thoroughly investigated.

This dissertation examines the ethical dimensions of contemporary eco-art. It proposes an interdisciplinary theory of site responsibility based on the conceptual interplay between the art historical discourse of site specificity and philosophy of environmental ethics, which is expressly designed to shed light on eco-art's distinctive moral implications and eco-ethical significance. This study considers how eco-art redefines site specificity as eco-ethically-oriented site reform – dutiful action to improve the degraded ecological conditions of specific sites and amend human site-destructive conduct. It argues that eco-artists' site-reformative actions are not only environmentally impactful and beneficial, but are also site-responsible because they realize humankind's moral obligations to respond to the human-caused ecological crises of the present by enacting environmental reform. Site-reformative eco-artworks in turn yield variable propositional content that demonstrates site responsibility by giving moral clarity, import, and binding force to specific, actionable, human-behavioral changes conducive to the pursuit of ecological sustainability and environmental justice.

Chapter 1 explains the methodology of site responsibility. It begins by highlighting Hans Haacke's *Rhinewater Purification Plant* (1972) as an expository, early historical example of eco-art's definitive eco-ethical approach to site specificity. Next it explores the connections between eco-art and the art historical discourse of site specificity, by applying Miwon Kwon's three paradigms – phenomenological or experiential site, social/institutional site, and discursive site – to Haacke's work.⁶ Notwithstanding its merits as a useful point of

⁶ See Miwon Kwon, *One Place after Another: Site-Specific Art and Locational Identity* (Cambridge: MIT Press, 2004).

departure for analyzing eco-art's site specificity, Kwon's model is deemed too imprecise to differentiate eco-art's ethical implications. This is followed by a discussion relating eco-art to the Kantian deontological strand of environmental ethical philosophy, and to Noël Carroll's aesthetic theory concerning the morally clarificatory aspects of artworks' variable propositional content.⁷ Site responsibility is regarded as deontological due to its primary focus on the moral relevance of eco-artists' site-reformative actions, their conditions, and motivations; and eco-artworks are designated morally clarificatory on account of their discernible deontic, eco-ethical propositional content. Additionally, this chapter enumerates ecological impact, causational transparency, pluralistic valuation, representational accuracy, physical accessibility, and cognitive intelligibility as aesthetic criteria suitable for evaluating the propositional content of eco-artworks. The chapter closes by explaining how site responsibility relates to the work of prominent eco-art exponents such as Suzi Gablik, Amanda Boetkes, and T. J. Demos, who have specifically addressed the topic of eco-art ethics.

The subsequent chapters are organized around three of eco-art's predominant modes site reform – documentation, activism, and remediation. Each of these modes pursues a different site-reformative agenda with discrete site-related impacts, values/benefits, and moral obligations, which in turn generates varying kinds of eco-ethical propositional content. Each chapter delineates mode-specific criteria of site responsibility before applying them to illustrative case studies of recent site-reformative eco-artworks.

Chapter 2 treats the documentary eco-art mode as a type of factual reporting and evidentiary truth-telling about specific ecologically degraded sites. It considers site

⁷ See Noël Carroll, "Art, Narrative, and Moral Understanding," in Jerrold Levinson, ed. *Aesthetics and Ethics: Essays at the Intersection* (Cambridge: Cambridge University Press, 1998).

responsibility in the light of Okwui Enwezor's concept of *vérité*, referring to the fundamental tension between aesthetic transformation and the moral imperative of truthfulness in documentary representation, along with the associated risk of misrepresenting subjects of harm.⁸ Correspondingly, this chapter asserts that documentary eco-art site-responsibly serves to counteract distortive misrepresentation (or lack of representation) of subjects of anthropogenic ecological harm by accurately, accessibly, and intelligibly publicizing places where environmental reform is needed, bringing into focus their particular ecological cause-effect-response relationships, and instilling them with moral clarity, import, and binding force. The exemplary eco-art projects analyzed in the three sections that follow include *Invisible-5* (2006) by Amy Balkin and Kim Stringfellow, *Collapse* (2012) by Brandon Ballengée, and *A History of the Future* (2005) by Susannah Sayler and Edward Morris (The Canary Project).

Chapter 3 focuses on eco-art activism, characterizing it as site-reformative political advocacy. Citing Jacques Rancière's theorization of political art as provocative dialectical clash, this chapter claims that eco-artists' public support for, or argumentation against, particular environmental causes, policies, or courses of action pertaining to specific degraded sites is site-responsible because it persuasively and conspicuously sets in motion the indispensable politics of site reform.⁹ Accordingly, the chapter singles out advocacy persuasiveness and aesthetic conspicuousness as apt mode-specific criteria of site responsibility for eco-art activism. The consecutive case studies look at *Land Mark* (1999-

⁸ Okwui Enwezor, "Documentary/Vérité: Bio-Politics, Human Rights, and the Figure of 'Truth' in Contemporary Art," in eds. Maria Lind and Hito Steyerl, *The Greenroom: Reconsidering the Documentary and Contemporary Art* (Berlin and Annondale-on-Hudson: Sternberg Press and the Center for Curatorial Studies, Bard College, 2008), 62-102

⁹ See Jacques Rancière, "Contemporary Art and the Politics of Aesthetics" in *Communities of Sense: Rethinking Aesthetics and Politics*, eds. Beth Hinderliter, William Kaizen, Vered Maimon, Jaleh Mansoor, Seth McCormick (Durham: Duke University Press, 2009), 31-50.

2003) by Jennifer Allora and Guillermo Calzadilla, *Public Smog* (2004-present) by Amy Balkin, and *What is Missing?* (2009-ongoing) by Maya Lin.

Chapter 4 examines remedial eco-artworks that implement reformatory courses of action to reverse or stop ecological damage to specific sites, ameliorate their life-supporting functionality, and improve the quality of life of their proximate human and non-human stakeholders. It distinguishes the remedial eco-art mode's precise focus on site-reformatory stewardship – aimed at physically transforming, actively improving, managing, or taking care of damaged ecosystems – from the documentary and activist modes. Comparing and contrasting its mode-specific aesthetic features, pragmatic functionality, and propositional content with the management response practices carried out by the personnel of governmental agencies such as the EPA, Fish and Wildlife, and the National Park Service, this chapter pinpoints measurability, hybridity, integrativeness, interdisciplinarity, comprehensiveness, ecological beneficence, and metamorphism as distinguishing characteristics of remedial eco-art. In addition to accentuating its core ameliorative value, the chapter also recognizes remedial eco-art's action-guiding (or behaviorally demonstrational) propositional content as a key attribute indicative of site responsibility, on account of its dutiful public representation of the actionability of reformatory human behavioral changes conducive to sustainable and eco-ethically responsible land use. The specific projects discussed include *The Nature of Art* (2014) by Daniel McCormick and Mary O'Brien, the sculpture collection at MUSA (Museo Subacuático de Arte) by Jason deCaires Taylor, and *Ellis Creek Water Recycling Facility and Petaluma Wetlands Park* (2000-2009) by Patricia Johanson.

The research presented in this dissertation elucidates essential facets of contemporary eco-art. It discerns site specificity and environmental ethics as integral, interrelated eco-art themes, and interlaces them in order to create a theoretical framework for the evaluation and problematization of eco-art ethics. Site responsibility coins the phrase “site reform” as a precise re-redefinition for eco-artists’ distinctive approach to site specificity. It brings into play the relevant insights of deontological philosophy of environmental ethics, and uses them to reframe eco-art as dutiful, morally significant action. As the subsequent chapters will bear out, site responsibility effectively re-hinges eco-art’s site specificity to ethical responsibility in accordance with the situational realities of our Anthropocenic eco-contemporaneity, redefining its site specificity in terms befitting eco-art’s site-reformative, eco-ethical agency.

1 SITE RESPONSIBILITY: A FRAMEWORK FOR ECO-ART ETHICS

1.1 *Rhinewater Purification Plant*: Site as Polluted Watershed Commons

When works of art are presented like rare butterflies on the walls, they're decontextualized. We admire their beauty, and I have nothing against that per se. But there is more to art than that.

- Hans Haacke¹⁰

In 1972, German artist Hans Haacke exhibited a groundbreaking work illustrative of the pivotal ways in which contemporary eco-art, from its inception, set about reorienting the concept of site specificity toward eco-ethical concerns and responsibilities, in effect redefining site specificity as site reform. Created for the Museum Haus Lange in Krefeld, Germany, Haacke's two-month project *Rhinewater Purification Plant* featured a system of water containers connected by various tubes, which visually demonstrated the physical process of purifying polluted Rhine River samples obtained from the local sewage treatment plant. [Figure 1] Turbid, discernibly contaminated river water, stored in glass vessels on the gallery floor, was pumped through tubes into a secondary group of rectilinear acrylic basins and jars elevated on an adjacent table, where it was decontaminated by means of various filters and chemicals triggering sedimentation. The clearer, purified water flowed from there into a large, rectangular tank filled with live goldfish, positioned on the floor nearby. An

¹⁰ Hans Haacke in Michael Kimmelman, "At the Met With: Hans Haacke; Peering at a Wide World Beyond Works on a Wall," *New York Times*, December 9, 1994, accessed September 3, 2015, <http://www.nytimes.com/1994/12/09/arts/at-the-met-with-hans-haacke-peering-at-a-wide-world-beyond-works-on-a-wall.html?pagewanted=4>.

additional hose carried the surplus water into the garden outside the museum, while a large window behind the display provided a clear view of the surrounding wooded landscape.

Haacke's companion work *Krefeld Sewage Triptych* (1972), exhibited alongside *Rhinewater Purification Plant*, provided supplementary factual reporting on local river pollution. [Figure 2] The triptych's central panel is a photograph taken at Krefeld-Uerdingen, the location where the city discharges its sewage into the Rhine.¹¹ The artist recounts,

One day, touring the neighborhood, I noticed that, close to the Bayer [chemical] plant, boulders that fortify the riverbanks nearby were red and covered with garbage. I took a photograph and mounted it in a central spot of my exhibition. I also collected water in big bottles from the location where, at the time, the City of Krefeld poured its sewage water—untreated—into the river.¹²

The two textual panels flanking the photograph record the following: the level of untreated sewage that was being dumped into the Rhine annually (42 million cubic meters); data on the volume, rate of pollution, and different types of industrial and household sewage; and a breakdown by volume and name of the major contributors of sewage pollution in Krefeld.¹³ In response to Haacke's exhibition, a regional newspaper also reported extensively on the city's role in the pollution of the river.¹⁴

During the late 1960s and early 1970s, this installation was deemed a hallmark example of systems art. Associated with various concurrent movements such as minimal art, conceptual art, process art, and institutional critique, the term "systems art" loosely describes works that thematize systems thinking.¹⁵ Haacke writes,

¹¹ *Hans Haacke: Unfinished Business*, ed. Brian Wallis (New York: New Museum and Cambridge: MIT Press, 1986), 106.

¹² Hans Haacke, *Hans Haacke: Once Upon a Time* (London: Black Dog Publishing, 2013), 83.

¹³ Wallis, *Hans Haacke: Unfinished Business*, 106.

¹⁴ *Ibid.*

¹⁵ On systems thinking, see Ludwig Von Bertalanffy, *General System theory: Foundations, Development, Applications* (New York: George Braziller, 1968).

The working premise is to think in terms of systems; the production of systems, the interference with the exposure of existing systems. Such an approach is concerned with the operational structure of organizations, in which transfer of information, energy and/or material occurs. Systems can be physical, biological or social, they can be man-made, naturally existing or a combination of any of the above. In all cases verifiable processes are referred to.¹⁶

His application of this model to natural systems (or *eco*-systems) in works such as *Rhinewater Purification Plant* played a part in the early development of what would later be called ecological art (or eco-art).

Jack Burnham's essays of the late 1960s, "Systems Esthetics" and "Real Systems Art," comprise two of the earliest art historical endeavors to frame ecology-oriented artworks such as Haacke's in relation to systems ecology.¹⁷ Burnham sought to expand the conceptual parameters of artworks beyond their material concerns into the social realm. His assertion that artworks derive meaning from their assigned context – encompassing their contingent ecological, sociopolitical, and technological relations – prefigures later art historical theories of site specificity. Burnham highlights Haacke's work as a paradigmatic example of systems art, and conversely Haacke's own artistic development was influenced by Burnham's writings.¹⁸ On account of its specific focus on a particular degraded ecosystem and the man-

¹⁶ Hans Haacke, untitled statement in *Conceptual Art and Conceptual Aspects*, ed. Donald Karshan (New York: New York Cultural Center, 1970; republished in *Theories and Documents of Contemporary Art: A Sourcebook of Artist's Writings*, ed. Kristine Stiles and Peter Selz (Berkeley: University of California Press, 1996), 874.

¹⁷ Jack Burnham, "Systems Esthetics," *Artforum* 7:1 (September, 1968), 30-35; and Jack Burnham, "Real Time Systems" in *Artforum* 8:1 (September, 1969), pages 49-55; both are reprinted in *Great Western Salt Works—Essay on the Meaning of Post-Formalist Art*, ed. Jack Burnham (New York: George Braziller, 1974). On systems ecology, see György Kepes, *Steps to an Ecology of Mind: Collected Essays in Anthropology, Psychiatry, Evolution and Epistemology* (Chicago: University of Chicago Press, 2000). On the relationship between art and systems ecology, see *Arts of the Environment*, ed. György Kepes (New York: George Braziller, 1972). For a more recent example of an art historical text using systems thinking to analyze the relationship between contemporary eco-art and sustainability, see Sasha Kagan, *Art and Sustainability: Connecting Patterns for a Culture of Complexity* (Bielefeld: Transcript-Verlag, 2011).

¹⁸ See Burnham "Systems Esthetics," 35. Burnham writes, "Since the early 1960s Hans Haacke has depended upon the invisible components of systems. In a systems context, invisibility, or invisible parts, share equal importance with things seen. Thus air, water, steam, and ice have become major elements in his work...Boundary situations are central to his thinking." He then quotes Haacke: "A 'sculpture' that physically

made systems that both pollute and purify it, *Rhinewater Purification Plant* marks the historical confluence of systems ecology, site specificity, and environmentalism in early eco-art.¹⁹

Site specificity, in this case, encompasses more than the just the relationship between the artwork and the spatial conditions of its institutional site of exhibition and public reception; it applies to the artwork's subject matter and content as well, and should be differentiated accordingly. Haacke's water-purification-system-as-art-installation is site-specific not merely because it is designed specifically for the gallery space in the Museum Haus Lange, but also due to the fact that it takes as its primary subject matter the specific site of Krefeld's polluted watershed commons in immediate geographical proximity to the venue where it is installed. More precisely, the artwork's content brings into focus specific ecosystemic, cause-effect-response relationships implicating human moral responsibilities pertaining to the regional problem of water pollution in Krefeld.

reacts to its environment is no longer to be regarded as an object. The range of outside factors affecting it, as well as its own radius of action, reach beyond the space it materially occupies. It thus merges with the environment in a relationship that is better understood as a "system" of interdependent processes. These processes evolve without the viewer's empathy. He becomes a witness. A system is not imagined, it is real." This statement by Haacke was originally printed in the exhibition catalog *Hans Haacke* (New York: Howard Wise Gallery, 1968).

¹⁹ Eco-art's historical emergence coincided with the upsurge of environmentalism during the 1960s and 1970s. Although rooted in the earlier preservationist work of individuals like Henry David Thoreau and John Muir, and organizations like the Sierra Club, environmental activism escalated during this period in response to mounting public concern over rampant pollution and environmental degradation, as well as various related disasters, publications, historical events, governmental and non-governmental initiatives, including the following: the Love Canal (mid-1970s) and Three Mile Island (1979); the publication of Rachel Carson's *Silent Spring* (1962) on the harmful effects of DDT; various pieces of regulatory legislation such as The Clean Air Act (1963) and the establishment of the Environmental Defense Fund (1967), Greenpeace (1969), the EPA (1970), and the Stockholm UN Conference on the Human Environment (1972); television broadcast of photographs of the first view of Earth from space in 1968; and the first Earth Day celebration in 1970. See Brian Wallis, "Survey", in *Land and Environmental Art*, ed. Jeffrey Kastner, (London: Phaidon Press, 1998), 18-43; also Yates McKee, "Art and the Ends of Environmentalism: From Biosphere to the Right to Survival," *October* 117 (Summer 2006): 99-121; reprinted in *Nongovernmental Politics*, ed. Michel Feher, with Gaëlle Krikorian and Yates McKee (New York: Zone Books, 2007).

This line of interpretation centered on the artwork's eco-ethical site specificity unpacks in the following manner. In order to fully comprehend the contextual significance of Haacke's *Rhinewater Purification Plant*, one must follow the work's multiple cues to trace its relational specificity beyond the museum's walls into the surrounding site-as-geographic-region. To begin with, its unambiguous title directly refers to Krefeld's local water source and the infrastructural facility responsible for maintaining its quality. In terms of medium, outside of the museum gallery context the artwork's nontraditional material components would normally be associated with the task of removing impurities from water stemming largely from human consumption and waste production, in order to serve basic human needs and societal operations. However, when recomposed and recontextualized as an art installation inside the museum, this conspicuous assemblage of Rhine-water, glass bottles, acrylic containers, filters, hose, and goldfish takes on new associations, meanings, and values in relation to the specific subject matter of harmful water pollution in Krefeld. The artwork's site-specific content is decidedly environmentally focused. Demonstrative physical evidence of anthropogenic ecological degradation, in the form of polluted river water from the site, is presented straightforwardly in an art museum gallery space on-site; purified with ease by means of a basic provisional system constructed by the artist; and used to sustain living fish in an artificial indoor habitat before it is returned to the site's local groundwater supply and water cycle via the museum garden. Together, these components conceptually reframe the site as a polluted watershed commons – an area or region of land draining to a common waterway that serves as an essential life-sustaining resource and sink for waste, and which consequently is directly affected by human behavior – in this case adversely as a result of actions that are reasonably preventable, correctable, and thus arguably eco-ethically

irresponsible. The implication being made here is that the site's local human stakeholders are ultimately responsible for the stewardship of the watershed, and therefore ought to work together more effectively to remediate it and protect it from pollution, especially considering how demonstrably actionable the water purification process is. In other words, the artwork's eco-ethical site specificity entails reframing the site *explicitly* as a polluted watershed commons (or anthropogenically degraded ecosystem), and *implicitly* as a locus of human irresponsibility and a matter of public concern calling for responsible, reformatory action.

This distinctive reconfiguration of site specificity typified by Haacke's early eco-artwork can be characterized as site reform – action to improve the degraded ecological conditions and situational realities of a particular site-as-ecosystem. Its more precise site-reformatory function in regard to the site of Krefeld is to document – provide factual information (evidence, recording, reporting) about, or show evidence of – the specific anthropogenic ecological problem of water pollution there. As an example of the documentary mode, its core site-reformatory value is evidential, and its evidential value is in turn tempered by other interconnected values such as the aesthetic value of its realism, and the moral value of its truthfulness. Therefore, on account of the artwork's fundamental site-reformatory, documentary modality, it makes sense to think about it as site-reportive truth-telling (or ground truthing), to analyze its ameliorative or proto-reformatory ecological impact(s), to consider the interrelationships between its pluralistic values (facticity, evidentiality, realism, truthfulness), and furthermore, to closely examine its eco-ethical implications and assess its moral attributes (rightness, dutifulness, responsibility).

While the contextual, ecological/environmental (or eco-site-specific) content of Haacke's artwork is readily apparent, its ethical/moral implications are more subtle and

variable. The installation represents a real-world situation that is morally relevant and raises questions of right, wrong, or permissible conduct because it involves human beings inflicting harms on the environment, and potentially other humans on non-humans. Ethics (morality) is a social field fundamentally designed for the purpose of systematically regulating and coordinating human behavioral interactions by rewarding or sanctioning certain conduct, so that harmful/irresponsible actions such as pollution do not result in detrimental circumstances for others or everyone.²⁰ In this case, the artwork's eco-ethical, relational specificity is not about outright moral condemnation, but rather moral proposition, engagement, and elicitation – *proposing* a specific morally-charged situation in order to *engage* the spectator's moral compass and *elicit* a topical, but nevertheless subjective, cognitive response. In eco-ethical terms, it is an open invitation to consider a particular real-world *ecological/environmental* dilemma *as* an *ethical/moral* concern, and to reflect on the essential, normative ethical questions (relating to standards or norms of ethical action/behavior) such as: What ought to be done about anthropogenic ecological degradation, and why? What specific qualities give this eco-artist's particular site-reformative action special binding force as ethical action? Why is it a right, permissible, dutiful, or responsible thing to do? How should one act in such a situation, morally speaking?

Rhinewater Purification Plant is an instructive example for several reasons. It demonstrates how eco-art reorients site specificity toward eco-ethical responsibility and redefines it as site reform. It shows how site-specific inquiry into the ecological leads to ethical questions, and conversely, how ethical evaluation and interpretation (or moral claims and attribution) are clarified and reinforced by context-relational thinking. Contextual, site-

²⁰ Dale Jamieson, *Ethics and the Environment: An Introduction* (Cambridge: Cambridge University Press, 2008), 27.

specific, ecological and ethical interrelationships are integral to its core value(s), meaning(s), and art historical significance. Furthermore, Haacke's artwork not only encapsulates the documentary eco-art mode's facility as proto-reformist ground truthing, but also embodies characteristics of both eco-art activism (political advocacy) and eco-art remediation (reversing or stopping environmental damage) by publicly disclosing the agents responsible for water pollution and purification, and implementing an actionable remedial process (albeit as a demo). As the remaining sections of this chapter and the subsequent chapters will further explicate, site responsibility is specially designed for the precise task of differentiating this critically important interpretive thread entwining eco-art's eco-ethical, site-reformative modes of site specificity.

1.2 Eco-art and Site Specificity

Of the various discussions of site specificity developed in recent decades, Miwon Kwon's is arguably the most historiographically comprehensive and methodologically versatile.²¹ In *One Place After Another*, Kwon describes the historical development of site-specific art from its emergence in the late 1960s to the present. She investigates the different ways in which artists and art historians have redefined the concept of "site" in response to

²¹ Robert Smithson's dialectic of site and non-site, first published as "Some Notes on Non-Sites" in 1968, is one of the earliest theorizations of site-specificity. Art historians Rosalind Krauss, James Meyer, and Miwon Kwon have all presented subsequent accounts of site-specificity. See Robert Smithson, "Some Notes on Non-Sites" in Jack Flam, ed. *Robert Smithson: The Collected Writings* (Berkeley: University of California Press, 1996); Rosalind Krauss, "Sculpture in the Expanded Field" in *Originality of the Avant-garde and Other Myths* (Cambridge: MIT Press, 1986); James Meyer, "The Functional Site: or, The Transformation of Site Specificity" in Erika Suderberg (ed.) *Space, Site, Intervention: Situating Installation Art* (Minneapolis: University of Minnesota Press, 2000); and Miwon Kwon, *One Place after Another: Site-Specific Art and Locational Identity* (Cambridge: MIT Press, 2004); For a more recent theoretical survey, see *Situation*, ed. by Claire Doherty (Cambridge: MIT Press, 2009).

shifting values and imperatives, and have in turn expanded the parameters of site specificity well beyond physical location to encompass artworks' broader systemic sociopolitical and interdisciplinary interconnections.²² The three competing and overlapping paradigms of site specificity that Kwon proposes – phenomenological or experiential site, social/institutional site, and discursive site – are applicable to eco-artworks such as Haacke's *Rhinewater Treatment Plant*, and provide useful reference points for analyzing eco-art's site specificity and distinguishing it from that of other genres of site-specific art. At the same time, her paradigms are ultimately too broad in scope to differentiate the finer points of eco-art's eco-ethical version of site specificity. Hence a more suitably precise theoretical alternative is needed. These coinciding methodological connections and incongruities become apparent if one applies the basic organizing principles of Kwon's model to the working example of Haacke's *Rhinewater Purification Plant*.

Kwon associates the *phenomenological or experiential site* paradigm with site-specific art's early formation in the wake of Minimalism in the late 1960s and early 1970s, and characterizes its prioritization of the physical *inseparability* between a work and its site of installation as a dramatic reversal of the modernist paradigm of aesthetic autonomy, self-referentiality, placelessness, and indifference to site (site specificity versus medium specificity).²³ She highlights as a case in point Robert Barry's 1969 statements regarding his indoor wire sculptures, along with Richard Serra's defense of his publically controversial, outdoor sculpture *Tilted Arc* (1981).²⁴ Kwon defines the phenomenological or experiential site as follows:

²² See Kwon, *One Place After Another*.

²³ Kwon, *One Place After Another*, 11.

²⁴ Ibid., 12. Kwon cites the following: Robert Barry's declaration in a 1969 interview that each one of his wire installations was "made to suit the place in which it was installed. They cannot be moved without being

an agglomeration of the physical attributes of a particular location (the size, scale, texture, and dimension of walls, ceilings, rooms; existing lighting conditions, topographical features, traffic patterns, seasonal characteristics of climate, etc.), with architecture serving as a foil for the artwork in many cases...Site-specific art, whether assimilative or interruptive, gave itself up to its environmental context, being formally determined or directed by it...then, focused on establishing an inextricable, indivisible relationship between the artwork and its site, and demanded the physical presence of the viewer for the works completion.²⁵

Whereas Kwon's use of the term "environmental context" here denotes the immediate physical conditions, surroundings, or setting in a more generic sense, this phrase takes on more exact meaning with Haacke's eco-artwork, as it refers to a particular ecosystem (watershed) negatively impacted (polluted) by human activities (waste production and inadequate waste management), and at the same time implies concern for its protection (environmentalism). Haacke's work is phenomenologically or experientially site-specific in the sense that its physical attributes are formally determined or directed by the museum gallery space, but its more substantial engagement with the *site-as-environmental-context* (or the physical inseparability or inextricable, indivisible relationship between the artwork and its site) is conceptual, and derives from the artwork's ecological subject matter and content. In order to fully grasp the work's deeper site-specific significances, one's phenomenological experience of its physical and spatial attributes (formal elements) has to somehow connect conceptually with the subject of the ecological degradation in the proximate geographical site

destroyed"; Richard Serra's 1985 explanation that *Tilted Arc* was "commissioned and designed for one particular site: Federal Plaza. It is a site-specific work and as such not to be relocated. To remove the work is to destroy the work"; and Serra's later statement from 1989: "As I pointed out, *Tilted Arc* was conceived from the start as a site-specific sculpture and was not meant to be 'site-adjusted' or... 'relocated.' Site-specific works deal with the environmental components of places. The scale, size, and location of site-specific works are determined by the topography of the site, whether it be urban or landscape or architectural enclosure. The works become part of the site and restructure both conceptually and perceptually the organization of the site." See Robert Barry in Arthur R. Rose (pseud.), "Four Interviews with Barry, Huebler, Kosuth, Weiner," *Arts Magazine* (February 1969): 22; Richard Serra, letter to Donald Thalacker dated January 1, 1985, as published in Clara Weyergraf-Serra and Martha Buskirk, eds. *The Destruction of Tilted Arc: Documents* (Cambridge: MIT Press, 1991), 38; and Richard Serra, "*Tilted Arc* Destroyed," *Art in America* 77, no. 5 (May 1989): 34-47.

²⁵ Kwon, *One Place After Another*, 3, 11-12.

of the polluted Krefeld watershed. In other words, the artwork's phenomenological or experiential site functions mainly to draw spectators into propositional content that demands a broader conceptualization of site specificity (additional alternate paradigms) beyond the parameters of the phenomenological or experiential site. Therefore, the foundational paradigm of site specificity, as theorized by Kwon, is pertinent to Haacke's eco-artwork, but by itself is ultimately not up to the task of distinguishing the fuller extent of its site-specific intricacies.

Informed by Minimalism's phenomenological contextualism, but more directly influenced by institutional critique and various forms of conceptual art, Kwon's second paradigm, the *social/institutional site*, focuses on the cultural framework defined by the institutions of art.²⁶ She elaborates:

Then, through the materialist investigations of institutional critique, the site was reconfigured as a relay or network of interrelated spaces and economies (studio, gallery, museum, art market, art criticism), which together sustain art's ideological system...the site of art as not only a physical arena but one constituted through social, economic, and political processes.

To be "specific" to such a site, in turn, is to decode and/or recode the institutional conventions so as to expose their hidden operations – reveal the ways in which institutions mold art's meaning to modulate its cultural and economic value; to undercut the fallacy of art's and its institutions' autonomy by making apparent their relationship to the broader socioeconomic and political processes of the day.²⁷

Kwon underscores Haacke's *Condensation Cube* (1963-1965) and fellow eco-art pioneer Mierle Laderman Ukeles's "maintenance art" performances (1973-1976) as exemplary of this tendency, along with the works of Michael Asher, Marcel Broodthaers, Daniel Buren, and

²⁶ Ibid., 13.

²⁷ Ibid., 3, 14.

Robert Smithson.²⁸ Haacke's *Rhinewater Purification Plant* is undoubtedly informed by his own engagements in institutional critique. His strategic use of the art museum gallery space as a site for eco-critical recontextualization demonstrates an awareness of its social/institutional function as a conventional cultural venue not just for the *decontextualized* phenomenological experience of aesthetic gratification, but also for other forms of art-based cognitive stimulation and knowledge production consistent with purposively contextual, critical reflection on society's systems and institutions. Furthermore, akin to the "administrative aesthetics" of institutional critique art, Haacke's straightforward, aesthetically realistic, but nonetheless curiously re-contextualized, re-presentation of infrastructural water purification implements encourages spectatorial critical reflection on conceptual content over traditional, aesthetic, visual appreciation of formal elements and compositional principles.²⁹ As Kwon explains:

Going against the grain of institutional habits and desires, and continuing to resist the commodification of art in/for the marketplace, site-specific art adopts strategies that are either aggressively antvisual – informational, textual, expository, didactic – or immaterial altogether – gestures, events, or performances bracketed by temporal boundaries. The "work" no longer seeks to be a noun/object but a verb/process, provoking the viewers' *critical* (not just physical) acuity regarding the ideological conditions of their viewing.³⁰

Rhinewater Purification Plant certainly employs similar tactics. However, the primary foci of its site-specific eco-critique lie beyond the confines of the social/institutional site of the art museum and within the relational specificity of Krefeld's polluted watershed. The artwork notably retains what Kwon designates as a social/institutional site. However, the installation

²⁸ Ibid., 19-24. Kwon notes how in Haacke's *Condensation Cube*, "the site shifted the physical condition of the gallery to system of socioeconomic relations within which art and its institutional programming find their possibilities of being." In the case of Ukeles's performative cleansing of museum spaces, Kwon argues, "Ukeles posed the museum as hierarchal system of labor relations and complicated the social and gendered divisions between the notions of the public and the private."

²⁹ See Benjamin H. D. Buchloh, "Conceptual Art 1962-1969: From the Aesthetic of Administration to the Critique of Institutions," *October* 55 (Winter 1990): 105-143.

³⁰ Kwon, *One Place After Another*, 24.

is not necessarily an example of the institutional critique genre that, according to Kwon, originated and foregrounds such a site. So once again, her proposed paradigm of site specificity is relevant in the case of Haacke's eco-artwork, but not quite precise enough to be definitive.

Kwon's third formulation, the discursive site, refers to the network of various discursive formations associated with the artwork. She characterizes the discursive site as follows:

the art work's relationship to the actuality of a location (as site) and the social conditions of the institutional frame (as site) are both subordinate to a *discursively* determined site that is delineated as a field of knowledge, intellectual exchange, or cultural debate.

The site of art is often redefined, often beyond familiar art contexts to more "public" realms. Dispersed across much broader cultural, social, and discursive fields, and organized intertextually through the nomadic movement of the artist – operating more like an itinerary than a map – the site can now be as various as a billboard, an artistic genre, a disenfranchised community, an institutional framework, a magazine page, a social cause, or a political debate. It can be literal, like a street corner, or virtual, like a theoretical concept.

The artwork is becoming more and more unhinged from the actuality of site once again—"unhinged" both in a literal sense of a physical separation of the artwork from the location of its initial installation, and in a metaphorical sense as performed in the discursive mobilization of the site in emergent forms of site-oriented art.³¹

Kwon notes how this particular site, unlike the previous two, is not a precondition, but is instead generated by the artwork, often as content.³² She associates this paradigm with various forms of public art that tend to focus directly on social problems while treating traditional aesthetic and art historical concerns as secondary.³³ She highlights Mark Dion's eco-epistemic project *On Tropical Nature* (1991) among numerous other examples, including

³¹ Ibid., 3, 20, 26.

³² Ibid., 26.

³³ Ibid., 24.

works by Krzysztof Wodiczko, GranFury, Renee Green, and Andrea Fraser.³⁴ For our purposes, Haacke's *Rhinewater Purification Plant* is also an excellent case in point. Apropos of Kwon's theory, its relationship to the actuality of a location-as-site (the gallery space of the Museum Haus Lange in Krefeld) and the social conditions of the institutional frame-as-site (the Museum Haus Lange art exhibition venue) are both subordinate to a discursively determined site that is delineated as the (wrongfully?) polluted Krefeld watershed commons. Haacke's eco-artwork foregrounds the discursive sites of both ecology and ethics, but does so without ever losing "sight" of the locational anchors of its phenomenological/experiential site and social/institutional site. The work's site-specific content is distinctly eco-ethical; it binds the fields of ecology and ethics. However, these intertwining discursive trajectories are not what Kwon would dub *unhinged from the actuality of site*, but rather they are *re-hinged* to the actualities of the contiguous site-as-geographic-region, so as to reconfigure it conceptually as a harmfully polluted watershed commons and morally relevant matter of concern warranting reformative action. The work's site-specific, eco-ethical content in turn propositions spectators with a conceptual *hinge* that connects a specific, ecologically degraded *site* to particular, human-behavioral, moral obligations, or in other words, *responsibilities*.

