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AMD&ART: PERFORMATIVITY AND PARTICIPATION IN ECOLOGICAL REMEDIATION

A Dissertation

Submitted to the Graduate Faculty of the Louisiana State University and Agricultural and Mechanical College In partial fulfillment of the Requirements for the degree of Doctor of Philosophy

in

The Department of Communication Studies

By
Travis Paine Brisini
B.A., Kutztown University of Pennsylvania, 2005
M.S., Southern Illinois University-Carbondale, 2007
May, 2012

Once in his life a man out to concentrate his mind upon the remembered earth, I believe. He ought to give himself up to a particular landscape in his experience, to look upon it from as many angles as he can, to wonder about it, to dwell upon it. He ought to imagine that he touches it with his hands at every season and listens to the sounds that are made upon it. He ought to imagine the creatures there and all the faintest motions of the wind. He ought to recollect the glare of non and all the colors of dusk and dawn.

-M. Scott Momaday, The Way to Rainy Mountain

I dream of a hard and brutal mysticism in which the naked self merges with a non-human world and yet somehow survives still intact, individual, separate.

Paradox and bedrock.

-Edward Abbey, Desert Solitaire

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In moments such as this, faces from the past well up into view. To Dr. Craig Gingrich-Philbrook. As I wavered on the precipice of this life, I asked your advice as to whether or not I should continue in the Academy. Your response: "Consider the types of conversations that you'd like to be having in 5 years." This is among the soundest, most resonant pieces of advice I have ever received. Thank you for everything. To Dr. Deryl Johnson, who started me down this path: rarely are the pivotal people in one's life so evident. As Captain Jack Crawford would say, you are indeed one of my oldest pards.

A dissertation is a communal enterprise. It is written—and lived—by many before it is finally complete. To the Trash Alley Gang: Raquel Polanco, Benjamin Haas, Jessi Stafford, Sarah Jackson and Chris Shipman. This document is a product not only of our endless porch-sits and conversations, but also of the fabric of our

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Abstract

In this study, I examine and theorize AMD&ART, an artwork devoted to treating polluted water in Vintondale, PA. AMD&ART is much more than simply a water treatment facility, however. Each chapter of this document examines AMD&ART through the lens of a different body of scholarly literature: the literature associated with land art, Systems Theory, Network Theory, Companion Specieshood and others. The theoretical focus of this paper is the emergent importance of the concept of performativity—"that reiterative power of discourse to produce the phenomena that it regulates and constrains" (Butler, Bodies 2)—in the deconstruction of the binary division of "nature" and "culture." I offer AMD&ART as an example of a site wherein the fraught, complex webs of affect muddle the easy division of nature from culture. To this end, my paper argues that Bruno Latour's compound-term "natureculture" can afford scholars of performance points of access to other, disparate fields: philosophy, natural history, geography and art, to name a few. Beyond this, readers are asked to consider their role in the unfolding of the world around them—both mundane and spectacular.

Chapter One Introduction

There are certain places where one expects to encounter contemporary art. It seems comfortable in places with which it is familiar: art galleries and museums in metropolitan areas, the books and publications of scholarly interest, isolated art-outposts (like Marfa, Texas, with its three museums, nine galleries, and forty year association with minimalist Donald Judd), and—if of sufficient age and penetration into common culture—on posters tacked up in the dorm rooms and apartments of college kids. For an entity that has claimed to push the boundaries of aesthetic theory and artistic merit, the bulk of twentieth-century avant-garde art is awfully parochial. In other words, it just doesn't get out much.

I did not grow up in a place where I might bump into something that could conceivably be dubbed "contemporary art." The rolling, weathered hills of the Allegheny Mountains in Pennsylvania are a rural, isolated environment with other delights to offer their residents. I spent my childhood in pursuit of butterflies, birds, abandoned houses, chokecherries, bracket fungus and fossils and thought very little about the aesthetic quality of any of it. In retrospect, I suppose I didn't get out much either.

Strangely, in the intervening years after I left western Pennsylvania to begin my winding career through academia, unequivocally contemporary art flared up in a tiny, ramshackle town near my home called Vintondale—a lonely, defunct coalmining community in an isolated valley, with a steadily aging population and not so much as a grocery store. The town, barely more than a main street, a collection of houses and a VFW club, is the site of a moderately well-known piece of

environmental art, called *AMD&ART*. Dedicated to the treatment of polluted water leaking from an abandoned coalmine in the town (AMD = Acid Mine Drainage), the site combines elements of minimalist sculpture, land art, systems art and relational aesthetic theory into a functional and evocative beneficial art gesture.

To say that the unlikely development of contemporary art shocked me is an understatement. Next to nothing involving contemporary aesthetics happens in the mountains of western Pennsylvania, and especially not in a place so dilapidated and isolated as Vintondale. Yet there *AMD&ART* sits, completed in 2005, slowly purifying the water that courses through the town, offering up to passersby an intriguing and novel vision of one sort of relationship between humankind and the natural world.

Incredulity, then, is the impetus for this study. I begin from both a place of familiarity—my childhood home, the laurel-strewn mountains of southwestern Pennsylvania—and one of profound uncertainty: how did this site get to Vintondale, and what is it doing there? The first of these questions will be answered relatively easily: it is the tale of T. Allen Comp, a historical preservationist, who came into an area with a history of profound abuse at the hands of extraction industries and who was dismayed by the environmental conditions that he found. AMD&ART is a functional response to these conditions, aimed at improving them. The second question—what AMD&ART is doing in Vintondale—is a much more involved puzzle, and the primary substance of this study.

The Project

This study is my attempt to offer readers a hybrid lens for viewing contemporary ecological art, using *AMD&ART* as a guiding example. Specifically, I engineer over the course of this document a perspective on ecological art that privileges agential co-performance between art-object and viewer. Rather than assume that ecological art is designed to elicit in its audience some prefabricated response regarding the environment, I make the case that ecological art depends upon a contingency of both meaning and affect brought about by many participant performers—the site, the artist, the local context, and the viewer, to name a few. Thus, while I am committed to documenting the environmental benefit of the *AMD&ART* site, I am equally committed to documenting the complex web of material and semiotic negotiation that lies at the heart of the aesthetic endeavor. I achieve this goal in two ways: by offering a critical reading of *AMD&ART* from a number of different, but related, perspectives, and by contributing to the growing body of literature pertaining to the so-called performance of Nature.

A critical reading of *AMD&ART* is important because little has been written about the site that exceeds a passing acknowledgement of the environmental good of cleaning up pollution. No sustained critical analysis of the site exists, particularly outside of the realm of art criticism. T. Allan Comp, the lead voice of the *AMD&ART* team, is the most prolific writer about the site, with a number of essays detailing the historical context of the AMD problem in mining communities, the process of acquiring funding for the location, as well as designing the treatment system (see Comp, "AMD&ART," and Comp, "Science, Art and Environmental Reclamation"). The

(Beardsley 217), is identified as a site of collage-practice (Garoian and Gaudelius 104), and is acknowledged (albeit in an extremely limited capacity) in a landscape architecture text (Tilder and Blostein 168). These acknowledgements follow a set pattern: there is an allusion to the site, in the course of discussing a more broadly conceived tendency—within environmental art, landscape architecture or industrial remediation—to design interesting or aesthetically pleasing treatment systems. To date, *AMD&ART* is primarily represented by paragraph-length summaries of the site that invariably tout its community-oriented environmental recuperation. This is the capacity in which *AMD&ART* appears in a brief section of a 2011 Master's thesis written by a graduate student in Urban Studies and Planning, wherein it is the subject of a short-write up regarding the "pluralistic planning processes" (Fain 77) utilized by the *AMD&ART* team in their negotiations with the townsfolk of Vintondale.

One of the few voices in the conversation asking pointed questions regarding aesthetics and the *AMD&ART* project is Erik Reece. Reece has written an article about *AMD&ART* that is part of the "Democratic Vistas" series, a collection of essays exploring the dimensions of art and democracy in contemporary America, as well as published a popular-press version of essay in *Orion* magazine. In his "Democratic Vistas" essay, Reece takes up what he dubs the "cynic's question": is *AMD&ART* art? "Not in any traditional, representational sense," Reece concludes, adding that "the origins of a landscape such as the AMD&ART Park are in the conceptual art movement of the 1960s and 1970s—a movement that took art off the canvas and

often out of the museum, so that it became an *experience* in place and time, rather than simply a painting on a wall" ("Art That Works" 7). By linking *AMD&ART* to the conceptual art movement—whose exploration of ways to exceed the gallery-based system of artistic display led the earliest land artists outdoors and to the construction of objects on a grand scale—Reece sums up the most widely-held line of reasoning used to demonstrate *AMD&ART*'s status as "art that works."

In other publications that take up the "cynic's question," critics typically mention AMD&ART as a fine example of remediative land art—that is, an art site whose existence goes beyond aesthetic expression and actively seeks to ameliorate some environmental harm or condition. To remedy this monolithic critical treatment of AMD&ART, I engage not only the literature surrounding land art, but also other aesthetic movements whose philosophies serve to illuminate the complex and compelling realities of AMD&ART. By examining this site through a variety of lenses—land art, Systems/Network Theory and Companion Specieshood—I have concluded that AMD&ART is a significant, and overlooked, piece of contemporary art, and moreover, one that should interest performance scholars. AMD&ART offers opportunities to challenge commonplace assumptions regarding the limits of performance research, especially those that would maintain binary relationships between the spheres of nature/culture, animate/inanimate, human/non-human and art/life.

With a consideration of performance research in mind, *AMD&ART* provides scholars with an explicit challenge to the relationship between the concepts "performance" and "nature." The literature regarding the "performance of Nature,"

while currently greater in quantity and impact than at any other time, is still beholden to a primary and troubling assumption. Wallace Heim, whose curating of performance events and written work have made her an authority on the relationship between performance and nature, writes, "contemporary views about performance and performativity emphasize ephemerality, contingency, improvisation, adaptation—whether in the 'doing' of an everyday action or in the creation of an aesthetic event. It is a relational process through-and-through. Those qualities can be seen to inhere in the processes of nature, the continual change of environments and in the actions of the beings and entities which are more-thanhuman" (Heim, "ENTERCHANGE" n.p.). While clearly Heim sees a resonance between the human sphere and the non-human sphere, her tendency to see them as separate entities that reflect one another's image is indicative of her belief in a fundamental aporia that resides in the performance of Nature: the unnaturalness of man's nature. Thus she maintains—as do many critics of nature and performance the division between "culture" as that which is of the human sphere and "nature" as that which is not.

My goal with this document is to examine the possibilities offered to the field of performance studies by a perspective that regards "nature" and "culture" as collapsed into one sphere. In contemporary philosophy, an undertaking with this aim can be understood as one that is proceeding from the assumed position of "natureculture." The term natureculture is drawn primarily from the work of Bruno Latour, who coined the compound term to demonstrate the compounded state of nature and culture. In *We Have Never Been Modern*, Latour works to refute the

characterization of culture as a distinctly human sphere, and nature as that which is without the mark of man. Latour reminds us that both nature and culture are ideological entities. Latour writes, "the very notion of culture is an artifact created by bracketing Nature off. Cultures—different or universal—do not exist, any more than Nature does. There are only nature-cultures, and these offer the only possible basis for comparison" (104). Scholars have precious little solid ground upon which to stand in a world of naturecultures, as neatly demarcated disciplinary boundaries suddenly begin to waver. In a naturalcultural worldview, disciplines serve the same function that they have always served—carving out a manageable portion of the world with which scholars can realistically concern themselves—but the *modes* of inquiry that define disciplinary communities take on an added ideological dynamic. In particular, the mechanical, objective strategies of scientific rationalism impartial observation wedded to a need for repeatable outcomes—produce in their practictioners and adherents a sense of prescience in their understanding of the world. This is manifest in the desire of the social and physical sciences to pronounce into existence various "laws" and "tenets" of cultures and of natures—as if precedent is the ultimate predictor of future outcomes. The idea of natureculture turns this capacity for projection on its head, rendering each entity, place and occurrence contingent to the point of becoming utterly singular, and radically reducing the capacity of disciplines to totalize and normalize cultures, natures, places and peoples under problematic generalizations. In other words, all of the types of culture that we typically assume to be in effect as the world unfolds—at scales ranging from the broadest national and international cultures to the most

idiosyncratic cultures of friendship and familiarity—are inextricably wedded with all of the natures that constitute the world—wilderness, urban natures, biological and created, animate and inanimate. Neither is anything without the other, in endless permutations and variations.