Kwon assessment that site-specific art's discursive *unhinging* and *mobilization* are both positive and problematic in certain respects is also worth noting here. She deduces that the phenomenon of discursive site offers the following advantages:

more effective avenues to resist revised institutional and market forces that now commodify 'critical' art practices...a means to strengthen art's capacity to penetrate the sociopolitical organization of contemporary life with greater

³⁴ Ibid., 28. Kwon asserts that Dion's *On Tropical Nature* concurrently entertained four different definitions of site, and in doing so "sought to become part of the discourse concerning cultural representations of nature and the global environmental crisis."

impact and meaning...the chance to conceive of site as something more than place...an important conceptual leap in redefining the public role of art artists.³⁵

However, she also warns that site-specific art's discursive trajectory can potentially lead to "locational *unspecificity*," or can dubiously recast the artist in the authorial role of a "silent" manager/director, and reinstate artworks' commodity status (as marketable anticommodities) in such a way that site specificity winds up resembling capitulation to the nomadic strategic logic of capitalist expansion.³⁶ Furthermore, Kwon explains in detail how, "new genre public art can exacerbate uneven power relations, remarginalize (even colonize) already disenfranchised groups, depoliticize and remythify the artistic process, and finally further the separation of art and life (despite claims to the contrary)."³⁷ For example, she is particularly critical of public artworks that promote reductive or essentializing definitions of "community" (as exemplified by Suzanne Lacy's *Full Circle* project for the 1993 exhibition "Culture in Action: New Public Art in Chicago"), and she proposes the phrase "collective artistic praxis" as an antiessentialist alternative to term "public art."³⁸ Generally speaking, Kwon's catalog of public/community art pitfalls applies to site-specific eco-artworks as well, especially those that are publically sited or purport to address the needs of a particular underserved community. However, eco-art is also a separate genre from new genre public art, and broad-based sociopolitical issues such as inequality, marginalization, colonization, disenfranchisement, depoliticization, and remythification all play out discretely with respect to its eco-ethical formulation of site specificity. Site responsibility places under close scrutiny these key distinctions with reference to the overarching notion of "ethics."

³⁵ Ibid., 30.

³⁶ Ibid., *One Place After Another*, 6, 30-1.

³⁷ Ibid., *One Place After Another*, 6.

³⁸ See Kwon's detailed analysis of Lacy's project in Chapters 4 and 5 of *One Place After Another*, 100-155.

1.3 The Eco-ethical Differential: Site-specific Eco-art as Site-responsible Site-reformative Action

Eco-art's definitive eco-ethical approach to site specificity, as illustrated by Haacke's *Rhinewater Purification Plant*, distinguishes the genre from the other forms of site-specific art chronicled by Kwon. Post-minimalist abstract sculpture, institutional critique, new genre public art, and land art/earthworks all pursue divergent models of site specificity, including the following: site as a formal-aesthetically-determined space conducive to the staging of certain phenomenological/experiential effects, site as a social/institutional venue ripe for critical examination, site as an underserved community in need of humanitarian intervention, or site as land-based sculptural medium and panoramic outdoor setting. Eco-artists, by comparison, may incorporate these tactics as well, but they also create phenomenological/experiential artworks (both indoor and outdoor) that are publicized in art and non-art social/intuition venues alike, and treat specific problematic geographical sites of anthropogenic ecological degradation/harm as eco-ethical matters of concern warranting public attention and reformative action. In essence, site-specific eco-art redefines site specificity as eco-ethically-oriented site reform.

Ecological problems generally arise from or are exacerbated by *site un-specificity* – irresponsible unresponsiveness to the impacts of human behavior on sites-as-ecosystems. Therefore, eco-artists strive to act responsibly in response to specific degraded sites and counteract the anthropogenic harms inflicted upon them by enacting select modes of site reform. The process of reforming particular sites not only entails making physical changes in order to improve the degraded ecological conditions of such sites, but also involves advocating for cognitive-behavioral changes in humankind so that they no longer carry on in

such an ecologically site-destructive manner. Eco-artists take on the responsibility of this task by creating artworks that document, politicize, or remediate specific degraded sites. These three predominant, interrelated modes of site reform pursued by eco-artists are thus understood as ameliorative responses to both adverse ecological effects on sites-as-ecosystems and their human behavioral causes. They also mirror the basic sequential logic of reform in general: from recognizing a particular problem, to deliberating its possible solutions, to implementing them.

Eco-art is discernibly motivated and governed by the moral recognition that widespread anthropogenic ecological devastation and global climate change signal that there is something deeply wrong with humankind's destructive behavioral tendencies, and the genre's overarching concern is to right this wrong. Eco-art's site-specific modes, formal features, subject matter, and content are all primarily directed towards this responsibility. The complex, eco-ethical multidimensionality of site-reformative eco-art warrants the inclusion of a normative ethical component in its art-historical evaluation and interpretation. Without normative behavioral standards for site-specific praxis, eco-art exponents' ethical claims and attributions are rendered imprecise, the term "ethics" operates as little more than buzzword, and the eco-ethical significance of eco-artworks is neglected. The proposed theoretical framework for site ethics is designed with this express purpose in mind.

The term *site responsibility*, as conceived in and used throughout this dissertation, is broadly concerned with the moral values, principles, and standards of practice that guide eco-art's site-specific modes of production; shape its formal features, subject matter, and content; and in turn influence its spectatorship, valuation, and critical assessment. More precisely, site responsibility is defined herein as eco-ethically dutiful behavior on the part of eco-artists

with respect to specific sites, as enacted through the modalities of site reform. This dissertation argues that eco-artists' site-reformative actions are not only eco-ethically impactful, valuable, and beneficial, but are also site-responsible because they realize humankind's moral obligations to respond to the human-caused ecological crises of the Anthropocene by improving the degraded conditions of specific sites and amending site-destructive conduct. Site-reformative eco-artworks in turn yield deontic propositional content that demonstrates site responsibility by giving moral clarity, import, and binding force to specific, actionable, human-behavioral changes conducive to the pursuit of ecological sustainability.

The main philosophical thrust of site responsibility is deontological because it focuses on the moral relevance of eco-artists' site-reformative actions, their conditions, and motivations. The moral-theoretical strand of Kantian deontology (or "duty" ethics), for example, stipulates that morally right actions follow prescribed universal laws regarding human responsibilities toward one another. According to Kant, human beings must obey such moral laws out of a sense of duty rather than simply following their various inclinations, because some inclinations are irrational, harmful, or immoral.³⁹ Site responsibility pinpoints site-specific eco-art's definitive enactment of site reform as the primary locus of its eco-ethical agency, and recasts eco-artists' site-reformative praxis in a deontological light as dutiful behavioral change that fulfills humankind's universal eco-ethical responsibilities toward Earth's ecosystems and living things. Deontic eco-ethical responsibility, in this sense, implies a binding commitment to respond actively, urgently, and effectively to the moral

³⁹ Jacques P Thiroux and Keith W. Krasemann, *Ethics: Theory and Practice* (Tenth Edition) (Upper Saddle River, N.J: Prentice Hall, 2008), 59.

deficiencies of our own enormously destructive behavioral patterns by rethinking, reformulating, and reenacting them on a local and global scale.

Analytic philosophers of environmental ethics tend to prioritize eco-reformative action as a moral obligation for humankind. For example, prominent environmental ethicist Dale Jamieson argues, “The differences in the per capita ecological footprints of people in developing countries are expressions of global inequality and distribution of poverty,” and he proposes that the ratio of a particular population’s ecological footprint to its natural wealth is a concrete indicator of environmental responsibility.⁴⁰ First introduced in 1996 by Mathis Wackernagel and William Rees, the concept of “ecological footprint” refers in the most basic sense to humankind’s demand on Earth’s ecosystems.⁴¹ Ecological footprint is one of the most widely implemented methods of measuring the amount of biologically productive land and water area required to produce all the resources an individual, population, or activity consumes, and to absorb the waste they generate, given prevailing technology and resource management practices.⁴² It can be used to calculate the ecological impact of specific individuals, populations, regions, and countries, discrete objects, or particular human actions such as art making. Footprint metrics signal that human beings are not living within the

⁴⁰ Jamieson, *Ethics and the Environment*, 189-90.

⁴¹ Mathis Wackernagel and William Rees, *Our Ecological Footprint: Reducing Human Impact on Earth*, (Gabriola Island, BC: New Society Publishers, 1996).

⁴² Ecological footprint is typically articulated in standardized units called hectares (1 hectare = 2.471 acres or 10,000 square meters), which are normalized to the area-weighted average productivity of a specified region’s biologically productive land and water (local hectares), or that of the entire planet (global hectares or gha), based on world averages. Footprint science uses comprehensive international data sets compiled by organizations such as the United Nations, the International Energy Agency, and the Intergovernmental Panel on Climate Change to calculate human demand (population x consumption per person x resource and waste intensity = ecological footprint) in proportion to the planet’s available resources and capacity to regenerate them over time (area x bioproductivity = biocapacity). The difference between and biocapacity (supply) and ecological footprint (demand) is characterized as an ecological “deficit” or “reserve.” Ecological deficit means that the footprint of a population exceeds its biocapacity of its region. Conversely, ecological reserve indicates that a population’s regional biocapacity exceeds its footprint. See *Ecological Footprint Atlas 2010* (Oakland: Global Footprint Network, 2010), 8, 23.

ecological limitations of the planet.⁴³ The consequences of our increasing global overshoot are manifest in widespread ecological problems such as collapsing fisheries, deforestation, depletion of fresh water systems, pollution, and waste accumulation, including the buildup of carbon dioxide emissions and other greenhouse gases driving global climate change.⁴⁴ Ecological overshoot also disproportionately affects the poor and contributes to resource inequalities, conflicts in and between nations, mass migrations, famine, and disease.⁴⁵ Wackernagel and Rees emphasize how footprint analysis exposes global ethical matters of concern, including: growing socioeconomic inequality, material resource disparity, political instability, and potential threat of conflict between affluent and poorer countries; the increasingly disproportionate appropriation of energy/material flows that otherwise would be available for other species; and the undermining of Earth's capacity to meet the needs of future generations.⁴⁶ They propose the following two essential questions for assessing the sustainability merits of specific technologies, projects, programs, or policies, and one might add artworks to the list: "Will this decision or activity reduce people's ecological footprint? Will this decision or activity improve quality of life?"⁴⁷ Furthermore, they contend that, "Only those decisions or activities that satisfy at least one of these criteria without violating

⁴³ According to the Global Footprint Network, one of the leading footprint organizations, the total average amount of ecologically productive land available per person on Earth (global biocapacity) in 2007 was 1.8 global hectares (total available biocapacity of 11.9 gha ÷ world population of 6.7 billion people), while the average global footprint was 2.7 global hectares (humankind's total footprint of 18 million gha ÷ 6.7 billion people). This global overshoot of 0.9 hectares signifies that our global footprint exceeds the planet's annual biocapacity by approximately 50 percent.⁴³ In other words, it would take the Earth approximately one year and six months to replenish the resources used by humankind in 2007, or 1.5 planets are needed to in order to sustain humankind's current annual resource demands. See *Ecological Footprint Atlas 2010*, 23.

⁴⁴ Ibid.

⁴⁵ Of course the Earth's resources and humankind's consumption are not evenly distributed worldwide. Footprint analysis at a national level shows that half of the global footprint is attributed to only 10 countries, with US and China being the biggest consumers. The US, with a footprint of 8.0 gha and biocapacity of 3.87 gha per person is responsible for using 21 percent of the planet's available resources. China, with a footprint of 2.21 gha and biocapacity of 0.98 gha per person, uses 24 percent. See *Ecological Footprint Atlas 2010*, 23, 28-31.

⁴⁶ Wackernagel and Rees, *Our Ecological Footprint*, 23, 55, 57, 125.

⁴⁷ Ibid., 154.

the other can move us toward sustainability.”⁴⁸ Drawing on the insights of footprint analysis, Jamieson deduced in 2008, “There are three broad scenarios for what the future may bring: environmental catastrophe; continuing and increasing global inequality and degradation; or a change in the way of life of the worlds most privileged people.”⁴⁹ As he sees it, the immediate priority in terms of reformative responsibilities is for the most affluent, developed countries with much larger footprints to proactively reduce consumption and transition to highly efficient, sustainable technologies as soon as possible, while assisting poorer developing countries with this transition by creating, providing, and funding the new technologies.⁵⁰ Jamieson asserts that in an interest-group democracy like that of the United States, the transition towards ecological sustainability not only requires governmental action, but also includes the mobilized efforts of non-governmental organizations, along with individual actions to signal to politicians and decision-makers that they will not be punished for changing law and policy.⁵¹ His more recent reassessments, however, in light of the ongoing failures of our systems of decision-making to respond effectively to the urgent threat of climate change and the seismic changes underway in the configuration of global environmentalism, stress the importance of developing “new conceptions of responsibility that are robust over the long term” and “different kinds of policies that could be implemented in different ways by different kinds of policy-makers...[and that] have different degrees of certainty and express different temporal horizons.”⁵² This is exactly kind of work that eco-artists are engaged in. Their site-reformative documentary, activist, and remedial artworks

⁴⁸ Ibid.

⁴⁹ Jamieson, *Ethics and the Environment*, 196.

⁵⁰ Ibid., 198-199.

⁵¹ Ibid., 199.

⁵² Dale Jamieson, *Reason in a Dark Time: Why the Struggle Against Climate Change Failed—and What It Means for Our Future* (Oxford: Oxford University Press, 2014), 228, 237.

both represent and put into practice innovative conceptions of eco-ethical responsibility that are broadly and diversely applicable to emergent spatiotemporal imperatives and future contingencies regarding the global transition toward ecological sustainability. While documentary and activist eco-artworks enact proto-reformist ground truthing and political advocacy, remedial eco-artworks actually implement reforms that instrumentally reduce or counteract human ecological impacts on sites, and directly or indirectly improve the quality of life of their human or non-human stakeholders.

Site-reformative eco-artworks also produce what Noël Carroll designates as variable moral propositional content. Carroll cogently argues that the content of many artworks elicits moral responses because it represents concrete situational dilemmas (interconnected characters, behaviors, events) that by design cue the audience to apply the more abstract conceptual tools of moral reasoning, recognition, and judgment (accrued beliefs, feelings, principles, values, virtues) in order to fully comprehend and acquire knowledge from them.⁵³ This process of clarifying moral conceptual abstractions by connecting them with particular concrete situations – which Carroll calls “clarificationism” – often involves drawing spectators into the artwork’s content by prompting them to use their moral faculties to “fill in” elements of content that are incomplete, inexplicit, or inquiring as a condition of intelligibility. He contends that this process can stretch, deepen, or even reform our moral understanding. Carroll explains,

Clarificationism does not claim that, in the standard case, we acquire interesting, new propositional knowledge from artworks, but rather that the artworks in question can deepen our moral understanding by, among other things, encouraging us to apply our moral knowledge to specific cases. For in being prompted to apply and engage our antecedent moral powers, we may come to augment them.

⁵³ See Noël Carroll, “Art, Narrative, and Moral Understanding,” 126-160.

In the course of engaging a given narrative we may need to reorganize the hierarchal orderings of our moral categories and premises in light of new paradigm instances and hard cases, or to reclassify barely acknowledged phenomena afresh – something we might be provoked to do by a feminist author who is able to show us injustice where before all we saw is culture as usual.

For often moral reform is a matter of reorganizing or refocalizing or ‘regestalting’ what people already believe and feel.⁵⁴

Furthermore, Carroll asserts that in the case of artworks with moral propositional content designed to engage us morally and elicit moral responses, it makes sense for us to talk about them in ethical terms, to surround them with ethical discourse, and to assess them ethically.⁵⁵

He concludes,

Since narrative artworks are designed to enlist moral judgment and understanding, morally assessing such works in light of the quality of the moral experience they afford is appropriate. It is not a matter of going outside the work, but rather focusing right on it.⁵⁶

The content of site-reformative eco-artworks is conducive to the kinds of actionable, multidimensional, conceptual reformulations of responsibility that Jamieson prioritizes globally, and which Carroll assigns to representational forces at work in narrative artworks. Informed by Carroll’s insights, site responsibility seeks to clarify and bring to light the eco-ethical propositional content of site-reformative eco-artworks. In particular, it targets proto-reformist situational cues (or response-producing stimuli) that connect ecologically degraded sites to human behavioral responsibilities and treats such cues as indicators of site responsibility. Together, Carroll’s aesthetic-ethical theory of clarificationism, Wackernagel and Rees’s ecological footprint findings, and Jamieson’s analytic-philosophical observations, provide interdisciplinary points of reference for recalibrating our moral compasses in the

⁵⁴ Ibid., 142, 148.

⁵⁵ Ibid., 137.

⁵⁶ Ibid., 155.

Anthropocene, better understanding and articulating the deontological dimensions of environmental/climate crises, and conceptualizing the precise role that eco-artists' site-reformative actions play in all of this.

It would seem humankind's footprint has certainly reached, or perhaps surpassed, the planetary tipping point where environmental reform ought to be designated an individual and collective moral duty, or in Kantian deontological terms a morally defensible universalizable action worthy of a universal moral law. Such compelling circumstances suggest that site-reformative eco-art is arguably dutiful in the deontic sense that fulfills human responsibilities to make behavioral changes to improve our increasingly harmful and ultimately self-destructive relationship to Earth's life-sustaining ecosystems. Philosophically, site responsibility both raises and responds to the following hypothetical deontological question regarding site-reformative eco-art: If environmental reform is a viable candidate for a universal moral law in the Anthropocene, then how do eco-artists' site-reformative actions/artworks, and the variable moral propositional content they generate, comply with such a law?

The basic methodological structure of site responsibility's inquiry into the eco-ethical specificity of the art-site relationship, as it pertains to a given eco-artwork, typically begins with analysis of the particular ecological cause-effect-response connections linking human actions, their harmful impacts on the artwork's site, and the artwork's site-reformative functional features. Ecological science directs eco-artists to view specific geographical sites first and foremost as ecosystems: biological communities of interdependent organisms interacting with one another and their physical environment that form part of Earth's complex, integrated, self-regulating, life-supporting nexus. The site-as-ecosystem delineation

provides a scientifically informed foundation for comprehending the complexities of Earth's material structure/functionality and better understanding how human actions (or inactions) impact them. It also offers a promising alternative to the ever-troublesome nature/culture binary. Rather than conceptually detaching humankind from its natural surroundings, ecology acknowledges that, in addition to being inseparable from and dependent upon Earth's ecosystems, we are also predominantly responsible for bringing about their destruction, as the vast majority of damage to Earth's ecosystems is undeniably caused by humans. We value the planet's ecosystems for the many resources they provide that are essential to sustain life, but our valuing has detrimental consequences. Human development, industrialization, population growth, resource consumption, and waste production exert pressures on ecosystems that disturb their structure and functioning, causing widespread adverse effects such as altered dynamics of disturbance and succession, pollution, species decline/mass extinction (reduced biodiversity), and global climate change. Degraded ecosystem health in turn decreases the bioproductivity and resilience of ecosystems, which places human health at risk and leads to broader systemic, economic, sociopolitical, and ethical concerns. In short, human site-specific disturbances set in motion complex chains of negative effects that transform Earth's self-regulating, life-sustaining ecosystems into vicious cycles of depletion and deterioration, which eco-artists aspire to reverse rather than perpetuate. For these reasons, site responsibility commences by asking: What is the eco-artwork's reformative impact on the site-as-ecosystem? How does the eco-artist's site-reformative course of action respond to the site's ecological degradation and its human behavioral causes?

When examining these foundational aspects of an eco-artwork's site impact, causational transparency is a particularly important eco-ethical criterion to consider. Site

responsibility gives precedence to the principle of causational transparency by evaluating the extent to which the work acknowledges its site's environmental history and addresses the original anthropogenic causes that resulted in its degradation. In the absence of such transparency, the artwork risks concealing and condoning the ecological harms it seeks to counteract.

This topic was raised by artist Robert Morris in his essay, "Notes on Art as/and Land Reclamation," published in 1980 in *October*.⁵⁷ He argues:

It might seem that to practice art as land reclamation is to promote the continuing acceleration of the resource-energy-commodity-consumption cycle, since reclamation – defined aesthetically, economically, geophysically – functions to make acceptable the original acts of resource extraction.

Art must then stand accused of contributing its energy to forces which are patently, cumulatively destructive.

Should the government/industry sponsorship of art as land reclamation be enthusiastically welcomed by artists? Every large strip mine could support an artist in residence.

Smithson envisioned the possibility of the artist acting as a "mediator" between ecological and industrial interests. While it is still conceivable that artworks as land reclamation might achieve ecological approval and the support of a harassed coal industry (and even eager governmental money), the notion of "mediation" loses all meaning in the situation. Given the known consequences of present industrial energy resources policies, it would seem that art's cooperation could only function to disguise and abet misguided and disastrous policies.⁵⁸

Morris's incisive remarks highlight the need for critical-contextual-historical rigor in evaluating eco-artworks, as opposed to just granting them an uncritical celebratory pass on account of their purported reformative ecological aims and serviceability.

Eco-art historian Yates McKee reiterated this priority more recently in his response to the 2009 "Questionnaire on 'The Contemporary,'" also published in *October*. Drawing on

⁵⁷ Robert Morris, "Notes on Art as/and Land Reclamation," *October* 12 (Spring 1980): 87-102.

⁵⁸ *Ibid.*, 98, 101, 102.

Jacques Derrida's notion of "non-contemporaneity [as] responsibility and [...] respect for justice concerning those who are not there, of those who are no longer or those who are not yet present and living," McKee proposes the following imperative:

any "ecological art" worthy of the name would need to acknowledge the originary contamination of ecology by traces of death, loss, and injustice endemic to the history of capitalism itself. In other words, the *oikos* ("household") of ecology would need to be rethought in terms of what I have called "haunted housing" – an axiom that opens onto questions of uneven development, public health, and human rights that exceed the complacent "green ideals" often put forth by artists and critics professing an interest in sustainability.⁵⁹

Site responsibility foregrounds the criterion of causational transparency in order to expose the very real specters of human neglect that haunt eco-art's ruinous sites. It insists on inquiring: Does the artwork fully disclose the human behavioral causes of the site's ecological degradation? In what ways does the artwork's moral propositional content, in particular its deontic behavioral cues, connect site degradation and reformation with human causality?

Once the relational specificity of the anthropogenic cause, its effects on the site-as-ecosystem, and artist's reformatory response have been established, the next step is to examine the values that are at stake. The concept of "value," as it is addressed herein, encompasses both the principles and standards of behavior that motivate and govern eco-artists' actions, as well as individual judgments of the goodness, importance, monetary worth, or usefulness of particular eco-artworks. These particular values are eco-site-specific in the sense that they develop over time from the complex, contingent situations and interactions between humans and other organisms at particular locales. In ethical terms, they

⁵⁹ Yates McKee in "Questionnaire on 'The Contemporary,'" *October* 130 (Fall 2009), 72. See also Yates McKee, "Haunted Housing: Eco-Vanguardism, Eviction, and the Biopolitics of Sustainability in New Orleans," *Grey Room* 30 (Winter 2008), 84-113.

are the core building blocks of the moral systems that regulate human behavior.⁶⁰ Essentially, values are tantamount to the differences that matter. They articulate the chief reasons why we regard certain things as good or bad, right or wrong, and why we think or act in certain ways accordingly. As Terry Smith explains, when it comes to artworks, “Meaning is value taking shape and taking effect. Meaning happens when values count.”⁶¹

Jamieson maintains that value conflicts are at the heart of environmental ethics, and that facing up to our responsibilities toward our fellow earthly inhabitants requires thinking clearly and pluralistically about the values that are at stake.⁶² He argues that valuing arises from transactions between valuers and the world – it is experiential, object-directed, contextual, and constrained by biology, psychology, and history.⁶³ However, he warns that value does not easily translate into harms and benefits for the valuer.⁶⁴ While Jamieson acknowledges that aesthetic arguments for protecting the environment are extremely motivating for some people, he also emphasizes the need to differentiate aesthetic values from other types of values, as well as the need to understand the harms and benefits attached to value transactions in order to distribute responsibility productively and effectively.⁶⁵ Jamieson underscores Kristine Korsgaard’s Kantian contention that because we are rationally compelled to value plants, animals, and ecosystems, we are also rationally required to legislate their value.⁶⁶ So our respective moral duty as rational agents is not only to be

⁶⁰ Jamieson, *Ethics and the Environment*, 26-7.

⁶¹ Terry Smith, “Creating Value Between Cultures: Contemporary Australian Aboriginal Art,” in Michael Hutter and David Throsby, eds., *Beyond Price: Value in Culture, Economics, and the Arts* (Cambridge: Cambridge University Press, 2011), 37.

⁶² Jamieson, *Ethics and the Environment*, 180.

⁶³ *Ibid.*, 67-68, 153.

⁶⁴ *Ibid.*, 11.

⁶⁵ *Ibid.*, 3.

⁶⁶ *Ibid.*, 98-100. See also Kristine Korsgaard, “Fellow Creatures: Kantian Ethics and Our Duties to Animals,” in *Tanner Lectures on Human Values* 25, ed. Grethe B. Peterson (Salt Lake City: University of Utah Press, 2005), 77-110.

inclusive value-pluralists in regard to Earth's ecosystems, but also to be responsible deontic legislators and enact laws to protect their multifarious values.

Eco-art's value trajectories, like all value chains on Earth, emanate from the planet's ecosystems. For eco-artists, artistic praxis provides a means of valuing Earth's ecosystems, demonstrating their value to others, or directly enhancing their value. Eco-art's reformative value trajectories also inherently extend to attending to the adverse ecological consequences of human valuing. The artworks that eco-artists produce in response to ecological problems in turn generate sites of value – loci where values materialize, disperse, intersect, and diverge. In order to accurately assess when, where, and how eco-art's meaning happens and its values count (take shape and effect), it is necessary to examine the full range of values emanating from eco-artworks' sites of impact, and trace how value splits, spreads, and plays out systemically.

Acknowledging that eco-art's multidimensionality implicates a myriad of values (aesthetic, ecological, sociopolitical, ethical, etc.) that render monistic and dualistic methods of valuation inadequate, site responsibility adopts a pluralistic approach to art-site valuation. After the network of core values connected with a given eco-artwork has been mapped, site responsibility's more precise objective in regard to art-site valuation is to delineate the artwork's site-reformative role in documenting, politicizing, or remediating the defective links and kinks in the value chains than connect specific human actions to the health of Earth's ecosystems, and to temper variable assessments of eco-artworks' value (goodness, benefits, importance, usefulness, worth) with considerations of moral value (rightness, permissibility, dutifulness). In other words, site responsibility inspects the reparative seam that a site-reformative eco-artwork weaves into the broader web of pluralistic values

radiating across the degraded site-as-ecosystem that it targets, considers how it physically or conceptually improves the structural integrity of the site's ecological fabric, and investigates what happens relationally when one pulls taut the moral threads that traverse it.

Correspondingly, the art-site valuation component of site responsibility, progressing from pluralistically inclusive seam to deontologically legislative thread, poses the following summative questions: What specific values are at stake? Whose values are represented by the artwork, and whose are left out? How do the artwork's representative value chains translate into ecological benefits for the site-as-ecosystem and its interdependent human or non-human stakeholders? What is eco-ethically dutiful about the artist's site-reformative action and the deontic propositional content that it yields, taking into account the relational specificity of the artwork's ecological impacts, values, and benefits? In what ways does the artwork give moral clarity, import, and binding force to specific, actionable site reforms?

Following these premises, the component elements of site responsibility flesh out in distinct ways relative to a given eco-artwork's particular mode of site specificity. For example, in the case of documentary eco-artworks (such as Haacke's *Rhinewater Purification Plant*) that present factual reporting about specific problematic sites of ecological degradation, their core evidential value invokes the regulatory moral value of truth-telling. On the other hand, the sociopolitical value (or persuasiveness) of activist eco-artworks that advocate for particular site-reformative causes, policies, or courses of action, appeals not only to evidence-based truth-telling, but also to the egalitarian (non-coercive) moral value of participative justice, defined as equal rights to self-determination and equal opportunity for consideration in societal decision-making regarding environmental issues.⁶⁷

⁶⁷ Kristin Shrader-Frechette, *Environmental Justice: Creating Equality, Reclaiming Democracy* (New York: Oxford University Press, 2002), 23-28.

By comparison, the ameliorative value of remedial eco-artworks that reverse or stop site degradation has recourse to the moral value of distributive justice, understood as the equal apportionment of environmental benefits and burdens.⁶⁸ With all three site-reformative eco-art modes, different courses of action give rise to pluralistic values that in turn point to certain regulatory moral values.

1.4 Site Responsibility in the Field

The proposed theory of site responsibility aims not only to build upon the scholarship of Miwon Kwon, but also the work of prominent eco-art exponents such as Suzi Gablik, Amanda Boetkes, and T. J. Demos, who have specifically addressed the topic of eco-art ethics.

Suzi Gablik is one of the earliest art historians to propose a theoretical framework emphasizing the notions of ecological interconnectedness and ethical responsibility. Since the publication of her book *Has Modernism Failed?* (1984), Gablik has recurrently criticized Modernism for its individualistic/antagonistic emphasis on aesthetic autonomy and detachment, as well as its role in reinforcing what she views as an unjustified Cartesian binary separation between aesthetics and ethics in the art world.⁶⁹ In *The Reenchantment of Art* (1991) she argues,

⁶⁸ Ibid.

⁶⁹ See Suzi Gablik, *Has Modernism Failed?* (New York: Thames and Hudson, 1984); Suzi Gablik, *The Reenchantment of Art* (New York: Thames and Hudson, 1991); and “Beyond the Disciplines: Art Without Borders,” position paper presented at The Monongahela Conference on Post-Industrial Community Development, Carnegie Mellon University, Pittsburgh, 2004, accessed March 16, 2014, <http://moncon.greenmuseum.org/papers/gablik1.html>.

What we clearly do not have, at this point, is any working framework for a socially or ecologically grounded art – an art that is accountable to the larger whole, in the sense of being contextually rooted in a living connection with a containing organic field. And [...] we *can't* have such a concept as long as we remain hooked on the myth of pure creativity and the inherent purposefulness of art for art for art's sake [and the] ideal of an autonomous aesthetic culture.⁷⁰

In response to these developments, and as an alternative to postmodern nihilism, Gablik posits a theory of “reconstructive postmodernism” based on “the new ecological, non-Cartesian consciousness” and accentuating “an aesthetics of interconnectedness, social responsibility and ecological attunement.”⁷¹ She credits an emergent paradigm in physics, general systems theory, and ecology with helping to shift thinking toward the notion of interconnectedness.⁷² Gablik characterizes “responsibility” as “waking up, looking at events critically, seeing reality and feeling responsible – that is to say, *responding* to what is going on. Responsibility implies that one is carrying out intentions, shaping the environment, influencing others.”⁷³ She views eco-art as exemplary of these tendencies and broadly characterizes the movement as “a world apart from land- or site-specific art, because of the ethical issues of responsibility it deliberately embraces.”⁷⁴ She highlights the land art of Michael Heizer and Robert Smithson as illustrative of how “being an ‘earth’ artist does not automatically imply ecological consciousness.”⁷⁵ Gablik also pits the “Maintenance Art” of early eco-art pioneer Mierle Laderman Ukeles against Richard Serra’s controversial site-specific sculpture *Titled Arc* (1981):

⁷⁰ Suzi Gablik, *The Reenchantment of Art* (New York: Thames and Hudson, 1991), 139.

⁷¹ *Ibid.*, 22, 139.

⁷² *Ibid.*, 22.

⁷³ *Ibid.*, 33.

⁷⁴ Suzi Gablik, “Beyond the Disciplines: Art Without Borders,” position paper presented at The Monongahela Conference on Post-Industrial Community Development, Carnegie Mellon University, Pittsburgh, 2004, accessed March 16, 2014, <http://moncon.greenmuseum.org/papers/gablik1.html>.

⁷⁵ Specifically, Gablik mentions Michael Heizer’s *Double Negative* (1969), consisting of two massive trenches in the Nevada desert landscape displacing 249,000 tons of earth; Robert Smithson’s concurrent proposal to dump 100 tons of broken glass on an island in Vancouver (prohibited by environmentalists’ concerns for the welfare of birdlife). Gablik, *The Reenchantment of Art*, 140-141.

What the *Tilted Arc* controversy forces us to continue is whether art that is based on notions of pure freedom and radical autonomy – without regard for the relations we have to other people, the community, or *any* other consideration except the pursuit of art – can contribute to a sense of the common good.

Ukeles's extraordinary ability to empathically knit herself into the community of sanitation workers, and to transform the alien audience into the empathetic audience, communicates, at least to me, the pleasures of creative attunement and interaction over those of autonomy and, as in the case of Serra, radical opposition, of the self imposing itself on the other.⁷⁶

Site responsibility is aligned with Gablik's assertion that ecological interconnectedness and ethical responsibility are especially germane to eco-art, as well as her contention that eco-art's eco-ethical dimensions call for a different framework than modernist formalist aesthetics. However, rather than focusing, as Gablik's theory does, on critiquing modernist discourse and devising an alternative counter-paradigm emphasizing ecocentric subjectivity, site responsibility seeks to provide a specialized framework for eco-art ethics based on the interplay between eco-artworks' site-reformative functionality, their morally relevant features and propositional content, and deontic philosophical conceptualizations of environmental-ethical dutifulness.⁷⁷ Furthermore, whereas Gablik

⁷⁶ Gablik, *The Reenchantment of Art*, 66, 71-75.