A scholar proceeding from the assumptions of specificity and extreme heterogeneity that define natureculture must account for the constant role of interaction in their formulations. This is the case because without a stable backdrop—autonomous nature—both nature and culture are negotiated. Performance is one means of understanding the constitutive function of interaction. Scholars of performance are well equipped to deal with the ontological, symbolic repercussions of interaction as world-making precisely because they are attentive to the ways in which cultural performance has been understood to be the genesis and maintenance of social structures. Carol Simpson Stern and Bruce Henderson, in their handbook *Performance: Texts and Contexts*, claim that "the term *performance* incorporates a whole field of human activity...In all cases a performance act, interactional in nature and involving symbolic forms and live bodies, provides a way to constitute meaning and affirm individual and cultural values" (3). My study is an effort to emphasize that just as performance is understood to constitute and affirm cultural forms and values, it might also be useful in understanding natural forms and values; more precisely, it is a means of bridging the ontological and epistemological gaps whereby nature and culture seem to be created and perpetuated. Understanding performance is key to understanding natureculture.

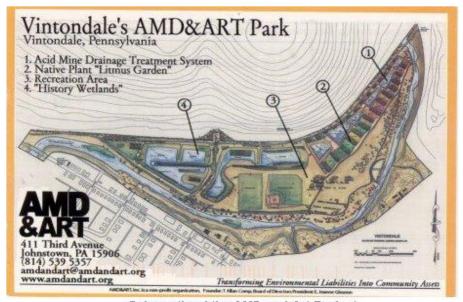
Natureculture has to be understood as the foregrounding of agency, in order for the unfolding of the world to make sense. Neither culture nor nature can be viewed as a passive, stagnant "thing," as they are not separate objects or movers in the first. In natureculture, phenomena and individuals are able "to be flattened, read horizontally as a juxtaposition rather than vertically as a hierarchy of Being" (Frow 283). Performance seems, in this formulation, to reside at the very center of the most foundational, important philosophical debates. These are debates about the nature of the world and our place in it, as active participants and agents of change. *AMD&ART* is a site where the interactional naturalcultural webs of affect—human and nonhuman alike—are more self-evident and less intentionally masked than in daily life. This makes *AMD&ART* an ideal case study for teasing out some of the contingent and heterotopian¹ (Foucault, "Of Other" 23) impulses that inform a performative naturalcultural model.

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¹ Foucault used the term "heterotopia" as a means of discussing "special places" in society. Foucault writes, "we do not live in a kind of void, inside of which we could place individuals and things. We do not live inside a void that could be colored with diverse shades of light, we live inside a set of relations that delineates sites which are irreducible to one another and absolutely not superimposable on one another" ("Of Other" 23). A heterotopia emphasizes this irreducibility by reintroducing social construction as the genesis of spaces of everyday life: it is a sort of counter-utopia. Utopia is a conceptual tool whose implementation—whether for complimentary or critical ends—nonetheless affirms the potential for society and the world to be totalized as an abstraction. Heterotopias resist totalization, precisely because they are not meant to stand in for other spaces. However, and importantly, heterotopian spaces in society do effect changes on society at large. Societies generate heterotopias as "a kind of effectively enacted utopia in which the real sites, all the other real sites that can be found within the culture, are simultaneously represented, contested, and inverted" (Foucault, "Of Other" 24). In the case of AMD&ART, it is a specific site that is functioning as a conceptual rendezvous for discussions of about environmental ethics, the construction of "nature" in the early twenty-first century, and the outcomes of reimagining place not as a fixed entity, but as a dynamic construction.

An Introduction to the Subject

This study is devoted to *AMD&ART*, an ecological art project located in Vintondale, Pennsylvania. *AMD&ART* names an amalgamation of aesthetic gestures that share a common focus: the illumination of the mining history of Vintondale, coupled with an attempt to remedy the pollution and cultural collapse that have befallen the town in its post-industrial senescence. The site is divided into roughly seven distinct elements: the Treatment System, the Wetlands, the Recreation Area, the Mine No. 6 Portal, the Great Map, the Clean Slate and the Litmus Garden (see fig. 1). Each of these elements contributes a unique and evocative interpretation of Vintondale and the economic, environmental and cultural forces at work in the town.



Schematic of the AMD and Art Project

Fig. 1 Map of the *AMD&ART* site(epa.gov)

The primary element of *AMD&ART* is the Treatment System. The Treatment System is a series of six keystone shaped pools located on the outskirts of

Vintondale, and arranged on a descending gradient. The pools are a passive water treatment system, devoted to purifying the toxic water that spews from a hillside near the town. This water, laden with dissolved heavy metals such as iron and aluminum, is the eponymous "AMD" of AMD&ART. The water is a slurry of sulfuric acid and metals that results from the flooding of abandoned coalmines. As coalmines are abandoned, the pumping stations that remove subsurface water from the mines are shuttered. In the cases of sub-surface mines that are dug below the level of the water table, groundwater proceeds to flood the mine. As the mines flood, the water comes into contact not only with exposed coal seams, but also with the other minerals exposed during the mining process. Among these, iron sulfides (pyrite primarily) are present at the abandoned Mine No. 3 in Vintondale. It is a combination of exposure to air and water that liberates the pyrite and dissolves the mineral into suspension. Simultaneously, a population explosion of extremophile bacteria (Acidithiobacillus ferooxidans) takes place in the hot, acidic water. These bacteria metabolize the iron and sulfur of the exposed seams and generate sulfuric acid. This acid erodes the rock in the flooded mine, exposing more pyrite seams, which in turn provide a new source of fuel for future bacteria. The outcome of this process is dire: as long as water flows into the abandoned mine and the vast reserves of submerged minerals remain, there is no end in sight to the spectre of acid mine drainage. The only viable solution is the treatment of the conditions that arise from the AMD problem.

The Treatment System relies on a series of chemical and physical processes to cleanse the AMD water. The first pool—the Acid Pool—serves as a collection site

for the AMD, which arrives via a series of small pipes that originate within the flooded mine. While lined with limestone—in an effort to subtly lower the pH of the water—the Acid Pool is primarily a means of gathering the water and demonstrating to viewers the severity of the AMD problem. The second, third and fourth pools are wetland treatment cells. These artificial wetlands serve two functions. They provide a substrate upon which the suspended heavy metals may settle out of solution, as well as begin the process of raising the pH of the water. The pH of the water increases as the dead and decaying plant material from the wetlands sinks to the bottom and is consumed by other microorganisms. The fifth pool is a Sequential Alkalinity Producing System—SAPS—that utilizes a trick of bacterial respiration and gravity to undertake the major cleansing operation of the site. As the water flows into pool 5, it sinks through a layer of decaying organic material and encounters a limestone slab. As it passes through the organic material, aerobic bacteria strip the water of its oxygen content, which prevents the suspended metals from being deposited on the slab. The slab, which has a basic pH, neutralizes the pH of the acidic water. The water then flows, drawn by gravity, out of the pool through a series of pipes. The final, sixth pool is a settling pool, wherein the now-pH neutral AMD is exposed again to air, which allows the metals to finally settle out fully. The water that flows from the sixth pond is then safely redirected into Blacklick Creek, a stream that runs through Vintondale.

While the series of pools is the functional heart of *AMD&ART*, other elements of the site are dedicated to exploring means of representing the AMD problem as a window into the history of Vintondale, and the fraught relationship between nature

and culture. The Wetlands are seven-acre artificial wetlands on the site of the old town dump, below the outlet of the treatment system ponds. It was historically the site of the old Vinton Colliery (the buildings associated with a coalmine), the remains of which dot the landscape in small stacks of masonry. The site is a testament to the regenerative power of interventionist conservation and a visceral reminder that complex hybrid spaces are the norm in a post-industrial landscape.

The Recreation area, while perhaps the least aesthetically or conceptually interesting element of the site, is a deceptively important marker of the relationship between AMD&ART and the residents of Vintondale. In the earliest meetings between the AMD&ART planning committee and the residents of Vintondale, the residents made clear that one of their hopes for the site was the rebuilding of the local baseball field, which had been washed away in a flood years earlier. In response to this request, the Recreation area of AMD&ART was built on a four-acre patch of ground, and is capable of hosting baseball games, soccer matches, and a host of other outdoor games. Additionally, a pavilion has been built on site, which serves as the home of the annual Vintondale homecoming celebration. By honoring the practical requests of the townspeople of Vintondale and building ballparks and pavilions, the AMD&ART team displays a regard for the residents of the town that is often conspicuously absent in large-scale contemporary art programs. The tendency to consult with the townspeople (and the repercussions of what can occur when artists do not) is examined in greater detail in chapter 4.

A final three site-specific art installations comprise the bulk of the overtly aesthetic portion of *AMD&ART*. The first, the Mine No. 6 Portal, is a large polished

slab of black rock that caps the abandoned entrance to Mine No. 6 (see Fig. 2). On the surface of the slab is a life-size etched image of men emerging from the mine. This image was drawn from a film still of a 1938 home movie shot by resident Julius Morey. The Mine No. 6 Portal was intended to be the site of interpretive signage as well, giving visitors a window into the hardscrabble lives of subsurface miners; as of my most recent visit to the site in July 2011, the signage was absent and the retaining wall surrounding the structure was incomplete.



Fig. 2. The etched stone entrance to the Mine No. 6 Portal (*AMD&ART* Collection)

The Great Map is an enormous (9'x15') mosaic map of the Vinton Colliery as it appeared on the 1923 Sanborn Insurance Map (see Fig. 3). Around the replica of this map are laid black granite tiles, many of which have been laser-etched with noteworthy historical events, records of coal production and the names of miners and families, as well as the word "hope" translated into each of the twenty-six languages that were historically spoken by the immigrant coalminers of Vintondale. This map stands in stark contrast to the site of the former colliery, which it now

overlooks; it is a record of the moment of Vintondale's greatest boom, contrasted with its subsequent bust.



Fig. 3. The Great Map (Holly Lees)

The Clean Slate is arguably the element of the site most indebted to the lineages of conceptual and contemporary art. It's composed of two large slabs of Pennsylvania Slate and is located beneath the final pool of the treatment system (see Fig. 4). The clean water flows out of the final treatment pool into a trough and across a slab of slate before it is channeled into Blacklick Creek. The other slab serves as a viewing platform, perched on a small rise above the trough. In the words of the designers of the Clean Slate, the site is "a literal and physical clean slate on which visitors can gather and reflect on the processes they witness in the park" (AMD&ART.org). With its clean, angular form and muted monochromatic palette, the Clean Slate's sculptural elements are reminiscent of the mid-century minimalist aesthetic that would later go on to inform land art, a connection that is detailed later in this study.



Fig. 4. The Clean Slate (AMD&ART.org)

The final element of the site (and arguably my favorite) is the Litmus Garden. The Litmus Garden is a large, sequential planting of native Pennsylvanian tree species that stretches the length of the Treatment System, along the southern shore of the pools. This selection of trees is planted not only to represent a sampling of the species present in the original old-growth forests that once surrounded Vintondale (until the first extraction-boom swept the valley: lumber), but also as a seasonal aesthetic gesture. As the days shorten in autumn, the deciduous trees of the Litmus Garden burst into a wide array of colors, and for a short period of time each year, mimic the color distribution of the Yamada Universal Indicator pH scale. Beginning with the red/orange of the Sugar Maple representing extreme acidity, each of the tree species was carefully selected for its autumnal color and planted overlooking the portion of the treatment system whose water, if tested, would prompt a matching color on the pH indicator scale. While seemingly a literal color matching

exercise, the Litmus Garden interests me primarily for its fleeting seasonality—it only "works," so to speak, for a few short days of the year when the factors of waning daylight, hydrological conditions and botanical whim align to shift the colors of the trees away from their typical green simultaneously. In this way, the Litmus Garden exceeds a simple color-coded representation, and embraces the contingent, unpredictable reality of biologically alive art.

Method

The task of examining and theorizing *AMD&ART* presents challenges to scholars seeking to neatly summarize the site's many facets. In the case of my study, I have met the challenge of accounting for the irreducible singularity of AMD&ART while still attempting to produce some type of theoretical endowment for future scholars—by approaching the site interdisciplinarily. An interdisciplinary approach is necessary to my study because the discussion of broadly wrought concepts such as "nature" and "culture" (and natureculture) cannot be neatly reduced. To do so, disciplinarily, bankrupts the productive spaces of conceptual and material overlap that make AMD&ART a compelling artwork, environment, and agent. AMD&ART is a difficult site to examine in any depth—it is deceptively simply in aspect and operation—which is probably the reason that there has been no full-length study of the site to date. The challenges facing scholars of AMD&ART include not only tracing a series of aesthetic genealogies for the site, but also examining and ultimately exceeding some of the most fundamental binary divisions around which our daily lives orbit. In one register, AMD&ART appears to be an examination of the relationship between representational and non-representational art, while in

another it is a challenge to the comfortable—and dangerous—divide between animate and inanimate matter. In both cases, there is the added dynamic of accounting for the communicative frameworks at work in the relationships between art audiences, Vintondale residents, planners and the landscape with regards to the representations of nature and culture afoot at AMD&ART. The task of examining AMD&ART has proven to be a complex undertaking, one that benefits from radical shifts in commonplace habits of thought. To acknowledge and flesh out these challenging ideas, I synthesize the works of a wide array of communication scholars, philosophers of science, systems theorists and a host of others under the banner of performance research. In particular, I contend that performance research offers a unique perspective on AMD&ART because it allows scholars to look to AMD&ART as an active participant(s) in defining and refining the conversations surrounding its existence. To state the claim another way, by focusing on a relational, performative approach to an aesthetic object such as AMD&ART, I am privileging the productive mode poiesis, in the sense utilized by Heidegger. Marc Johnson, paraphrasing Heidegger, clarifies my meaning: "The artistic artefact is the product of deep ontological commitment with material (physical materials, sound or language). The uncovering of the ontology of this material in a social context produces in the artefact an embodiment of highly complex mechanisms which can manage the variety of our personal double-binds. In its presence, we can engage in our own acts of poiesis, our own making, generating new variety, which too can be managed by our relationship to the artefact" (5). By seeking to acknowledge, via performance research, a heightened capacity for agency in site such as AMD&ART, I am

strengthening not only the claims as to the importance of *AMD&ART*, but also the power and prominence of performance as an ontological act.

Initially, I began this study assuming that I would follow a different, but related, methodology: trandisciplinary scholarship, as opposed to interdisciplinary. While that is no longer the case, a brief discussion of the distinction between transdisciplinary and interdisciplinary scholarship will serve to further highlight my aims and method. A trandisciplinary perspective engages in what Robert Frodeman has dubbed "topical thought." "Topical thinking organizes knowledge differently from the approach that governs academia," Frodeman asserts, an academic tradition wherein

research is structured in terms of the logical space of disciplines (chemistry, history, and the like). Topical thinking does not, however, abandon the disciplinary structure that defines knowledge today. A disciplinary approach to knowledge is not unreasonable, but it is partial. It needs to be complemented by an approach that remembers that our problems are always extra-disciplinary in nature.[...] Likewise, our environmental problems resist simple division into the categories of environmental science, economics, and ethics. To confront these problems effectively we must understand how these categories relate and flow into one another at a particular location. Topical thinking is a means for tracing the ontological disruptions that occur when we attend closely to a problem. (Frodeman, *Geo-Logic* 12)

While at first glance it may seem as if Frodeman is demanding an explicit object of practical application for any given theory, his point is a bit different. Rather than seeking to produce a line of reasoning or theory that may then be used to solve some pressing need, Frodeman's topical thought *begins* at the need. This means that for topical thought to have merit, it must start with a commitment to particularity and singularity. Frodeman has dubbed this sort of philosophical approach "field philosophy" ("field" as in "fieldwork") and claims that field philosophy is committed

to "beginning with the needs of stakeholders and drawing out philosophical insights after the work is completed" (Frodeman, "Experiments in Field Philosophy").

Frodeman is primarily concerned with the capacity of well-bounded disciplines to contribute particular knowledge—within the sphere of a particular location or event (the "need"). This approach to knowledge-work can be thought of as the task of illuminating some pre-existing reality, albeit one that is often hidden from researchers due to the partiality ingrained in their research by disciplinary training and perception. Transdisciplinary scholarship is thus the coming together of biological, ethical, aesthetic and other knowledges to provide a view of the "whole picture" of a research subject. An ideal metaphor for transdisciplinary scholarship is a fine-toothed comb: each tine a different knowledge set, their close proximity letting little slip past its expansive sweep.

I perceive interdisciplinary scholarship to operate under a different set of assumptions regarding the creation of knowledge and the importance of maintaining disciplinary boundaries. Rather than documenting the multifaceted and pre-existing dimensions of a research subject, interdisciplinary scholarship assumes that *new* knowledge can be generated in the collision of existing bodies of disciplinary knowledge. Rather than a more "complete" view of the world, interdisciplinary scholars and practitioners are engaged in producing novel, partial, knowledge-constructs that are fundamentally contingent upon the relational dynamics at play at any given moment. Interdisciplinary studies, as Repko notes, seek "to produce new knowledge, but unlike [traditional disciplines]...to accomplish this via the process of integration" (8).

My examination of AMD&ART leads me to critical analysis from a number of aesthetic, philosophical, and historical perspectives, and is ultimately more interdisciplinary than transdisciplinary. Rather than claiming to reveal some essential and yet-overlooked aspect of AMD&ART that is fundamental to its creation or operation, I am attempting to draw out of AMD&ART various new perspectives on the relationship between nature and culture. My overarching goal with this study is to move the practice of performance research and the field of performance studies into new arenas of thought and practice concerning "nature." That I should choose an integrative, interdisciplinary approach to achieve my goal is a response to the very nature of performance as a method and object of academic study. Judith Hamera, writing about the act of doing creative, generative work in performance, asserts that the task "requires integrating knowledge from multiple areas of expertise (specialized knowledge), the full scope of the senses (embodied knowledge), critique (politically engaged conceptual knowledge), and pragmatic knowledge (know-how)" ("Performance Ethnography" 318). These lived dimensions of scholarship far exceed the neatly packaged and nicely cooperative disciplinary bodies of Frodeman's transdisciplinary perspective. I infer the fundamental refusal of transdisciplinary scholars to full engage in the production of newly-minted, emerging knowledge from Frodeman's call for "embedded philosophers" (like embedded journalists in warzones) whose task it is to "ride along" with other scholars, observe their practices, and then report back to their constituency. The notion that full participation is not an unavoidable hazard of participating in the mental, emotional, conceptual landscape of transisciplinary scholarship (as it is in

interdisciplinary scholarship) is proof enough of the intrinsic divisiveness of the transdisciplinary approach. I am not attempting to "discover" (summarize) the "whole" of which *AMD&ART* is already a part, and thereby render finite the experiences one might have with the criticism of *AMD&ART*. Instead, I am attempting to "discover" (enrich) our collective relational capacity within the sphere of *AMD&ART*, opening new avenues for criticism and subjective interpretation. I am interested in the very real community engendered by *AMD&ART*: a "natural" community as much as a "cultural" or semiotic community.

While I understand "community" to be composed of embodied, manifest forms of relating—social customs, enacted bodily practices, material and spiritual cultures—community is also an ineffable, hard to delimit thing, subject to whims and rapid alteration. Especially in the case of membership, communities are amorphous entities, and an aesthetic approach to producing and maintaining community must proceed according to some ethical or moral program. Nicholas Bourriaud, whose criticism often revolves around the work of artists that cultivate fleeting, intentional communities among their audiences, offers a vision of the role of art as bolstering social dynamism. Bourriaud writes, "the role of artworks is no longer to form imaginary and utopian realities, but to actually be ways of living and models of action within the existing real, whatever the scale chosen by the artist" (13). As such, I am concerned over the breadth of this study with the participants in *AMD&ART*, the environmental realities ameliorated by *AMD&ART*, and the often convoluted material webs of affect that constitute the site.

I would be remiss in claiming the task of naming and documenting the relational, natural cultural community that is AMD&ART if I did not acknowledge the debt that this research owes to Bruno Latour. Beyond the formulation "natureculture," Latour has been developing a perspective on wordly interaction that in many ways presages my efforts to document the specific case of AMD&ART. Dubbed "Actor-Network Theory," ANT is a perspective that envisions the world as constituted by "ensembles" of human, non-human, animate and inanimate actors (actants). John Law articulates two foundational concepts of ANT that are particularly salient to my project: relational materiality and performativity. Relational materiality describes the way in which the actors (rather than subjects/objects) both "take their form and acquire their attributes as a result of their relations with other entities" (Law 3). Performativity, in this case, is the mechanism whereby those actants are "performed in, by, and through those relations" (Law 4). Performance is understood as the foundational ontological act, and it is this subject that dominates the latter-half of my study. In chapter three, I discuss ANT as it relates to the broader discourses of systems and network art. In chapter four, I utilize ANT as the stepping-off point for a discussion of other performative ontologies, and culminate in a discussion of the ethical demands of a performative ontology.

Beyond a community of able subjects, *AMD&ART* is a community of what Jane Bennett has dubbed "vibrant matter": a vitalist approach to regarding "things" and the "capacity of things—edibles, commodities, storms, metals—not only to impede or block the will and designs of humans but also to act as quasi agents or forces with

trajectories, propensities, or tendencies of their own" (Bennett viii). Our contemporary refusal to acknowledge this matter as an actant is one of the underlying preventative factors keeping Western society from grappling adequately with the problems of pollution, resource extraction and cultural dissolution—three factors that AMD&ART addresses directly. By dealing explicitly with the "quasiagency" of heavy metals and biochemical processes, AMD&ART takes seriously the affective power of organic and nonorganic entities. This "leveling" perspective is the subtext for the entirety of this study, and is addressed formally in the fourth chapter of this study, with an examination of the concept of "singularity," drawn from the works of Jean-Luc Nancy and Karen Barad. Suffice it to say that Bennett is not the only theorist working at the edge of the philosophical divide between nature and culture, wherein what passes for each slips across the border to the other with shocking regularity. I hope that this study is able to bring an aesthetic sensibility to the deconstruction of this arbitrary and troubling distinction of a unified sphere of Being.

Chapter Summaries

The body of this study is divided into three major sections. The second chapter, "Art That Works: A Typological Analysis," summarizes the literature associated with the mid-twentieth century art movements of minimalism and "land art" and contextualizes *AMD&ART* in that particular aesthetic lineage. land art is a mode of aesthetic production that sprang from conceptual art in the 1960s and 1970s and that has evolved over the past forty years to include a diverse array of contemporary artistic forms. It has its own canonical works and associated

theorists, whose influence on *AMD&ART* is made clear in this study. As I argue however, *AMD&ART* does not fit neatly into the sculptural, ocular-centric style of land art prevalent in the 1970s. Instead, *AMD&ART* can be most fruitfully examined as a site of negotiation between competing perspectives on contested concepts such as "art" and "nature."