⁷⁷ Generally regarded as the more holistic strand of environmental philosophy, ecocentrism emphasizes nature-centered rather than human-centered values, stresses the importance of the ecosphere over the biosphere, and seeks to rectify the ecological imbalance created by anthropocentrism. The insights of influential ecocentrists such as Aldo Leopold, Barry Commoner, James Lovelock, and Arne Naess have been, and continue to be, foundational for many eco-art exponents. Published in *A Sand County Almanac and Sketches Here and There* (New York: Oxford University Press, 1949), Leopold's "Land Ethic" states that, "A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends otherwise." Published in Barry Commoner, *The Closing Circle: Nature, Man and Technology* (New York: Knopf, 1971), Commoner's First Law of Ecology asserts, "everything is connected to everything else." Introduced in 1972 by British scientist James Lovelock, the "Gaia hypothesis" proposed that the living and non-living Earth form a complex, self-regulating, homeostatic system, with feedback loops that function like a single organism. See James Lovelock, *The Revenge of Gaia: Why the Earth is Fighting Back – And How We Can Still Save Humanity* (Harmondsworth: Allen Lane, 2006). The philosophy of "deep ecology," initiated by Naess in 1973, postulates that the richness and diversity of Earth's living things and systems have intrinsic/inherent value independent of their instrumental value and that structural and ideological changes must be instituted to prevent their exploitation and destruction by human beings. See Arne Naess and George Sessions, "Basic Principles of Deep Ecology" (1984), www.deepecology.org.

treats site-specific art as a separate genre from eco-art, site responsibility draws on Kwon's more recent and more comprehensive account of historical development of site-specific art and embraces site specificity as a fundamental attribute of eco-artworks complementary to their eco-ethical orientations.

Amanda Boetzkes's book *The Ethics of Earth Art* (2010) stands as one of the few recent art historical publications to foreground the subject of ethics in relation to eco-art. Boetzkes uses the term "earth art" to bracket together artists and artworks that have typically been associated with the distinct but overlapping fields of land art/earthworks and eco-art. For example, her earth art category includes the both the land-based works of Richard Long, Dennis Oppenheim, Hamish Fulton, Robert Smithson, and James Turrell, as well as the explicitly ecology-oriented works of Betty Beaumont, Aviva Rahmani, Basia Ireland, Jackie Brookner, and Helen Mayer and Newton Harrison. Boetzkes sees this diverse group as sharing in the evolution of an "ethical awareness of the earth [that] lies in the artists' impetus to challenge definitions of both art and nature, to reveal the limits of human conceptions of nature, and to open art to the congregation of elementals [natural phenomena such as land, water, wind, light, growth, and decay] that give rise to a sense of the earth."⁷⁸ Underscoring Miwon Kwon's genealogy of site specificity in particular, she acknowledges the relevance of site specificity to the historical development and theorization of earth art, including its exact bearing on eco-art. Boetzkes argues,

the discourse of site specificity has contributed much in terms of evaluating the economic, phenomenological, aesthetic, and ideological structures that situate an artwork, or more subtly, the inextricability of the artwork's form from the paradigm of site it espouses...

⁷⁸ Amanda Boetzkes, *The Ethics of Earth Art* (Minneapolis and London: University of Minnesota Press 2010), 24.

it signals an upset in the dichotomy between the artwork's meaning and the material conditions of its production and reception, a shift that opened the door to a reconsideration of our ecological predicament.⁷⁹

However, she also maintains that, “the category ‘site-specific’ is perhaps not precise to express the ethical stakes of the artworks.”⁸⁰ Boetzkes criticizes the manner in which site specificity “often equates the notion of earth with the most literal interpretation of ‘site’ – a geographic place or geologic foundation.”⁸¹ She takes issue with “the assumptions that the earth is a stable foundation of banal matter onto which a conservative ideology can easily be projected and that any artistic concern for nature abandons a deterritorialized global orientation in favor of a uniform identity.”⁸² Boetzkes answers with a theory based on the eco-philosophical concept of “recessive ethics,” which she defines as “a stance of retraction from and receptivity to the earth that foregoes the propensity to actively subsume it within the parameters of our preexisting logic.”⁸³ She advocates for responding to ecological crisis by withdrawing subjectively from nature rather than perpetuating the pervasive anthropocentric viewpoints of instrumentalism (mastery over nature) and romanticism (idealization of nature), both of which she holds to be deeply flawed.⁸⁴ Echoing nineteenth-century philosophical theories of the natural sublime, her conceptualization of “ethics,” as it pertains to earth art, denotes creating artworks that are receptive to Earth’s natural phenomena, but at the same time withdraw from representing them, because the alterity (or otherness) of Earth’s elementals ultimately exceeds the limits of our discourses of art, science, and technology. Such artworks are said to develop a recessive ethical stance by in

⁷⁹ Boetzkes, *The Ethics of Earth Art*, 4, 26.

⁸⁰ *Ibid.*, 4.

⁸¹ *Ibid.*, 5.

⁸² *Ibid.*, 5.

⁸³ *Ibid.*, 4.

⁸⁴ *Ibid.*, 4, 63.

turn mediating and staging a phenomenological encounter that can lead spectators to an analogous subjective experience of withdrawal pending the epiphanic realization of how unrepresentable (confounding, indescribable, irreducible, overwhelming, unanalyzable, etc.)

Earth's elementals are.⁸⁵ In Boetzkes words,

Through the withdrawal from representation, in gestures that mobilize a fundamentally recessed subject, artists create the conditions of possibility for the earth to appear at the limits of intelligible form and to deliver a sense of it at the point at which it overflows the field of perception.⁸⁶

She highlights as an example Mark Dion's *Neukom Vivarium* (2007) installation featuring a giant fallen hemlock tree (or nurse log), extracted from an old-growth forest in a protected watershed nearby, and recontextualized inside an eighty-foot-long greenhouse at the Seattle Art Museum, where it nourishes other organisms as it decomposes. Quoting Dion, Boetzkes contends that the artwork "illustrates the uncanniness of nature – the wonder of the vast complexity and diversity within a natural system...[and] how difficult that is for us to grasp," which she in turn interprets as an ecological stance recognizing the limits of an anthropocentric worldview and revealing how the excess of the earth exceeds the scope of human knowledge and systems of representation.⁸⁷ She reads Richard Long's land-based artwork *A Line a Tracks in Bolivia: An Eleven Day Walk Re-crossing a Lava Plain* (1981) in the same light. Boetzkes argues that Long's performative hike marking the landscape with ephemeral indexical traces, along with his photographs and brief texts documenting them, "stage the inability to represent the earth as such." She explains,

artists such as Richard Long formulate an artwork out of an aggregate of representations that are suggestive of a complete aesthetic experience of nature but that nevertheless fail to deliver its sensual fullness. Like Dion's

⁸⁵ Ibid., 1-24.

⁸⁶ Ibid., 4.

⁸⁷ Ibid., 3.

Neukom Vivarium, the textual document points to the inability to re-create nature.⁸⁸

This dissertation concurs with Boetkes's argument that the discourse of site specificity is integral to eco-art, but singlehandedly is not precise enough to tackle eco-art's ethical dimensions. However, the methodology of site responsibility differs markedly from her approach. Rather than grouping eco-artworks together with land art/earthworks as Boetzkes does, site responsibility elucidates their definitive differences. In contrast to Boetzkes's theory of recessive ethics centered on earth art's withdrawal from Earth's unrepresentable elementals, site responsibility insists that eco-artworks' deontic eco-ethical agency resides in their enactment of site reform – the dutiful production of artworks that document, politicize, and remediate Earth's sites of anthropogenic ecological degradation. Site-reformative eco-art is less preoccupied with reverently withdrawing from representing the specificity of Earth's sites due to their unrepresentable otherness, and more fundamentally concerned with representing actionable modes of rightfully withdrawing from, or changing, the kinds of irresponsible human behaviors that systematically destroy sites in an effort to work toward more ethically responsible ways of sustainably cohabitating Earth's ecosystems and sharing their vital resources.

T. J. Demos's writings signify recent shifts in art historical discourse towards critical analysis of eco-art's relationship to regional struggles for survival, equality, and justice in response to the culturally homogenizing, socioeconomically polarizing, and ecologically devastating forces of globalization. Demos argues:

With a looming environmental catastrophe darkening our near future, and a worldwide financial crisis pressuring the present, now more than ever there is an urgency to invent other models of globalization: one of the universalization

⁸⁸ Ibid., 3.

of a politics of equality, of social justice and ecological sustainability, as well as one that will promote cultural differentiation and heterogeneity.⁸⁹

Demos takes issue with earlier interpretive models that emphasize eco-art's holistic reconnection with a depoliticized, idealized, and objectified conceptualization of nature, such as curator Barbara Matilsky's framework for the first eco-art-exclusive exhibition *Fragile Ecologies* (1992).⁹⁰ He explains,

Despite its apparent ecological ethics, posed against industrial capitalism's despoliation of the environment, there are nonetheless several problems with Matilsky's approach, not least of which is the spiritualist lens through which 'nature' is apprehended, which supplants conceptual rigor.

Relegated to a non-cultural zone of organic purity, and reminiscent of the mythopoeic realm attributed to the biological environment in James Lovelock's 'Gaia' hypothesis [...] nature ends up objectified as an ontology divorced from social, political and technological processes. Undermining the seemingly laudable environmentalist intentions of the exhibition is a dangerous depoliticization, which reproduces the very objectification of nature that has got us into trouble in the first place.

[...] the exhibition's conceptualization of nature perpetuates the problematic structure of objectification relied on by capitalist industry. It is this very system that makes it possible for the exhibition, for instance, to celebrate practices that advance band-aid approaches to devastated landscapes, without connecting the repairing of a pond, the preserving of a historical landscape or the growing of a wheat field to technological, social and economic ecologies that equally construct the environment.⁹¹

Demos's critique raises similar concerns about the apolitical holism of Gablik's theory of reconstructive postmodernism, to which Boetzkes's theory of recessive ethics seems to be addressed. However, both Gablik and Boetzkes tend to bypass the specificity of eco-art's

⁸⁹ T. J. Demos in "Questionnaire on 'The Contemporary,'" *October* 130 (Fall 2009), 83.

⁹⁰ Matilsky defines ecology as "the science of planetary housekeeping" that would sustain "the interrelationship of all forms of life in their diverse environments." She argues that ecological artists are "pioneering a new approach to art and nature based on environmental ethics" by creating artworks that provide tangible solutions to problems facing natural and urban ecosystems, or by interpreting or framing the problems through a variety of media. See Barbara Matilsky, *Fragile Ecologies*, 3-4, 55-56.

⁹¹ T. J. Demos, "The Politics of Sustainability: Art and Ecology," in *Radical Nature: Art and Architecture for a Changing Planet 1969-2009* (Köln: Koenig Books, 2010), 20-21.

material relations to discrete human systemic causes of site degradation and moral responsibilities regarding distributive justice at the heart of ecological crises.

As a counterpoint to Matilsky's holistic ecology, Demos commends the mid-1970s "systems ecology" model, associated with Hans Haacke's work and the writings of artist-theorist Jack Burnham, for helping to shift eco-art discourse toward a more conceptually ambitious, expanded notion of ecology that encompasses human social and technological systems as well as organic ones.⁹² For example, Demos offers the following praise of Haacke's *Rhinewater Purification Plant* and *Krefeld Sewage Triptych*:

The resulting political effects of the techno-biological operation performed in the art gallery could thus be considered as part of what Haacke termed a 'real-time social system', which not only intervened in a degraded ecosystem but also identified the causes of its situation and worked towards drawing public attention to the broader political culture of abuse.⁹³

Demos also applauds the more recent works of eco-artists such as Amy Balkin, Tue Greenfort, Nils Norman, Marjetica Potrč, and Superflex for addressing the real-world political urgencies of ecological crises and global climate change. He views these artists as charting the course for a nascent strand of "political ecology" within the field of eco-art that is optimally attuned to the "post-natural condition" of the present, wherein "'nature' cannot be objectified as separate and external, because living and nonliving objects are imbedded within a 'mesh' of social, political, and phenomenological relations."⁹⁴ Correspondingly, Demos assigns the following ethico-political priorities to eco-art moving forward:

⁹² Demos, *The Politics of Sustainability*, 21. Demos highlights Burnham's assertion that, "Increasingly 'products'— either in art or life — become irrelevant and a different set of needs arise: these revolve around such concerns as maintaining the biological liveability of the earth, producing more accurate models of social interaction, understanding the growing symbiosis in man-machine relationships, establishing priorities for the usage and conservation of natural resources, and defining alternative patterns of education, productivity, and leisure." See Burnham, "Systems Esthetics," 15.

⁹³ Ibid., 22.

⁹⁴ T.J. Demos, "Art After Nature: T. J. Demos on the Post-Natural Condition," *Artforum* (April 2012) 194. Demos acknowledges the influence of eco-critic Timothy Morton's proposal that we begin to think of "ecology

We can perhaps only affirm the need for a critical realism that both refuses to relinquish the validity of scientific paradigms and remains dedicated to a guardedly analytical approach to ecological discourse as a system of representations forged at the intersection of power and knowledge.

When confronting the claims of sustainability, one needs to ask what sustainability means, whose interests it promotes, and whose are left out?

It is crucial in this regard to critically challenge environmental proposals that would justify the worsening of social inequality, promote authoritarian governmental directions and further concentrate the power of decision-making in the hands of multinational corporations.

To contribute to the ongoing public engagement with the politics of sustainability, to advance creative proposals for alternative forms of life based on environmental justice in a global framework, and to do so until such art exhibitions can somehow meet the demands of a just sustainability – these are the imperatives for a contemporary environmental art.⁹⁵

Site responsibility is especially informed by, and deliberately aligned with, Demos's political ecology approach stressing critical realism. Recognizing the parallels between site specificity and systems thinking, and asserting site specificity's applicability to contextual analysis of the broader systemic, relational (ecological, sociopolitical, ethical) complexities of eco-artworks, site responsibility introduces the term "site reform" as a more precise re-definition of site specificity that differentiates how eco-artists' regional actions and proposals contribute tangibly to the global ethico-political priorities of sustainability, equity, and justice set forth by Demos.

without nature." See *Ecology Without Nature: Rethinking Environmental Aesthetics* (Cambridge, MA: Harvard University Press, 2007).

⁹⁵ Ibid., 18-19, 28.

1.5 Final Remarks

The methodology of site responsibility outlined in this chapter makes productive use of the conceptual interplay between the art historical discourse of site specificity and analytic philosophy of environmental ethics, with the aim of elucidating the reasons why eco-artists' distinctive enactment of site reform is eco-ethically commendable. This interdisciplinary framework for eco-art ethics is intended to highlight the morally relevant attributes of the broad spectrum of artistic practices that have developed within the field of eco-art since the late 1960s and is designed to facilitate well-reasoned assessments of their eco-ethical dutifulness based on organizing principles of ecological impact assessment, pluralistic valuation, and deontological philosophy.

Following the premises delineated in this chapter, site responsibility fleshes out in discrete ways relative to eco-art's predominant modes site reform. Documentary, activist, and remedial eco-art each pursue different courses of site-reformative action, generating different types of eco-ethical propositional content, implicating different site-related impacts, values/benefits, and moral obligations. The case studies of recent examples of site-reformative eco-art in the corresponding chapters that follow expand on these three mode-specific variants of site responsibility.

2 DOCUMENTARY ECO-ART AS SITE-REFORMATIVE GROUND TRUTHING

The neutralizing assumption of a spectatorship, which averts its gaze and turns askance from the documentary because it deeply distrusts it as moral accusation, cannot at the same time judge it. To avert one's eyes, to look askance, is equally an ethical stance; it is to ask not to be accused; not to be contaminated, not to exist purely for the other, to be cleansed from the guilt of looking at human misery, relieved from the burden of being-for-the-other. Yet there is a level at which this disavowal, when excessively interpreted in the direction of the non-western other registers at a deeper level two kinds of disavowal: a scopophobic inattention to the specificity of the image and a reflexive xenophobia unable to imagine the other as properly human. This turning away, this hole in vision...perhaps has its basis not in any superior moral vision, but is precisely a prophylactic to the obscenity of the human ruin.

- Okwui Enwezor, "Documentary/Vérité: Bio-Politics, Human Rights, and the Figure of 'Truth' in Contemporary Art," 2008

If, as the philosopher Emmanuel Levinas claims, it is the face of the other that demands from us an ethical response, then it would seem that the norms that would allocate who is and is not human arrive in visual form. Those norms work to *give face* and *to efface*. Accordingly, our capacity to respond with outrage, opposition and critique will depend in part on how the differential norm of the human is communicated through visual and discursive frames. There are ways of framing that will bring the human into view in its frailty and precariousness, that will allow us to stand for the value and dignity of human life, to react with outrage when lives are degraded or eviscerated without regard for their value as lives. And then there are frames that foreclose that responsiveness, where this activity of foreclosure is effectively and repeatedly performed by the frame itself – its own negative action, as it were, toward what will not be explicitly represented. For alternative frames to exist and permit another kind of content would perhaps communicate a suffering that might lead to an alteration of our political assessment of the current wars.

For photographs to communicate in this way, they must have a transitive function, making us susceptible to an ethical responsiveness.

- Judith Butler, "Torture and the Ethics of Photography," 2009

Let the atrocious images haunt us.

- Susan Sontag, *Regarding the Pain of Others*, 2003

2.1 Documentary Eco-art and Site Responsibility

These percipient passages from some of the documentary mode's leading theorists speak to a renewed assemblage of ethical exigencies for contemporary eco-art. Documentary dutifulness, in these respects, implies *facing*, *giving face to*, and *facing up to* the situational realities of humankind's *multifaceted defacement* of the Earth and its *many-faced* victims. De-otherizing them, being *haunted* by them, or *being-for* them entails differentiating and taking responsibility for our own *Janus-faced* behavioral complicity as both perpetrators and sufferers of ecological harm. We must sensibly shapeshift from abusers into stewards and become the new face and the new norm of site-specific, environmental reform. This is what site responsibility looks like in the Anthropocene, and documentary eco-art is one of its contributing cultural catalysts.

This chapter considers the documentary eco-art mode as a type of site-reformative ground truthing – a way for eco-artists to willingly face the facts of the environmental crises of the present and apply their creative skills to the worthy task of producing factual reports about specific sites of anthropogenic ecological degradation. It argues that documentary eco-artists' acts of evidentiary truth-telling are site-responsible because they perform the foundational step of pointing to places where environmental reform is needed, bringing into

focus their ecological cause-effect-response relationships, and instilling them with moral clarity, import, and binding force. This work is especially crucial when the subject (site/situation of harm) being documented lacks the degree of public exposure that is often required for the proper incentivization, mobilization, and implementation of reformative measures. Documentary eco-art empowers such subjects by rightfully granting them an avenue of public representation that might otherwise have been denied – one that propositions spectators-as-witnesses, and elicits their moral responses to the artwork-as-testimony.

As Carl Plantinga observes, documentaries essentially provide “phenomenological approximations” of real-life events that are intended to be reliable sources of information about those events.⁹⁶ We anticipate that a documentary work will inform us about some noteworthy aspect of the physical world, and we typically assert, or at least entertain the prospect, that its proposed content is a fair and accurate representation of the facts about its particular subject. Conversely, whenever a documentary work seems to alter its subject matter in such a way that gives an unfair or inaccurate misrepresentation of its true nature, we are prone to question or criticize its credibility as a source of factual information, evidence, or testimony.

Analogous to other forms of documentary, the propositional content of documentary eco-artworks is essentially designed to represent, publicize, and elicit public attention to,

⁹⁶ Plantinga writes, “I propose that the typical or usual documentary film be conceived of as an asserted veridical representation, that is, as an extended treatment of a subject in one of the moving-image media, most often in narrative, rhetorical, categorical, or associative form, in which the film’s makers openly signal their intention to the audience (1) take an attitude of belief toward relevant propositional content (the ‘saying’ part); (2) take the images, sounds, and combinations thereof as reliable sources for the formation of beliefs about the film’s subject and, in some cases; (3) take relevant shots, recorded sounds and/or scenes as phenomenological approximations of the look, sound, and/or some other sense or feel of the pro-filmic event (the ‘showing’ part).” See Carl Plantinga, extracts from “What a Documentary Is, After All,” *The Journal of Aesthetics and Art Criticism*, vol. 63, no. 2 (Spring 2005): 105-17; reprinted in *Documentary*, ed. Julian Stallabrass, (London and Cambridge: Whitechapel Gallery and The MIT Press, 2013), 52-62 (quote on 61).

interest in, or concern for their select subject matter. Correspondingly, their more precise, proto-reformist function is to accurately represent the situational realities of subjects of anthropogenic environmental harm, render them more accessible to public scrutiny and decision-making, and elicit moral concern for them via their propositional content.

Documentary eco-art's conjoint status as a mode of both factual representation and aesthetic transformation – a means of depicting, describing, portraying, speaking for, or acting on behalf of real-life subjects of environmental harm while at the same time strategically altering their original form and content in the process – casts a shadow of doubt on its purported accuracy. This produces a certain fundamental dialectical-ethical tension between the actualities of the subject being represented and the veracity of the resultant documentary eco-artwork acting on its behalf.

Okwui Enwezor describes this tension in a constructive light, while underscoring its evolving contemporary ethico-political associations relevant to the relational specificity of documentary eco-artworks. Enwezor argues, “the role often assigned to documentary forms exists in the tension between their aesthetic intention and ethical position vis-à-vis the subject of the documentary.”⁹⁷ He heeds Susan Sontag's warnings against “the treatment of images of violation as merely a media window into a banal spectacle, as a worrying pornography of victimization and violation,” and connects her ethics of looking and paying attention to the pain of others with Ariella Azoulay's concept of the visual field as “the site for an unfinished work of mourning.”⁹⁸ Enwezor advocates for “the eye as ethical apparatus, more than a

⁹⁷ Okwui Enwezor, “Documentary/Vérité: Bio-Politics, Human Rights, and the Figure of ‘Truth’ in Contemporary Art,” 98.

⁹⁸ *Ibid.*, 70. Sontag acknowledges that documentary photographs function as ethical reference points to reinforce or build nascent moral positions, but insists that their ethical content is fragile and predetermined by the existence of a relevant political consciousness. She argues: “The vast photographic catalogue of misery and injustice throughout the world has given everyone a certain familiarity with atrocity, making the horrible seem more ordinary – making it appear familiar, remote (‘it’s only a photograph’), inevitable.” “The limit of

prophylactic membrane to ward off the unseemly, the evil eye of death.”⁹⁹ He ties these ethical themes, as manifested in current discourse about the resurgence of documentary practices in contemporary art, to the development of human rights. Enwezor maintains that the Marxist model of class struggle has been supplanted by human rights as the ethical compass and organizing instrument for “the kinds of political realism in artistic practices associated with social reality and engaged with ethical consideration for human subjects”; “art that stakes a territory within the tension between ethics and aesthetics, or politics and poetics.”¹⁰⁰ He views contemporary documentary art practices as illustrative of this type of hybrid aesthetic/ethical/political realism. Enwezor characterizes documentary art in the following manner:

a mode of practice consistently prepared to show and ask moral questions around what it documents

a kind of testimony which, on the one hand produces a moral imperative in the telltale details of the real, and on the other, asserts truth in the manner in which it conveys and conducts its judgment of events and depictions or people, things, and objects.¹⁰¹

photographic knowledge of the world is that, while it can goad conscience, it can never be ethical or political knowledge. The knowledge gained through photographs will always be some kind of sentimentalism, whether cynical or humanist.” See Susan Sontag, extracts from *On Photography* (New York: Farrar, Straus and Giroux, 1977) 16-24; reprinted in ed. Julian Stallabrass, *Documentary* (London and Cambridge: Whitechapel Gallery and The MIT Press, 2013), 118-122. Ariella Azoulay questions Sontag’s tendency to, “preserve the notion of a stable meaning for what is visible in the photograph and reduce the role of the spectator to the act of judgment, eliminating his or her responsibility for what is seen in the photograph.” Azoulay’s theoretical counterproposal, “the citizenry of photography,” is a less cynical model of documentary ethics based on, “an ethical duty, and on patterns of deterritorialization.” She asserts, “The civil contract of photography shifts the focus away from the ethics of seeing or viewing to the ethics of the spectator, an ethics that begins to sketch the contours of the spectator’s responsibility toward what is visible.” Thus, photography becomes “a mobile and global recording kit for contesting injuries,” and, “Whenever a photograph becomes a grievance, whoever articulates it becomes its civil subject.” See Ariella Azoulay, extracts from “Citizenship Beyond Sovereignty: Towards and Ethics of the Spectator,” *The Civil Contract of Photography* (New York: Zone Books, 2008) 128-35; reprinted in ed. Julian Stallabrass, *Documentary* (London and Cambridge: Whitechapel Gallery and The MIT Press, 2013), 130-135.

⁹⁹ Enwezor, “Documentary/Vérité,” 98.

¹⁰⁰ Ibid., 67-8.

¹⁰¹ Ibid., 88-89.

He proposes the concept of *vérité* to encapsulate the truthful and ethical, but nonetheless variable and negotiable (unfixed), state of tension inherent in documentary artworks.

Enwezor asserts, “in the idea of *vérité* we confront the conditionalities of truth as a process of unraveling, exploring, questioning, probing, analyzing, diagnosing, a search for truth or, shall we say, veracity.”¹⁰²

Relative to Enwezor’s theorization of contemporary documentary art, site responsibility designates the discourse of environmental rights developed by analytic philosophers of environmental ethics as a suitable *ethical compass and organizing instrument* for examining the *political realism* in site-specific, documentary eco-art practices *associated with* environmental reform and *engaged with ethical consideration* for Earth’s site-as-ecosystems, giving particular attention to the rights of their interdependent human and non-human stakeholders to a healthy environment in which to live and mutually benefit from the planet’s life-sustaining resources in order to survive and flourish. Documentary eco-art operates dutifully as a *testimonial* or evidential truth-telling mode that *shows and asks moral questions around* the sites and situations of harm it documents, produces deontic *imperatives in the ecological details of the real*, and *asserts truth* about human eco-ethical responsibilities through the variable propositional content it produces. Its *vérité*, or rather the state of tension between the ecological situational realities documentary eco-artworks report on and the human eco-ethical responsibilities their content represents, publicizes, and elicits, is thus understood as conducive to the kind of dynamic, variable, open-ended moral propositional “clarificationism” posited by Noël Carroll.

Since documentary eco-artworks tend to report on sites, situations, and victims of anthropogenic ecological harm, their subject matter warrants moral consideration by default,

¹⁰² Ibid., 97.

and the proto-reformative action of documenting it takes on the weight of ethical responsibility. The power to select, represent, publicize, and elicit concern for subjects of harm imposes certain moral obligations on documentarians: to be representationally accurate in the process, so as not to inflict further harms by misrepresenting their chosen subjects; to make their subjects physically accessible rather than sequestering them from public scrutiny; and to produce content that renders their subjects' situational realities cognitively intelligible rather than obfuscating them. Under such circumstances, it is especially apt to speak of documentary eco-art production as *treatment*, or *behavior towards* a given subject, and moreover to evaluate its site specificity and propositional content in eco-ethical terms. Taking into consideration the operational norms of the documentary eco-art mode, and drawing on the insights of prominent documentary art theorists such as Enwezor, site responsibility adopts representational accuracy, physical accessibility, and cognitive intelligibility as reasonable, mode-specific, eco-ethical criteria of assessment apposite to the aims of moral propositional clarification. With respect to these guiding principles, documentary eco-artworks, as a mode of site-reformative ground truthing, demonstrate site responsibility by dutifully producing factual reports with variable eco-ethical propositional content that is accurate, accessible, intelligible, and hence morally clarificatory.

While the previous chapter highlighted Haacke's early documentary eco-artwork *Rhinewater Purification Plant* as an introductory example, the case studies that follow closely analyze three different documentary eco-artworks from the past decade, and elucidate the various ways in which their distinct, morally relevant features illustrate site responsibility. The projects under consideration address a wide range of environmental issues, including: forms of air, land, and water pollution; habitat destruction and other threats

to wildlife; as well as the manifold impacts of global climate change. In addition to traditional lens-based documentary formats and conventional art mediums such as sculpture and installation, the artists here also utilize diverse materials such as archival audio, digital media, field recordings, found objects, music, oral histories, and preserved biological specimens. All three artworks are site-specific, collaborative, interdisciplinary, and feature significant archival research components. Together, they offer a representative sampling of site-responsible documentary eco-art today.

2.2 *Invisible-5*: Toxic Road Trip and Environmental Justice Audio Tour

Invisible-5 (2006) is a self-guided audio tour documenting the experiences of people struggling for environmental justice along I-5, the major interstate connecting San Francisco and Los Angeles. The project is a collaboration between artists Amy Balkin and Kim Stringfellow, along with writer/producer Tim Halibur, in partnership with the organization Greenaction for Health and Environmental Justice, as well as Pond: Art, Activism, and Ideas. According to the artists' statements, the main purpose of *Invisible-5* is to make visible the "invisible toxic landscape" along the I-5 and the stories of its inhabitants.¹⁰³ The artwork is not only determinedly site-specific, but also explicitly eco-ethical in orientation. It is structured around twenty-three different towns in the San Joaquin Valley spanning the I-5 corridor, and its content centers on the multitude of unjust environmental harms suffered by the residents of each site, as well as their efforts to bring about reform.

¹⁰³ "About Invisible-5," accessed February 28, 2016, <http://www.invisible5.org/index.php?page=about>.

The artwork is based on the format of a museum audio tour and is designed for drivers to listen to while traveling on I-5. It has not only been widely publicized within the art world through various exhibitions and in major periodicals such as *Art Journal*, but is also accessible to anyone with access to Internet service, a listening device, and optimally a means of land transportation.¹⁰⁴ Initially distributed in CD format, the downloadable audio content, map, directions, and locational cues for *Invisible-5* are all currently available for free on the project's comprehensive website.¹⁰⁵ [Figures 3 - 4] The corresponding audio segments for the different stops vary in length from three to ten minutes, and incorporate oral histories, field recordings, found sound, recorded music, and archival audio. The website features a separate webpage for each site, which in addition to the main audio content, also provides extensive supplemental materials such as photography, geographic location particulars, a list of the associated environmental threats and contaminants, voice identifications, a brief caption summarizing the situational facts, and additional links to further information about environmental justice resources and organizations.

The ecological devastation that has transpired in the I-5 region is quite extensive in scope and severe in magnitude, imposing serious health risks on the local ecosystems, wildlife, and citizens. It encompasses: toxic air pollution; groundwater, soil, and surface water contamination; water depletion, privatization, and loss of democratic control of and common-pool resource access; habitat destruction and poisoning of wildlife. Pronounced threats to human health include: acute eye, skin, and lung irritation and inflammation; asthma and other respiratory illnesses; long-term long-term diseases such as emphysema, bronchitis,

¹⁰⁴ See Emily Eliza Scott, "Field Effects: Invisible-5's Illumination of Peripheral Geographies," *Art Journal*, vol. 69, no. 4 (Winter 2010): 38-47.

¹⁰⁵ "Invisible-5 Audio Project (Home)," Accessed February 28, 2016, <http://www.invisible5.org/index.php?page=home>.

lung cancer, heart disease, and strokes; birth defects; and related fatalities. The hazards for wildlife consist of loss of habitat, illness, poisoning, deformities, increased mortality, and population decline. These problems are predominantly the result of corporate and military land-use practices such as diesel transportation, hazardous waste dumping/incineration, large-scale agriculture, manufacturing, and natural resource extraction. *Invisible-5* records numerous instances of environmental injustice, such as: deliberate siting of dangerous polluting industries and businesses in low-income, minority, rural and inner-city communities; obstruction of public access to, and meaningful participation in, municipal decision-making processes; inequitable distribution of environmental benefits and burdens; and other human rights violations. The brutal truth of this extensive catalog of anthropogenic ecological harm is brought to life for spectators through the phenomenological experience of visiting the actual sites along the I-5 while listening to the absorbing eyewitness accounts, critical observations, and verbal testimonies of various local residents, farmers, activists, historians, lawyers, politicians, and other stakeholders in the region.

Invisible-5 is a paradigmatic example of site-responsible documentary eco-art. The project organizes into one coherent, thematic archive, a wealth of evidential truths and well-selected fragments of eyewitness testimony about a vast network of specific degraded sites, their ecological causes-effect-response relationships, and the situational realities of their proximate valuers, enabling both facts and faces to speak for themselves. Although the individual segments are principally aural sketches (or phenomenological approximations) of real-life events, their content is representationally accurate, causally transparent, physically accessible, and cognitively intelligible. It is expressed clearly and conversationally in everyday language that is easy to understand, creating a listening space that is intimate, non-

antagonistic, and conducive to the empathic process of spectatorship-as-bearing-witness.

Furthermore, the artwork's variable eco-ethical propositional content is imbedded with morally charged scenarios that elicit moral responses from spectators, whilst imparting clarity, import, and binding force to the concept of environmental justice and the actions of site reform. Consider the following examples.

Over background music and interspersed with field recordings of resident protestors and victims speaking out at town meetings, a community activist from the Bayview Hunters Point site directs your attention to the billowing smokestacks of the town's biggest polluting power plants, and relays the local elevated statistics for asthma, birth defects, and cancer.

[Figure 5] Her closing statement, most notably, takes the form of a deontic propositional cue in her honest, reasonable, and poignant plea for responsible reformatory action. She avows, "You can't just walk away from all these illnesses, all this pollution, all these birth defects. But this community does not have to be that way...The sheer fact of the matter is that we can do a whole lot better than we're doing."¹⁰⁶ Here the spectator is invited to observe the visual evidence of the cause of the site's degradation firsthand, while listening to a local activist's account of its detrimental impacts and her appeal for behavioral improvement. The process of connecting the two is nothing if not clarificatory.

A resident of West Oakland describes the effects of toxic diesel emissions from the surrounding freeways and recounts communal efforts to force chemical companies to take responsibility and remediate the heavily contaminated soil in the public park. [Figure 6] She explains, "Once we got Caltrans to clean it up to residential standards, which is...not ok for us, but we settled for that because it was better than nothing...that's what we lack in our

¹⁰⁶ "Bayview Hunters Point/SF (audio track)," accessed February 28, 2016, <http://www.invisible5.org/audio/01%20BAYVIEW%20HUNTERS%20POINT-SF.mp3>.

communities. We don't have the resources.”¹⁰⁷ Her sincere remarks testify to an imbalance of power relations between local townspeople and transient businesses, as well as distributive inequities that impede citizens’ ability to participate meaningfully in civic decision-making processes in order to prevent or rectify the wrongful imposition of environmental burdens on the site’s residential stakeholders.

The outreach director of a watchdog group for the major nuclear weapons laboratory in the company town of Livermore attests to the lab’s enormous political influence, as well as the prevalence of atom bomb-related visual culture and similarly themed celebratory events in the area. [Figure 7] She perceives a general lack of public awareness and willingness among stakeholders to examine health impacts locally, despite decades of unmonitored radioactive plutonium leakage, elevated levels of brain cancer and beryllium disease, and recent increased work with bio-warfare agents on the site.¹⁰⁸ Her testimony divulges imminent ecological threats warranting greater publicity and calling for the re-formation of a more level playing field between the governmental/military polluting industries on site and their proximate civilian casualties.

Recalling their experiences of participative injustice (inaccessibility) and environmental racism when confronting a nearby hazardous waste incinerator, activists from the Crows Landing site expound,

They [the incinerator company] were really surprised that we beat them to the punch, because they’re so used to putting it in, and we find out about it later and then it’s a done deal...it is environmental racism that all of these industries that pollute are located in Stanislas County on the west side which

¹⁰⁷ “West Oakland (audio track),” accessed February 28, 2016, <http://www.invisible5.org/audio/02%20WEST%20OAKLAND.mp3>.

¹⁰⁸ “Livermore (audio track),” accessed February 28, 2016, <http://www.invisible5.org/audio/03%20LIVERMORE.mp3>.

is the highest populated Latino residence Spanish-speaking in the county, and there's none of these industries in any other part of Stanislas County.¹⁰⁹

[Figure 8] The segment ends with a particularly revealing field recording from town meeting, supposedly held to inform locals what is going on in their communities, wherein officials argue that it is the residents' own fault if they choose not to speak the language because the law does not require authorities to provide Spanish translation at the public hearings.

Over ambient nature sounds, a manager from the Kesterson National Wildlife Refuge recalls the strange smells and perturbing sights of birds dying with major deformities as a result of catastrophic selenium poisoning from agricultural runoff.¹¹⁰ [Figure 9] The segment is a forceful reminder that human beings are also responsible for legislating and preserving the value of wildlife and that moral consideration and the right to a healthy environment also extend to a site's non-human subjects of anthropogenic harm.

The segment about Interstate 5 itself begins with an amusing archival audio promotion for the highway. [Figure 10] Trite orchestral library muzak plays while a sonorous voice-over boldly proclaims, "This is the American dream, of freedom on wheels, an automotive age, traveling on time-saving super highways, futuramas, free-flowing channels of concrete and steel."¹¹¹ The clip effectively binds the driver/listener/spectator to the highway as a user-participant at the outset, signaling one's complicity as a casual automobile tourist. Next a professor of geography describes some of the pertinent value conflicts surrounding the site:

¹⁰⁹ "Crows Landing (audio track)," accessed February 28, 2016, <http://www.invisible5.org/audio/05%20CROWS%20LANDING.mp3>.

¹¹⁰ "Kesterson National Wildlife Refuge (audio track)," accessed February 28, 2016, <http://www.invisible5.org/audio/06%20KESTERSON%20NWR.mp3>.

¹¹¹ "Interstate 5 (audio track)," accessed February 28, 2016, <http://www.invisible5.org/audio/07%20INTERSTATE%205.mp3>.

Ironically, the new urbanization runs into the old desire to get rid of urban waste by dumping it and burning it out along Highway 5. So now you have a clash of the new urban uses with the old sense of Highway 5 as being the disposal ground for what you want to hide and don't want to deal with.¹¹²

The track ends with a breaking news report of a toxic chemical spill on the highway, prompting the spectator to perhaps glance a bit more suspiciously at the mysteriously labeled steel tanks trailing the massive semi-trucks looming in their rearview mirror or barreling by incessantly in the left lane, the huge vats lurking beyond forbidding factory fence lines along the roadside, or the long line of indistinct chemical freight cars snaking along the railroad tracks just off in the distance.

Interspersed with historical promotional footage for the California Aqueduct project, former California Governor Edmund “Pat” Brown proclaims defensively and dictatorially,

You gotta remember, I was absolutely determined that I was going to pass this California water project. I wanted this to be a monument to me. So I mean it was good for the state, but I felt from my own political standpoint, you want to accomplish things...and I wanted this project. And I had to just be the water master of the state in building the California water project.¹¹³

[Figure 11] This is followed by writer John Gibler’s account of how California law is arranged asymmetrically so that only the largest and wealthiest landowners can vote on decisions, and the small community farmers and laborers have no say in matters. He explains, “So now both the migrant farm workers who live and work in the area, as well as the established rural communities, have all been completely cut out of the benefits of water movement in the valley.”¹¹⁴ Here again, we have a clear case of unjust imposition of environmental harms and deliberate administration of systemic distributive/ participative inequities by an elected official misguided by value monism and self-interest, in pursuit of

¹¹² Ibid.

¹¹³ “California Aqueduct (audio track),” accessed February 28, 2016, <http://www.invisible5.org/audio/08%20AQUEDUCT.mp3>.

¹¹⁴ Ibid.

political opportunism and economic gain and in collusion with the site's most affluent stakeholders.

A former resident of the migrant-farmworker community Kettleman City shares one of the site's few success stories, wherein the local townspeople stopped the company Chemical Waste Management from building of a giant hazardous waste incinerator on a site that is already home to one of the largest hazardous waste landfills in the west. [Figure 12] She describes various glaringly discriminatory acts on the part of Chemical Waste Management, including: intentionally scheduling town meetings in the middle of the afternoon when laborers were not able to attend; not consulting with the townspeople prior to the meetings; and communicating information only in English at the meeting and hearings. The speaker recalls, "When we got there [to the town meeting], they wanted to send us to the back of the room for translation, and that sounded so awful. We made them give us translation at the front of the room. They started talking down to us."¹¹⁵

A representative from a grassroots organization in Earlimart points to brazen emergency response failures and human rights violations. [Figure 13] He describes vividly how residents exposed to toxic pesticide drift from Wilbur-Ellis Company's fumigation of a potato field were forced to evacuate their homes and were publically humiliated during the decontamination attempt. After relating how victims were callously ordered to take off their clothes in front of one another on a local football field and were then painfully blasted with fire hoses while nude, the narrator starkly affirms, "They treated them like dirt."¹¹⁶

¹¹⁵ "Kettleman City (audio track)," accessed February 28, 2016, <http://www.invisible5.org/audio/12%20KETTLEMAN%20CITY.mp3>.

¹¹⁶ "Earlimart (audio track)," accessed February 28, 2016, <http://www.invisible5.org/audio/14%20EARLIMART.mp3>.

Lastly, a woman from the Pacoima site describes the pervasive, intrusive stench of toxic diesel emissions with the noise of the freeway audible in background: “The smell is everywhere [...] It’s really bad. It’s kind of like sticking your nose in bottle that has gasoline and burning rubber.”¹¹⁷ [Figure 14] Reflecting on her conversations with other residents about the extensive groundwater contamination from Price-Pfister and Holchem plants, she deduces, “I don’t think people really have a sense as to why it’s that way, and what can be done about it.”¹¹⁸ Once more, her observations attest to a recurrent lack of public awareness about persistent environmental health threats and a consistent need for greater public disclosure and reformative action.

The veracity, heinousness, and moral reprehensibility of the events recorded in this series of verbal testimonies – enhanced with field recordings, found sound, recorded music, and archival audio – is further reinforced by the participatory experience of traveling to the corresponding locations along the I-5. The potent imagery of the auditory narratives unfolds in the mind’s eye of the listener, while the corresponding visual actualities of the toxic landscape materialize on the horizon and fade into the blurry distance through the metal frame of the automobile window, intermingling with the ambient multisensory modalities of motion, sound, smell, taste, and touch. The experience leaves a haunting impression that lingers after the road trip has ended. *Invisible-5* not only accomplishes the artists’ purported goal of making the toxic landscape along the I-5 and the stories of its inhabitants visible, it succeeds in substantiating their moral legitimacy.

¹¹⁷ “Pacoima (audio track),” accessed February 28, 2016, <http://www.invisible5.org/audio/20%20PACOIMA.mp3>.

¹¹⁸ Ibid.

2.3 *Collapse*: A-trophic Pyramid of Petro-poisoned Specimens

Collapse (2012) is a mixed-media installation documenting the breakdown of the Gulf of Mexico's food chain as a result of the 2010 BP Deep Water Horizon oil spill disaster.¹¹⁹ The work was created by eco-artist/biologist Brandon Ballengee in collaboration with fellow biologists Todd Gardner, Jack Rudloe, and Peter Warny; two former students Mike Madden and Brian Schiering; as well as numerous scientists, activists, fisherman, and local residents. Its sculptural centerpiece is a 12 x 15 foot, seven-tier, quadrilateral pyramid, made up of 370 glass gallon jars, containing 26,162 preserved specimens of aquatic organisms and BP contaminants collected from the Gulf over a two-year period following the spill. [Figure 15] The project operates as a site-responsible, proto-reformist stimulus for environmental activism and remediation by representing, publicizing, and eliciting concern for the harms inflicted by the BP oil spill on the Gulf ecosystem and the human and non-human stakeholders who depend upon its life-supporting functions for survival.

The artwork's configuration refers to the concept of an ecological (or trophic) pyramid— an illustration of the transfer of food energy from one trophic level to the next in a given ecosystem. The four jars at the bottom corners are filled with a mixture of crude oil and Corexit – the misleadingly named poisonous dispersant used in mass quantities by BP to make the petroleum emulsify and sink deeper into ocean so it becomes less visible from the surface. [Figure 16] The rest of the jars at the base of the pyramid contain primary producers (autotrophs) such as: algae, barnacles, clams, conch, coral, crabs, jellyfish, shrimp, oysters, scallops, snails, sponges, starfish, and urchins. The various tiers of consumers (heterotrophs) above the lowest level ascend from herbivorous fish to major carnivores, with the juvenile

¹¹⁹ "Collapse," accessed February 28, 2016, <http://brandonballengee.com/collapse/>.

black shark at the top. Many of the jars hold specimens with noticeable deformities, discoloration, lesions, or oil trapped beneath their protective outer coverings. There are also empty jars interspersed throughout the arrangement to represent species that are actually in decline as a result of the disaster.¹²⁰

When the installation was presented as the centerpiece of the exhibition “Collapse: the Cry of Silent Forms” – held in 2012 at the Ronald Feldman Gallery in New York and at the Acadia Center for the Arts in Lafayette, Louisiana – it was displayed in conjunction with two other closely related works, *Committed* (2012) and *Dedicated* (2012). *Committed* is a 16-minute video juxtaposing BP advertisements and public relations footage regarding the Deep Water Horizon oil spill, with running text extracted from a large body of scientific studies, governmental documents, and other published materials collected by Ballengée and his collaborators that factually refute BP’s claims.¹²¹ [Figure 17] For example, a wildlife expert hired by BP extols the corporation’s effective remediation strategies for local birds and fish, while a scrolling statement from a biology journal rebuts: “BP had a federally approved Gulf of Mexico spill response plan that explained what it would do for walruses and sea lions — creatures that don’t live in the Gulf of Mexico.”¹²² The other accompanying work, *Dedicated*, is a slideshow presentation of numerous testimonial photographs and illustrations by Gulf Coast residents documenting the disastrous impacts of the spill, curated by Ballengée and his partners. [Figure 18]

Ballengée describes his transdisciplinary practice – bridging primary scientific studies with ecological art and engaged environmental stewardship – in a proto-reformist light as “an

¹²⁰ Ballengée in Sarah Allen Eagen, “frameworks of absence: Brandon Ballengée in conversation with Sarah Allen Eagen,” *ARTFILE magazine* (2014): 6; accessed February 28, 2016, <http://www.artfilemagazine.com/article/v02/absence.php>.

¹²¹ “Committed,” accessed February 28, 2016, <http://brandonballengee.com/committed/>.

¹²² Ibid.

impetus for ecosystem activism.”¹²³ In regard to the *Collapse* exhibition at the Feldman gallery, he communicated his intentions as follows:

to try to get the local populace to realize what’s still happening, and hopefully that could effectively reach media, and then through media and popular support push for governmental reform and [...] real pressure on BP to try to do either better restoration efforts, honest restoration efforts, and then allow for research to see what’s actually been happening.¹²⁴

The artist also characterizes *Collapse* in artistic terms as a “sketch,” because it represents only 2.4% of the known 15,419 species of the Gulf of Mexico.¹²⁵ However, this feature does not necessarily detract from the artwork’s representational accuracy. The basic purpose of a biological specimen is to serve as an example of its species for scientific study; it is a sample intended to illustrate what the whole is like. Ballengée’s contaminated specimens operate in this manner, albeit within the context of the art gallery. They are a truthful representation of the realities of a vital ecosystem damaged by human neglect. The material presence of the specimens is incontrovertible, and when paired with scientific research and eyewitness testimony, they register as valid evidence of harmful, irresponsible misconduct warranting moral deliberation and calling for reformative action.

The facticity of *Collapse* is reinforced by Ballengée’s unembellished, empirical treatment of the subject. In contrast to Ballengée’s related *Ghosts of the Gulf* (2014) series made up of vivid polychrome photographs of cleared and stained specimens, the lifeless organisms in *Collapse* are merely preserved in dull translucent solution and illuminated so that the petrochemical palette of brownish yellow oil residue and its injurious corporeal effects are starkly evident to the viewer. [Figure 19 - 20] The artwork’s pyramidal

¹²³ “Statement of Intent,” accessed February 28, 2016, <http://brandonballengee.com/statement/>.

¹²⁴ Ballengée in Linda Weintraub, “‘WELL IF’: Ballengée Grieves and Rejoices,” December 1, 2012, http://brandonballengee.com/wp-content/uploads/2012/11/2012_ballengee_weintraub_well-if.pdf

¹²⁵ Ballengée in Eagen, “frameworks of absence,” 6.

composition makes the trophic pyramid reference explicit, while also highlighting the organisms' ecological interconnectivity and interdependence as well as our own complicity as oil and seafood consumers reigning at the top of the food chain. The abundance, uniformity, and repetitiveness of the specimen jars prompt the viewer to magnify their connotations and to connect the incomplete collection of samples with the vast expanse of the Gulf of Mexico, while the interspersed empty jars disrupt the pattern and encourage one to fill in the blanks.

Increasing the viewing public's physical access to, and cognitive awareness of, the grim realities of the situation in the Gulf is a definite priority for Ballengée. His installation boldly spotlights the oil that BP tried to cosmetically render invisible with *Corexit* dispersant and brings into focus the severe environmental damage that the resultant toxic soup of submerged oil and dispersant has wreaked on the Gulf ecosystem. The artwork's scientific content is presented in a way that is both striking and lucid. Even though much of the actual field data underpinning *Collapse* is articulated in terminology that might prove difficult for non-specialists to understand, Ballengée still makes the information readily available to the public for the sake of clarity and transparency, and so as not to trivialize the scope, magnitude, and complexity of the crisis. In addition to auxiliary photos, video, and captions, Ballengée's webpages for the three related artworks also feature sizeable research appendices in .pdf format. The 233-page appendix for *Collapse*, for example, lists all of the different species preserved inside the specimen jars by trophic level and by phylogenetic order, along with a surplus of relevant scientific publications about the devastating effects of the BP oil and Corexit dispersant on the Gulf ecosystem.¹²⁶ The 435-page appendix to *Committed*

¹²⁶ "Collapse Appendix," accessed February 28, 2016, http://www.feldmangallery.com/media/ballangee/balexh_12/Collapse%20Appendix.pdf.

compiles the bulk of the scientific rebuttals to BP's claims accumulated by Ballengée and his crew, which were used to create the running text in the video.¹²⁷ The 164-page appendix for *Dedicated* amasses the testimonial materials received from Gulf coast victims, eyewitnesses, and other participants.¹²⁸ This archive includes images of the following: aerial and satellite views of the oil spill and cleanup process; damaged coastline; poisoned wildlife; severe rashes, hives, skin diseases, and other human illnesses resulting from exposure to oil and Corexit; struggling businesses; local protestors, along with their signs and billboards; and diagrams from various field studies conducted by activists and NGOs. Boosting public responsiveness through interdisciplinary collaboration and communal involvement is also essential to Ballengée's working methods. This is especially evident with *Dedicated*, as it shows how the project empowers local citizens to represent themselves by engaging in on-site, activist ground truthing, contributing their own personal testimonies, and voicing their grievances publically.

Collapse yields propositional content that is discernibly ethically charged. It presents a compelling body of evidence documenting irreparable harms inflicted on the Gulf ecosystem and multitude of human and non-human subjects in the form of an archival installation densely packed with biological specimens, scientific studies, and governmental records, as well as testimonial writings, photographs and illustrations. Together, these materials prompt questions such as: Why are these jars containing dead specimens of sea critters arranged in a pyramid, and where did they all come from? Why are so many of them deformed? Why is there oil in the four jars in the bottom corners, and why are some jars

¹²⁷ "Committed Appendix," accessed February 28, 2016, http://www.feldmangallery.com/media/ballangee/balexh_12/Committed%20Appendix.pdf.

¹²⁸ "Dedicated Appendix," accessed February 28, 2016, http://www.feldmangallery.com/media/ballangee/balexh_12/Dedicated%20Appendix.pdf.

empty? Why is the artwork entitled *Collapse*? For spectators disposed to deeper inquiry as to what this all means, further considerations of moral rightness, wrongness, permissibility, or responsibility are to be expected. For example, one might be inclined to ask: What caused this? Who is responsible? Why was this permitted to happen? If BP is responsible, then why have they been not held accountable? Why have these harms been imposed on the people of the Gulf coast without prior consent or just compensation? If *Corexit* dispersant exacerbates the ecological damage and increases the health risks, then why did BP use it? Why do the BP ads claim that they have taken full responsibility, the oil has been cleaned up, and the Gulf ecosystem has been restored, when the scientific research and eyewitness testimonies clearly indicate otherwise? Why did the Coast Guard assist in rather than prevent the use of harmful dispersant? What role did the EPA and the US government play in all this? What ought to be done to prevent this from happening again? Why do oil spills keep happening? Why are we still using non-renewable polluting fossil fuels like oil for energy instead of viable sustainable alternatives? These are all reasonable questions that the news media ought to ask unremittingly and resolvedly, but have failed to do so. Therefore, it is left up to ordinary citizens, activists, scientists, and eco-artists like Ballengée to force them into the limelight and demand answers.

Masterfully bridging the gap between the natural and social sciences, *Collapse* translates biological research into harrowing humanitarian account of an ongoing environmental crisis, rendering it more accessible to public scrutiny and representing it in way that is accurate, intelligible, truthful, and commendably conducive to eco-ethical inquiry.

2.4 *A History of the Future*: Intercontinental Travelogue of Climate Change

A History of the Future (2005-ongoing) is an itinerant photographic series by the collaborative duo Susannah Sayler and Edward Morris. It documents fourteen sites across five continents where scientists are studying the present and future effects of global climate change as well as adaptation and mitigation efforts.¹²⁹ [Figure 21] The project is designed to help spectators read altered topography of the various sites as an evidentiary index of climate change impacts.¹³⁰ Comprised mainly of realist landscape photographs depicting specific sites where the effects of climate change are discernible in the visible transformations of the Earth's natural phenomena and terrain features, the artwork's content brings into focus concrete threats to the health of ecosystems, people, and wildlife. It also speaks to some of the key ethical challenges associated with climate change, such as: inequitable distribution of wealth, materials, and environmental benefits/burdens; our undermining of Earth's capacity to meet the needs of future generations; and the fundamental tension between the greater accountability, capability, and necessity of wealthier countries to reduce their carbon emissions, and the right of poorer, less accountable, and less capable countries to develop, progress out of poverty, and improve human lives as a priority over climate change mitigation.

Inspired by Sayler and Morris's pivotal discovery of Elizabeth Kolbert's "The Climate of Man" articles on climate change in *The New Yorker* (published in 2006 as *Field Notes from a Catastrophe*), the *A History of the Future* series led to the duo's foundation of

¹²⁹ "The Canary Project – A History of the Future," accessed February 28, 2016, <http://canary-project.org/2010/07/a-history-of-the-future/>.

¹³⁰ Ibid.

The Canary Project (2006) – an interdisciplinary, research-based, multimedia art and activism initiative with the core mission of deepening public understanding of human-induced climate change in the Anthropocene.¹³¹ Morris explains:

Those articles made us – I think it’s not too strong to say – morally outraged about the discrepancy between political and public will and scientific understanding on the issue [of climate change]... Our thought was – it became a sort of imperative – we can’t just sit there. We felt that what we could contribute in the beginning was to organize the photography project – to do with photography what Betsy [Elizabeth Kolbert] was doing with journalism, which was going places around the world and showing the immediacy, the presence, the reality of climate change.¹³²

His comments underscore the artists’ ethical motivations as well as their confidence in the ability of landscape photographs to accurately record the complex situational realities of climate change on the ground and effectively convey their magnitude to public audiences.

Sayler and Morris label *A History of the Future* as “fact-based knowledge gathering” or “field studies/art as research,” differentiating it from other successive Canary projects, which have evolved categorically over time to include participatory and place-based works, installations and interventions, public messaging and campaigns, and education/student projects.¹³³ The artist’s following statements about the content of this particular series accentuate its contextual/interdisciplinary mutability and articulate its collective function in documentary terms as a body of archival evidence:

The meaning of these images depends on their context within a larger discourse about climate change – a discourse with many registers: scientific, journalistic, activist and artistic. In the aggregate and paired with research, the photographs form an archive and can be positioned as evidence. Paired with

¹³¹ “The Canary Project – Overview,” accessed February 28, 2016, <http://canary-project.org/about-us/>.

¹³² Nancy Keefe Rhodes, “Battling Climate Change with Art and Activism,” *Syracuse University Magazine*, vol. 31, no. 2 (Summer 2014), <http://sumagazine.syr.edu/2012spring/orangematters/canaryproject.html>.

¹³³ “The Canary Project – A History of the Future.”

objects, other images or video, the photographs form an argument. Viewed individually, the images form a blank stare.¹³⁴

Stylistically, the majority of the images are straightforward in their treatment of the subject, emphasizing empirical ground truthing over aesthetic manipulation or embellishment. Photographic techniques such as focus, composition, color, and lighting effects are employed primarily in order to achieve optical clarity and to draw the spectator into their clarificatory propositional content. The artists contend:

Museums want to obfuscate the message so it seems more intellectual or something. We just want it to be clearer.

In the field, we had two choices: 1) dramatize the landscape in some way, such as indulging in a myth about damaged earth, in an effort to activate feelings of indignation, disgust, wonder, or dismay... 2) confess to a feeling of incomprehension, disorientation, loss of scale, seduction, and panic. One is a gesture of mastery, and the other of submission. Most photography dealing with environmental themes employs some version of the former strategy. You can see this technically in the color saturation, the single-minded themes, the bold compositional choices which preference symmetry, and an elevated perspective that is dehumanizing and gives the impression of omniscience.

Most contemporary landscape photographs tend to be more self-consciously ambiguous in their statements of purpose, yet still operative is the underlying dogma that nature and man are opposed and that, as such, we are damaging Nature. This leads to a simplistic symbolic order, which is often evident in the compositional structure of the photographs. More significantly it also leads to adamant disavowals of any political intent or responsibility to the works. Such work creates a (visual) sanctuary and a locus of mourning that dispenses with any need to act. It assumes no future or at best longs for a future that is conservative, a future where wild places are preserved with only privileged access.¹³⁵

Although the interplay among binaries such as realism/abstraction, clarification/obfuscation, pragmatism/poetics, and responsibility/disavowal is arguably more fluid and less cut-and-dry

¹³⁴ "Statement," accessed February 28, 2016, http://www.history-of-the-future.com/?page_id=2.

¹³⁵ Adam Bright, "Into the Coal Mine: The Canary Project documents the ravages of climate change with breathtaking pictures" *Good Magazine* (2008): 48-9; http://canary-project.org/wp-content/uploads/2011/04/GOOD_mag.pdf.

than these statements allow, the aesthetic preferences and critical strategies they articulate are definitely discernible in the artists' work.

Captioning is also an integral component of the project. The accompanying descriptive captions are in many cases just as divulging as the photographs themselves, for they help to elucidate precisely the climate change realities that the images bring into focus. On the project's website, their veracity is further bolstered by imbedded hyperlinks to scientific research directly related to the content of the photographs.

A History of the Future is also very accessible. It has been exhibited in a diverse array of art and non-art venues, including science and art museums, the sides of buses, billboards, city halls, school presentations, galleries, magazines, NGO publications, and online.¹³⁶

[Figures 22 - 34] Sayler and Morris explain,

We wanted to position the photographs not just in a sort of limited art-world context, where they're in galleries and really the main thrust of the activity of looking at them is appreciating the photographs. We wanted it to be more than that – we wanted to have diverse contexts for diverse demographics.¹³⁷

The photographs are often displayed with supplementary archival images, contextual research, and other mixed-media installation elements.¹³⁸ The project has also generated several companion pieces, such as the oral history (or “sound art”) project *We Could Just Leave* (2009-2010), which compiles the verbal testimonies of people affected by climate change at several of the sites documented in *A History of the Future*.

Like both *Invisible-5* and *Collapse*, *A History of the Future* has a substantial online component, which operates as an inclusionary exhibition site, as opposed to just being an advertising medium for promoting more exclusive displays of the artwork in galleries or

¹³⁶ Ibid.

¹³⁷ Nancy Keefe Rhodes, “Battling Climate Change.”

¹³⁸ “The Canary Project – A History of the Future.”

museums. On the website, the photographs are arranged into five categories of impact: drought and fires; disrupted ecosystems; extreme weather events; glacial, icecap and permafrost melting; rising sea levels. Their respective geographic locations are illustrated on a continental world map, and color-coded according to their category of impact. [Figure 21] The individual webpage for each location features select photos and a main caption detailing what aspects of climate change the photos represent, with imbedded hyperlinks to relevant scientific research. The website also provides installation views from various exhibition venues.

The photographs representing wildfires in eastern Washington State focus mainly on the destruction of biomass in a forest preserve, depicting burning trees and clouds of smoke blotting out the sun in the Umatilla National Forest. [Figures 35 - 39] The images themselves are rather limited in terms of the actual harms they record, as associated health hazards from fire or smoke exposure, destruction of property, and forced relocation are not portrayed outright. However, the accompanying caption does broaden the scope of wildfire's implications from local to global by referencing two articles from the journal *Science* (also cited in the 2007 IPCC assessment report) linking increased wildfires in the American West to increased atmospheric carbon and global warming and by providing links to additional articles about similar occurrences in other states and countries.¹³⁹

The documentary materials from both Niger and Western China register the loss of vital life-supporting ecosystem functions for vast numbers of human stakeholders as a result of climate change-induced drought. The images from Niger show desiccated terrain and reforested lands. [Figures 40 - 52] The supplementary text provides general statistics about the region and reports on local problems of degraded soil, desertification, drought, extreme

¹³⁹ "Eastern Washington," accessed February 28, 2016, <http://www.history-of-the-future.com/?p=122>.

weather and periodic famine exacerbated by climate change as well as the Nigerian government's significant investment in extensive reforestation and land restoration projects such as the ones depicted.¹⁴⁰ While images of livestock flocked around a water source chronicle the impact on wildlife, the description emphasizes the human dimension, noting how Niger suffered drought and famine in 2005 (two years before the photographs were taken), and then again in 2010 when 12 million people faced food shortages.¹⁴¹ [Figure 46]

In addition to pictures of barren desert wastelands and abandoned human structures, the photos illustrating drought in Western China include an image of a solitary road sign near a dry lakebed that translates, "Protecting the Environment is Everybody's Responsibility." [Figures 48 - 52] Blunt as it may be, it is nonetheless a clear example of a proto-reformative propositional cue tying visual evidence of the site's current ecological degradation to human behavioral obligations. The related caption comments on the disappearing glaciers and changing rain patterns in the region and reinforces the severity of the ensuing threats by referencing the IPCC's warnings that the water supplies of quarter of a billion people will be affected by glacial melt, more frequent droughts, and increasing desertification due to climate change.¹⁴²

The materials representing disrupted ecosystems include one photo of decayed coral formations on the Great Barrier Reef in Belize and another of a deteriorating section of the Monteverde tropical cloud forest in Costa Rica. [Figures 53 - 54] Both archives chronicle ecological harms that extend to both humans and animals. The blurb for Belize highlights principal climate change-related oceanic concerns such as acidification, altered currents, sea-

¹⁴⁰ "Niger," accessed February 28, 2016, <http://www.history-of-the-future.com/?p=136>.

¹⁴¹ Ibid.

¹⁴² "Western China," accessed February 28, 2016, <http://www.history-of-the-future.com/?p=132>.

level rise, damage to coral reefs, and mass extinctions.¹⁴³ The description for the Monteverde Reserve quotes IPCC reports about how rising temperatures and declines in frequency of mist days in the Costa Rican tropical cloud forests lead to detrimental plant extinctions, loss of biodiversity, and increased carbon dioxide respiration rather than absorption.¹⁴⁴

Hurricanes Katrina and Sandy in the US are presented as examples of extreme weather events potentially linked to climate change. The photographs and descriptions emphasize the geographic scope, destructive power, human death toll, and economic cost of each of the hurricanes.¹⁴⁵ The images depict abandoned or destroyed buildings, flooded areas filled with detritus, soiled Polaroids, and other displaced belongings. [Figures 55 - 72] The text notes how many climate science models predict increasing frequency and intensity of storms, but also acknowledges that scientists are uncertain as to whether or not climate change contributed to Katrina and Sandy.¹⁴⁶ The collective impact of these storms is conveyed as immensely devastating, harming millions of people and completely destroying their life-supporting ecosystem infrastructures and services.

While the causal links between climate change and wildfires or storms are more indefinite for the sites of Alaska, Antarctica, Austria, and Peru, the photographic evidence of glacial, icecap and permafrost melting from increased temperatures is undeniable. The report on Fairbanks, Alaska combines a single image of fallen trees due to defrosting permafrost with scientists' grave warnings about how accelerated widespread melting will lead to the

¹⁴³ "Belize Barrier Reef," accessed February 28, 2016, <http://www.history-of-the-future.com/?p=120>.

¹⁴⁴ "Monteverde Reserve," accessed February 28, 2016, <http://www.history-of-the-future.com/?p=118>.

¹⁴⁵ "Hurricane Sandy," accessed February 28, 2016, <http://www.history-of-the-future.com/?p=607>; "Hurricane Katrina," accessed February 28, 2016, <http://www.history-of-the-future.com/?p=116>.

¹⁴⁶ Ibid.

release of massive amounts of frozen subterranean carbon dioxide and methane, further expediting the thawing process.¹⁴⁷ [Figure 73]

The photographs of Antarctica (subdivided into “land” and “sea”) depict desolate, snow-covered research stations and equipment as well as stark white sculptural icebergs floating in dazzling blue-green water. [Figures 74 - 84] The associated caption distinguishes Antarctica as a focal point for the IPCC assessment of climate change risks and includes one artists’ journal entries describing personal experiences of loss, inadequacy, and uncertainty in witnessing firsthand and trying to record the realities of Antarctica.¹⁴⁸

The Austria file shows pictures of the aggressively receding Pasterze Glacier and the touristy monorail station in the Hohe Tauern National Park. [Figures 85 - 93] In this case, the artists’ journalistic account emphasizes the epiphanic certainty of experiencing the site firsthand as well as the evidential truth-telling capacity of documentary photographs of the site:

The Pasterze offers many incontrovertible images of global warming, and whatever that term may mean politically, it is impossible to see evidence of the Pasterze’s melting and then say with a straight face that the planet is not heating up. For example, there is the monorail built in the 1960s to carry people down to the lip of the glacier. Now instead of alighting directly onto ice, visitors get out of the monorail and begin a 20-minute trek down to where the glacier lies today. There are a series of forlorn signs on the way down, reading: ‘This Is Where the Glacier Stood: 1968,’ ‘This Is Where the Glacier Stood: 1975,’ ‘This Is Where the Glaciers Stood: 1980,’ etcetera.¹⁴⁹

Peru constitutes the largest of the all collections, with a total of fourteen photographs. It contains archival images depicting the historical management of the regional water supply, along with photos of melting and receding glaciers, a water level measuring stick, pipes,

¹⁴⁷ “Fairbanks,” accessed February 28, 2016, <http://www.history-of-the-future.com/?p=125>

¹⁴⁸ “Antarctica (Land),” accessed February 28, 2016, <http://www.history-of-the-future.com/?p=140>; “Antarctica (Sea),” accessed February 28, 2016, <http://www.history-of-the-future.com/?p=138>.

¹⁴⁹ “Pasterze Glacier,” accessed February 28, 2016, <http://www.history-of-the-future.com/?p=127>.

aqueducts, and the towns that depend on them for water. [Figures 94 - 107] The supplementary text explains how much of Peru's freshwater supply comes from seasonal glacial melt transported via pipes and aqueducts and cites IPCC predictions that, over the next 15 years, inter-tropical glaciers are likely to disappear, thus threatening Peru's water resources.¹⁵⁰ By calling attention to the glaciers' long history and enduring importance to the site's inhabitants, these documents stress the tragic loss ensuing from its erasure from the landscape.