The third chapter of the study, "Make Something Indeterminate, Which Always Looks Different, The Shape of Which Cannot Be Predicted Precisely: AMD&ART as System and Network" considers AMD&ART from the perspectives of Systems Theory and Network Theory, particularly as they apply to art. I offer the reader a means of examining the site as an environment of possibility—both semiotic and material—rather than as a fixed "art object." My examination of AMD&ART has contributions to make to both Systems Art and Network Art, and draws upon one of the characteristic forms of the twentieth century avant-garde the "Readymade"—to examine the conflicting sense in which AMD&ART is a "natural environment" as well as a crafted object. The logic of the Readymade, made famous by the work of Marcel Duchamp, serves in this chapter as the explanatory means of locating AMD&ART within a lineage of earlier systems art. I track this lineage through an examination of the work of Hans Haacke, arguably the most famous and influential systems artist, and elucidate the similarities and differences between Haacke's work and the work of the AMD&ART team.

In an effort to exceed the assumptions of System's Theory, which presupposes many distinct elements working together, I spend the latter half of the third chapter examining the literature of network art in an effort to regard

AMD&ART as a fully-fledged aesthetic "environment," rather than an isolated art object comprised of many unique "bits." Network art—and the theory of networks, more generally—suggests that rather than search for preexisting, functional connections between disparate elements, one ought to attempt to take stock of the whole of the network as a dynamic material/semiotic field of possibility. In order to make sense of this complexity, I suggest that it is a type of performative consciousness—dependent on actor-network theory—that allows us to winnow down the complexity and routinely co-produce an aesthetic and a worldview with which we are familiar.

My study's fourth chapter, "Relational Emergence and Community

Unfolding," examines the relational aspects of *AMD&ART*, through the consideration of *AMD&ART* as a "companion species," a term developed by Donna Haraway to illustrate the exquisitely complex interrelations between humans and nonhuman others. Haraway has gone to great lengths to examine the notion of "species," but offers her readers very little in the way of explication. In this chapter, I carefully detail and expound upon her understanding of "species," revealing the nuanced and surprising relational aspects intrinsic to the concept. This focus on relationality prompts, for both Haraway and myself, a questioning of the nature of shared Being; I make an attempt to account for some of the contingency of our shared lives with human and nonhuman Others by employing the philosophies of Jean-Luc Nancy and Karen Barad, two theorists whose ontological perspectives depend fully on the interaction of multiple subjects to constitute the world. The philosophies of Nancy and Barad, more specifically, offer up a means of understanding the world as

fundamentally—and inexhaustibly—a site of performance. In this way, I utilize their theories to help the performance paradigm exceed a relegation to the status of "cultural mover" and raise it up to the status of a fundamental ontological process.

The final element of the fourth chapter is a discussion of the overtly ethical demands placed upon scholars and artists working in this relational mode. In the wake of the radical shift in consciousness precipitated by Latour, Haraway, Barad and Nancy, ethics rises to the forefront of the axiological approach to everyday life and everyday spaces that define *AMD&ART*. In particular, the thought of ontological performance asks that very significant responsibility be taken by all participant entities. The work of Chris Cuomo—on an ethical stance that might be characterized as an "ethics of flourishing"—is paired with Derrida's notion of a "hyperbolic" ethics to acknowledge the new prominence of ethics in my take on *AMD&ART*. The site is a place of great beauty and promise for humankind's relationship with the rest of natureculture, and yet it is also a site of constant failure to achieve those dreams. The fourth chapter concludes with a discussion of these shortcomings.

Significance

I am interested in the long-term possibilities offered by a model of critical attentiveness that is predicated upon a deeply held relational program that includes human, non-human, and non-living agents. Most promising, in my opinion, is the opportunity for criticism and performance to develop the tendency toward what Thoreau has famously called "tawny grammar," a "wild and dusky knowledge" (85) that draws its insights and images from the local features of nature. Thoreau, in his essay "Walking," states, "He would be a poet who could impress the winds and

streams into his service, to speak for him...who derived his words as often as he used them—transplanted them onto his page with earth adhering to their roots, whose words were so true and fresh and natural that they would expand like the buds at the approach of spring, though they lay half smothered between two musty leaves in a library" (80). While no doubt more metaphorical than literal, and woefully short on answers about precisely how one might engage in this "transplantation," Thoreau's idea that artists could (or should) draw stylistic, formal or content clues from their surroundings has become *de rigueur* for a host of contemporary scholars. Communication studies, and in particular performance studies, has begun to develop avenues of research in response to this demand (Crouch; Lorimer and Lund; Gray).

My analysis of *AMD&ART* takes place against the backdrop of a vibrant period of research in the area of environmental communication and performance research. The last decade has seen a blossoming of journals (*Environmental Communication*), publications, performances, and topical and annual conferences expressly devoted to environmental communication. A number of scholars have explored and deconstructed the symbolic processes that undergird the separation of nature and culture into two distinct spheres, a process that is fundamentally a communicative undertaking. Tema Milstein ("Communicating" 487; "When Whales" 189), Nigel Clark and Donal Carbaugh are all working in what I would consider the vein of natureculture, approaching it from both a standpoint of reassuring integration as well as challenging deconstruction. The work of Donal Carbaugh, for example, examines "listening" as an embodied practice of communicative relating between

the Blackfeet people and their environment. Listening is conceived of as an embodied process of bridging the gap between nature and culture (Carbaugh 252). Carbaugh's work highlights how the environment—place, in his study—has the potential to serve not only as a milieu, but also as an experiential co-creator of symbolic meaning. For the Blackfeet (or at least Carbaugh's guide, Two Bears), "Listening this way can involve the listener in an intense, efficacious, and complex set of communicative acts in which one is not speaking, discussing, or disclosing, but sitting quietly, watching, and feeling-the-place, through all the senses. Presumed for the acts is an active co-presence with the natural and historical place in which, and to which one listens...Such acts are thus not so much internally focused on one's meditative self, but externally focused on one's place through an active attentiveness to that scene, to the highly active powers and insights it offers" (259). Nature "speaks" to culture, and culture "listens" to nature, and the logical extension of this argument is clear: bodily practices of attentiveness and reciprocity are the means by which barriers are transcended and a spilling-over of form and content can occur between the spheres.

While Carbaugh's work focuses on an enriching, reciprocal relationship in a naturalcultural world, other scholars have examined the less benign side of this formulation. On the one hand, scholars have examined the uneasy realities of flattening out the divisions between nature and culture. Julie Kalil Schutten's analysis of Werner Herzog's film *Grizzly Man*—a documentary examining the life and gruesome death of eccentric animal rights activist Timothy Treadwell—typifies this category of communication scholarship. Treadwell, an adamant advocate for the

environment who lived among the grizzly bears of the Katmai Peninsula for thirteen summers, was eventually attacked, killed and consumed by a bear he had dubbed "Mr. Vicious." In the moment of Treadwell's consumption by the bear—his becoming "meat"—Schutten suggests that Treadwell embodies a position within an eco-ethical framework that is potentially uncomfortable: our relinquishing of power over the natural world. "Treadwell gives up his power-over position by becoming vulnerable," writes Schutten, who continues, "Treadwell illustrates for audiences that humanity will have to become vulnerable, to give something up, in order to cease operating from oppressive frameworks" (208). A thoroughly integrated natureculture, as Schutten suggests, is a scenario in which human dis-empowerment is an ethical duty. The degree to which that dis-empowerment should occur is, of course, a matter of no small debate, as Schutten discusses (208).

The other less benign natural cultural dynamic that has received the bulk of attention from environmental communication scholars is the relationship between the byproducts of human culture (pollution) and its effects on natural systems.

Many scholars including Foust & Murphy, Lakoff and Salvador have addressed large-scale questions of the representation and framing of climate change. In more overtly performative terms, Phaedra Pezzullo has written extensively about the practices and challenges of industrial pollution to the lives of Louisiana residents. The similarities between her understanding of "toxic tourism" (the private touring of industrial sites and polluted locations to draw attention to the cultural and environmental duress present in these places) and the goals of the AMD&ART team (enticing people to visit Vintondale, in order to learn the cultural history of coal

mining as well as its lingering material effects) are numerous. Pezzullo writes that toxic tours are "cultural performances negotiating the politics of memory, of presence and absence, of play and politics, and of remembering and forgetting" (246). In other words, the tours are embodied means of eliciting a first-hand awareness in their participants of the ways in which nature and culture interact across time to precipitate current conditions, and make possible the (re)emergence of community.

My study of *AMD&ART* plumbs similar territory as Pezzullo's study of "Cancer Alley," and not simply because they are both concerned with places whose fates are inextricably wedded to pollution. Her interest and attentiveness to the mechanisms whereby communities come into being and maintain themselves resonates with my communitarian goals in writing this study. I am interested not only in documenting the community of Vintondale, but *enlarging* reader's concept of who or what might be considered a community member through an ecological, performative worldview. Pezzullo's understanding of community formation, however, drawn from the work of Barbie Zelizer, has slight differences with my examination of community in this document. Zelizer writes (and Pezzullo echoes), "community maintenance depends on a constant look backward, to the previous life of the community members, so as to constitute them as a collective in the present day" (187). While I do not contest that the previous lives of members (memory, culture, the components that make up various "histories") are important, relying too heavily on glancing backward to precedent has the unfortunate effect of producing an illusory consolidation. This consolidation of heterogenous elements leads members

to focus on their part of pre-existing, discrete social formations as a token of inclusion. My study is an effort to examine *AMD&ART* as an emergent aesthetic community, wherein the community members are not solely "an existing social relation" but rather answer to a "call or appeal to a collective praxis" (Kwon 186). "Community-based art then can be approached as a projective enterprise, rather than a descriptive enterprise," writes Kwon, "wherein a provisional community can be produced within the specific context instigated, either by an artist or a cultural institution" (186). Thus, while Pezzullo and I differ in our temporal focus—hers on the importance of memory and performances of memory, mine on a distinctly present-tense emergence—her work provides an important compliment to my own.

I am contributing to the scholarship regarding environmental communication (particularly with a performance-bent) by way of a critical, philosophical approach that privileges embodiment, interaction, and the assumption that a performance paradigm can offer scholars new ways of thinking through the nature/culture dynamic. A performance paradigm allows us to examine our understanding of the categories of "nature" and "culture," and suggests that these categories spring more from a conventionalized, socially-constructed mode of interaction and valuation, than our everyday experiences in the world.

In addition to the work of characterizing *AMD&ART* as an important piece of contemporary art, my study attempts to broaden the horizons of performance studies. It is important that this study make available new avenues of inquiry that treat performance less as a metaphoric concept with which to think, and more as a fundamental explanatory mechanism for understanding material Being. If we

assume, here at the outset, one of the fundamental conclusions of my study—the notion that it is sensible to extend to inanimate matter a sort of agency to affect the world and be affected by the world—a perennial type of performance studies scholarship is called into question. The utilization of an object or entity as a cipher through which to examine the cultural construction of a society more broadly is a fairly common model of performance studies scholarship. An example of this approach is useful in demonstrating the differences between my perspective regarding the utility of performance as paradigm, and what I would characterize as a more orthodox material/performance perspective. "Getting Messy: In the Field and At the Crossroads with Roadside Shrines," by Rebecca M. Kennerly, is as good a representative of the orthodox type of analytical work as has been published in the last ten years, and will be illustrative as to the differences between my perspective and a perspective more typical of performance studies at large.

In "Getting Messy," Kennerly examines "roadside shrines," memorial markers erected along roadsides to mark the spot where individuals have been killed. Kennerly's work claims to be an attempt to understand how the shrines "perform": "to investigate how roadside shrines perform in culture is to explore the landscape in which the material objects are placed and what those material objects are, what the 'something' is that is 'happening' there, and the dynamics of the process of 'making it happen.' My performance, here on the page, seeks to demonstrate and engage this dynamic..." (232). Kennerly's project, it would seem, is in alignment with my own: we are both concerned with the specifics of "where" the objects are, the "what" of their materiality, and the dynamic relationships that constitute their

evocative, subjective power. The phrase "perform in culture," however, reveals

Kennerly's primary assumption: these sites are powerful precisely because they

serve as a nexus of affective, cultural energies. My study asks what it is to examine

such entities as performing in both culture *and* nature, so to speak. In other words,

what of the shrines *themselves*?

While the concerns espoused by Kennerly are definitely within the purview of my study, the conclusions that she draws from her lengthy analysis of individuals' behavior in constructing, maintaining and destroying the sites do not complete a full treatment of the affective power of the shrines. Instead, she draws on the historiographic scholarship of Joseph Roach in defining the shrines as "vortices of behavior" (Roach, Cities 26-29), a perspective that I understand to be about the behavior of *constructors* and *visitors* of the site. To be sure, this is one valid way of examining the formal reasoning behind the existence of the sites, as well as the impacts of the visitation and maintenance of these places. As Roach's characterization of sites of cultural performance stresses, "their function is to canalize specified needs, desires, and habits in order to reproduce them...where the gravitational pull of social necessity brings audiences together and produces performers...from their midst" (Cities 28). While the structures, histories and features of particular locations and ritualized arenas no doubt impact their audiences (hence prompting the emergence of performers), Roach's study is concerned ultimately with the persistence and transformation of an *autonomous* culture. The fact that Roach claims the performances that occur in these locales based to varying degrees on the physical materiality of the site—exert "[such] a

powerful hold on collective memory that they will survive the transformation or relocation of the spaces in which they first flourished" (Roach, *Cities* 28) is proof enough of the autonomy of Roach's vision of "culture." While the performances may spring initially from a rooted sense of being "in the world," their persistence speaks volumes regarding their eventual autonomy.

The materiality of the site, therefore, is not Roach's primary concern, nor is it Kennerly's concern, by extension. If the cultural performances can survive the transformation, dislocation or destruction of their milieu, the milieu is not exerting a continual constitutive force on those performances. I believe that the value of studies like Kennerly's and Roach's are one half of the equation, so to speak, in the examination of matter ("nature") in performance. It is a portion of the equation that seeks to examine more fully the interaction between materiality and cultural performance. My study is the second half of this equation, an approach to examining materiality as a dynamic intra-action between modes of living (broadly: cultural performance) and their constitutive material environments. Rather than assuming that cultural performances are displaying their puissance by exceeding their material milieu, I approach the problem of aesthetic and lived environments from the opposite angle, and account for the materiality of situations as absolutely integral to understanding their power and persistence. The maintenance of cultural performances, by memory and displaced physical practice (surrogation, in Roach's terms), is simply not a sufficient explanatory mechanism. By granting materiality a type of quasi-agency— the possibility of being considered quasi-performers—I have come to the conclusion that a co-constitutive unfolding model of eco-performance is

a hopeful, inclusive, communitarian gesture. This is the type of willfully utopian scholarship I long to encounter more regularly, and I contribute this study in the hope of practicing what I preach.

My study is a participatory, open model, befitting the dawning ecological age. The broadening of affective power that I undertake is also a reminder that while current economic and environmental models seem to be pushing the world closer and closer to the edge of a precipice, there are participant entities (living and non-living) that continue to push back in the opposite direction, or at least hold their ground. It is also an acknowledgment that "ecological" thought is not necessarily "environmental" thought (though, in the case of *AMD&ART*, this is the most frequent register). Thinking ecologically is the task of mapping connections, whereas performing ecologically is a means of forging of new material alliances and relationships, while maintaining others. This study reveals the deeply embedded affective performance that lies at the heart of aesthetic contemplation.

My sense is that devoting time and attention to an aesthetic event and entity, like *AMD&ART*, is finally a way of being attentive to the ethical demands of a performative ontology of engagement. While I discuss this at length in the fourth chapter of this study, it warrants a passing mention here as the very crux of my performance research. In the early 1990's—a full twenty years before the majority of art critics and theorists were prepared to deal with the pluralist, communitarian tendency that has emerged in contemporary art—Suzi Gablik posed a question of postmodern aesthetics. Gablik asks "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" (66). In the decades that have intervened since Gablik's writing, contemporary artists have wrestled with the relational impulses that Gablik predicted, especially those relating to the "common good." Artists like Rikrit Tiravanija, who focuses primarily on organizing installations wherein community might flourish (cooking soup for gallery-goers, providing temporary libraries, establishing plots of land autonomous of individual ownership and free to be cultivated by whomever feels the urge), have risen to great prominence by cultivating partnerships between artists and audiences.

A co-constitutive, communitarian perspective is the approach through which I've mobilized performance research to make significant headway into environmental scholarship and aesthetics. If, as Elin Diamond suggests, performance is always implicitly referencing prior performance—while introducing the capacity for agency into the present (Diamond 2)—a performative take on environmental, ecological aesthetics strikes me as the first step in the process of helping us find our way in the world without resorting to the "metaphysical Fallacy of the Whopper...[the thought that we can] 'have it our way'" (Cafar). In a nutshell, it is a way of reminding us that there are antecedent processes at work, processes into which we might intervene. Growth—of greenery and culture alike—transcends a linear model of birth/growth/death, and instead is understood broadly as a constantly unfolding regrowth of possibility. As active participant performers, we are presented with a choice: lay the groundwork for further performance, or break the cycle and shutter the chances for further materialization. The former depends

heavily on an awareness of the cyclical nature of performance, and the intrinsic citationality of material being. The latter is indeed a short-sighted vision of the world with which we have "had it our way." Agency begets accountability, and a performative perspective on the unfolding of the world offers an ample supply of agency to those who would subscribe to its tenets. My study, which spreads a sort of quasi-agency liberally across the face of material Being, is an attempt to reawaken the sense that active performers reside in the most unlikely of places: industrial wastelands, water treatment facilities, isolated coal towns and underground caverns, among others. As they—and we—go about the business of co-producing that thing we call "The World," we would do well to remind ourselves of their presence, and thus lessen our anxiety at being "in charge" of the fate of the world. While we may share an inordinately large share of the burden, we are far from shouldering that responsibility alone. AMD&ART demonstrates this reality, not only as a conceptual object with which to think, but as a material place, entity and process.

Chapter Two Art That Works: A Typological Analysis

In an early work proposal associated with *AMD&ART*, the multidisciplinary team tasked with designing the site put forth an explicit discussion of the "art" in *AMD&ART*. They write, "'Art' is often construed as a tangible, constructed product such as a painting or a sculpture. *AMD&ART*, on the other hand, defines art in a broader context, where landscape is integrated into the scientific engineering of passive treatment" (*AMD&ART* 2). The breadth of this "broader context" of art is precisely the territory cased by this document. In particular, the tendency of the *AMD&ART* team to appeal to an art that is not simply a "tangible, constructed product" informs this chapter.

The aforementioned quotation—drawn from one of the foundational texts associated with the site—raises a series of puzzling questions for me, regarding both *AMD&ART* specifically, as well as "environmental" art more generally. The most obvious question is simultaneously the most ontologically loaded: if art is not construed as a tangible product with spectatorial value, what exactly *is it*? Is it a "thing" in an environment, or an environment of its own accord? While the word choice of the authors of this quotation suggests that the artwork likely has some type of presence—construed, as in "the interpretation of existing phenomena in a particular way"—they immediately muddy the waters of easy interpretation by invoking complex, multifaceted concepts such as "landscape" to bolster their claims that *AMD&ART* is something more than a sculpture park. Are the conceptual frameworks of art galleries replaced by the post-industrial landscape of Vintondale,

while scientists, engineers and a humdrum flow of casual passerby replace the art public? If this is the case, and AMD&ART is more than simply an autonomous object, are the interpretive lenses brought by these art-outsiders changing widespread interpretations of the site? There is something of a turf war at stake in the manner in which AMD&ART is represented, both by its creators and the viewing public. This chapter offers an alternative to the argumentative, definitional process of jockeying for validity by arguing that *AMD&ART* is a site that *benefits* from the conceptual ambiguities of "art," "nature," "landscape" and "culture." The morphology of the site—its physical characteristics—plays an important role in this formulation, though not as a self-evident means of appraising the site for inclusion into a sculptural cannon. Instead, the site's features become representative guides for a way of approaching the intrinsic examination of relational aesthetics I see at work in AMD&ART. In order to effectively context AMD&ART, it is important to examine works whose ties to land art are no longer content to trouble the boundaries of sculpture alone, and refocus the discussion of land art on relationships, rather than morphology.

A relational approach allows me to accomplish two related goals. The first of these goals is to remain attentive to the formal characteristics of art, while carefully avoiding a prescriptive declaration of the validity of a piece by virtue of a constitutive adherence to tradition. In other words, it has allowed me to enlarge my perspective on what may reasonably be called "land art," thereby expanding Rosalind Krauss's "expanded field." I have refined this perspective by the application and expansion of Mark Rosenthal's notion of "attitude," a typology developed in the

early 1980s to examine primarily sculptural land art. Rosenthal's method seeks to read the morphological characteristics of an artwork like a sort of rosetta stone, a means of deciphering the author's perspective toward the natural environment by virtue of the formal choices present in their art.

Rosenthal's attitudinal perspective on land art has demonstrated an amazing level of relevance for this study, given that it was written nearly three decades ago. While this is not to say that the notion of "attitude" has not suffered the slings and arrows of critical Deconstruction—much like any other approach to art criticism that seeks to infer authorial intent—it does seem to have presaged an interpretive framework that asks complex, context-specific questions of the sites and their authors. If Robert Frodeman's charge to move "vertically" between the highly regimented and disciplinary academy, and the culture at large, is to be taken seriously, an interrogative mode must be cultivated in spectatorial relationships with pieces of art. Frodeman's method asks that critics, spectators and authors alike make avenues toward probing the specifics of place, and the mixed bag of elements that contribute to that concept. As Smaldone notes, summing up the majority of the research on the concept of place over the last twenty years, "places are based on three broad interrelated components that give places meaning: (1) the physical setting, (2) the person (an individual's internal psychological and social processes and attributes, which are also tied to social and cultural factors), and (3) the activities or rituals done at the place" (398). By approaching land art from Rosenthal's distinctly subjective attitudinal assessment, and updating his approach to reflect contemporary practice, I have attempted to approach the task of making

critical inquiries into viewing AMD&ART as a "place-based artwork," rather than simply a "land-based artwork."

As this chapter proceeds from an embrace of specificity, wherein place is understood to be the result of historical and ongoing trends in behavior, interspersed with anecdotal and idiosyncratic features, a shortcoming of Rosenthal's approach is revealed. While his approach to artist-intent is willing to entertain the concept that their relationship to the land is negotiable and contingent, Rosenthal's understanding of that artist's other—Nature—is shockingly fixed. It is always assumed to be an outside and ultimately ungraspable context wherein the artist makes overtures of aesthetic creation. Even in cases wherein the artist pays obeisance to nature, such as the work of Hamish Fulton, Rosenthal's approach leaves the notion that "nature" is a coherent, self-evident Other untroubled.

Employing Rosenthal's typology without accounting for the status of nature is his formulation would be a gross oversight, and to this end, I have used this chapter to toss my hat into the ring, so to speak, of the debates revolving around the concept of "capital N" Nature. In the vein of the luminaries theorizing the "deconstruction of nature"—those in attendance at the symposium on "Reinventing Nature" held at the University of California-Irvine in 1994, as well as contemporaneous philosophers such as Timothy Morton—this aspect of the document speaks the notion of nature as "contested terrain" (Cronon 52). Morton's skepticism about Nature—as an autonomous thing, apart from interpretation—makes apparent the active mental and physical engagement necessary for this

contestation to occur: "Ecology equals living minus Nature, plus consciousness" (19).