Venice, the Netherlands, and Bangladesh are submitted as sites where sea levels are rising due to climate change. In contrast to traditional picturesque views of Venice, the four un-idealized photos presented here record rising waters and already or soon-to-be flooded buildings, as well as historic flood markers inscribed on the city walls. [Figures 108 - 111] The caption acknowledges some of the speculation and uncertainty regarding current and future impacts of climate change on the water levels of the city's canals. It also comments on Venice's multilayered symbolic resonance as a gauge of climate change and an icon of western civilization, the transience of wealth and power, and the poetry of romantic decay.¹⁵¹

The documents for the Netherlands offer a concrete example of a small but affluent country responding to urgent climate change threats by developing and implementing long-term adaptive reforms. They depict zones vulnerable to flooding and the network of water defenses (dykes, storm surge barriers, overflow spaces) implemented in accordance with the Dutch government's 200-year climate plan predicated on the findings of the IPCC. [Figures 112 - 120] The text explains how the Netherlands is extremely susceptible to rising sea

¹⁵⁰ "Peru," accessed February 28, 2016, <http://www.history-of-the-future.com/?p=142>.

¹⁵¹ "Venice," accessed February 28, 2016, <http://www.history-of-the-future.com/?p=130>.

levels, with twenty-six percent of its land area below sea level, another twenty-nine percent at risk to river flooding, and a history of disastrous flooding.¹⁵²

The Bangladesh photos are among the few portraying both human and animal victims. They show cloudy, turbulent river and eroded shorelines in the district of Munshiganj, with animals, small clusters of children, or larger groups of subsistence farmers standing along the water's jagged edge. [Figures 121-124] The caption notes that Bangladesh is frequently cited as the most vulnerable country to land-loss due to rising seas: according to an IPCC study more than a million people living on the densely populated Ganges-Brahmaputra delta could be displaced by 2050 as a result of climate change; other estimates are much higher.¹⁵³ This spells out the grim reality that the Bangladeshis shown in the photographs will most likely be forced to evacuate their homelands and become climate refugees in the none-too-distant-future. The artists also mention the fact that there have been some adaptation projects carried out in Bangladesh, but nothing on par with the Netherlands, whose resources far outweigh those of less affluent Bangladesh.¹⁵⁴ When considered together, the two sites point to the differences in adaptive and mitigative capabilities tied to disparities in wealth.

A History of the Future invites these kinds of transnational comparisons and contrasts. The photographs and captions associated with the project's multifarious sites vary in size, scope, and profundity, as well as in terms of their moral propositional content. However, these inconsistencies are also telling, and help make the project as a whole a cogent and compelling record of the uneven distribution of climate change impacts across the globe and the escalating need for site-reformative action.

¹⁵² "Netherlands," accessed February 28, 2016, <http://www.history-of-the-future.com/?p=144>.

¹⁵³ "Bangladesh," accessed February 28, 2016, <http://www.history-of-the-future.com/?p=134>.

¹⁵⁴ Ibid.

2.5 Final Remarks

The common denominator of the three eco-art projects discussed in this chapter is an urgent sense of moral obligation to document the undocumented sites and *faces* of the environmental crises of the present, precisely because their specificity is inadequately and irresponsibly undifferentiated, undocumented, unrepresented, unpublicized, and unreformed. Site responsibility accentuates the artworks' dutifulness in these respects, reframing them as acts of site-reformative, evidentiary ground truthing aimed at representing, publicizing, and eliciting concern for specific sites of harmful, anthropogenic, ecological degradation. By differentiating the deontic and morally clarificatory aspects of their propositional content and evaluating their qualities of representational accuracy, physical accessibility, and cognitive intelligibility, site responsibility offers fresh insights into the artworks' definitive documentary, site-specific, and eco-ethical properties and adds a new dimension to their spectrums of value.

Balkin and Stringfellow's *Invisible-5* project documents twenty-three different neighboring sites of environmental degradation and injustice in the I-5 region and highlights the reformative responsibilities of the sites' different human stakeholders, including both the irresponsible actions of perpetrators of ecological harm and the struggles of local victims to bring about more responsible land use. Ballengée's *Collapse* installation presents a sizeable body of scientific and testimonial evidence recording the widespread ecological devastation in the Gulf of Mexico caused by BP's irresponsible actions. Saylor and Morris's *A History of the Future* series chronicles the varying impacts of anthropogenic climate change on the

landscape and its human and nonhuman inhabitants at fourteen different sites across the globe, underscoring humankind's adaptation and mitigation responsibilities. These kinds of degraded sites, the ethical responsibilities they implicate, and the artists' site-reformative approach to documenting them are prevalent in the field of contemporary eco-art. Site responsibility accentuates the integral eco-ethical connections between them.

3 ACTIVIST ECO-ART AS SITE-REFORMATIVE POLITICAL ADVOCACY

It is a safe bet to begin with notion that the locus of political responsibility is a human-nonhuman assemblage [...] In emphasizing the ensemble nature of action and the interconnections between persons and things, a theory of vibrant matter presents individuals as simply incapable of bearing the *full* responsibility for their effects [...] Perhaps the ethical responsibility of an individual human now resides in one's response to the assemblages in which one finds oneself participating: Do I attempt to extricate myself from assemblages whose trajectory is likely to do harm? Do I enter into the proximity of assemblages whose conglomerate effectivity tends toward the enactment of nobler ends? [...] An understanding of agency as distributive and confederate thus reinvoques the need to detach ethics from moralism and to produce guides to action appropriate to a world of vital, crosscutting forces.

- Jane Bennett, *Vibrant Matter: A Political Ecology of Things*, 2010

Traditionally, politics need to endow its citizens with some capacity of speech, some degree of autonomy, and some degree of liberty. But it also needs to associate these citizens with their matters of concern, with their *things*, their *circumfusa* and the various domains inside which they have traced their limits of existence – their *nomos*. Politics needs a common world that has to be progressively composed. Such composition is what is required by the definition of *cosmopolitics*. [...] The point of living in the epoch of the anthropocene is that all agents share the same shape-changing destiny. A destiny that cannot be followed, documented, told, and represented by using any of the older traits associated with subjectivity or objectivity. Far from trying to “reconcile” or “combine” nature and society, the task, the crucial political task, is on the contrary to *distribute* agency as far and in as *differentiated* a way as possible – until, that is, we have thoroughly lost any relation between those two concepts of object and subject that are of no interest anymore except patrimonial.

- Bruno Latour, “Agency at the time of the Anthropocene,” 2014

There are also good deontological reasons for believing that citizens have duties to engage in environmental justice advocacy [...] people have a responsibility to act as environmental justice advocates, at least insofar as they are complicit in, and have benefited from, environmental injustices. Perhaps they have not endured particular pollution threats because politically and economically vulnerable people already had them in their backyards. If they have paid less for goods because those goods were produced by manufacturers who spew their pollution into poor areas, then they have responsibility through complicity. Citizens in developed, western countries often bear special responsibility through complicity. Western standards of living and luxuries frequently are made possible only through environmental injustice in foreign workplaces and only through developed nations' using a disproportionate share of environmental resources [...] Genuine objectivity requires calling a spade a spade [...] not neutrality but treating a questionable ethical position as if it is questionable. As Aristotle recognized, equal treatment does not mean the same treatment. To the degree that they trivialize and treat morally different positions equally, people discriminate if they remain neutral in the face of environmental injustice.

- Kristin Shrader-Frechette, *Environmental Justice: Creating Equality, Reclaiming Democracy*, 2002

3.1 Activist Eco-art and Site Responsibility

The task of environmental reform in the Anthropocene has prompted new models of eco-political action. Contemporary philosophers across the social sciences and humanities have set about reformulating political theory in order address the complexities of humankind's detrimental impacts on the material interactions between human and nonhuman organisms and their environments, and furthermore to connect them with the challenging dynamics of global political legislation of sustainable development and climate change abatement. While theorists such as Jane Bennett and Bruno Latour, representative of the emergent field of new materialism within continental philosophy, are inclined toward the use of poetic language and inventive metaphors to reframe the interplay between ecology and politics, analytic philosophers of environmental ethics such as Kristin Shrader-Frechette, on

the other hand, tend to use the more prosaic diction of environmental law. Nevertheless, as the opening quotes from these scholars indicate, despite the face value of their stylistic discrepancies, there is some constructive common ground between their approaches to reformative eco-politics. It would seem that Bennett's call for ethico-politically responsible guides to distributive action owing to the harm-producing agency of human-nonhuman assemblages/interactions and Latour's proposed cosmopolitics centered around human-nonhuman relational matters of concern (things) and the notion that all human agents share the same shape-changing destiny to differentiate and distribute their agency as far and wide as possible in order to progressively compose a common world are both really not so philosophically "divided" from Shrader-Frechette's deontological argument in support of human complicity as justification for morally differentiated participatory-advocatory responsibilities. The interrelated eco-ethico-political imperatives delineated by these theorists suggest that the act of *facing* the environmental crises of the present means not only acknowledging the facticity and legitimacy of documented sites of anthropogenic ruin, but also *interfacing* with other human and nonhuman agents in ways that are socio-politically egalitarian and effectively serve to hasten rather than hinder the process of reforming such sites. Interfacing, in this sense, implies orienting or reorienting oneself politically – pointing in a specified direction toward a particular common site/situation of concern and taking a position regarding the best course of action for resolving that problem, with respect to the faces of the other members of the public assembled together around it as well as the faces of nonhuman agents whose value must be represented and legislated by humankind. Thus, the site-as-degraded-ecosystem becomes an interface – a common boundary between people, things, and systems, or a point of interaction across which information is exchanged. The

eco-artwork too functions as an interface – a connective linking device, medium, or program for joint communication between different agents, stakeholders, or potential reformers. By staging and performing these site-specific interfacings, eco-art activists, as purposive reformer-interfacers, help to make the tenets of the aforementioned philosophical theories into a political reality. A more succinct, straightforward way to articulate the site-artwork-spectator interface in this case would be to say that site-reformative eco-art activism reconfigures the site as a public, non-governmental, eco-political forum into which the artist interjects the artwork as an advocacy speech act, grievance, or rights claim.

This chapter examines the activist eco-art mode as site-reformative political advocacy – public support for, or argumentation against, particular environmental causes, policies, or courses of action pertaining to specific degraded sites. It contends that activist eco-artworks are site-responsible because they set in motion the politics of site reform. Their site-reformative, eco-ethico-political agency is both materially vital and deontological dutiful to the extent that it is grounded in the ecological specificity of human-nonhuman interrelationships, while staging and performing the essential ethico-political tasks of differentiating human agents' relational proximity to harmful assemblages, distributing corresponding guides to reformative action, and incentivizing them with the binding force of moral complicity.

Like eco-art documentarians, eco-art activists are involved in the business of publicizing ecologically damaged sites as matters of concern, thus making them more accessible to political scrutiny. However, while documentary eco-artworks often assume a more politically detached, restrained, or neutral position in regard to the sites they are pointing to and reporting on, activist eco-artworks tend to be more direct and pronounced in

their engagement with the political specificity of sites and usually take a more explicit partisan stance regarding them. The general aim is not merely to elicit, but rather to vehemently seize the public's attention to, interest in, or concern for the site in question; to campaign for spectators' participation in political deliberation about its welfare; and furthermore to persuade them to think or act accordingly in one way or another. Whereas a documentary eco-artwork might imply or suggest, "Something really ought to be done about this damaged site in need of reform," an activist eco-artwork is more inclined to take the site-reformative process a step further by asserting, "This is something we (as a political body) have good reason to do (enact) in order to reform this site, and here is why." Eco-artists tend to blur the boundaries between these overlapping modes of site specificity, but these fundamental categorical distinctions are significant nonetheless because they indicate divergent value trajectories, aesthetic strategies, and moral implications. Documentary works tend to configure degraded sites as more vaguely as eco-ethical matters of concern indicating a need for reformative political assembly. Activist works, by comparison, are a means for eco-artists to take part in reformative political assembly by configuring more explicit political positions with regard to degraded sites.

One might argue that advocacy persuasiveness is essentially the core value of activist art. Activist artworks are typically received in ways analogous to how other manifestations of politically motivated visual culture are received. We expect them to publically recommend or support specific causes or policies, presumably based on sound reasoning or argument, and we judge them according to how effectively and convincingly their propositional content is communicated. In the case of activist eco-artworks, one anticipates that they have some sort of environmental agenda and is therefore compelled to

interpret and evaluate them accordingly. In other words, as spectators of activist eco-art, we anticipate being confronted with propositions intended to persuade us as to how and why humankind should take action in one way or another to better protect the environment. The persuasiveness of such propositions hinges on several factors, including those relevant to documentary eco-art, such as evidential truthfulness, representational accuracy, physical accessibility, and cognitive intelligibility. However, activist eco-art's particular emphasis on advocacy persuasiveness also touches on the distinctive mode-specific criteria of aesthetic conspicuousness and moral bindingness.

Conspicuousness is a definitive aesthetic feature of the activist mode. Activist artworks are usually strategically designed to stand out from their immediate surroundings, to be clearly perceptible, and to attract public attention. This characteristic is perhaps due, at least in part, to the fact that they normally do not necessarily exert the same political pressure on individuals to respond as a one-on-one conversation, group discussion, or formal meeting might. Correspondingly, activist art seems to operate under the presumption of being more easily dismissed, ignored, or overlooked if it does not make a concerted effort to strive against obscurity and to be seen, heard, understood, and accounted for. Philosopher Jacques Rancière writes,

The main procedure of political or critical art consists in setting out the encounter, and possibly the clash, of heterogeneous elements. The clash...is supposed to provoke a break in our perception, to disclose some secret connection of things hidden behind everyday reality. [...] Political art thus means creating those forms of dialectical collision or dissensus that put together not only heterogeneous elements but two politics of sensoriality. The heterogeneous elements are put together in order to provoke a clash. Now, the clash is two things at once. On the one hand, it is the flash that enlightens. The connection of heterogeneous elements speaks out of its legibility. It points to secret of power and violence. [...] But on other hand, the clash is produced insofar as the heterogeneity of elements resists the homogeneity of meaning.

[...] The mere relationship of heteroclite elements appears, thus, as a dialectical clash playing witness to a political reality of conflict.¹⁵⁵

These premises apply to activist eco-art. Conspicuous in appearance, form, and spatialization, activist eco-artists' performative gestures and the objects or displays they produce set up the kind of phenomenological/conceptual *clashes* described by Rancière. Their works incorporate many attention-grabbing methods commonly employed by art activists since the 1960s. For example, whereas the projects discussed in the previous chapter utilize more inert representational materials such as evidential/testimonial audio recordings and preserved biological specimens along with the conventional documentary mediums of photography and video, the activist projects considered in this chapter juxtapose traditional lens-based documentation with conspicuous, *heterogeneous elements* such as: large sculptural bullhorns and dramatic pitch black interactive installations; overt public acts of civil disobedience carried out by local protest groups using symbolic appropriated/repurposed (or détourned) "non-art" objects, vehicles, and technologies; and recursive systemic apparatuses such as carbon emissions credits, UNESCO proposals, and advertising billboards. While these kinds of aesthetic tactics may allow activist eco-artists to successively capture public attention, their tendencies toward spectacular excess make them susceptible to the pitfalls of distortive misrepresentation or overdramatization. As Nina Felshin cautions, "Participation through interpretation – a key strategy of activist art – is impossible if ambiguity and obscurity, however provocative aesthetically and intellectually, bat comprehension."¹⁵⁶ Therefore, the criteria of representational accuracy, physical accessibility, and cognitive intelligibility come into play once again, in this case for the

¹⁵⁵ Jacques Rancière, "Contemporary Art and the Politics of Aesthetics," in *Communities of Sense: Rethinking Aesthetics and Politics*, eds. Beth Hinderliter, William Kaizen, Vered Maimon, Jaleh Mansoor, and Seth McCormick (Durham: Duke University Press, 2009), 41-2.

¹⁵⁶ Nina Felshin in *But Is It Art? the Spirit of Art As Activism*, ed. Nina Felshin (Seattle: Bay Press, 1994), 25.

purpose of morally tempering the aesthetic conspicuousness of activist eco-art's clashes. The artwork's abilities to *speak out of its legibility* and politically persuade or *enlighten* through *dialectical collision or dissensus* are dependent upon such factors.

Advocatory persuasiveness is also contingent on the moral bindingness of an artwork's variable propositional content. To various degrees, activist eco-artworks implicate spectators directly or indirectly in harm-producing ecological assemblages – states of complicit involvement with others in bearing some of the responsibility for the collective wrongdoings of anthropogenic ecological degradation. Bennett's articulation of ethical responsibility is worth revisiting here, as it precisely encapsulates the kind of eco-ethico-politically binding inquiry that activist eco-artworks put in place and impose on spectators:

Do I attempt to extricate myself from assemblages whose trajectory is likely to do harm? Do I enter into the proximity of assemblages whose conglomerate effectivity tends toward the enactment of nobler ends?¹⁵⁷

This proposition is really the true locus of activist eco-artworks' eco-ethico-political agency. They not only appeal to spectators' ethical sensibilities by proposing moral judgments that certain environmental causes, policies, or reformatory courses of action are the right, wrong, questionable, or permissible thing to do about a particular degraded site and situation of harm; they also bind spectators' agency to the site's welfare through the force of moral complicity, thereby staging and summoning their political induction into the fold of dutifully attentive, willingly participative, site reformers.

The following sections dissect three multifaceted activist eco-art projects that exemplify site-responsible public advocacy to bring about environmental reform. The artworks vary with regard to their precise subject matter, medium, and activist strategies. They also range in scope from regional to transnational. The first one addresses local

¹⁵⁷ Jane Bennett, *Vibrant Matter*, 37-8.

territorial rights struggles on an island ravaged by military ecocide. The second deals with widespread problem of industrial air pollution and the political inadequacies of the carbon emissions cap-and-trade system. The third seeks to register more prominently on the global political radar the disturbing wave of mass extinction that is currently sweeping across our planet. Foregrounding the activist mode-specific criteria of advocacy persuasiveness, aesthetic conspicuousness, and moral bindingness outlined in the preceding paragraphs, site responsibility seeks to answer the following questions: What are the deontic, eco-ethical implications of the guides to reformative action the artwork advocates for, politicizes, or sets in motion regarding its site(s)? How is the artwork's advocacy persuasiveness initiated by aesthetic conspicuousness and enhanced by moral bindingness of its propositional content? To what extent does the artwork generate a resounding eco-ethico-political *clash* that binds?

3.2 *Land Mark*: Tracing Military Ecocide and Territorial Rights Advocacy in Vieques

Land Mark (1999-2003) is a series of site-specific activist works by the collaborative duo Jennifer Allora and Guillermo Calzadilla, which address longstanding territorial disputes between the citizens of Vieques, Puerto Rico, and various agencies of the U.S. government and military. The series encompasses the artists' manifold endeavors to investigate and contribute to local activists' enduring struggles to confront military ecocide, reclaim Vieques's life-supporting ecological systems, hold the U.S. government and military accountable for remediating the damage they have wrought, and ensure a more sustainable and equitable future for the island and its resident stakeholders. According to the artists, the works are intended to pose questions such as: How is land differentiated from other land by

the way it is marked? Who decides what is worth preserving and what should be destroyed? What are strategies for reclaiming marked land? How does one articulate an ethics and politics of land use?¹⁵⁸

The *Land Mark* series is informed by Allora and Calzadilla's research into the site's contentious history, a basic understanding of which is essential to comprehending the artworks' eco-ethico-political significance. In 1941, the U.S. military used eminent domain to evict thousands of peasants, sugarcane workers and fishermen, in the process of expropriating two-thirds of Vieques to build a base, weapons storage facility, and bombing range.¹⁵⁹ Over the next 60 years, the U.S. Navy used these areas for weapons training and testing, involving the employment of live ammunition, napalm, radioactive depleted uranium shells, and chemical/germ warfare agents.¹⁶⁰ The Navy's actions have inflicted long-term environmental degradation and health threats within and beyond the designated military zones, resulting in the emigration of much of the local civilian population.¹⁶¹ Those who have remained on the island have been subjected to the cacophony of incessant bombing, chronic unemployment, declining living conditions, and increased cancer rates.¹⁶² Since the 1970s, local activists have carried out a vigorous civil disobedience campaign against the military's occupation and destructive land use. For example, early on, members of the fisherman's movement utilized the tools of their trade – boats, buoys, nets, and chains – to temporarily interrupt naval operations and incapacitate the propellers of warships.¹⁶³ In 1999, protests escalated after an errant bomb dropped by the military in a civilian area caused the death of

¹⁵⁸ These questions appear repeatedly in the literature about *Land Mark*.

¹⁵⁹ Yates McKee, "Art and the Ends of Environmentalism: From Biosphere to the Right to Survival" in *Nongovernmental Politics*, ed. Michel Faher et al. (New York: Zone Books, 2007), 566.

¹⁶⁰ Paul Schmelzer, "Insurgent Inquiry: The Art of Allora and Calzadilla," *Adbusters* (April 2004).

¹⁶¹ McKee, "Art and the Ends of Environmentalism," 566.

¹⁶² Ibid.

¹⁶³ Ibid.

island resident David Sanes. In response to decades of activism, negative publicity, and legislative pressure, the U.S. government finally began shutting down military operations in Vieques in 2001, and in 2003 they officially vacated the island.¹⁶⁴ Soon thereafter, control of the newly demilitarized zones – 3,100 acres on the east side of the island in 2001 and 14,671 on the west side in 2003 – was transferred to the U.S. Fish and Wildlife Service, as opposed to the municipality of Vieques.¹⁶⁵ In 2005, the U.S. Environmental Protection Agency reclassified the areas as Vieques National Wildlife Refuge and added them to the National Priority List of Superfund Sites.¹⁶⁶ Allora and Calzadilla's late intervention into this story marks a pivotal transitional period of status change in the site's history.

The artists' response to these developments is comprised of four related projects: *Land Mark (Foot Prints)* (2001-2002), *Returning a Sound* (2004), *Under Discussion* (2005), and *Land Mark (Felt)* (1999/2003/2006). These artworks correspond in mode and share common features with regard to site, subject, and stance. They all engage the themes of site-specificity, territoriality, and environmental justice pertaining to the physical location of Vieques and the situational realities of its residents impacted by military ecocide. The advocacy position of the artworks is mutually directed toward the locational site of Vieques, in opposition to the Navy's victimization of its inhabitants. They are designed to make the Viequenses' adversity a matter of public concern, to persuade audiences that the Navy's past actions were wrongfully harmful, and to argue that the U.S. government and

¹⁶⁴ Yates McKee, "Wake, Vestage, Survival: Sustainability and the Politics of the Trace in Allora and Calzadilla's *Land Mark*," *October* 133 (Summer 2010), 36.

¹⁶⁵ Margo Handwerker, "Jennifer Allora and Guillermo Calzadilla *Land Mark (Foot Prints)*, 2001-2" in *Nobody's Property: Art, Land, Space, 2000-2010*, ed. Kelly Baum (New Jersey: Princeton University Art Museum, 2010), 82.

¹⁶⁶ *Ibid.*

military should be held responsible for rectifying the situation by remediating the site and enacting reforms to guarantee the islanders' rights to a healthy environment.

The *Land Mark* projects vary in medium, incorporating performance, photography, video, and installation. Their propositional content also differs in terms of its precise indexical relations to the site of concern and with respect to the criteria of advocacy persuasiveness, aesthetic conspicuousness, and moral bindingness.

The foundational artwork, *Foot Prints* (2001-2002), is the most direct of the four in its human physical connections to the locational site. It also articulates the most explicit advocacy claims and possesses the most substantial persuasive moral propositional content of all the projects. The work is comprised of 24 color photographs that record performative site-specific interventions and gestures of civil disobedience carried out in collaboration with a diverse group of demonstrators, including local anti-military activists, long-time residents, students, environmentalists, conservationists, religious groups, various political representatives, and a few celebrity politicians.¹⁶⁷ [Figure 125] The work entailed creating custom, laser-cut, silicone relief stamps embossed with personalized messages of protest combining images and text, designed by individual activists. These stamps were in turn attached to the soles of the activists' shoes and used to temporarily *mark* the *land* with hundreds of footprints while trespassing in the restricted military zone and disrupting the weapons testing for several hours by triggering the thermal surveillance sensors. This symbolic intrusion on the bombing range also recalled the historical civil-disobedience tactics carried out in the 1970s by members of the fisherman's movement.

This peculiar display of footprints containing visual messages spread across the surface of the sand would have no doubt proved conspicuous relative to the ordinary

¹⁶⁷ Allora and Calzadilla in Patricia Falguières "Archipelago," *Parkett* 80 (2007), 33.

appearance of the beach and the types of nondescript markings usually left there by humans and other organisms, and would have likely attracted the attention of bystanders. However, the activists' gestures and resultant footmarks were also rather limited as far as their initial spatiotemporal presence is concerned, because their transitory appearance was confined to the trespassers' immediate proximity and visible only to downcast eyes; their swift disappearance was an inevitable consequence of the prevailing wind and tides. As art historian Kelly Baum explains, they were "a local action directed at a local audience, with all the senders and receivers working within more or less the same frame of reference."¹⁶⁸ Even so, the footprints do constitute an operative means of self-advocacy – a way of physically engaging a site of concern by seizing, physically occupying, and temporarily transforming it into a place to take a political stand, be seen, and be heard. They are a strategic method of treading lightly yet persuasively, producing marks that register materially, symbolically, and socio-politically, but not ecologically (footprints that have no "ecological footprint"). The disorganized, haphazard appearance of the different overlapping footprints also serves as a metaphor for the messy, dissentious interplay of conflicting values and interests integral to democratic political processes. As such, the impressions also provide an emblematic contrast to the kind of measured, uniform tracks left by a military regiment marching in lockstep. They are the unruly footprints of political dissent clashing with the orderly bootprints of doctrinal militarism.

The content of the individual protest messages imprinted within the footprints expresses solidarity among the activists in terms of their mutual discontent towards the

¹⁶⁸ Kelly Baum, "Supplement: Reading *Land Mark (Foot Prints)*" in *Nobody's Property: Art, Land, Space, 2000-2010*, ed. Kelly Baum (New Jersey: Princeton University Art Museum, 2010), 84.

Navy's actions, and at the same time registers the pluralistic discord regarding the future status of the site. Yates McKee observes,

Looking down at the disturbed ground like investigators at the scene of a crime, what we witness in the photograph is a cacophony of overlapping, mutually effacing inscriptions marking everything from Puerto Rican nationalism, to the memory of the fisherman's original civil-disobedience activities, to demands for reparation from the federal government, to calls for protection of the local ecosystems.¹⁶⁹

The footprints incorporate images derived from photographs of recent and past civil disobedience campaigns, such as various clashes between protestors and military police, temporary "sit-in" structures positioned illegally on the bombing range, military guards' booths, group portraits of fisherman, and individual portraits. [Figures 126-128] Also included are other symbolic images such as doves, flags, weapons, the skull and crossbones, a reproduction of an iconic photograph from the 1969 Apollo 11 "first steps" space mission, and a map of Vieques with large X's marking the restricted military zones on the western and eastern sides of the island. The text appears in either Spanish or English, together with images or as a stand-alone. One of the most common slogans used is "Fuera la marina" (Navy Out). Other notable slogans include the following: "La Marina es muerte" (The Navy is Death), "Muerte" (Death), "328 Muertos" (328 Dead), "Violations of Human Rights," "Warning: Civil Disobedience Will Continue," "No more chemical and biological weapons on our land," "We will not change for \$," "Great is the empire we challenge, but greater is our right to liberty," "The population of Vieques in 1940, 30,000 people... the population of Vieques in 1998, 8,000 people," and various excerpts from the 1998 document the "Declaration of Ultimatum of the People of Vieques to the United States Navy" calling for

¹⁶⁹ McKee, "Art and the Ends of Environmentalism," 568.

the Navy's complete withdrawal from the island.¹⁷⁰ As Kelly Baum asserts, "Together, these images and texts narrate the history of the island, including its occupation by the military and by individuals as well as the competing claims made on its land and resources."¹⁷¹

These marks on the land are no ordinary footprints. They are ambulatory utterances, or conversely, gestural speech claims, registering the grievances of victims of unjust ecological harms. In linguistic terms, the messages can be described as paraphrastic, in that their meanings are enunciated using different words and forms so as to achieve greater clarity. In ethical terms, they comprise an amalgamation of individual, territorial rights-claims for environmental justice and reform.

When re-framed, re-presented, and re-situated in photographs within the context of the gallery, their site specificity and indexicality are both preserved and enhanced. On-site becomes nonsite, as the activists' ephemeral gestures are spatiotemporally suspended in the photographic document, conveniently displayed at eye-level, and judiciously illuminated against a neutral-colored wall. As a result, their propositional content is rendered more physically accessible and cognitively legible to inquiring minds, and the intersecting particulars of subject, site, situation, and stakeholders can stage an opportunity for moral reflection on matters of rightness, wrongness, permissibility, and responsibility.

Foot Prints invites spectators to bear witness to the events that transpired in Vieques via the indexical traces that mark the landscape and prompts them to consider questions such as: What are these unusual graphic footprints in the sand? Who made them and why? What messages do they convey? Further reading into the artwork raises more weighty questions with moral import: What are the environmental repercussions and ethical implications of

¹⁷⁰ See Baum, "Supplement," 84.

¹⁷¹ Ibid., 85.

military expropriation by eminent domain or weapons testing? On what grounds are the government and military institutions – entrusted with the task of representing, legislating, serving, and protecting the land and people of the U.S. – permitted to commit ecocide and knowingly inflict harms on certain territories and civilians? What qualifies as just compensation for such actions? What are my territorial rights, and what would I do if I happened to be in their shoes...if this was my local beach...if these were my footprints? To gaze at one's own feet on the land and the marks they make implies the consideration of one's space, one's place, one's situation, one's position in relation to others and the environment. Gazing at the footprints of others connotes contemplating the specificity of their space, their place, their situation, their position in relation to ones own; detecting commonalities and discordances; creating, connecting, and sharing different experiences with others across space and time.

Like *Foot Prints*, the subsequent, related video works *Returning a Sound* (2004) and *Under Discussion* (2005) are both indoor gallery displays that record outdoor onsite, performative gestures of civil disobedience and political protest carried out by local activists in Vieques. However, they differ from *Foot Prints* in that both were filmed after the Navy ceased operations and left the island in May 2003. They each entail repurposing symbolically loaded objects and vehicles as counter-representational tools for provisionally marking and reclaiming the demilitarized terrain newly reopened to civilians. When captured on video and screened inside the gallery, the activists' vehicular excursions are transformed into accessible guided tours for the viewing public. As Calzadilla explains, they are tours that at once celebrate a victory and register its precariousness.¹⁷²

¹⁷² Calzadilla in Carlos Motta, "Allora and Calzadilla (interview)," *Bomb* 109 (Fall 2009), Accessed March 1, 2016, <http://bombmagazine.org/article/3333/allora-calzadilla>.

Returning a Sound is a single-channel video with sound, 5 minutes 42 seconds in length, showing a young Vieques activist named Homar driving a moped – with a trumpet welded in place of an ordinary muffler – through the formerly restricted areas of the island. [Figures 129-131] The multilayered iconography of the trumpet is especially pertinent in this case, as it is an instrument that figures prominently in Caribbean and especially Puerto Rican music and also one used historically by the military to wake up soldiers; to warn, mobilize, or inspire them in combat; and to commemorate their deaths. As Homar revved the throttle to accelerate and decelerate the scooter, the distinct atonal blare of the trumpet-muffler announced his presence with corresponding variations in pitch and timbre. His ride would have no doubt proved audibly conspicuous to casual observers onsite. However, its symbolic meaning may have remained unclear to those uninformed of the precise nature of the artwork's intended purpose. It is only when re-presented on video within the context of the art gallery along with all the accompanying expository exhibition materials, that Homar's actions take on a more explicit meanings and moral import. When experiencing the video tour, one not only bears witness to his sonic land reclamation aurally, but also visually, as you watch him traverse the scarred countryside where his grandparents once lived prior to the military expropriation. The driver's tenacious stone-faced and silent demeanor serves to redirect the viewer's attention toward the surrounding landscape littered with bomb craters and shrapnel, abandoned bunkers and munitions storage facilities, a warning sign reading, "NO TRESPASSING, AUTHORIZED PERSONNEL ONLY, DANGER EXPLOSIVES," and sporadic graffiti from protestors.¹⁷³ One prominent example sprayed on the side of a rusted tanker floating in the bay reads, "Bieké o Muerte," which translates as, "Bieké [the

¹⁷³ Handwerker, "Jennifer Allora and Guillermo Calzadilla *Land Mark (Foot Prints)*, 2001-2," 82.

Vieques language] or Death,” a sort of site-specific reinterpretation of the advocacy group ACT UP’s dire motto “Silence = Death” in relation to the HIV/AIDS crisis.

Under Discussion (2005) is a single-channel video with sound, just over 6 minutes in length, tracking another young activist (and son of a leader of the fisherman’s movement in Vieques) named Diego as he pilots an overturned conference table – retrofitted with an outboard motor and a rudder from a fishing boat – through the waters off the coast of the demilitarized zones, temporarily reclaiming and remarking with waves of sound and seawater the disputed site and the routes formerly traversed by members of the early fisherman’s movement who initiated the site’s rich legacy of civil disobedience by confronting Navy ships back in the 1970s. [Figure 132-133] The footage alternates between close-range shots of Diego navigating or standing assertively on the table-boat and wide-angle aerial views of picturesque coastline scenery with cool blue water, white-sand beaches, and swaying palm trees. This is alongside clear evidence of military ecocide such submersed bomb craters, warning signs, and hazardous munitions waste visible on the ocean floor, as well as indications of more recent large-scale commercial ecotourism redevelopment such as Wildlife Refuge informational placards and sprawling luxury hotels. This flipped and re-equipped conference table symbolically debunks the idea of the “discussion table” or “negotiating table.” Tactically transformed into a vehicle of protest, it operates as a counter-signifier for the real-life power discrepancies and unequal playing field between a victimized local majority like those in Vieques and the privileged minority of military and governmental perpetrators who preside comfortably at such tables, insulated and uncontested behind closed doors, where they can so authoritatively legislate the fate of the land. By metaphorically “détourning the tables on” the pervasive romanticized notion of the “negotiating table,” the

artwork encourages the viewer to take the situational realities in Vieques as exemplary of the falsity of such claims. Rather than depicting sustainable land-use and equitable distribution of available resources based on genuinely accessible, inclusive, reasonable, democratic deliberation, Allora and Calzadilla's video of Diego's voyage of protest retraces a history of hegemonic environmental harm begetting distributive and participative injustice.