"Nature," conceived of as an interpretive and historical artifact, is utilized variously to the benefit to the material biological world, but also to its degradation at the hands of those who would espouse the "naturalness" of rampant development and uncontrolled growth. As I explicate the contests being played out by parties interested in mobilizing the concept of "nature" to their particular end, I make apparent that Rosenthal's focus on the attitudinal aspects of aesthetics reflects profoundly different interpretations of Nature itself. Far from a self-evident and accessible exterior space, assessed in the negative as "that which is not culture," nature becomes in this formulation a site of radical otherness. William Cronon, summarizing the work of Robert Harrison, writes "the fact that it [nature] lies forever beyond the borders of the linguistic universe—that it does not talk back to us in a language we can easily understand—permits us to pretend that we know what it really is and to imagine that we can capture its meaning with this very problematic word 'nature'" (52). By troubling the self-evident "nature" with which the land artists are sometimes associated, this chapter offers a view of multiple aesthetic approaches to defining and interacting with the radical otherness that is the rest of existence. AMD&ART, as an extremely complex form of environmental art—one that consciously exceeds mere formal or sculptural concerns—is an emblematic example of the examination of this conceptual terrain.

This chapter begins with a brief discussion of "land art," the mid-century aesthetic movement with which *AMD&ART* is most frequently aligned by critics. The

criticism surrounding the work of the original land artists is useful to this study in that it both lays out a framework for considering unusual configurations of natural materials as art, as well as provides an example of the shortcomings of formal criticism (the logic of which is typified in this study as the writings of Michael Fried). The second section is a review of Mark Rosenthal's attitudinal typology of land art, particularly as it applies to *AMD&ART*. Rosenthal's typology, while lengthy, is a thorough means of examining many facets of the *AMD&ART* site. The final section locates *AMD&ART* on Rosenthal's typological list, arguing that by using *AMD&ART* as a means of thinking about the concept "nature," we can produce a more flexible, less dogmatically-charged vision of "earth/land/nature art."

Land art: An Aesthetic Framework

In the relative few publications in which *AMD&ART* has appeared, it is often quickly labeled "land art" or "earth art," and hereby neatly pigeonholed. It is curated as such in the "Green Museum," an online gallery of environmentally-conscious art, and appears with some regularity in survey publications of contemporary land art: *Earthworks and Beyond*, by John Beardsley and *Designing the Reclaimed Landscape*, edited by Alan Berger, are two recent publications in which *AMD&ART* receives mention. T. Allan Comp, the founder of *AMD&ART*, never expressly refers to the site as "land art" however, preferring to call it an "art park." While it may seem a trifling titular matter, the declaration of the site as "land art" invokes a complex aesthetic genealogy, as well as a series of philosophical assumptions.

During the 1960s and early 1970s, the term "land art" referred to a branch of minimalist sculpture that had migrated outdoors and assumed a large scale.

Enormous artworks by minimalist icons Nancy Holt, Robert Smithson, Michael Heizer, and Dennis Oppenheimer, among others, were the paradigmatic instantiations of the genre: Smithson's *Spiral Jetty* (1970), the long spit of spiraling rock constructed at an isolated location in the Great Salt Lake, is an instantly recognizable major artwork of the twentieth century. Enormous in size, isolated, dabbling in the arcane symbolism of the spiral: this is a work whose ties to minimalist sculpture's concern for aesthetic unity are apparent and profound.

While land art and minimalist sculpture was championed by the aforementioned artists—and are widely respected in contemporary times—the forms were not without their detractors. Michael Fried, the heir-apparent to the Modernist criticism pioneered by Clement Greenberg at midcentury, wrote famously of minimalism (and by extension land art) that it is a "theatrical" or "literalist" art. "Literalist sensibility is theatrical because, to begin with it, it is concerned with the actual circumstances in which the beholder encounters the literalist work, " (153) wrote Fried in his famous Art and Objecthood. Fried viewed the interactive aspect of these works as a sordid, kitschy, unrefined quality that was developing in contemporary art. Whereas Fried's ideal artwork was a distant, uncommunicative object whose overpowering presence deadened its audience's awareness of context, the minimalist sculpture fairly called out for attention: the works are often large, altered the behavior of their audiences by being accessible from many directions and angles, and sprung up unexpectedly in unusual settings (like the outdoors). Non-theatrical art, conversely, appears before its audience in a moment of "presentness" that does away with all interactive elements: "It is this

continuous and entire *presentness*, amounting, as it were, to the perpetual creation of itself, that one experiences as a kind of *instantaneousness*, as though if only one were infinitely more acute, a single infinitely brief instant would be long enough to see everything, to experience the work in all its depth and fullness, to be forever convinced by it" (Fried 167, italics in original).

My focus on a relational model of aesthetic production puts me at odds with the philosophy of Michael Fried, as well as a host of other midcentury artists and critics such as Barnett Newman, Clement Greenberg and Ad Reinhardt. Grant Kester's paraphrasing of Ad Reinhardt is a useful illustration of the Greenbergian modernist's view on relational art: "The work of art constitutes an act of resistance to socially shared meaning or communicability. By refusing to communicate with the viewer (or at least the kitsch-sodden viewer), the artwork asserts its difference from, and resistance to, banal culture" (38). While much about the world has changed, including the belief that it is possible for a work to produce meaning that is not the result of *social* consensus, it is worth rehearsing the arguments of these critics because they provide a counterpoint to my own efforts. Where Reinhardt envisioned a "perfect" artwork as the absence of "sharing," this study progressively makes a case for the fundamental necessity of sharing (relationality, interaction, performativity, theatricality) as the crux of the *AMD&ART* enterprise.

This second chapter is the chapter most devoted to the "object" of *AMD&ART* (the physical site) of any in my study. It is therefore concerned with the antithesis of Fried's modernist art, the place of an entity *in the world*, as opposed to isolated on an idealized picture plane. Instead of an isolated, compositional unity demarcated

by the edge of a canvas, *AMD&ART* is a nigh-infinite aesthetic object (a topic I cover in depth in chapter three) composed of radically shifting elements. Thus *AMD&ART* fails Clement Greenberg's call for "medium specificity," the manipulation of the materials and features that are "unique to the nature" (111) of a particular medium, a process which gradually refines the art's formal characteristics. *AMD&ART* is extremely messy, in the sense that is does not present a neatly curated suite of relationships or objects whose appearance on the site is thought to be self-evidently aesthetic. In fact, as opposed to the logical progression toward greater and greater specificity and refinement presupposed by Greenberg, I would suggest that the longer *AMD&ART* lasts, the *less* refined it will be become, and the more the lines between nature and culture—and as per Fried, art and objecthood—will blur.

In the intervening years since the conceptual debates about formal criticism of the 1960s, the art-world has drifted from Greenberg, Fried, and the other formalists. The concept of land art has been extended to works as diverse as Hamish Fulton's walking art (long walks, documented with photographs and texts); Andy Goldworthy's ephemeral, deeply site-specific sculptures of rock, ice, leaves, flowers, dirt, rain and other local natural features; Newton and Helen Harrison's *oeuvre*, ranging from self-contained ecosystems, as in *The Lagoon Cycle* (1972-1985), to complex analysis of urban biodiversity and land-use patterns made manifest in a series of maps, as in *Casting a Green Net: Can It Be We Are Seeing A Dragon?* (1996-1998); Dwyer Kilcolin's *Nestgirl* (2003) and *Burrow* (2003-2004), wherein she replicated animals' constructed dwellings and lived in them for a time, as well as her

Fluxus-esque pun *Get Your Ducks in a Row* (2004), which saw Kilcolin release ducks into a gallery exhibition and attempt to line them up.

The short representative sampling offered here resists my efforts to satisfactorily gather them together under an easy label, and offers little consolation to Fried and Greenberg's desire for aesthetic purity. Are they "environmental art?" Perhaps the ambiguity of the abbreviated "eco-art" allows for enough conceptual leeway to accommodate such disparate forms and practices. Or shall I stick with "land art" for the sake of tradition? There is something to be said for choosing your terms carefully. In the end, I have settled on "land art" as that body of literature and theory that most benefits my analysis of *AMD&ART* (though kept all of the other terms in my back pocket. They will emerge later in this document.).

Running beneath loftier concerns for terminology, aesthetic expression and experimentation are ethical concerns for the very material in which the land artist works: the land itself. The earliest land artists regarded the earth as a malleable canvas, while many contemporary land artists are exceptionally attentive to the preservation of existing living communities, perhaps even to the extent that it constrains their capacity for aesthetic freedom. As in all broadly characterized aesthetic movements however, there are degrees of adherence to what are viewed to be the "founding principles" and ideals of land art. Broadly declaring an object, configuration of materials or entity that appears "out of doors" and manifest on a large scale "land art," without properly contexting it within the evolving principles and ideals of the form (as evidenced by a genealogy of "major" works), is to dramatically water-down the value of the term "land art" for critics and art-lovers.

The golden age of land art, as William Malpas has pointed out, was undoubtedly the late 1960s and 1970s, an era whose works have been characterized by Rosalind Krauss as "sculpture in the expanded field" (Krauss 30). For Krauss, this era signaled the end of sculpture-by-virtue-of-exclusion: sculpture would no longer be that which was, by common estimation, *not landscape* and *not architecture*. Instead of this exclusionary field, she imagined an "expanded field" of aesthetic opportunity, wherein "site construction" or "marked sites" could produce sculpture that was *both* landscape and architecture, yet neither singly. This was also, of course, a direct rebuke of Greenberg's idea of medium specificity.

Iconic works of the 1960s and 1970s such as Nancy Holt's *Sun Tunnels* (1976), Michael Heizer's *Dragged Mass* (1971), James Turrell's *Roden Crater* (1979-ongoing), along with famous works by Robert Smithson, Carl Andre, Alice Aycock, Robert Morris, Walter de Maria, Dennis Oppenheim, Alan Sonfist, Christo and Jean Claude, and many others, have come to represent the initial burst, and to some extent orthodoxy, of land art. Many of the aforementioned artists worked in monumental scale, their art profoundly and inextricably tied to its context (being "of" the land, not simply "in" it), and seeking to transcend the baseness of sculptural form. In particular, they sought to escape art's attendant ties to the gallery-based art market, through experimentation with materiality, isolation and transience.

These early works have been criticized for their seemingly uncritical, nostalgic vision of unspoiled nature, an arena in which art and artists could produce seemingly acultural artifacts accessible to all who encountered them. Perhaps more damning is the critique of the early land art as actively destructive: the havoc

wreaked by Michael Heizer's *Double Negative* (1969), a set of mirrored chasms gouged into the face of Mormon Mesa in Utah, is one shocking example. Heizer has been quoted as saying, "I don't care about landscape. I'm a sculptor. Real estate is dirt, and dirt is material" (Gablik 140). It is with this ethos that we might sum up the majority of early land art. John Grande has quipped about Heizer's quotation that it "affirms the code of the original land art aesthetic which was not to integrate nature and art, but to impose an idea of art in the forum of the exterior landscape...the artist's intention continued to involve the imposition of an idea of art onto nature by the artist" (87).

During the 1980s and 1990s however, a particular branch of land art, remediative or recuperative art, came about as artists became interested in the potential of art to help reclaim sites of ecological, industrial or cultural spoilage. Works such as *Revival Field* (1990), by Mel Chin, set the tone for land art of a new sort. *Revival Field* is a 60 sq. foot section of the Pig's Eye landfill in St. Paul, Minnesota, that has been sowed with a series of plants whose function is to accumulate the heavy metals that contaminate the site. As these hyperaccumulating plants mature, they're harvested and burned in reclamation furnaces, wherein their residues produce metals of greater purity than newly mined ore. These metals are then sold to industry to further finance the project. The ground is stripped of harmful heavy metals, and the site perpetuates itself through active engagement in financial markets.

AMD&ART falls squarely within this subset of art-making. It is clearly dedicated to the remediation of water contaminated by acid mine drainage, as well

as to the healing of psychic scars that burden the population of Vintondale in the wake of local economic collapse and the widespread abandonment of the area. This site, as Grande implies, is interested in integrating landscape *and* art, particularly if we consider landscape as a complex, reticulated construct, composed of various biomes, histories, processes, economies and psychic/emotional components, across many registers ranging from the human to that of the microorganism. In order to operate in these other registers, however, the discussions regarding *AMD&ART* must be broadened beyond the articulation of *AMD&ART* in the sculptural land art tradition, if indeed *AMD&ART* is land art at all.

Attitudinal Assessment as Relational Marker

Morphology (formal characteristics) cannot be the basis for authoring a designation for *AMD&ART*: there is no one thing that "looks" like land art or has "the" characteristics associated with land art, whatever those might be. While the earliest land art may have been easily linked to the logic of sculpture or Minimalist art, the wide breadth of contemporary art cannot be so clearly tied to any one particular school of aesthetic philosophy or mode of representation.

Mark Rosenthal attempted to organize the land art movement into five "attitudes" in the early 1980s, a perspective that I believe to be far more promising than focusing on morphology. The notion of "attitude" refines the question of morphology, focusing more on the relationship between the artist and the land as a definitional opportunity than on the eventual product of that relationship (the art object). This is not say, however, that Rosenthal distances his analysis from the art object. The art object in this formulation becomes a token of the attitude held by the

artist with regards to the earth: raw material or collaborator, object of domination or salvation. It is therefore not an ontological question: "is it land art?" Rather, Rosenthal's approach begs an examination of the ways in which the artist and the artwork interact with the land, looking to the art object for clues about the tenor of the artist's feelings toward the land itself.

The notion of "attitude," as it pertains to land art, is a useful heuristic for critics; in my case, examining the form and functioning of AMD&ART is a more fruitful approach than attempting to ascertain whether the piece is "more" like sculpture or "more" like installation art, or whether it's intended to be viewed as a non-human performer, or whether the artists and planners dealt with concerns that might suggest the isolation of an autonomous art-object. The case of AMD&ART suggests that as critics, coming to understand land art as a process of relating with the earth (an "attitude," as Rosenthal would have it) is a more conceptually complex and generative means of approaching the site than cataloguing the ways in which the site does or does not adhere to preceding aesthetic codes or morphological conventions. Rather than engaging in a sort of "artistic taxonomy," utilizing the perspective of "attitudes" allows critics to attend to the particularities of the site and acknowledge an art in which the natural features of an area work in tandem with the artist to produce the eventual art object. Allan Kaprow, writing on "nontheatrical performance" in the mid-1970s, asserts that "When you interact with animal and plant life, and with wind and stones, you may also be a naturalist or highway engineer, but you and the elements are performers—and this can be basic research" (177). This "basic research" is precisely the territory mapped by a criticism centered on "attitude": the relationship between the artist and the landscape in their mutual encounter. It is "basic" in the sense that it is fundamental to this type of artistic practice.

Attitude 1: Gestures in the Landscape

The first of Rosenthal's attitudes is encountered when examining the work of the early "monumental" land artists: Smith, Heizer, Walter De Maria, among others. Rosenthal dubs their tendency toward large-scale abstract artworks "gestures in the landscape." These works are gestures in that they utilize "the vernacular of the modern world" and draw little of their conceptual footing from their particular locale (Rosenthal 64). While site-specificity is a feature often ascribed to works by these artists, I tend to agree with Rosenthal's assertion that "site-specificness is an almost incidental result of the physical size of these pieces" and that these pieces "might have been placed at any number of locations" (64). Heizer's Nine Nevada Depressions (1968) for example, a series of five twelve-foot gouges in the Blackrock Desert of Nevada, could have just as easily been *Nine Kentucky Depressions*, given its fairly simplistic physical form. Smithson's jetty could have reached out into the Salt Lake from any other point or been placed in any other lake. This interchangeability stems from their gestural nature: they are closely linked to Abstract Expressionism, whose notion of the "gestural" in art retains its concern with the artist's hand and the capacity of the medium to convey that gestural link while retaining its material independence.

This attitude is made further evident by the methods described by artists, in this case Michael Heizer, for acquiring the land upon which their pieces are

eventually built: "You might say I'm in the construction business....To begin with, I have a tremendous real estate file on every available piece of property in six western states. I look for climate and material in the ground. When I find the right spot, I buy it" (Gruen 99). Robert Smithson, James Turrell, Nancy Holt and a host of other monumental earth artists survey(ed) in precisely the same fashion, flying low over arid stretches of the desert, or reading land-sale documents in county courthouses, searching for the proper location to suit their needs. Practicality demands it, as the areas they're casing are huge and isolated. This method of surveying works only because the artists are searching for locales in which to *place* their art however—the phenomenon of "plop art." As we shall see, other attitudes toward land art draw their inspiration *from* the land, and the particularities of site, without any prior vision of the work at hand. In Heizer's case, how can he know what he's looking for, if he doesn't already know what he's looking to produce? How would he know which spot is the "right spot?"

The final aspect of this attitude worth mentioning is the view of the land that can be deduced from the tendency of these works to disrupt natural systems. The critique of these works as destructive to fragile ecosystems and as conditional upon the utilization of the same techniques and technologies as extractive industry has haunted the monumental earthworks since their inception. Smithson and Heizer have directly addressed these concerns, though the logic of their rebuttal seems threadbare in the light of contemporary environmental discourse. For Smithson, those who criticized his work on ecological grounds were fetishizing a "jejune Eden," wherein man and Nature lived in harmonious alignment, and the realities of

modern industrial capitalism might be forgotten in a haze of feel-good preservationist stasis. Heizer's major bone of contention is that his works, while disruptive, are substantially less disruptive than other earth-moving operations currently at work in the United States, a fact about which he is undoubtedly correct: "the western United States alone has more than five hundred thousand abandoned and active mines, covering millions of acres and tens of thousands of square miles. Although the total acreage is difficult to predict, a vast new-post mined landscape approaching the scale of a hundred thousand square miles, will be created in the wake of US mining alone" (Berger xvii). Underlying the details of these allegations and their associated rebuttals, however, is the attitude that motivates the construction of these works: nature exists to be manipulated, and serves primarily as raw material which may be dedicated to the realization of sculptural, aesthetic goals: "...there's no need to refer to nature anymore. I'm totally concerned with making art" (Smithson 174).

Attitude 2: Enclosures in the Land

Rosenthal titles the second attitude toward land art "enclosures in the land," as exemplified by a number of artists whose work focuses on constructing spaces of interiority in the landscape: underground rooms, burrows, hollowed out spaces and the like. The work of Dwyer Kilcolin falls squarely within this attitude: both *Burrow* and *Nestgirl* focus on carving an interior, private space by replicating similar processes of spatial division among non-Human animals. Artists of the "golden age" of land art—e.g., Alice Aycock, Nancy Holt, Marry Miss—experimented with pits and sunken concrete pipes, gaps through solid earth, elaborate underground sculpture

and subterranean spaces, most of which were designed to be entered. Many of these pieces appear to fall within the rubric of "gestures in the landscape": large scale, geometric, ambitious in design and execution. It is their inclusion of this interior space that differentiates them from the monumental ramps and earthen slabs of the "gestures," however. The interior space, whether it exists or not,

qualifies the bold, uncompromising quality of the "gestures in the landscape." Instead of simply viewing a wonder of human achievement, the viewer is enticed to approach and explore a space that is indicated structurally but hidden from view. The implication and then discovery of this space, if it exists, isolates the structure from its setting to some extent, for the space is largely separate from the surroundings. Moreover, once inside, the spectator is secluded, or perhaps protected, from the adjacent landscape (Rosenthal 64).

To clarify, the aforementioned attitudes differ in two major ways. Initially, though both tend toward large scale, the "gestures" exist to be viewed as massive, unified additions to their surroundings, whereas the "enclosures" exist within a specific site, while simultaneously generating their *own* spaces. The contained spaces force the viewer into a subjective bodily relationship with the site. This participation prompts individuals to negotiate the enclosed space, and act as a relay whereby the exterior and interior sites are, or are not, reconciled.

The attitude that is suggested by these works, however, isn't necessarily dissimilar to that suggested by the "gestures:" the surrounding environment is understood to exist in an instrumental relationship to the artist, as a site wherein art might be placed. The inclusion of a subjective isolation, however, and by extension a profoundly subjective experience, implies a relationship of greater intimacy than with the "gestures." Lest it seem to fall prey to the utopianism of "communing" with nature though, one needs only look as far as Aycock's early works for a rude

awakening: there is very little pleasant about descending into her *Low Building with Dirt Roof* (1973), a damp, cramped hole in the ground with a dramatically low ceiling, a cave-like dirt hole through which one must creep. The same could be said for her *Circular Building with Narrow Ledges for Walking* (1976), a concrete tube lined with a series of three narrow ledges that encircle the inside of the tube. These ledges, which grow increasingly narrow, descend into a pit whose floor is 17 feet below the lip of the tube. These are not comforting descents (or ascents) into the warm bosom of the earth; instead, they are forums for intense subjective examination and unusually potent experiences made possible *by* the land.

Attitude 3: Modest Gestures in the Landscape

The third attitude described by Rosenthal exists at the midpoint of a continuum: it borrows both from the gestural, large-scale logic of instrumentality associated with the "gestures in the landscape" and the "enclosures in the land," as well as a reverence for a vision of an intact, autonomous nature that will characterize the final two attitudes. Dubbed "modest gestures in the landscape," the works in question are well represented by artists such as Richard Long (e.g., *Snowdonia Stones* [2008]) and Andy Goldsworthy. Long's sculptural works, patterns of carefully arranged natural materials found *in situ*, are barely noticeable additions to the land. Goldworthy's body of work, while often more sculptural and displaying a greater prominence in the environment, conforms to the basic logic represented by Long's contributions: the imposition of human presence, as symbolized by orderly, intentional geometry or repetition, on a natural landscape, utilizing the materials present in the landscape itself.

In the case of "modest gestures in the landscape," "modesty" may be understood to represent a heightened regard, bordering on reverence, for the landscape and natural processes, wherein long-term damage or alteration is unthinkable. In a sense, these works operate within an ethics of propriety, the forms of the art-objects and behaviors of the artist subordinated to a moral obligation to leave landscapes altered, but undamaged. Writing on the term "propriety," Wendell Berry notes, "its value is in its reference to the fact that we are not alone. The idea of propriety makes an issue of the fittingness of our conduct to our place or circumstances, even to our hopes. It acknowledges the always-pressing realities of context and of influence; we cannot speak or act or live out of context" (13). Both Long and Goldsworthy's works are attentive to their conduct in the places wherein they're created: both use local materials, neither disrupt the operations of natural forces, while both acknowledge that in order for humans to exist upon the earth, let alone make art there, there is an intrinsic dialectical relationship of influence. Neither Long nor Goldsworthy is afraid to alter the landscape, yet neither is willing to alter it so intensely as to render it permanently deformed.

The question of context is fundamental to the notion of site-specificity, an aesthetic consideration whose import grows as the attitude of land art under examination drifts away from gesturality and toward an idealized, autonomous nature. Rosenthal, considering the work of Richard Long and Michael Singer, writes that they both "concede precedence to the landscape" (66). More telling is Rosenthal's assertion that "both view their works as ritualistic responses to the site with which they are interacting" (67). Herein lies the crux of the difference between

the "gestures" and "enclosures," and the "modest gestures": the modest gestures represent an attitudinal shift away from an artwork that is simply made upon, or within, the land. The modest gestures represent a concern with the adherence to notions of propriety, as manifest in an active consideration of the land as a series of participant entities. For the artists working in "modest gestures," the ideal process of aesthetic creation is dialogic: the opportunity to represent the interaction of an aesthetic event, as well a natural state that predates the presence of the artist, and most pressingly, the ways in which this is an interaction fraught with meaningful contributions from each element.