The other companion piece, *Felt* (1999/2003/2006), transforms appropriated geographic information system (GIS) data – used previously by the military for targeted bombing – into an immersive, indoor video installation. [Figure 134-135] A computer-generated model of the bomb-cratered topography of Vieques is rendered as a panoptic, undulating grid of white lines projected onto thousands of individual squares of black felt arranged side by side on the gallery floor. The individual squares are not fixed in place and are therefore subject to displacement from viewers' foot traffic. Like the *Foot Prints* in the sand, and like the territorial status of Vieques and its people, the current status of these “felt” sites is unstable, and their future is uncertain. Once again, we as spectators are directed to look down at our own feet, and at the floor/ground (site) below, and ponder its specificity. We are invited to contemplate the implications of our presence in this place and in reference to the situation at hand. More precisely, we are asked to consider: How have the *land* and people of Vieques been *marked*, by whom, and in whose interests? What is at stake, and who holds the power to *mark*? Who will be responsible for the uncertain future of this site? What have others *felt* here in this place, and how do I *feel* about it now? Where do I *stand*, or what is my political/moral *stance* in relation to this site? What ought to be done to correct this situation?

Together, these four *Land Mark* projects form an eco-ethico-political interface – a nexus of circuitous pathways connecting site to responsibility. Advocatory gestures (trespassing, conspicuous acts, détournements) generate new indexical traces on the site (embossed footprints, tire tracks, boat wake patterns, topographic projections), enacting symbolic territorial rights reclamations in the present while at the same time re-inscribing the scars of the past (abandoned structures, bomb craters, protest graffiti, military detritus, contaminated water, ruined fisheries, warning signs). These multifarious traces of activism are recorded and re-presented in photographs, videos, and installations within the context of the gallery (as nonsites), effectively reframing, publicizing, and politicizing Vieques as a site of environmental harm warranting our concern. The persuasive propositional content of the resultant site-specific nonsites in turn opens up new spaces conducive to political agency, mediated witness-bearing, and moral reflection.

3.3 *Public Smog*: Spatializing the Siteless Sham of Carbon Emissions Cap and Trade

Amy Balkin's *Public Smog* (2004-present) is a clean-air park sited in Earth's troposphere, created by purchasing and withholding carbon emissions credits so as to prevent them from being used to offset industrial pollution. In order to expand the size of the park, Balkin also nominated the entire global commons of Earth's atmosphere to the UNESCO World Heritage List as a protected site. This activist project draws critical attention to the ineffectiveness of the cap-and-trade system, which allows polluting industries to disregard emissions quotas by purchasing permits offset by other industries that have not used their full emissions allowances.

Balkin defines the various elements of the project as follows:

Public Smog is a park in the atmosphere that fluctuates in location and scale. The park is constructed through financial, legal, or political activities that open it for public use. Activities to create *Public Smog* have included purchasing and retiring emission offsets in regulated emissions markets, making them inaccessible to polluting industries. When *Public Smog* is built through this process, it exists in the unfixed public airspace above the region where offsets are purchased and withheld from use. The park's size varies, reflecting the amount of emissions allowances purchased and the length of contract, compounded by seasonal fluctuations in air quality. Other activities to create *Public Smog* impact the size, location, and duration of the park. These activities include an attempt to submit Earth's atmosphere for inscription on UNESCO's World Heritage List...*Public Smog* is subject to prevailing winds, and the long-range transport of aerosols and gases...*Public Smog* only exists through use and continual action. Passive use such as breathing is encouraged, as are activities for taking back the air. *Public Smog* is open to the public free of charge.¹⁷⁴

The artwork has been sited at two different locations thus far. The "Lower Park" was opened to the public during the summer of 2004 in the airspace above the Coastal Zone of California's South Coast Air Quality Management District, when Balkin purchased 24 lbs. of nitrous oxide credits at a price of \$4.25 per lb. (\$102 in total) from an unnamed offsets trading company operating in a regional non-Kyoto Protocol cap-and-trade scheme and retired them from use.¹⁷⁵ The "Upper Park" opened from December 2006 through December 2007 over the European Union with the purchase of 51 tons of carbon dioxide allowances in the EU Emissions Trading Scheme for the first Kyoto Protocol, and again from April to August 2010 over the United States with the purchase of 500 tons of carbon dioxide credits from the Chicago Climate Exchange.¹⁷⁶ According to Balkin, the size of the Upper Park is

¹⁷⁴ "Pubic Smog," accessed April 3, 2015, <http://www.publicsmog.org>.

¹⁷⁵ "Lower Park," Public Smog, accessed April 3, 2015, http://www.publicsmog.org/?page_id=18.

¹⁷⁶ "Upper Park," Public Smog, accessed April 3, 2015, http://www.publicsmog.org/?page_id=19.

roughly equivalent to the volume of airspace in 51 football stadiums.¹⁷⁷ Both parks remained open until the purchased credits expired, and they have been closed ever since.

The actual park itself is portrayed in digitally altered photos as a stark white cube floating in the hazy skies above the respective cities of purchase. [Figure 136] Thus the siteless, economic abstractions of carbon emissions credits are reframed and reified as a cubic site representing a public park of actual, unpolluted airspace over their terrestrial transaction sites. These siteless facets of the project – namely the intangible atmospheric park and the market-based scheme of carbon offsetting – point to problems of sitelessness pertaining to global climate change. Art historian T. J. Demos elucidates:

The virtuality of the project – a “park” in the air can neither be seen or exist in any stable state – mirrors the invisibility and abstract quality of atmospheric carbon dioxide and, indeed, of climate change itself. This very invisibility eases the denial of global warming and facilitates its economic manipulation, whose problematic nature Balkin seeks to expose.¹⁷⁸

Beyond the initial activist gestures of withholding purchased carbon emissions credits and nominating Earth’s atmosphere for UNESCO’s World Heritage List, *Public Smog* also involved displaying a series of thirty billboards across Douala, Cameroon, proposing the possible opening of a clean-air park over Africa in 2009. [Figure 137] The billboards combined images of the local landscape with fifteen different pithy slogans in English and French that are also featured throughout many of the other elements of the project. According to Balkin, the slogans interweave rhetoric, boosterism, greenwash, and agitation.¹⁷⁹ Although the proposed park was never opened, Balkin maintains that the billboards and the project as a

¹⁷⁷ This calculation is based on the ratio: one metric ton of carbon dioxide = a cube 1,334,000 m³ (110 m on a side), roughly the volume of airspace in a football stadium. See “Upper Park,” *Public Smog*, accessed April 3, 2015, http://www.publicsmog.org/?page_id=19.

¹⁷⁸ T. J. Demos, “Art After Nature,” *Artforum* (April 2012): 193.

¹⁷⁹ “About,” *Public Smog/Douala* (2009), accessed April 3, 2015, http://tomorrowmorning.net/publicsmog_billboards.

whole did generate some discussion among journalists regarding climate change and the political and structural impacts of emissions trading on Africa, as well as some mixed readings by the news media.¹⁸⁰

The various indoor gallery exhibition (nonsite) components of *Public Smog* incorporate the following: manipulated aerial photographs of the cubic parks, a series of propositional maxims about the work written in all-caps, financial and legal documents from the artist's transactions, transcripts of Balkin's phone conversations and written correspondence with UNESCO affiliates, as well as a 22-minute digital slide show documenting these activities. The project also has a comprehensive website similar in format to the one for Balkin's *Invisible-5* documentary collaboration with Kim Stringfellow, that explains *Public Smog's* particulars and provides links to additional information about air pollution, greenhouse gases, climate change (science, abatement, justice organizations, lawsuits), critical cartography, emissions trading, the UNESCO World Heritage List, and other related topics.¹⁸¹

Site specificity is an essential element of Balkin's work, and *Public Smog* brings together multiple, interrelated conceptions of site. It addresses physical locations in the US, Europe, and Africa, which are also formulated as economic transaction sites. The Earth's troposphere is targeted as an international site of ecological degradation meriting public attention and concern. The project also establishes strategic counter-sites (and nonsites) of political intervention, criticism, and resistance in response to bureaucratic spaces of powerfully situated polluting industries that seek to enclose, commodify, and control the

¹⁸⁰ Amy Balkin in T. J. Demos "The Law of the Land: An Interview with Amy Balkin," accessed on April 3, 2015, <http://www.inmg.org/archive/balkin/catalogue/Demos.pdf>. First published online, 8th November 2013, by the International New Media Gallery on the occasion of the exhibition: Amy Balkin (IN)VISIBLE MATTER 8th November 2013 – 10th February 2014.

¹⁸¹ See <http://www.publicsmog.org>.

quality of Earth's airspace. *Public Smog* even proposes a reformative future site – the Earth's troposphere reconfigured eco-ethico-politically as a protected, extraterritorial, global commons and equitably shared space.

As an example of proto-reformist, advocacy eco-art, *Public Smog* is positioned against the cap-and-trade system and in support of a more instrumentally effective and morally just alternative course of action to curb industrial air pollution and carbon emissions. Through the work, Balkin takes a political stand by recursively participating in the economic, legal, and political processes of the very systems and institutions she aims to criticize (cap-and-trade, Kyoto Protocol, UNESCO World Heritage List, billboard advertising) and strategically subverts their standard operating procedures. Balkin is very explicit in articulating the project's function as a counter-response to market-based cap-and-traders' dubious claims to effectively reduce greenhouse gas emissions and mitigate climate change:

Public Smog is...a counter model that contains a negative critique and the possibility of positive remediation.¹⁸²

It's a defense of the atmosphere as a commons, set against emissions trading as a new zone of privatization of a global public good. In this model of privatization [cap-and-trade], atmospheric gases are restated as emission derivatives, a new form of fictitious capital.¹⁸³

These programs have been dangerous, as they have forestalled or replaced other solutions, whether direct reductions of climate-altering pollutants through command-and-control policies, or broader systems change.¹⁸⁴

Ultimately, as the logic of privatization points to the commodification of all common pool resources, a reduction model based on trade is contradictory to a socially just solution to global air pollution. We need another model.¹⁸⁵

¹⁸² Balkin in Demos, "The Law of the Land."

¹⁸³ Amy Balkin in Ana Teixeira Pinto, "Atmospheric Monument," *Mousse* 34 (June 2012): 156.

¹⁸⁴ Ibid.

¹⁸⁵ "Economics," *Public Smog*, accessed on April 3, 2015, http://www.publicsmog.org/?page_id=5.

The artist's action of retiring carbon credits rather than trading or redeeming them, her proposed clean-air park in the troposphere, her nomination of the Earth's entire atmosphere to the World Heritage list, and her non-commercial billboards are all conspicuous forms of publicization designed to stand out in relation to their respective contexts, to vehemently seize the viewing public's attention, and to distinguish the artwork's critical agency and advocacy motives from the situational norms of its systemic/institutional targets. Although the artwork's conspicuous aesthetics serve to draw the viewer into its content, deeper understanding of its ethico-political implications demands closer reading on the part of the attentive spectator. The complexities underpinning its subject matter and content – in particular issues such as carbon emissions trading and climate change – require a certain amount of exposition and are inherently difficult to encapsulate in a single image, which in part accounts for the artwork's multifaceted approach. One must take into consideration all of the various components of the project in their entirety and analyze their propositional particulars.

For example, several of the core maxims incorporated into the work notably attach moral import to its persuasive propositional content. The statement “PUBLIC SMOG IS A SCHEME TO BUY BACK YOUR RIGHTS ON THE OPEN MARKET” engages viewers directly and paints ordinary citizens as victims whose rights to clean air and a healthy environment are being violated by polluting industries that benefit economically from exploiting the cap-and-trade system. [Figure 138] Alternatively, the punning phrase “PUBLIC SMOG DISCOUNTS THE FUTURE” highlights both the problematic, exploitative economic implications of inexpensive carbon offsets as well as the environmental-ethical issue of intergenerational buck-passing; Balkin identifies that latter as

“the possible experience of a future loss of the familiar via climate change – familiar birds and plants, landscapes or food, or the familiar in terms of shared spaces or notions of experiential commonality, whether as a park or some formulation for an equitably shared space.”¹⁸⁶ [Figure 139] On the other hand, the claim “PUBLIC SMOG IS NO SUBSTITUTE FOR DIRECT ACTION” not only acknowledges the limitations of the artwork itself, but also posits a deontic cue that binds the audience to the subject as complicit carbon consumers and producers and prompts them to consider what reformative action ought to be taken. [Figure 140]

Balkin’s “Tentative List Submission, World Heritage Convention, Tentative List for Earth’s Atmosphere” (2010) also contains several notable examples of persuasive moral propositional content.¹⁸⁷ She explains her motives as follows: “I chose the World Heritage process because it’s concerned with the intersection of tangible and intangible culture via ‘mixed natural and cultural sites,’ futurity, and the language of universal value.”¹⁸⁸ The document itself – which is exhibited as a part of the project alongside the responses to her submission – emphasizes eco-ethical imperatives such as the essential ecological processes and life-supporting function of Earth’s atmosphere. It cogently explains what is at stake for human and non-human stakeholders with regard to the science of climate change and the serious manifold threats it poses to environmental health and survival on Earth. In accordance with UNESCO’s specifications, Balkin clarifies how Earth’s atmosphere meets all four of their criteria for the justification of the “outstanding universal value.” She argues,

¹⁸⁶ Balkin in Pinto, “Atmospheric Monument,” 155.

¹⁸⁷ Amy Balkin, “Tentative List Submission, World Heritage Convention, Tentative List for Earth’s Atmosphere,” accessed on April 3, 2015, http://www.tomorrowmorning.net/texts/Earth's%20Atmosphere%20as%20UNESCO%20World%20Heritage_Tentative%20List%20draft%20submission.pdf.

¹⁸⁸ Balkin in Pinto, “Atmospheric Monument,” 156.

“Protecting the atmosphere will also enhance principles of environmental justice through recognition of the atmosphere as a ‘common heritage by nature,’ and will conserve the present atmosphere, climate, and quality for future generations.” In conclusion, she affirms, “All life depends on the protection of Earth’s atmosphere through the equitable conservation of this global commons, a uniquely singular dynamic system, from the adverse effects of neglect in the form of its destruction by anthropogenic pollution.”

Balkin’s gallery installations associated with *Public Smog* are essentially archival nonsites amassing documentation from the project’s various components. For example, her contribution to the Documenta 13 exhibition, entitled *Public Smog: Earth’s Atmosphere as UNESCO World Heritage Preserve* (2012), featured numerous framed documents associated with the World Heritage submission process, including Balkin’s formal written request accompanied by the various responses to it. [Figure 141] She received only 13 replies to the letters she sent to 186 nations seeking the UNESCO State Party signatory leadership required for the nomination to succeed.¹⁸⁹ The Kingdom of Tonga was the only nation who expressed interest in leading the effort, but declined due to a lack of resources.¹⁹⁰ Along with these accumulated evidentiary materials, Balkin’s installation for Documenta 13 also included a postcard petition appealing to its particular cause, inviting spectators to participate and take political action by proclaiming their support in writing. She subsequently shipped 50,000 of the signed postcards to Germany’s Minister of the Environment, Peter Altmaier, requesting Germany lead a coalition process to inscribe Earth’s Atmosphere on the UNESCO World Heritage List on an emergency basis in August 2012, and another 40,000 postcards in

¹⁸⁹ Balkin in T. J. Demos “The Law of the Land.”

¹⁹⁰ Ibid.

September.¹⁹¹ Minister Altmaier declined Balkin's request. Balkin's display combined site documentation with site activism, connecting indexical archival written records of advocacy actions with a deontic cue in the form of public petition. When publicized together in this manner, the materials not only create a new space for participative eco-political advocacy, but also establish an emblematic "bureaucratic site" underscoring some of the difficulties that individuals are likely to encounter when confronting global legal systems about environmental issues as well as the ongoing problem of governmental immobility regarding carbon emission reductions and climate change abatement.

The *Public Smog* installations often incorporate a 22-minute digital slideshow as well. The slideshow opens with some of the core slogans accompanying the project. Next some basic information about its various aspects is presented in FAQ format. This is followed by images of evidentiary letters and financial documents as well as transcriptions of recorded phone conversations regarding Balkin's attempted submission to the UNESCO World Heritage List. The selected dialogues indicate annoyance and dismissiveness on the part of certain call recipients in response to Balkin's serious inquiries. These are succeeded with a timeline of the actual process of purchasing the emissions credits and a brief explanation of the size calculations for the clean-air park. The slideshow ends with the proposal that *Public Smog* can reopen to the public through "use-action" or to individuals "by any means necessary." Essentially, the slideshow functions as a mobile nonsite that provides a brief visual synopsis of the project. The *Public Smog* website, on the other hand, is a more comprehensive resource that serves to fill in any gaps in the content and provides access to more in-depth scientific research.

¹⁹¹ Ibid.

Balkin's multipronged investigation into the spatial politics of carbon emissions trading navigates intersecting terrestrial, atmospheric, economic, and institutional sites, leaving a trail of revealing documents that range in format from absurdly conspicuous (photographs of a cubic clean-air park in the sky) to extraordinarily commonplace (framed business receipts). When re-presented together publically as an advocacy archive, its propositional content raises challenging questions with important ethical dimensions, such as: Why should private corporations with disproportionately greater wealth and much larger carbon footprints than individuals be allowed to purchase the rights to ignore toxic emissions limits, pollute the global atmospheric commons at will, and exacerbate climate change while unashamedly capitalizing on the commodification and contamination of the Earth's clean air? What are some more effective and equitable alternatives to cap-and-trade system, and how do we go about implementing them? How are we as individual consumers complicit in the production of industrial air pollution, and what can we do to rectify the problem, hold polluting industries accountable, and protect public health?

When Balkin herself was asked, "Would you argue that artists have an ethical or political responsibility to address the environmental crisis?" she replied, "Climate change is a disorienting dilemma; a situation that pressures all others..."¹⁹² This terse but telling response reveals her own work's alignment with the concept of site responsibility as an eco-art imperative addressing humankind's universal environmental-reform obligations in the Anthropocene. Furthermore, her statement also points toward site responsibility's potential effectiveness as a moral compass for re-orienting and tempering art historical interpretations of climate change-related projects in accordance with the artworks' precise normative cultural-translational aims. In this particular case, site responsibility ultimately discloses the

¹⁹²Ibid.

activist eco-artwork's persuasiveness in penetrating the thick *public smog* engulfing global climate change.

3.4 *What is Missing?*: Memorializing Earth's Sixth Mass Extinction

What is Missing? (2009-ongoing) is a science-based, multimedia, multi-site project by Maya Lin, which commemorates the planet's sixth period of mass extinction currently underway. The core of the artwork is an expanding series of over 75 one-to-two minute videos chronicling the loss of biodiversity, vital habitats, and numerous animal and plant species at specific sites across the globe as a result of human activities. The videos also underscore related reformatory measures implemented by environmental groups and offer suggestions as to what individuals can do to help ameliorate the problem.¹⁹³ *What is Missing?* has been widely publicized in multiple formats. These include three short DVDs, special sculptural *Listening Cones*, a traveling interactive multimedia exhibit called *The Empty Room*, a video billboard in Times Square, smaller site-specific sound and media installations, and an extensive website.

In 2003, Lin established the What is Missing? Foundation to fund the long-term project, which she describes as her fifth and final memorial. According to Lin, "The mission of the What is Missing? Foundation is to create, through science-based artworks, an awareness about this current crisis, connecting the disappearance of species to the primary causes – habitat degradation and loss."¹⁹⁴ She delineates the work's activist aims as follows:

¹⁹³ "About the project," What is Missing?, accessed on April 3, 2015, <http://www.whatissing.net/#/home/project-info/about-the-project>.

¹⁹⁴ Ibid.

What is Missing? is a wake up call and a call to action. It will build awareness about species loss and highlight what scientists and environmental groups throughout the world are doing to protect species and habitats. It will also show what each individual can do to help protect species and their habitats. What is Missing? will give people a sense of hope and purpose as to what can be done to help.¹⁹⁵

Landscape, land use, site-specificity, and environmentalism are all themes central to Lin's artistic practice. *What is Missing?* is a remarkably ambitious endeavor to connect multifarious sites and situations of environmental loss across the entire globe with specific human causes and reformative responsibilities. According to Lin, the project proposes that we look at a memorial not as a singular static object, but as a work that can exist in several forms and in multiple sites.¹⁹⁶ Although it centers primarily on the concept of site as degraded or lost habitat, the work is also guided by general questions such as: What exactly is a place? And how can we protect it if we do not see it existing? What is missing? Can we learn to share the planet? Can we achieve carbon neutrality through a model of sustainable growth that is integrally linked with habitat preservation and sustainable agricultural and forestry practices?¹⁹⁷ The artist explains:

What is Missing? will allow people to see an entire river system as a place, or the African Plains migratory corridors as place – habitats that must be seen outside of man-made boundary zones. It will focus on the main causes of extinction...showing how our actions can help or harm those habitats and the species that live there.¹⁹⁸

The concept of site specificity, in this case, is expanded well beyond the parameters of physical location to denote site as ecosystem and habitat, as well as site as place or situation of environmental harm, loss, memory, concern, advocacy, and reform.

¹⁹⁵ "What is Missing? Foundation," Vimeo, accessed on April 3, 2015, <https://vimeo.com/whatismissing>.

¹⁹⁶ Ibid.

¹⁹⁷ "About the project," What is Missing?, accessed on April 3, 2015, <http://www.whatismissing.net/#/home/project-info/about-the-project>.

¹⁹⁸ Ibid.

Tackling the magnitude of ecological devastation wrought by human consumption and waste production – accelerated by the seemingly inexorable growth of unsustainable industrial practices, systems, and technologies – is most certainly a daunting political task. While many other eco-artists are prone to pursue more narrow area of focus or generate works that are more modest in scale and scope in response to such environmental issues, Lin confronts the complex situational realities of the immense worldwide crisis of mass extinction unflinchingly. Her approach might be accurately characterized as comprehensive creative distillation. Traversing the spatiotemporal gaps between local and global, past and present, singular event and big picture, Lin meticulously mines the volumes of emergent scientific research about mass extinction and extracts essential information about human causality and reform. Then she effectively translates her findings into clear, concise, compelling videos that get right to the point and expose the underlying mechanisms of the defective heart of the matter without distorting or over-dramatizing the facts. The resultant video works are grounded in particularities of place and at the same time nomadically applicable to the vast multimediascape of the present. They have broad interdisciplinary relevance, and are adaptable to diverse political venues – ranging from the exhibition spaces of art museums, galleries, and other cultural institutions, to classrooms, boardrooms, and conference halls; in the midst of busy urban spaces; or on personal computers and portable electronic devices.

The core videos were created in collaboration with other artists, writers, scientists and environmental advocates, and much of their audiovisual content was donated by organizations such as Cornell Lab of Ornithology, National Geographic, ARKive, and BBC Earth. Their precise subject matter varies between a multitude of endangered or extinct

species; different degraded or disappeared habitats such as coral reefs, forests, grasslands, mangroves, mountaintops, and rivers that run freely to the sea; or diminished natural phenomena such as animal migrations, clean air, clean water, the oxygen in the ocean, the sounds of songbirds, the ability of animals to see and hear underwater, and the visibility of the stars at night. The videos also highlight the specific human behaviors causing mass extinction, including: direct harvesting, non-sustainable hunting and fishing practices, the introduction of non-native species, habitat destruction, and climate change.¹⁹⁹ The full collection compiled on the website incorporates segments about current conservation efforts and expanded content providing guides to individual reformative action as well.

Despite their wide-ranging source materials, the videos are high in production value and consistent in style. Their overall aesthetic is part nature documentary, part public service announcement, and robustly informational. The straightforwardness of the imagery, audio, and text encourages both reverence for the natural world and serious reflection on the problem of mass extinction and the environmental consequences of human behavior. At the same time, the brevity of the videos and the recurrent appearance and disappearance of captivating sights and sounds leave you wanting, bolstering desire for these earthly things of value that are tragically disappearing so rapidly. The messages are accessible, though not necessarily easy to digest, as they are quite disturbing at times, challenging us to turn and face an ominous demon of the *demos*, and assume responsibility for a monstrous crisis of our own creation.

The persuasiveness of Lin's advocacy call to action, resides not only in its facticity, but also in the deontic moral propositional content of the work. More precisely, it stems from the oscillation and dissonance (clash) between alluring footage of flora and fauna and

¹⁹⁹ Ibid.

probing text that persistently intervenes, deters passive cinematic immersion, and explicitly connects *what is missing* with what is being done, what ought to be done, and what you can do.

The multidimensional siting, framing, and staging of the different formats of the artwork distinguish it from traditional memorials or conventional televisual public service announcements. These elements also facilitate the artwork's transformation of the subject matter from a topic of interest into an urgent political concern. Each version of the project demonstrates these attributes in different ways and to various degrees.

What is Missing? debuted in 2009 with the permanent installation of the sculpture *Listening Cone* (or *Listen to the Earth*) on the outdoor terrace of the California Academy of Arts and Sciences in San Francisco. [Figures 142-144] The piece is a horizontal, cast-bronze funnel, lined on the interior with reclaimed redwood, containing an eye-shaped video screen and speakers. It is approximately 8 feet tall, 10 feet wide, and 19 feet long. The object's conical form resembles that of an empty cornucopia, an amplifying bullhorn, or the resonator of an outmoded cylinder phonograph, each with its own relevant symbolic associations. Viewers lured to the mouth of the sculpture by its flaring form, or by the intriguing field recordings of the natural world emanating from within, are asked to remove their shoes before entering to take a closer look at the interior screen. Inquiring minds must therefore accept the non-verbal invitation issued by the conspicuously striking exterior of the cone and partake by entering inside to experience the 20-minute video accentuated by the attenuating frame of the hollow interior.

While the *Listening Cone* evokes a sense of loss through its vacuity, the related traveling interactive multimedia installation introduced shortly thereafter, entitled *The Empty*

Room, addresses this elegiac theme more directly, not only in its title, but also by physically immersing spectators in a dramatically darkened, vacant space. [Figures 145-147] The only hints of light piercing the void flicker from pinholes in the floor that project video upward. Visitors exploring the room are equipped with thin, transparent screens to carry around that illuminate with the video projections when held directly above the pinholes. The sounds of the species and habitats depicted also permeate the space. When the viewer moves the hand-held screen away from the light, the images fade to black. According to Lin, "*The Empty Room* really speaks to the notion of absences – that there is nothing physical about this exhibit and that the form is the information – a visitor is able to hold a species in their hands."²⁰⁰ The installation is perhaps the most haunting version of the project because of its grave portent, as it provides a vivid glimpse of what a post-natural, simulacral zoo of the future might look like – a cultural institution befitting an uncanny era of fortified seed banks and the mad science of wildlife genomics. One is led to consider the grim reality that this may likely be the only way that future generations will be able to experience the beauty of these things that once vitalized our planet.

The series of four 3-5-minute *What is Missing?* videos that were presented on the MTV 44 ½ HD video billboard in Times Square to celebrate Earth Day 2010 (replayed hourly for 15 days) constitute the most conspicuously publicized variant of the project. [Figure 148] Brought into the limelight paradoxically amidst such a bustling pedestrian plaza and supreme spectacle of capitalist advertising, commerce, and consumption, the distinctive sights and sounds of wildlife, habitats, and natural phenomena combined with facts, statics, and queries about loss, would have no doubt created a clash garnering some attention from

²⁰⁰ Lin in Amanda Reed, "What Is Missing?: Maya Lin's Memorial on the Sixth Extinction," October 12, 2010, accessed on April 3, 2015, <http://www.worldchanging.com/archives/011645.html>.

passersby. Although the clips do function as a kind of abridged, promotional teaser-trailer for the overall project, they nevertheless contain discernible examples of persuasive moral propositional content. The brief textual messages pinpoint major instances of environmental harm, identify human alteration of habitats as the single biggest cause, and prompt viewers with the following questions concerning humankind's collective reformatory responsibilities in regard to other organisms, shared space, and living necessities: Can we balance our needs with the needs of the planet? Can we imagine rearranging the lights? Can we learn to share the planet?

In partnership with the Clinton Global Initiative, Lin created a special 4-minute *What is Missing?* video about deforestation entitled *Unchopping a Tree* that aired at the COP15 2009 United Nations Climate Change Conference in Denmark. The film presents picturesque aerial and ground views of public parks in New York City, London, Tokyo, Paris, and Denmark, along with estimates in minutes of how long it would take to destroy them based on current deforestation rates, while melancholic orchestral music plays. [Figures 149-150] The viewer is subsequently asked, "If deforestation was happening in your city, how quickly would you work to stop it?" This is followed by the related statistics: "90 acres of rainforest are destroyed every minute. Deforestation threatens half of the world's species with extinction. Deforestation is responsible for 20% of all global warming emissions." The film ends with spellbinding, reverse, slow-motion footage of a large tree being "unchopped," along with the closing message: "We can't unchop a tree. But we can not chop it down in the first place. Or we can plant a tree sustainably. Reduce emissions. Protect species. Together we can save two birds with one tree." Here a fluid combination of poignant imagery, alarming factual statistics, and personalizing prompts is used to draw spectators in, implicate

them in the matter at hand, and convince them – through the forces of reasoning, complicity, and moral sentiment – that behavioral change is justified.

Launched in 2010, the website is the most comprehensive of the all the project's various formats. Whereas earlier versions such as the three short DVDs and the Times Square billboard consisted of only four short video segments, the website stores the bulk of the 70+ core videos. Consistent with the aesthetic scheme and color palette of *The Empty Room* installation, the home page showcases a world map nocturne with pitch-black landmasses and charcoal-gray oceans, speckled with polychrome dots. [Figure 151] Color-coded by subject, each dot on the map represents a location where a species, habitat, or natural phenomenon has significantly diminished or disappeared and serves as a link to related expository audiovisual content. The explorative selection process is left up to the viewer in this case. As one scrolls over different dots/videos with the cursor, latitude and longitude readings for the geographical location of each site are recalculated automatically. By clicking a dial on the navigation bar at the bottom of the screen, you can toggle between three temporally different map orientations: Past, Present, and Future. "Past - Map of Memory" is the primary home page configuration concentrating on "personal and historic accounts of what has diminished or disappeared from the natural world."²⁰¹ "Present - Conservation in Action" shifts the focus to "what is being done by environmental groups to help protect species and habitats around the world."²⁰² The "Future - Greenprint" option, launched on Earth Day 2015 (April 22), aims to "Imagine possible future scenarios that balance human needs with the needs of the natural world."²⁰³ One can also reconfigure the dots on the map chronologically as events on a historical timeline, or by subject. There is a

²⁰¹ What is Missing?, accessed on April 3, 2015, <http://www.whatismissing.net/#/home>.

²⁰² Ibid.

²⁰³ Ibid.

link for individuals to contribute a personal memory of something missing as well. The corresponding prompt invites the visitor to “Please share a memory about a specific species (animal, bird, fish) or a habitat (forest, river, stream, grassland) that you remember as being more abundant that has now diminished or disappeared?” There is an additional tab entitled “What you can do” that lists some basic behavioral changes that individuals can implement in order to help stop habitat loss and reduce their carbon emissions. The website masterfully brings together the multiple facets of Lin’s project and presents them in a format that is both sophisticated and user-friendly.

What is Missing?, in all its forms, embodies multiple definitions of a memorial. Its structures are dutifully designed to remind people of the event of mass extinction and to commemorate the loss of species. The artwork is convincing in its chronicling of an ongoing environmental crisis, and persuasive in its petitionary pleas for reformative action. Advocatory site memorialization, in this case, begins with science-based research about specific sites of concern. The information extracted is then distilled, creatively transformed, ethico-politicized, and re-distributed far and wide via a series of variably conspicuous nonsites. Ultimately, Lin’s project shows that *what is missing* from these loci of loss is not only plants and animals, but also a constructive sense of human political accountability conducive to the enactment of reformative change.

3.5 Final Remarks

The activist eco-artworks examined in this chapter function as interfaces for site-formative political advocacy. All three projects take supportive or oppositional stances

regarding particular environmental causes, policies, or courses of action pertaining to specific degraded sites. With the aim of shedding light on their material vitality and the deontological dutifulness of their eco-ethico-political agency, site responsibility focuses on the guides to reformative action that each artwork sets in motion and considers how its advocatory persuasiveness is initiated by aesthetic conspicuousness and enhanced by moral bindingness derived from complicity in human-nonhuman assemblages that cause ecological harm. In doing so, it reveals how parallel theoretical insights from the contemporary philosophical discourses of new materialism and environmental justice apply in synthesis to the interpretative evaluation of the aesthetic politics of activist eco-artworks, by differentiating human material agency and ethical responsibility regarding the ecologically degraded material conditions of specific sites as a critical political node between them.

4 REMEDIAL ECO-ART AS SITE-REFORMATIVE STEWARDSHIP

But if the plants are doing the work, why not just grow them in the ground, as in most bioremediation and ecological restoration projects? Why grow them on sculptures? And why do we need art to do what bioremediation and ecological restoration are already doing? The aesthetic metaphoric and conceptual functions of BiosculpturesTM are important because for true ecological restoration, it is not enough to restore the ecosystems. We need to change ourselves. To bring about a future where we can move beyond restoration, beyond an endless cycle of loss and repair where we keep having to bandage new wounds, we need a restoration of human values. We need to revision what we value and undervalue, in the world, in ourselves, and in our identification of ourselves as species. We need to make the restoration processes visible and understandable, and we need to engage the attention, imagination and heart of the public. To affect values, to create desire, to make people care about something, you have to affect hearts, bodies, unconscious dream lives and imaginations. And this is the work art can do so well.

- Jackie Brookner, "Rooting," 2004

The real names of the environment are the names of rivers and river valleys; creeks, ridges, and mountains; towns and cities; lakes, woodlands, lanes roads, creatures, and people. And the real name of our connection to this everywhere different and differently named earth is "work." We are connected by work even to the places where we don't work, for all places are connected; it is clear by now that we cannot exempt one place from our ruin of another. The name of our proper connection to the earth is "good work," for good work involves much giving of honor. It honors the source of its materials; it honors the place where it is done; it honors the art by which it is done; it honors the thing that it makes and the user of the made thing. Good work is always modestly scaled, for it cannot ignore either the nature of individual places or the differences between places, and it always involves a sort of religious humility, for not everything is known. Good work can be defined only in particularity, for it must be defined a little differently for every one of the places and every one of the workers on the earth. The name of our present

society's connection to the earth is "bad work" – work that is only generally and crudely defined, that enacts a dependence that is ill understood, that enacts no affection and gives no honor. Every one of us is to some extent guilty of this bad work. This guilt does not mean that we must indulge in a lot of breast-beating and confession; it means only that there is much good work to be done by every one of us and that we must begin to do it.

- Wendell Berry, "Conservation is Good Work," 1992

What you do speaks so loud that I cannot hear what you say.

- Ralph Waldo Emerson, "Social Aims," 1875

4.1 Remedial Eco-art and Site Responsibility

If documentary eco-art is about *facing* the recorded truths of Earth's sites of anthropogenic ecological degradation, and activist eco-art is about *interfacing* politically with other complicit human agents regarding what should be done about sites of concern, then remedial eco-art is the collaborative work of co-responsibly *resurfacing* our planet one specific site at a time. With respect to the preceding, inspiringly down-to-earth dictates from prominent conservationist artists, poets, and philosophers, when a remedial eco-artwork integrates aesthetic enhancements and innovative design concepts with concrete ecological improvements that are honorably, modestly, and respectfully site-specific, it is commendably valuable, desirable, and worth caring about; it exemplifies good work; and its agency speaks more loudly than words. Site responsibility seeks to carve out an optimal discursive space where we can all better hear and more fully appreciate what the exemplary good work of remedial eco-art is saying.

This chapter focuses on eco-artworks that implement reformative courses of action to reverse or stop ecological damage to specific sites, ameliorate their life-supporting

functionality, and improve the quality of life of their proximate human and non-human stakeholders. Whereas the documentary and activist modes utilize various experiential media to represent (record, publicize, politicize) degraded sites, remedial eco-art by comparison seeks to actually physically transform their existent ecological conditions for the better through site-reformative stewardship. Since it entails actively improving, managing, or taking care of damaged ecosystems, and in doing so producing artworks that demonstrate to others the actionability, doability, or workability of site reform, remedial eco-art is essentially the living embodiment of the concept of site responsibility. As eco-artist Susan Leibowitz Steinman keenly observes, “it is both model and message.”²⁰⁴ It is human site-responsible, site-reformative remedial action put into practice for the public eye.

Remedial eco-art is arguably the most hybrid, integrative, and interdisciplinary of all the genre’s site-reformative modes and perhaps the most comprehensive one as well. Its makers, media, and methods are thoroughly mixed. In regard to the field of contemporary art in general, remedial eco-art is closely aligned with processes and principles commonly associated with the three-dimensional media of sculpture and installation art. It also overlaps with eco-art’s closest historical predecessor earthworks in terms of its emphasis on natural phenomena, organic media, and outdoor sites. Sometimes labeled alternatively as “ecological design,” remedial eco-art incorporates elements of earth science, environmental protection, civil engineering, forest management, and landscape architecture, among other fields. Predetermining the best reformative courses of action, implementing them effectively, and measuring their outcomes accurately often requires remedial eco-artists to collaborate across various disciplines with a multitude of different specialists, including architects, biologists,

²⁰⁴ Susan Leibowitz Steinman, “Reduce, Reuse, Recycle,” in *Ecological Aesthetics: Art in Environmental Design: Theory and Practice*, ed. Strelow (Basel, Switzerland: Birkhäuser, 2004), 101.

botanists, climatologists, ecologists, landscape architects, urban planners, and zoologists. In this capacity, the artist often takes on the multipartite managerial responsibilities of the preliminary designer, creative director, business administrator, organizational planner, political negotiator, project recruiter, group coordinator, and on-site facilitator.

Analogous to the management response practices carried out by the personnel of governmental agencies such as the EPA, Fish and Wildlife, and the National Park Service, eco-artists' remedial work generally tends to target specific problematic sites. Such sites include abandoned surface mines, brownfields, damaged coral reefs, faulty infrastructure, polluted watersheds, hazardous waste dumps, toxic landfills, and vacant urban lots in ruins. A remedial eco-artwork's core value is ameliorative, stemming from the concrete ways that it improves the degraded ecological conditions of its particular site(s) and contributes to the health and well being of respective stakeholders. Therefore, the precise standards for assessing the ameliorative value (or remedial ecological impact) of a given eco-artwork are contingent upon the scope of the specific problem it addresses, namely the cause-effect-response linkages between human pressures on the site, the damaged state or impaired functioning of its ecosystem processes, and the measurable improvements set in motion by the artist's chosen strategic response. While documentary and activist eco-artists may take into consideration a site's environmental impact assessments, they rarely have to actually submit environmental impact statements for their artworks like remedial eco-artists often do. Of course, remedial eco-art's greater measurability in terms of concrete reformatory impacts also gives it somewhat of an distinct advantage over the less quantifiable documentary and activist modes oriented toward perceptual change – a criterion that is inherently nebulous and difficult to assess with empirical accuracy based on normative standards. All three site-

reformative modes are mutually concerned with reframing, redefining, and redirecting humankind's eco-ethical priorities and values, but a remedial eco-artwork's claims and attributions of site-reformative success, by comparison, are definitively substantiated when the degraded ecological conditions of its site are measurably improved by the artist's strategic creative intervention.

At the same time, remedial eco-art's agency is also notably indeterminate in the sense that it typically entails working with diverse organic materials, biological processes, and living systems that are complexly interconnected, ecologically interdependent, and ultimately have their own inherent self-regulatory material agency with many uncontrollable or unpredictable aspects. In other words, while eco-artists are busy going about reforming sites, the sites themselves are simultaneously constantly reforming themselves. Remedial eco-art is indeed a very process-oriented practice, but with precise reference to naturally occurring biochemical and biophysical processes such as climate, entropy, evolution, decomposition, disease, growth, metabolism, mutation, and succession, as opposed to just human artistic creative processes.

Generally speaking, the complex site-reformative agency of remedial eco-artworks breaks down into a plethora of *re*-actions, such as: realization, reassembly, reclamation, recreation, recultivation, redefinition, redesign, reestablishment, reformation, regeneration, rehabilitation, reintegration, reintroduction, representation, reproduction, reshaping, restoration, retransformation, revision, and reuse. Although site remediation often entails land beautification initiatives, traditional aesthetic standards of natural beauty used in art historical formal analysis and interpretation cannot account for the full range of ameliorative values and ecological benefits associated with eco-artists' remedial compositions. Therefore,

site responsibility correspondingly entertains a broad spectrum of bio-indicators for evaluating the ameliorative success of different remedial courses of action. For example, one ought to consider various science-based factors of improvement such as air quality, biodiversity, erosion, fecundity, flood control, growth rates, and succession. Reforestation projects should be assessed in terms of the ways that they revitalize ecosystems, replenish habitats, and restore bioproductivity as well as absorb rainwater, airborne pollutants, and carbon dioxide, while releasing oxygen. In the case of the phytoremediation methods implemented to improve the fertility of contaminated soil by reducing the concentrations of heavy metals and other toxic chemical by-products of human industry, lab results confirming the absorption of these pollutants are indicative of success. On the other hand, species richness/rarity, biomass density, primary productivity, and genetic diversity are all indicators of remedial success pertinent to habitat restoration eco-artworks that engage the survival necessities of wildlife.

Ecologically compromised sites are frequently also sites of environmental injustice. In addition to enhancing the quality of life of a site's non-human stakeholders harmed by ecological degradation, eco-artists' site remediation practices also contribute to human survival and well-being indirectly by improving a site's life-supporting habitat functions, or by engaging humanitarian imperatives more directly in an effort to ensure that people who are vulnerable or suffering due to environmental degradation or climate change to have access to vital resources such as clean air and water, food security, uncontaminated soil, shelter, and sanitation, as well as education, healthcare, and economic/employment opportunities. When evaluating the ways in which remedial eco-artworks enrich human quality of life, one should consider indicators such as basic survival needs (food, fresh water,

clothing, wood, fiber, fuel, shelter, etc.) as well as other dimensions of flourishing such as health, security, education, employment, social relations, and recreation, or sociopolitical stability, freedom, and equality.

It is important to note that these facets of remedial eco-art praxis directly address one of the main ethical challenges underlying the goals of sustainability and global efforts to respond to ecological crises and climate change: the tension between the greater accountability, capability, and necessity of wealthier countries to reduce carbon emissions while shifting to renewable energy systems and sustainable development and the right of poorer, less accountable, and less capable countries to develop, progress out of poverty, and improve human lives as a priority over ecological concerns. This core issue permeates much of discourse on sustainability and global climate change mitigation/adaptation in recent decades and is the focal point of major environmental initiatives like Ecological Footprint.²⁰⁵ Remedial eco-art's modest yet quantifiable contributions to these global environmental reform imperatives concerning the fair, equal, and sustainable apportionment of environmental benefits and burdens (distributive justice) are among its most significant eco-ethical attributes.

Beyond their core ameliorative value in repairing ecologically deteriorated sites and improving environmental health and quality of life, remedial eco-artworks also generate action-guiding (or behaviorally demonstrational) propositional content that has directive value with respect to the management or guidance of co-allied operations of environmental

²⁰⁵ See Gro Brundtland, *Our Common Future: World Commission on Environment and Development* (Oxford: Oxford University Press, 1987); UNNFFCC, "United Nations Framework Convention on Climate Change Handbook," Bonn, Germany: Climate Change Secretariat, 2006); *Earth Charter Commission* (Earth Charter International Secretariat, 2000); Intergovernmental Panel on Climate Change (IPCC), *Fourth Assessment Report* (2007), <http://www.ipcc.ch>; and *Ecological Footprint Atlas 2010* (Oakland: Global Footprint Network, 2010).

reform. Such content dutifully represents to spectators (potential consensual reformative allies) the actionability of reformative human behavioral changes that are conducive to sustainable and eco-ethically responsible land use. In other words, whereas the content of documentary and activist eco-artworks respectively proposes that something ought to be done about a specific site of concern or that a particular reformative course of action is ethico-politically questionable, viable, or optimal, remedial eco-artworks convey the deontologically inflective message, “This is something specific, concrete, and viable that has been or is being done obligingly by human agents in cooperation to take co-responsibility for the stewardship this particular degraded site, reverse or stop the ecological damage to it, ameliorate its life-supporting functionality, and improve the quality of life of its human and non-human stakeholders.” Of course it is ultimately left up to the individual spectators to judge the extent to which the artist’s proposed remedial action is valuable, justifiable, and applicable in proportion to their particular worldview, wherewithal, and working life.

Along with the distinct mode-specific criteria of remedial ecological impact (ameliorative value) and action-guiding propositional content (directive value), the overarching site responsibility standards of causational transparency, representational accuracy, physical accessibility, and cognitive intelligibility are also relevant to remedial eco-artworks. If possible, it is important that the artwork acknowledges the environmental history of the site it seeks to remediate and underscores the anthropogenic behavioral causes that resulted in its degradation. Furthermore, although remedial eco-artworks tend to prioritize aesthetic integration over conspicuousness, in order to be effectively seen, heard, and understood by spectators they still need to have a certain degree of visibility or phenomenological presence and the content proposed by their publicized on-site or non-site

aesthetic components must also be accurate, accessible, and intelligible. As the opening quote from Jackie Brookner articulates, aesthetics are an essential communicative component of remedial eco-art. However, the aesthetic values and principles of remedial eco-art are less inclined toward conventional appreciation of the timeless beauty and meaningfulness of static objects created by humankind through the process of manipulating and transforming base materials, and more definitively concerned with how humankind's creative ingenuity can dutifully work to enhance the intrinsic ever-changing beauty, integral life-sustaining processes, self-regulatory vitality, and enduring habitability of our metamorphic material base. As eco-artist Herman Prigann explains,

Metamorphic objects integrate time as a transforming motion on and within the material itself. The metamorphosis becomes something that can be experienced. The metamorphosis, in all its manifestations of change, is the aesthetic program of the object. These artworks always create, like the landscape in which they come into being, an open situation. Open in the sense that they contain an inner historicity of both of growth and decay.

What is it about things that make their presence palpable? What about the artwork communicates its connection to the living? It is always the traces, the traces of history, the amorphous, the fragile changeability, that lend things their presence. Thus it is precisely the metamorphic artwork that evokes memories of the transience and the change in and of everything.²⁰⁶

Apropos of Prigann's comments, site responsibility pinpoints actionable human behavioral reform as the crux of remedial eco-art's definitive aesthetics of metamorphic improvement, the most important thing that makes the artwork's presence palpable, and the crucial connection to the living that the artwork communicates.

The next sections closely examine three remedial eco-artworks that epitomize site responsibility. Each project targets a different type of degraded site and responds with a different approach to site-reformative stewardship. The first one is comprised of biomorphic

²⁰⁶ Herman Prigann, "Prologue – thoughts about nature," in *Ecological Aesthetics: Art in Environmental Design: Theory and Practice*, ed. Heike Strelow (Basel, Switzerland: Birkhäuser, 2004), 74-75

outdoor sculptures that revitalize damaged watersheds. The second is an underwater museum made up of hundreds of figurative sculptures that promote the recovery of decimated coral reef habitats. The third completely transforms the site of a defunct municipal water system and the surrounding wetlands into a multifunctional facility integrating ecologically sustainable wastewater treatment infrastructure and a public recreational wildlife park incorporating symbolic land formations. All three projects measurably and metamorphically improve the ecological conditions of their respective sites, and all three generate propositional content that is accurate, accessible, intelligible, and gives moral clarity, import, and binding force to specific, site-reformative, remedial actions.

4.2 *The Nature of Art: Wild and Willowy Watershed Sculptures Out West*

Designed by eco-artist duo Daniel McCormick and Mary O'Brien in collaboration with The Nevada Museum of Art Center for Art + Environment and The Nature Conservancy in Nevada, *The Nature Of Art* (2014) is a series of remedial sculptures installed outdoors on the damaged floodplains of the Tahoe, Truckee, and Carson watersheds. [Figures 152-156] Located in two separate regions under the aegis of The Nature Conservancy – River Fork Ranch and McCarren Ranch Preserve – the artworks are aligned with the environmental nonprofit organization's mission "to conserve the lands and waters on which all life depends" and its vision of "a world here the diversity of life thrives, and people act to conserve nature for its own sake and its ability to fulfill our needs and enrich our lives."²⁰⁷

²⁰⁷ "Vision and Mission," The Nature Conservancy, accessed February 16, 2016, <http://www.nature.org/about-us/vision-mission/index.htm>.

As a partner, The Nevada Museum of Art's Center for Art + Environment in Reno held a special four-month special archival exhibition (open from December 2014 to April 2015) concurrent with the installation of *The Nature of Art*, displaying documentary nonsite materials associated with the project.²⁰⁸ These included preliminary design plans, drawings, sketches, maquettes, photographs, video footage, and newspaper clippings. The making of the artworks and their ongoing physical transformations are also thoroughly chronicled on the websites of both the artists and The Nature Conservancy.²⁰⁹

The sculptures are constructed on site using basket-weaving techniques with the help of The Nature Conservancy's scientists and hundreds of local volunteers. They are made entirely from organic, biodegradable materials – primarily rough bundles (or wattles) of wood trunks and branches from native willow saplings, along with other woody debris materials gathered from the site, and they are live-staked to the ground with willow sprigs. The sculptures' undulating forms formally conform to the curved contours of the dry and denuded riparian landscape. Ephemeral by design, the material, formal, and functional composition of these "living" artworks is largely concerned with *decomposition*, as they are intended to slowly decay over the course of two to four years. In the process of doing so, they "give advantage to natural systems" by revitalizing specific areas of the floodplain and restoring the wildlife habitats there.²¹⁰ Initially, the sculptures' ecological function is to act as

²⁰⁸ See "Daniel McCormick & Mary O'Brien: Watershed Sculpture," The Nevada Museum of Art Center for Art + Environment, accessed February 16, 2016, <http://www.nevadaart.org/exhibition/daniel-mccormick-mary-obrien-watershed-sculpture/>.

²⁰⁹ See "Watershed Sculpture: The Art Practice of Daniel McCormick and Mary O'Brien: Remedial Environmental Art," Daniel McCormick and Mary O'Brien, accessed February 16, 2016, <http://watershedsculpture.blogspot.com>; and "The Nature of Art: Watershed Sculpture on the Truckee and Carson Rivers," The Nature Conservancy, accessed February 16, 2016, <http://www.nature.org/ourinitiatives/regions/northamerica/unitedstates/nevada/placesweprotect/the-nature-of-art.xml>.

²¹⁰ This phrase, which McCormick and Mary O'Brien often use to describe the primary ecological function of their watershed sculptures, encapsulates one of the definitive fundamental characteristics of remedial eco-art.

a barrier to retain and redirect silty floodwater, allowing it to absorb it into the earth. This in turn replenishes the clay soil with moisture and nutrients, promotes re-vegetation, and helps the willow sprigs to take root. Over time the sculptural silt traps gradually develop into a larger thickets, creating optimal habitats for bugs, birds, and other small species of native wildlife. Eventually they become overgrown and disintegrate completely, leaving in their place newly formed earthen dams, willow groves, and flood-resilient riverbanks.

Site remediation is the primary goal of McCormick and O'Brien's work. The artists describe their aims as follows:

[McCormick:] All of our projects have a high conservation value; we insist on that for any project we undertake. We do an incredible amount of research about the ecosystem and the historical influences of the area we are working in. The science grounds us as we plan our art. People often ask, "How much is art and how much is science?" But really, the two are so interwoven. We don't separate the conservation and the art." [O'Brien:] Our work is problem-centric and solution-driven. We use science to discover the conservation value, which we then see through an aesthetic lens. [O'Brien:] Participating in our projects allows volunteers to understand the connection between art and conservation and their role in environmental stewardship. When we leave, we turn these projects over to the community to take care of.²¹¹

These values and principles are clearly manifested in *The Nature of Art*. The project acts to reverse or stop the ecological damage inflicted on the Nevada floodplains by human land use, ameliorate their life-supporting functionality, and improve the quality of life of their human and non-human stakeholders. Eco-aesthetically, the sculptures integrate fully with the forms, colors, and textures of the existent natural terrain. They are conspicuous enough to attract attention and register as human interventions, but assimilative enough to effectively compliment and enhance the inherent aesthetic qualities of the site rather than overpowering

²¹¹ Daniel McCormick and Mary O'Brien in "Art Restoring Nature: An Interview with the Artists," The Nature Conservancy, accessed February 16, 2016, <http://www.nature.org/ourinitiatives/regions/northamerica/unitedstates/nevada/explore/qa-with-nature-of-art-artists.xml>.

or detracting from them. Along with their integrative eco-aesthetics, the sculptures' organic materiality, biodegradability, manual construction, modest scale, and ephemerality are indicative of the kind of eco-site-specific honor, humility, and respectfulness that Wendell Berry ascribes to "good work." Furthermore, the artworks' propositional content is estimably action-guiding. It speaks to the value, legitimacy, and complex eco-ethical agency of simple, thoughtful, repeatable, collaborative, creative acts of site-reformative stewardship. Although it is the most humbly scaled of the three projects highlighted in this chapter, *The Nature of Art* is nevertheless a paradigm of site responsibility and a remarkable representation of eco-remedial poetry in slow motion.

The first of the two regional sites for the project, River Fork Ranch, is an 800-acre preserve with a cattle operation located along a two-mile section at the confluence of the east and west forks of the Carson River, near Genoa, Nevada, owned and managed by The Nature Conservancy since 2000.²¹² Its topographical features include pastures, meadows, and wetlands with riparian habitats. The area is home to diverse native wildlife species such as bald eagles, monarch butterflies, mule deer, northern leopard frogs, sandhill cranes, western pond turtles, and willow flycatchers (a type of bird). It is used by the public for birdwatching, bicycling, canoeing, eco-tourism, fishing, hiking, picnicking, trail running, and viewing or photographing wildlife. The site's ecological conditions – in particular its fecundity, habitability, biodiversity, and resilience – have declined over the years due to human actions such as irrigation diversions, river channel dredging, and unrestricted grazing. This normally semi-arid high desert biome has also recurrently endured long periods of drought over the past decade. *The Nature of Art* directly addresses these specific ecological issues.

²¹² See "River Fork Ranch: Conservation for future generations," The Nature Conservancy, accessed February 16, 2016, <http://www.nature.org/ourinitiatives/regions/northamerica/unitedstates/nevada/placesweprotect/river-fork-ranch.xml>.

McCormick and O'Brien's 360-foot-long, sprawling annelidan watershed sculpture installed at River Fork Ranch is the largest the artists have constructed to date. [Figure 152] Reminiscent of earthworms surfacing to migrate during heavy spring rains, the large network of woven willow fascines is strategically positioned in the lowest part of the floodplain where the water will settle most effectively. In addition to establishing a barrier to slow the flow of damaging floodwaters and allow them to replenish the depleted water table, the artwork is also designed to anchor the soil, help protect against erosion, and filter out pollutants. The finished artwork combines elements of two preliminary drawings, *Full Scheme* and *Staggered*, which provide bird's-eye views of the work's overall composition in relation to the river channel flow and surrounding riparian terrain features. [Figures 157-158] Once new vegetation has taken root in and around the sculpture, it will in turn act as a catalyst for habitat renewal and promote biodiversity. The Nature Conservancy evaluates the ongoing remedial impact and ameliorative success of the artists' intervention by monitoring the avian species and testing the water quality.²¹³ Aesthetically, their organic forms, colors, and textures harmonize with the majestic scenery of the surrounding Western landscape.

Located just upstream and to the east of Reno, McCarran Ranch Preserve is the other regional site for *The Nature of Art*.²¹⁴ It was The Nature Conservancy's first large-scale ecological restoration project on the lower Truckee River. The McCarran Ranch possesses many of the same topographical characteristics, biological features, and recreational amenities as the River Fork Ranch and has also been burdened with similar types of

²¹³ Margaret Badore, "Artists and scientists collaborate to create giant river sculpture," TreeHugger (2014), accessed February 16, 2016, <http://www.treehugger.com/natural-sciences/artists-and-scientists-collaborate-create-giant-river-conservation-sculpture.html>

²¹⁴See "McCarran Ranch Preserve: A Healthy River for Wildlife and People," The Nature Conservancy, <http://www.nature.org/ourinitiatives/regions/northamerica/unitedstates/nevada/placesweprotect/mccarran-ranch-preserve.xml>.

anthropogenic ecological degradation for decades. In particular, extensive channel incisions, dredging, and straightening of the river as part of a 1960s flood control project caused a drop in groundwater resulting in a loss of approximately 90% of the riparian biomass and 70% of the bird species.²¹⁵ The Conservancy's restoration program, which began in 2006, focuses on rebuilding and reconnecting the river to its floodplain in a more natural winding pattern, optimizing the topography of the floodplain, reducing flood damage, re-vegetation, creating habitats, and improving water quality.²¹⁶ *The Nature of Art* builds upon the successful restoration methods implemented by the Conservancy, which thus far have measurably increased the native plant and animal life in the area.²¹⁷

The group of four watershed sculptures assembled by McCormick and O'Brien at McCarran Ranch incorporate some of the same natural materials and braided construction techniques as the large-scale installation at River Fork Ranch. [Figures 153-156] However, the artworks are smaller in scale than the network of fascines at River Fork Ranch, and they also differ in terms of visual appearance, as well as in their specialized remedial functions relating to habitat restoration and targeting particular species of wildlife.

Spread across an oxbow backwater near a marked trail with interpretive signage frequently used by visitors, the network of habitat sculptures at site one incorporates parallel structures on opposite banks of the river that extend into the water. [Figures 153, 159-162] On the north side closest to the trail, a wedge-shaped willow planting is surrounded by a protective woody crib wall partially woven into the riverbank with live willow stakes that holds surface water in floods and allows the willows to draw from the water table during drought. The new planting is meant to interrupt the supremacy of a single plant species

²¹⁵ Ibid.

²¹⁶ Ibid.

²¹⁷ Ibid.

(Typha monoculture) along the riverbanks and increase the botanical biodiversity in the area by re-introducing three indigenous willow varieties.²¹⁸ The bifurcating crib walls also incorporate projecting bird perches and partially submerged turtle crawls. The corresponding structure on the opposite (south) side of the river features a vertical bird roost comprised of a dead tree trunk wrapped with willow branches that are partially woven into the riverbank to form a protective crib wall, terminating in a partially submerged turtle crawl, with fish habitat/root wad attached to it as well.

The artwork at site two on McCarran Ranch is a single bird nesting habitat sculpture placed in a swale (low area of moist land) shaded by cottonwood trees near known nesting sites for species such as the Bewick wren and migrating yellow warbler, and within view of an existing trail used by human visitors. [Figures 154, 163-164] Charmingly quirky in appearance, the work is comprised of a vertical wooden post with an attached perch, a nesting materials reservoir comprised of fibrous organic material loosely bound around the shaft, and a large spherical base made from woody debris softened by moisture retained from the swale that provides a refuge or nesting area for wildlife.

Like the sculpture at site one, the installation at site three on McCarran Ranch features a riverside willow planting surrounding by a protective woody crib wall terminating in the water, interwoven with a bird perch and partially submerged turtle crawls. [Figures 155, 165-168] A special “indicator log” originating at the trail directs spectators the area where the network of habitat sculptures are installed, while also cleverly serving as an innovative habitat for ground bees and microorganisms conducive to the decay process.

The habitat sculpture at site four, located at West McCarran Ranch about two miles up river from the other three related sites, is made from cottonwood logs and coyote willow,

²¹⁸ Daniel McCormick and Mary O’Brien, “Truckee River Design Proposal (v. 4.0),” December 12, 2014, 2.

wrapped and live-staked with arroyo willow. [Figures 156, 169-171] It is designed to hold surface water during floods, control sedimentation, reestablish vegetation, allow the willows to reach the water table during drought, and enhance the wildlife habitats in a newly graded area of the flood plain.²¹⁹

These four artworks enhance the ecological integrity (structure, composition, function) of their respective sites by physically transforming them into more optimal habitats for native wildlife. Consistent with the integrative eco-aesthetics of the sculpture at River Fork Ranch, the sprawling, rhizomatic, woody configurations at West McCarran Ranch meld exquisitely with their sylvan settings.

McCormick and O'Brien series of watershed sculptures comprising *The Nature of Art* exemplify Herman Prigann's concept of the metamorphic artwork and truly embody the kind of actionable, site-reformative, human behavior that characterizes remedial eco-art's distinctive aesthetics of metamorphic improvement. Their living presence – historicity, amorphousness, fragility, changeability – is palpable and traceable, and the poemscape they portray beckons softly yet stirringly to the humanity at the heart of site responsibility.

4.3 MUSA (Museo Subacuático de Arte): Underwater Spectacle of Coralline Disfigurement

The Museo Subacuático de Arte (MUSA) is an underwater sculpture museum, non-profit organization, and large-scale coral reef remediation project sited in the waters of the National Marine Park surrounding Cancun, Isla Mujeres, and Punta Nizuc, Mexico. Recognized as the largest museum of its kind, MUSA was founded in 2009 by Jaime

²¹⁹ Daniel McCormick and Mary O'Brien, email message to author, February 4, 2016.

González Cano, Director of the National Marine Park, Roberto Díaz Abraham, then President of the Cancun Nautical Association, and British-Guyanese sculptor Jason deCaires Taylor. Its collection showcases over 500 of Taylor's site-specific, life-size, figurative, individual and group sculptures, as well as several works designed by other artists who have assisted him over the years. [Figure 172] All are made of specialized marine concrete that promotes coral propagation and are permanently fixed to the seabed. The sculptures are sited in a region where the naturally formed coral reefs have been heavily damaged by human wastewater pollution, unsustainable fishing practices, inexperienced diving tourists, rising temperatures and sea levels due to climate change, as well as new coral diseases, hurricanes, and tropical storms. Their main remedial function is to provide an optimal foundational substratum for the gradual formation of a thriving, biodiverse marine ecosystem and habitat. Operating as a major eco-tourist attraction for snorkelers and scuba divers at the top travel destination in Mexico, the artworks also serve to divert sightseers away from the existing naturally formed reefs nearby, so as to relieve the pressures of anthropogenic disturbance and allow them to recover more easily. At the same time, the propositional content of the artworks traverses a gamut of interconnected thematic vignettes concerning humankind's age-old relationship to the sea: most pressing, our current, shared, reformatory obligations as the complicit amphibious agents responsible for bringing about rampant, climate-changing, environmental devastation on the air, land, and seas; and correspondingly, our singular role as the only sentient species capable of carrying out the daunting task of managing and stewarding this epochal planetary crisis of our own creation in order to avert and prepare for further waves of ecological catastrophe of even greater scale, scope, and severity

Taylor's artworks exemplify an extraordinary creative synthesis of phenomenological aesthetics, environmental commentary, and site remediation. They are undeniably visually stunning, both in their freshly casted state and even more so over the course of their dramatic underwater transformation over time. The sculptures' locations, materials, forms, textures, compositions, arrangements, and timing of installation all prioritize conservation (encompassing repair, preservation, protection, or restoration of the environment, ecosystems, vegetation, and wildlife). They are made predominantly of very durable, PH-neutral, marine cement reinforced with fiberglass rebar and are extremely heavy. Some also incorporate various additional components such as ceramic tiles, glass, and paper. The figures are produced from plaster life casts in a studio with the help of a team of assistants, transported to installation site via large trucks, ferries, boats, barges, cranes, special lifting rigs, and floatation devices, and then secured to the ocean floor with pilings using a specialized marine hydraulic drill.²²⁰ Once fixed in place, their deliberately rough-textured and pitted surface helps to capture the coral larvae broadcast during mass spawning events, which the sculptures are installed just prior of in order to maximize their chances of successful colonization from the outset. If all goes well, the attached larvae transform into thousands of polyps to form the bone-white, calcium carbonate skeleton of the coral reef. The coral's broad palette and bright pigmentation results from the millions of zooxanthellae ("zoox") living inside each polyp. The sculptures' pockmarked exteriors; the copious crevices created by the figures' clothing and accessories, as well as the nooks and crannies in, around, and between them all provide a wide variety of attractive habitats, havens, and hideouts well-suited for all kinds of sea creatures, including algae, annelids, crustaceans, echinoderms, fish, mollusks, sponges, and turtles. While the artworks are luring tourists away

²²⁰ Jason deCaires Taylor, *The Underwater Museum* (San Francisco: Chronicle Books, 2014), 123.

from the natural reefs and informatively contextualizing and concretizing urgent environmental issues, sustainability imperatives, and their human behavioral implications for captive audiences, they are also generating income for the National Marine Park, local businesses, residents, and other proximate stakeholders. Furthermore, the complex network of multifarious values anchored by the project splits and spreads into multiple discursive registers well beyond the physical and institutional parameters of the site-as-region via numerous nonsite publications, photographs, and videos as the museum has attracted a great deal of media attention since its opening. This extensive catalog of attributes makes Taylor's sculptures a fascinating model of site-responsible, remedial eco-art.

Occupying an area of over 420 square meters on the ocean floor, the collection at MUSA is divided into two separate galleries, accessible to the public by way of snorkeling, free diving, scuba diving, parasailing, or gawking from glass bottom boats, for varying prices of admission. [Figure 173] The first gallery, called Salon Manchones, is six to nine meters deep and is therefore suitable for both snorkeling and scuba diving. The second gallery, Salon Nizuc, is only four meters deep, so only snorkeling is permitted there.

In their initial pre-coralline state, the propositional content of the artworks revolved thematically around human cognitive-behavioral norms, especially presumably ecologically destructive ones such as apathy, disavowal, disconnect, escapism, fossil fuel energy use, inaction, overconsumption, pollution, technological determinism, warfare, and wastefulness. Other less disparaging human-centered motifs include co-responsibility, diversity, hope, interconnectedness, introspection, perseverance, renewal, and strength. Now that the sculptures have had the years of underwater exposure time necessary for the disfiguring coral colonization processes to materialize and take full effect, most of these anthropocentric

themes have been augmented or engulfed by marine-flora-and-fauna-inspired ecocentric connotations such as adaptation, biodiversity, contingency, decay, growth, habitation, interdependence, metamorphosis, regeneration, resilience, succession, and symbiosis.

The Silent Evolution (2012), the largest of Taylor's pieces at MUSA, features 450 individualized, human-figurative sculptures cast from the bodies of local residents. The figures stand clustered together side by side in modules of ten and are arranged so that overall composition of the entire group takes the shape of a human eye with a void for an iris. [Figure 174] This configuration referencing human vision is also strategically designed to withstand the physical impact of prevailing water currents. In their original, freshly casted state – as recorded and preserved in photographs and videos, and illustrated by replicas exhibited on dry land at the museum's visitor center – the monochromatic, cement-grey sculptures had the formal appearance and physical presence of traditional, naturalistic portrait statues. At first glance underwater and from a distance, their close proximity suggests the potential buzz of human social activity and interaction. [Figure 175] However, when viewed up close, their relative positioning and discrete characteristics are more noticeably imbued with a quieter sense of alienation, disconnect, and suasive propositional introspection. [Figure 176-177] Both genders are represented, as are many different age groups. Some have upturned faces, while others gaze downward. Most assume contemplative facial expressions and gestures. They all have closed eyelids, or what Taylor describes as “dead eyes.”²²¹ Many are outfitted in vaguely historical clothes and accessories alluding to local Mayan ancestry. Others are dressed in more current garb. Temporally, they represent an anthropological amalgamation combining snippets from our distant agrarian past, the decisive ecologically

²²¹Jason deCaires Taylor in Elena Cué, “Interview With Jason deCaires Taylor,” *The Huffington Post* (2015), accessed February 16, 2016, http://www.huffingtonpost.com/elena-cue/interview-with-jason-deca_b_8273028.html.

unsustainable turning-or-tipping-point of the present, and an uncertain “post-something” future.

As intended, many of the figures’ once visibly realistic human physiognomy has been utterly transformed over time by a myriad of vibrant, multiform, ultra-tactile sea-dwelling critters, adding new chapters and a rotating cast of non-human characters to the artwork’s ongoing free-form, open-ended narrative of change through ecological succession. Just like their laborious collaborative production and installation processes, the sculptures’ slow and silent evolution since the time of their installation in 2010 has been thoroughly documented and publicized in photographs and video. For example, chronological images of the figure *Grace* show the different stages of her development, from the initial coating of fuzzy algae, to daubs of orange and pink coralline algae, followed by layers of coral encrustation and fleshier fronds of algae.²²² [Figure 178] The statue casted from the body a local carpenter named *Lucky* was first colonized with stinging hydroids, and over the course of three years his features were completely covered over with red and pink splotches of coralline algae and brown coral.²²³ After three years undersea, *Charlie Brown* developed patches of purple coralline algae, feathery green algae, and protuberant pink sponges.²²⁴ [Figure 179] The face of another figure has been defaced by velvety purple sponge with networks of vital protruding capillaries that pump and filter water like human veins transport blood and oxygen.²²⁵ [Figure 181]

The other individual, smaller scale sculptures in the MUSA collection depict a variety of topical tableaux staged with solitary human stereotypes and emblematic worldly devices.

²²² deCaires Taylor, *The Underwater Museum*, 62.

²²³ Ibid., 73.

²²⁴ Ibid., 96.

²²⁵ Ibid., 90.

For example, *Anthropocene* (2011) is an eight-ton, life-size replica of an iconic Volkswagon beetle with a child cuddled up and clinging unnaturally to the car's windshield. [Figure 182-183] In addition to its roughly textured surface designed to attract algae, sponges, and eventually hard and soft corals, the sculpture also features cavities for smaller fish species to enter through the windows, as well as hollow interior living spaces created for lobsters and other crustaceans, accessed via entrance holes at the base of the doors. [Figure 184] The car's compact, aerodynamic form is ideally suited to withstand the force of strong currents from tropical storms. Its iconography is also saturated with telltale contradictions. The VW beetle is recognized as the longest-running and most-manufactured car ever. Adolf Hitler contracted its initial development in Germany in 1934, and the beetle was mass-produced from 1938 to 2003. Since the 1960s, the model has often been associated the hippie countercultural movement and surf culture. In this particular context, the vehicle signifies human fossil fuel consumption, a major cause of widespread pollution and the primary driver of global climate change; the young boy huddled in a pseudo-fetal-position on the hood serves as poignant reminder of related intergenerational ethical concerns about the increasingly vulnerability of children to environmental threats today and the welfare of future generations. Furthermore, yet another episode of prophetic paradox has been recently added to the artwork's many layers of symbolic narrative. In 2015 Volkswagon was charged with deceptively violating the Clean Air Act's environmental regulations on diesel emissions by intentionally rigging their cars' emission control software to shut off during normal driving conditions in order to achieve increased power and fuel economy, resulting in as much as 40 times more pollution than is permitted by law.²²⁶ In light of these developments, it would be difficult to come up

²²⁶ John Linkov, "VW, Audi Cited by EPA for Cheating on Diesel Emissions Tests," *Consumer Reports* (2015), accessed February 16, 2016, <http://www.consumerreports.org/cro/cars/vw--audi-cited-by-epa-for-cheating-on->

with a vehicle more apposite to the contextual and thematic specificity of Taylor's project, and more steeped in the bitter ironies of our species' conflicted physical, psychological, and technological relationships to its earthly environs.

Similarly sardonic in tone, *The Bankers*, *Inertia*, *Inheritance*, *The Last Supper*, and *Time Bombs* all thematize human shortcomings. *The Bankers* (2012) features a group of identical, corporate automatons dressed in business suits with their heads buried in the sand and their trusty briefcases and PDAs lying nearby. [Figures 185-188] According to the artist,

The Bankers symbolize denial, a resistance to acknowledge our looming environmental crisis, and the shortsighted actions of banking and government institutions. The identical positioning of the figures in a prayer-like pose also aims to highlight a shift in values – the replacement of idealism with a misplaced emphasis on monetary remuneration. The buttocks support an internal living space for crustaceans and juvenile fish to breed and inhabit.²²⁷

Inertia (2011), on the other hand, harshly personifies the stereotype of the sedentary, gluttonous couch potato, vegging out in his underwear, camped out in front of the tube with the remote control in his lap, gorging on an enormous burger, heap of French fries, with a pile of food trash accumulating at his feet. [Figure 189-193] Taylor explains, “*Inertia* aims to show the human ability to live in a bubble. This tunnel-vision piece aims to immortalize our general apathy toward global warming.”²²⁸ *Inheritance* (2011) speaks to the long-term intergenerational impacts of humankind's exorbitant waste accumulation. It portrays a young boy wearing Crocs, seated on an overturned 5-gallon bucket, glaring glumly a pile of garbage. [Figures 194-197] Likewise emphasizing themes of human overconsumption and wastefulness, *The Last Supper* (2012) is a still life tableau of a modern, rectangular dinner table laid with dual place settings complete with silverware and plated, half-eaten fish

diesel-emissions-tests.

²²⁷ deCaires Taylor, *The Underwater Museum*, 45.

²²⁸ Ibid., 49.

carcasses, flanking a serving bowl brimming with fruit and hand-grenades. [Figures 198-202] The related series of *Time Bomb* (2011-2012) sculptures planted throughout both galleries – comprised of various spherical mortar shells, naval mines, and a bundle of dynamite sticks – points to the enormous devastation wrought by warfare across the globe, while also serving as blunt metaphors for the looming manifold threats of ecological catastrophe, climate change, and potential exacerbation of international conflict. [Figures 203-206]

In contrast, sculptures such as *The Dream Collector*, *The Gardener*, *Man on Fire* and *The Listener* convey some degree of optimism, albeit tempered with shades of skepticism and underpinned by uncertainty. *The Dream Collector* (2009) captures a conventionally male scholarly archivist at work, sporting business-casual attire, surrounded by weathered hardbacks with his pen in hand and his ever-crucial coffee cup within arms' reach as he strokes his chin stubble pensively. [Figure 207-210] He presides over an L-shaped storage shelf filled with a few more books and an extensive collection of glass-bottle time capsules containing messages collated by the artist from fellow dreamers across the globe. At his feet lies a snoozing dog. It is ambiguous as to whether all this collective dreaming is constructive or self-deluding. *The Gardener* (2009) registers a glimmer of hope in a statue a young girl with a ponytail lying on her stomach with her chin resting on her fists, smiling archaically, comfortably and contentedly surrounded by symbolically sanguine planters seeded with pieces of salvaged coral. [Figures 211-214] Like *The Gardener*, *Man on Fire* (2009) is propagated with live coral cuttings intended to jump-start the regrowth process. [Figures 215-219] The sculpture was drilled with over 75 holes and implanted with fragments of stinging fire coral, which has the ability to inflict severe burns on bare skin. Cast from the weathered and hardened physique of a local fisherman from Acapulco named Joachim, this emblem of

resilience stands poised and proud with his chin raised, but yet at ease in tank top, jeans, and bare feet, with his hand unassumingly clasping his wrist at his waist in front.

Standing out like sore thumb amidst a school of naturalistic human figures, *The Listener* (2012) is a humanoid effigy covered in life casts of children's ears, molded during a hands-on workshop with local students in Cancún aged 8-12. [Figures 220-222] Designed in collaboration with Ms. Heather Spence, marine biologist, and Dr. Patricia Gray, Director of the BioMusic International Research at the University of North Carolina-Greensboro and Colegio Ecab A.C, the sculpture is also equipped with an specialized hydrophone, which records ambient sounds from the reef environment and stores the data on a hard drive. The artist explains,

This bioacoustic research method of non-invasive Passive Acoustic Monitoring (PAM) will monitor some of complex sound activities taking place underwater and will advance our understanding of acoustic relationships while informing the science of conservation management. The form symbolizes a passive relationship between humans and nature whilst aiming to engage local students in reef conservation and draw focus to the much-needed ability to listen.²²⁹

The artwork's deontic, propositional message is fairly forthright, as it gives spectators an ear full, quietly screaming "listen up" while it does so technomechanically. A fitting coda to the entire collection, this anthropomorphic totem to active listening emits an urgent wake up call for the environmentally oblivious, the easily distracted, or the otherwise preoccupied.

MUSA submerges sightseers in an unfamiliar aquatic realm filled with sculptures of human figures and genre scenes of life on land that have been uncannily defaced or altogether erased by the colonizing behaviors of ordinary sea creatures going about the everyday business of marine life. The eco-ethical significance of this metamorphic spectacle

²²⁹ "Projects: The Listener," Jason deCaires Taylor, accessed February 16, 2016, <http://www.underwatersculpture.com/projects/the-listener/>

of human disfigurement by way of remedial intervention ultimately dwells in its haunting inverse implications – that is, the dark ecologism it whispers in warm bubbles rising from the murky seas about how human landlubbers are the true leviathan. Our monstrous, irresponsible, colonizing dispositions have drastically disrupted the routines of the denizens of the deep, and degraded, denuded, and devitalized their domicile. Essentially, we have converted Earth's oceans into a vast, sullied, artificial aquarium, filled with endangered species, which henceforth is going require duteous day-to-day upkeep.

4.4 *Ellis Creek Water Recycling Facility and Petaluma Wetlands Park: A Remedial Gesamtkunstwerk*

The *Ellis Creek Water Recycling Facility and Petaluma Wetlands Park* (2000- 2009), designed by eco-art pioneer Patricia Johanson, is a large-scale remedial project that transformed the site of a worn-out water system and surrounding wetlands into an cohesive, multifunctional, ecologically sustainable wastewater treatment facility and public recreational wildlife park incorporating biomorphic land formations that mimic the anatomical features of native species. [Figure 223] The facility collects and purifies human sewage, industrial waste, and stormwater runoff, producing up to sixteen million gallons of clean water per day. It revitalizes the local ecosystem by replenishing wildlife habitats, including those of local endangered species, while increasing biocapacity and biodiversity. At the same time, it provides the public with green spaces for close interaction with flourishing wildlife, educational experiences, recreational activities, and eco-tourism.

A remedial *gesamtkunstwerk* of sorts, Johanson's project epitomizes site responsibility by synthesizing multiple reformatory courses of action that measurably improve the site's life-supporting ecological functionality and enhance the quality of life of its proximate human and non-human stakeholders. It simultaneously addresses issues of human consumption, waste management, wildlife habitat restoration, biodiversity, conservation, ecological sustainability, environmental awareness, and symbiotic coexistence between people and wildlife. Furthermore, it does so in way that is both aesthetically appealing and propositionally action-guiding.

Johanson's creative approach to site remediation typically begins with extensive investigative research about the ecological conditions particular to its chosen site – the plants, animals, environmental problems (erosion, flooding, habitat loss, pollution, water quality), and feasible ameliorative solutions. Next she creates exploratory drawings connecting different organic formal, functional, and phenomenological patterns and relationships discovered through her initial research. According to Johanson, this conceptual drawing phase developed from her earliest landscape design efforts to translate the structure and organization of plants into art.²³⁰ Formal aesthetic considerations, phenomenological spectatorial staging, and symbolic biomorphic imagery always play a pivotal role in her projects, but they usually do not factor in until later on in the design process. This makes complete sense from a logistical standpoint, because one needs to know exactly what is at stake ecologically – for example, what specific plants might be best suited for the job of phytoremediation, what species of wildlife might be implicated, or what images, narratives, and themes might have local symbolic resonance to prove collectively meaningful to the

²³⁰ Xin Wu, "Contemporary Landscape Criticism – Interview with Patricia Johanson" *Landscape Architecture China* (Beijing University) 11:3 (2010): 138, accessed February 16, 2016, <http://patriciajohanson.com/archive/landscape-architecture-china-2010.html>.

site's human stakeholders – in order to explore their distinct shapes, forms, and colors aesthetically and integrate them effectively into a cohesive design plan.

In the case of the *Ellis Creek Water Recycling Facility and Petaluma Wetlands Park*, the lengthy design process started in August 1998, when Johanson was first invited to visit the site and consult with the local city officials about their proposal for a new wastewater treatment plant to replace the city's existent one, which was working beyond capacity and in danger of failing. The town council was concerned about declining water quality and its future impacts on the health of community residents and endangered wildlife in the wetlands, as well as increasing public awareness of these water-related environmental issues. They wanted a new ecologically sustainable system, in compliance with legal regulations, capable of producing enough high quality recycled water to meet the Petaluma's needs for the next 50 years. In February 2000, Carollo Engineering was commissioned to revise the first master plan that had been prepared by a different firm, with Johanson acting as part of a core group of outside experts. Later on in the spring of 2001, she was promoted to the lead role as co-designer with the engineers from Carollo. Not surprisingly, the nine-year, \$140 million dollar project entailed a great deal of interdisciplinary collaboration between Johanson and the engineers, as well as the site's numerous stakeholders (business, educators, environmentalists, farmers, interest groups, politicians, landowners, organizations, residents). Throughout the negotiation process, Johanson carried out her own ecological research, interpretation, and redesigns separate from the engineers. Although her proposals met with resistance at times and were revised significantly as the project evolved, the engineers did implement them. In the end, Johanson played the lead role in the following aspects: advocating for the use of organic treatment processes in the new facility; the integration of

the public wetlands park; the staging of variable, intensified, interactive experiences between human beings and wildlife; and the incorporation of symbolic visual-aesthetic features accentuating the presence of human remedial intervention on the site, the flora used in sustainable water treatment process, and the fauna benefitting from restored wetlands habitat. These site-responsible attributes are evident in both her preliminary drawings and the end product.²³¹

Johanson's dynamic and vibrant drawing plans for the project are discernibly different than the engineers' formulaic, monochromatic technical diagrams. [Figures 224-226] They not only disclose the creative advantages of Johanson's aesthetic background in visual art, but also convey her eco-ethical emphases on sustainable remedial improvements that are multifunctional, physically and cognitively accessible to the public, and mutually concerned with the welfare of both human and non-human stakeholders. Her innovative ecological design scheme incorporates a series four water treatment (or polishing) ponds, interspersed with island wildlife habitats, and bordered by levees that serve as walking trails for spectators. [Figure 224] When viewed from above, as shown in the plans or in the aerial photographs of actual facility, the contour shapes formed by the sculpted earthen embankments around the ponds echo the anatomical features of the endangered salt marsh harvest mouse native to the site, with the islands for eyes, and a narrow path as the tail. [Figures 223-224, 227-228] The water treatment train is based on a two-tiered process, wherein the water flows from the three parallel polishing ponds that make up the body of the mouse to a lower fourth pond near the mudflat comprising the mouse's triangular head [Figure 229], and is then pumped into the flower-shaped deep water reservoir located at the

²³¹ For a detailed account of these developments, see Xin Wu, *Patricia Johanson and the Re-invention of Public Environmental Art* (Farnham, Surrey, England and Burlington, VT, USA: Ashgate, 2013), 166-176. Xin Wu is one of the foremost experts on Johanson's work, and her writings are an indispensable resource on the subject.

end of its tail. The pond on the far right in the diagram, vaguely resembling the shape of butterfly with its wings closed, shows traces of one of Johanson's earlier schemes that incorporates the local California dogface butterfly. [Figures 224 and 230] Each of the ponds is divided into a densely vegetated area and open water. They are filled with lush plants, microorganisms, mollusks, and shellfish that purify the water organically by triggering sedimentation and filtering out excess nutrients and heavy metals. [Figures 231] The small islands that make up the eyes, and those dispersed throughout the other three ponds, function as devices to channel the water, while also serving as verdant habitats with plentiful roosts, shelters, and nesting places for birds. [Figure 232]

Situated next to the three central polishing ponds (mouse's body), Johanson's "Morning Glory Pools" are a seasonal stormwater treatment, flood control, and watershed protection system made up of a series of earthen channels, bioswales (marshy depressions), sedimentation/filtering ponds, and shallow vegetated pools. [Figure 225] The system is specially designed to capture and purify runoff from the nearby highway and parking lots before it enters the Petaluma Marsh and River and only operate during the rainy season. The shape of the "Morning Glory Pools" mimics that of the morning glory flower, a plant used for phytoremediation. Their "petals" vary in material structure, color, and texture in accordance with their different target pollutants.

In addition to incorporating walking trails, marked scenic viewpoints, and prevalent interpretive signage for spectators, Johanson also installed brightly colored sand around the ponds, berms, and beaches to draw attention to the constructed human-interventional aspects of the remediated terrain as well as highlight the sequential flow of the sustainable

infrastructure, the organic purification process, and the changing appearance of the water as it is recycled through the system.

The meticulous notes scribbled all over Johanson's exuberant drawings affirm her attentiveness to the diverse needs and interests the site's broad spectrum of human and non-human stakeholders and her ability to effectively integrate their different values into one comprehensive ecological design scheme. [Figures 224-225, 229-230] Not only are the aesthetic, landscaping, and infrastructural components of the water treatment system clearly labeled in her drawing plans, so are the many restorative plantings and wildlife habitats, as well as the various trails, crossways, bridges, scenic viewpoints, shelters, signs, benches, and amphitheater seating for visitors. Perhaps Sue Spaid said it best when she quipped,

To select works for our exhibition, Amy (still my co-curator), our painter friend Teri Hackett and I visited Patricia's studio in January 2002. To this day we still talk about this mind-blowing studio visit. I left thinking, 'My God, she is five eco-artists in one!' Most eco-artists that I'd met opt to focus on either: activism, land remediation, biodiversity, urban infrastructure or water reclamation. Since Johanson's projects tend to incorporate all five aspects, we all felt totally bowled over!²³²

When compared to Haacke's similarly themed *Rhinewater Purification Plant*, *Ellis Creek Water Recycling Facility* and *Petaluma Wetlands Park* shows how much site-reformative eco-art has evolved and expanded in both scale and scope over the past four decades. Johanson's project incorporates elements of the documentary and activist eco-art mode, but its remedial goals are ultimately more exacting, and its intricate web of aesthetic, ameliorative, and deontological values calls for a specialized eco-ethical framework. Site responsibility understands it as much more than just a beautiful sculpture, well-designed infrastructure, or pleasurable park space. Her artwork presents a concrete, viable, innovative,

²³² Sue Spaid, "Like a Rolling Stone...YET Still So '69," forward to *Field Guide to Patricia Johanson's Works: Built, Proposed, Collected & Published*, ed. Sue Spaid (Baltimore: Contemporary Museum, 2012), 4.

sustainable solution to what is rapidly becoming one of the most pressing global ecological issues of the twenty-first century – basic access to clean water and sanitation.

4.5 Final Remarks

The three eco-art projects highlighted in this chapter show how remedial eco-art embodies site responsibility through site-reformative stewardship aimed at improving, managing, or taking care of damaged ecosystems. Together, they represent the most hybrid, integrative, and interdisciplinary subfield of contemporary eco-art – a commendably adaptive, constructive, and productive eco-ethical workspace where scientific research-based aesthetic praxis, environmental advocacy, place-making, and responsibility-taking converge and set in motion the much needed metamorphic processes of site reform, while demonstrating to others its value, beneficence, and actionability. The palpable material agency of the ameliorative human/non-human assemblages they yield *speaks to* the unmistakable presence of the *good work* of artfully and co-responsibly resurfacing our heavily scarred planet and revitalizing its connective tissues.

CONCLUSION

This dissertation presented a theory of site responsibility in order to address the art historical task of ascertaining the ethical significance of contemporary eco-art in the Anthropocene. It argued that eco-art redefines site specificity as eco-ethically-oriented site reform aimed at improving the degraded ecological conditions of specific sites and amending human site-destructive behavior. In deontological terms, eco-artists' site-reformative actions were held to be dutiful in the sense that they realize humankind's moral obligations to respond to the human-caused ecological crises of the present by improving the degraded conditions of specific sites and amending site-destructive conduct. Furthermore, the variable propositional content yielded by site-reformative eco-artworks was said to represent site responsibility by giving moral clarity, import, and binding force to specific, actionable, human-behavioral changes conducive to the pursuit of ecological sustainability and environmental justice.

Espousing and building upon eco-art's definitive thematic focus on ecological issues, this study showed how integral the interrelated concepts of site specificity and morality are to the genre. Site-specific inquiry into the ecological, conceived in the broadest terms, raises important ethical questions. Conversely, ethical assessments are fruitfully clarified and reinforced by context-relational thinking that circles around the attention to specific sites. Despite the interconnectedness of site specificity and ethics, scholars have generally treated them as separate or unrelated aspects of eco-art. Site responsibility, by comparison,

demonstrates how their reciprocal interplay melds constructively into a single, cohesive, productive framework that brings an exigency and force to the affects of eco-art ethics.

This treatise was concerned, in part, with a demonstration of the applicability of site responsibility to the diverse range of artistic practices that comprise the expanding field of contemporary eco-art, pursuing the organizing principles of site responsibility through the examination of ten different artworks representative of eco-art's site-reformative origins and predominant modes. Reframing the degraded site of Krefeld as polluted watershed commons, a locus of human irresponsibility, and a matter of public concern warranting reformative action, Hans Haacke's innovative *Rhinewater Purification Plant* served as an opening illustration of eco-art's incipient gravitation toward eco-ethically-oriented site reform. The subsequent analyses of eco-artworks by Amy Balkin and Kim Stringfellow, Brandon Ballengée, and Susannah Sayler and Edward Morris (The Canary Project) in Chapter 2 elucidated documentary eco-art's proto-reformative, eco-ethical agency in carrying out factual reporting/evidentiary truth-telling about specific ecologically degraded sites. The projects by Jennifer Allora and Guillermo Calzadilla, Amy Balkin, and Maya Lin considered in Chapter 3 showed how activist eco-art persuasively and conspicuously sets in motion the advocacy politics of site reform by publicly supporting or arguing against particular environmental causes, policies, or courses of action pertaining to specific degraded sites. Lastly, the works by Daniel McCormick and Mary O'Brien, Jason deCaires Taylor, and Patricia Johanson discussed in Chapter 4 differentiated the elaborate web of values enveloping remedial eco-artists' site-reformative stewardship aimed at reversing or stopping ecological damage to specific sites, improving their life-supporting functionality, and enhancing the quality of life of their proximate human and non-human stakeholders.

Remedial eco-art's complex, ecologically ameliorative and deontologically action-guiding metamorphism fittingly provided a kind of apotheosis to bring the dissertation to a close, because it realizes a shared end goal sought after by eco-artists through their different interrelated site reformatory modes – the enactment of site-responsible human behavioral change.

By discursively repositioning these assorted projects on common, fertile, moral ground – by grounding art-historical attributions of their differential moral value in the reformatory agency of the human/non-human assemblages they construct – site responsibility binds ecological agency to ethical responsibility and elucidates eco-art's role in communicating valid reasons why active human response to the environmental crises of the Anthropocene is an urgent necessity and moral obligation. In the end, my hope is to make evident the site-reformatory power of contemporary eco-art; to differentiate eco-artists' remarkable abilities to synthesize aesthetics and science, poetry and pragmatism, creativity and propriety; and to deepen readers' understanding and appreciation of eco-artists' noble efforts to confront environmental problems and bring about positive change. Eco-artists' good work conveys the crucial message that in order to rectify our Anthropocenic situation and become effective agents of ecological sustainability and environmental justice, we must embrace our contemporaneous co-responsibilities, think creatively, and act concertedly as contemporaneous site reformers. Site responsibility reconfigures the concepts of site and responsibility differently from the way they have often flowed as separate channels within art historical discourse, and heralds their confluence as a valuable conduit for the production and transmission of eco-ethical knowledge.

FIGURES

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What is Environmental Justice?
 Environmental Justice means that all people, regardless of race or income, have the right to a clean and healthy environment and safe quality of life where we live, work, play and learn. [more >](#)

Resources
 Learn more about toxic hazards and risks where you live. [more >](#)

About the collaborators
 Invisible-5 is a collaboration between three artists and two organizations. [more >](#)

Visit these sites to find out more about organizations mentioned in Invisible-5:

Greenaction for Health and Environmental Justice
 Working for environmental justice across the Western United States, and a collaborator on Invisible-5

Tri-Valley CAREs
 Tri-Valley CAREs is the Livermore-based watchdog group for Lawrence Livermore National Laboratory

INVISIBLE-5 AUDIO PROJECT

Invisible-5 is a self-guided critical audio tour along Interstate 5 between San Francisco and Los Angeles. It uses the format of a museum audio tour to guide the listener along the highway.

ABOUT

Invisible-5 investigates the stories of people and communities fighting for environmental justice along the I-5 corridor, through oral histories, field recordings, found sound, recorded music, and archival audio documents. The project also traces natural, social, and economic histories along the route. It was produced in 2006.

ROUTE

The tour follows I-5 between San Francisco and Los Angeles, with additional routing via I-580/I-880 to San Francisco. Sites along the tour, which can be driven in either direction, include Livermore, Crocks Landing, Kesterson NWR, Kettleman City, and Boyle Heights in East Los Angeles.

HOW TO

Download the full audio tour or listen to individual stops in the right hand column.

LISTEN TO INVISIBLE-5
 Stops: North >> South

Bayview Hunters Point / SF
 West Oakland
 Livermore
 Westley
 Crocks Landing
 Kesterson National Wildlife Refuge
 Interstate 5
 California Aqueduct
 Tule Fog
 Fresno-Coalinga Rd.
 Tulare Dry Lake
 Kettleman City
 Alpaugh
 Earlimart
 Buttonwillow
 Kern Water Bank
 Mega-Dairies
 Elk Hills
 Frazier Park
 Pacoima
 Burbank
 Los Angeles River
 Boyle Heights - East LA

DOWNLOAD INVISIBLE-5

>> SOUTHBOUND
CD1 Bayview Hunters Point-SF to Kettleman City [67.2MB ZIP/MP3]
CD2 Alpaugh to Boyle Heights-East LA [66.3MB ZIP/MP3]

>> NORTHBOUND
CD1 Boyle Heights-East LA to Alpaugh [66.3MB ZIP/MP3]
CD2 Kettleman City to Bayview Hunters Point - SF [67.2MB ZIP/MP3]

Download either SOUTHBOUND or NORTHBOUND to get all the audio files.

[Audio Download Help](#)

DOWNLOAD DIRECTIONS

Grayson Neighborhood Council

The Grayson Neighborhood Council works on environmental justice struggles in the westside Stanislaus communities of Grayson, Westley and Vernalis.

Californians for Pesticide Reform

Californians for Pesticide reform is a coalition of over 170 public interest groups dedicated to protecting human health and the environment from the dangers of pesticide use...

Center on Race, Poverty, and the Environment

The Center on Race, Poverty & the Environment is a national environmental justice legal organization with offices in San Francisco and Delano, California. We provide legal and technical assistance to grassroots groups in low-income communities and communities of color fighting environmental hazards.

Environmental Justice Coalition for Water

We enable community members to take control of their water resources by participating in water policy, planning and decisions.

Tri County Watchdogs

Tri-County Watchdogs is an unincorporated non-profit organization dealing with community and environmental issues of the mountain communities (Gorman, Neenach, Lebec, Frazier Park, Lake of the Woods, Pinion Pines, Cuddy Valley, Pine Mountain Club).

Pacoima Beautiful

Environmental Education, Leadership Development, and Advocacy

Physicians for Social Responsibility - Los Angeles

Working for peace, health, and the environment.

Friends of the Los Angeles River

FoLAR's mission is to protect and restore the natural and historic heritage of the Los Angeles River and its riparian habitat.

Madres del Este de Los Angeles Mothers of East LA-Santa Isabel

The Madres work to promote the environmental, political, and educational awareness, advancement, and well-being of the Latino population within (but not limited to) the East Los Angeles community.

Communities for a Better Environment

Environmental Health and Justice for California's Urban Communities.

LANDSAT Image of the San Fernando Valley, facing north towards Pacoima, showing the perimeter of the North Hollywood (Area 1) groundwater contamination Superfund zone. North Hollywood is one of four areas of groundwater contamination within the San Fernando Valley Basin, and consists of two parts, the North Hollywood Operable Unit (OU) and the Burbank OU.

LANDSAT maps, directions, and all stop information from the website to accompany the audio on your drive.

MAPS + DIRECTIONS
Lo-Res [9MB]

MAPS + DIRECTIONS
Hi-Res [50MB]

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SCHEME TO BUY BACK
YOUR RIGHTS ON
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Site One: Oxbow Backwater—Network of Habitat Sculptures and Structures

Legend: 1 Bird Perch; Cribwall; 2. 3. Turtle crawl; 4. Bird perch; 5. Fish habitat/root wad; 6. Fish habitat/root wad (alt location); 7. Turtle crawl; 8. Bird perch 9. Willow planting; 10. Cribwall

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Site Two: Nesting Habitat in Swale near Trail

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48 Petaluma Wetland Park — "Salt Marsh Harvest Mouse" / The Mouse scheme, 2004.

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Education

PhD Candidate	2008-Present	University of Louisville Area of Specialization: Contemporary Art Dissertation: "Site Responsibility: Eco-art and Environmental Ethics in the Anthropocene" Advisor: Susan Jarosi
MA	2003	University of Louisville Area of Specialization: Modern Art
BA	2000	Hanover College Areas of Specialization: Art History & Studio Art

Professional Experience

2010-2015	Graduate Teaching Assistant, Art History Program, University of Louisville Courses Taught: Introduction to Art, Ancient Through Medieval, Renaissance Through Modern
2012-13	Visiting Instructor, Havover College, IN Courses Taught: Contemporary Art, Museum Studies, African Art
2009-2011	Adjunct Instructor, Jefferson Community and Technical College, Louisville, KY Course Taught: African Art

2008-2010	Teaching Assistant, University of Louisville
2005-2010	Education Program Coordinator, Kentucky Center for the Performing Arts, Louisville, KY
2003-2005	Manager of Children's and Family Programs, Kentucky Historical Society, Frankfort, KY
2001-2003	Education Programs Assistant & Interim Assistant Director of Education, Adult Programs, Speed Art Museum, Louisville, KY

Grants/Fellowships/Awards

Spring 2016	Doctoral Dissertation Completion Award, School of Interdisciplinary and Graduate Studies, University of Louisville
Fall 2015	Hite Scholarship, Hite Art Institute, Department of Fine Arts, University of Louisville
2014-15	Arts and Sciences Graduate Research Grant, College of Arts and Sciences, University of Louisville
2014-15	Graduate Teaching Assistantship, Hite Art Institute, Department of Fine Arts, University of Louisville
2013-14	Graduate Teaching Assistantship, Hite Art Institute, Department of Fine Arts, University of Louisville
2012-13	Graduate Teaching Assistantship, Hite Art Institute, Department of Fine Arts, University of Louisville
2011-12	Graduate Teaching Assistantship, Hite Art Institute, Department of Fine Arts, University of Louisville
2010-11	Graduate Teaching Assistantship, Hite Art Institute, Department of Fine Arts, University of Louisville
2009-10	Cressman Scholarship, Hite Art Institute, Department of Fine Arts, University of Louisville
2008-9	Cressman Scholarship, Hite Art Institute, Department of Fine Arts, University of Louisville
2000	Hanover College Outstanding Studio Artist Award

Conferences/Presentations/Lectures

- 2016 Reconnect: Bridging Art and Sustainability Annual Art History Symposium, Arizona State University School of Art, Tempe, AZ
Paper: "Documentary Eco-art and Site Responsibility in the Anthropocene"
- 2016 College Art Association Annual Conference, Washington, DC
Paper: "Contemporary Eco-art Landscapes and Site Responsibility in the Anthropocene"
- 2013 The Public Art Symposium, University of Louisville, Louisville, KY Moderator: "Art in the Cityscape/Landscape – Current Projects"
- 2003 KY Opera Sights and Sounds Lecture, Speed Art Museum, Louisville, KY
Paper: "Love and Seduction in Art"
- 2002 Professional Development Lecture, Speed Art Museum, Louisville, KY
Paper: "Flashes of Identity: *Millet to Matisse* and the Birth of Modern Art in Paris"

Guest Lectures

- 2010 Artists' Group Lecture, Hanover College, Hanover, IN

Professional Service

- 2013-14 Social Skills Group Volunteer, Sanders Elementary School, Louisville, KY
- 2005-2010 Every 1 Reads Volunteer, Jefferson County Public Schools, Louisville, KY
Middle School Connection Volunteer, Jefferson County Public Schools, Louisville, KY

Professional Affiliations

- 2011-Present College Art Association
- 2008-2012 Aegis Graduate Student Organization, University of Louisville

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