Finally, this attitude may be best explicated through an examination of the linked notions of entropy and impermanence. By comparing the work of Robert Smithson with that of Andy Goldsworthy, I offer two contrasting visions of the role played by impermanence in land art. Smithson is famously credited with producing works whose degradation is supposedly part and parcel of their theoretical justification. Smithson's claim regarding the importance of entropy to his work seem a bit disingenuous however, especially with regard to works such as *Spiral Hill* (1971), an enormous earthen mound constructed in Holland. The focus of *Spiral Hill*, as is the case with the other large-scale "gestures" is upon the impermanence of the artwork itself, and makes no concessions toward the site *as a whole* returning to a state akin to its condition before it was manipulated. Entropy is not, after all, inherently modest. This is especially true in Smithson's case, as the manifestation of entropy in a mound of rocks requires an immensely expanded notion of duration. The rocks will degrade, the form will break...eventually. *Spiral Hill*, which has aged

and degraded visibly in the four decades since its construction, will probably persist for centuries, if not longer. This is hardly impermanent and decidedly immodest, particular in comparison with other artists working in the land art mode.

The sculptural forms of Andy Goldsworthy, serving as a point of contrast, display a very modest sort of impermanence: some last only a moment, others a few days, and only his very largest, most permanent stoneworks—*Sheepfolds* (1996-2003), *Storm King Wall* (2000), *Neuberger Cairn* (2001), to name a few stone-based structures—stand basically unchanged since their construction. Goldsworthy has taken to documenting his work with photos precisely because the majority of his works in question are so fleeting that there's almost no other way to exhibit them. One of his signature tropes, the "Rain Shadow" (an outline of the artist's body produced by laying on a patch of ground before it begins to rain and blocking the rain from altering the color of the ground), is a prime example of the "modest gesture:" it is a quiet, fleeting imposition of a gestural impulse on the land, and most importantly, one which fades over a matter of minutes. The land, constrained within the passage of time, consumes the artwork, and its ephemerality becomes an artistic asset. A Rain Shadow begins to vanish the moment that the artist moves his body.

Attitude 4: Nature for Itself

To continue the conceptual drift away from the gestural, the fourth attitude of land art Rosenthal ascertains is "nature for itself," wherein the hand of the artist becomes even more loosely affiliated with the production of the art object. As the title of this attitude makes clear, the art which falls under this categorization appears to be natural processes operating as they would with minimal intervention,

or standing for little outside of their very real, semi-autonomous material selves.

One of the more famous pieces of "nature for itself" art is Agnes Dene's *Wheatfield-A Confrontation* (1982), wherein the artist and volunteers cleared 4 acres of a New York landfill and planted 2 acres of wheat.

Wheatfield-A Confrontation is a good representative of this attitude for a number of reasons. From the perspective of morphology, the wheat field, while a constructed environment (depending upon the conventions of agriculture, privy to the histories of land use in the area, recipient of constant maintenance and intervention strategies by participants), is still basically a scenario in which the wheat plant is allowed to germinate and grow on its own. The relationship of the farmer/artist to this particular piece is also telling, in terms of the "nature for itself" attitude. The artist, rather than managing the form and functioning of the piece, actively sculpting it in process with an eye toward an eventual outcome, is more like a facilitator or orchestrator of the initial conditions of a scenario. The processes enabled by the facilitator/artist are then allowed to unfold in an unmanaged or loosely managed fashion. Denes cleared the space, enriched the soil with added topsoil, installed an irrigation system, and planted the wheat. The rest, as it were, was up to natural processes. Eventually, the grain was harvested and fed to horses stabled at the New York City Police Department, thereby completing an ecological cycle.

The attitude "nature for itself" does raise a series of interesting concerns about the ontology of the art object. The case of "nature for itself" art that is shown in galleries, such as Ingrid Koivukangas' *5 Circle Project: Vancouver* (2002), may

clarify these concerns. The hand of the artist is most obviously at work, if in no other capacity than an enabler or selector of material "nature." Koivukangas' work, an examination of the natural materials found within a series of 5 concentric circles drawn on a map of Vancouver, B.C., resulted in a collection of gathered objects which were displayed in a large grid of 144 clear plastic boxes in the gallery. The feathers, leaves, rocks, crustacean limbs and other objects are not intended to represent anything other than what they are: the constituent elements of a natural world. Yet, they are ideologically loaded, based upon their inclusion in an avowed art-construct. Koivukangas' selections, while "nature itself," beg the question: "Why this particular element of nature?"

Thus, "nature for itself," while a useful attitude, is perhaps a bit naïve, with regards to the hand of the artist in shaping the "natural" scenario. Denes' wheatfield is, after all, supposedly a confrontation, a state not usually associated with grains. This art-wheat, however, becomes in Brooklyn a token of the confrontation between industrial and agricultural land usage, between a view of land as a means for eliding the excess and waste of capitalism and a view of land as generative, productive, and the source of evocative, lived experience. Finally, the site juxtaposes the view of a wheatfield as a quotidian agricultural necessity, and the view of a wheatfield as an art object, albeit an organic, productive one. Are these attitudes toward the land, toward wheat, and toward art reconcilable, and if they were, would this make for compelling art? Nature may "be itself," but that's not say that its value or the repercussions of its claims will be self-evident.

Attitude 5: The Idealized Landscape

The final attitude of land art, the "idealized landscape," pushes the role of the artist nearly beyond a concern even for art. The artist becomes a servant of nature, in a sense, attentive to the conditions of the environment and dedicated to those conditions as an ideal. Rosenthal writes that artists such as Hamish Fulton and Alan Sonfist

do not generalize about landscape or space. Whatever the place, its qualities and aspects are of the greatest significance, determining most if not all aesthetic decisions. Their veneration of nature is such that there is a corresponding diminishment of formal concerns. Rather, the effects of nature and the site predominate (68).

Alan Sonfist's *Time Landscape* (1978) is the quintessential example of this type of land art. Sonfist recreated a pre-Colonial forest on a patch of ground in Brooklyn, clearing the site of non-native vegetation and bringing into the 20th century a vestige of the biomes that once covered the island of Manhattan. As such, Sonfist's capacity to make decisions based upon aesthetic whim was limited; the potential list of species to be included is limited by their presence prior to colonization. As noted by Rosenthal, there is a diminution of formal flexibility in favor of an adherence to an idealized nature whose autonomous characteristics are the precedents whereby a work's success is to be judged.

Whereas the artists who displayed the attitudes of "gestures in the landscape" (even modest ones) were concerned about the fusion, often dubbed site-specificity, of human and natural elements, the work of Sonfist and the other "idealized nature" artists diminishes the role of human abstraction completely. A work of Sonfist's, *Rock Monument to Buffalo* (1965-1978), which featured a series of

large rocks collected across a 50-mile swath of Buffalo, N.Y., makes this point clear. The rocks were positioned in the same relationship that they originally possessed, save for the space between them, which was compressed from many miles into mere feet. The rocks, which sit in the same orientation in which they were discovered, are not meant to represent anything other than their prior and continued relationship to one another. John Carpenter, musing on *Rock Monument*, claims, "Sonfist's sculpture does not refer to the viewer's awareness to language or numerical relations. *Rock Monument to Buffalo* refers to the immediate context of the viewer, placing people in space and time and in relationship with nature" (146). The rocks in Sonfist's art are simply rocks, but more importantly, they are *specific* rocks. Each rock is assumed to have a material existence whose features are worth recording and preserving through a recreation of their natural position and relationship to one another, and they were chosen because they were indigenous to the area: Lockport dolostone and Onondaga limestone, for example, are two varieties of stone that occur locally and feature prominently in the *Rock Monument*.

AMD&ART in the Expanded Field: An Attitudinal Assessment

By shifting the onus of the critic away from a definitional imperative—deciding whether or not something *is* land art—Rosenthal's attitudes support what Rosalind Krause, referring to the land art of the 1960s, has dubbed an "expanded field": a mode of conceptualizing an artwork based more upon its negotiation (and eventual surpassing) of theoretical binaries than on its morphology or formal characteristics. In the case of sculpture, it was a movement away from definition via exclusion (whatever *wasn't* landscape and *wasn't* architecture must therefore *be*

sculpture), to a revised and expanded field that acknowledges the that art which was *not* architecture must in fact *be* landscape and vice-versa. Sculpture, which hung suspended in the binary between "not landscape" and "not architecture," is hereby given a sort of dopplegänger: site-construction, which is both landscape *and* architecture. Additionally, this formulation suggests that works might be made that are plying the conceptual rift between "landscape" and "not landscape," as well as "architecture" and "not architecture."

For my analysis, the value of Rosenthal and Krauss's criticism stems from their easy inclusion of many disparate forms. In both cases, their approach to discerning how a particular artwork might be categorized is a process of justification. It's as if these critics are asking artists to locate themselves within specialized theoretical matrixes of nature and culture and thereby take their place as the type of art that they'd like to be considered. For Rosenthal, it's not necessarily what you make that characterizes your artwork or your position within the art world. Rather, it's about articulating your relationship to the land on a continuum, reaching from instrumental visions of the land as raw material on one end of the continuum to the utter glorification of the land as a complex unified whole, the only proper response to which is reverence and servitude, on the other end. For Krause, it is a similar process of orientation on various axes: landscape or not; architecture or not; both or neither.

The question at hand, finally, is whether this reassessment of the character of land art contributes to our understanding of a site like *AMD&ART*, and whether an examination of *AMD&ART* can contribute a fresh perspective on this debate.

Following the lead of Rosenthal and Krauss, I believe the claim that AMD&ART is "land art" is supportable by virtue of its negotiation of positions within the overarching frame(s) of nature/culture. These theoretical and ideological positions, and the very material political repercussions of these positions, include the following: the negotiation of relationships to the land based in instrumentality as well as in preservation, the attempted reconciliation of contemporary environmental/community politics and ethics with the political and ethical climate of the historical Industrial period, the debate regarding the possibility of land reclamation truly reclaiming and returning a despoiled environment to something akin to its pre-utilization state, not to mention a whole host of artistic and aesthetic debates.

To clarify this mass of concerns and avoid the morphological, formal approach to art criticism, I'm going to locate *AMD&ART* on Rosenthal's continuum of attitudes. This is a complex matter, and as we shall see, the site does not fit neatly into one "attitude." It is illustrative, in this sense, of the dynamic negotiation that is part and parcel with employing Rosenthal's attitudinal typology. In the absence of "authoritative" avowel of the goals and values associated with a site (and, perhaps, even in its presence), critics and audiences are left to interpret and infer (as I have done in all of the proceeding attitudinal analysis) the attitude to which they feel the artwork in question most clearly aspires.

It seems apparent to me that *AMD&ART* clearly does not heed the impulse toward making a "gesture in the landscape": the site simply doesn't concern itself enough with geometric symbology, abstract form, or conspicuously large scale. The

site's keystone shaped pools, aside from perhaps some sidelong allusion to Pennsylvania's state sobriquet ("The Keystone State"), don't seem to represent any particular geometric assertion; they're certainly not tied to a complex web of symbolism as is, for example, Smithson's spiral-form in *Spiral Jetty*. John Beardsley links the spiral to Smithson's subjective perception of the site ("As I looked at the site, it reverberated out to the horizons only to suggest an immobile cyclone while flickering light made the entire landscape appear to quake. A dormant earthquake spread into the fluttering stillness, into a spinning sensation without movement" [Smithson 146]), to the molecular lattice of the salt crystals that encrust the work, and to a folktale about the Great Salt Lake being connected to the ocean by an enormous underground channel whose sucking draw creates a spiral on the surface of the lake. "The spiral was thus a key not only to the macroscopic world, but the microscopic and mythological as well," notes Beardsley (22). In the case of AMD&ART, geometrical gestures are clearly suppressed in favor of practical, utilitarian decisions regarding form, and made with little concern for aesthetic cues microscopic or mythological.

The site, which features very little of the logic of overt, lasting abstract expression of the "gestures," also features little of the concern with interiority that characterizes the "enclosures in the land." While the site is entirely contingent upon the presence of a vast, interior space (the abandoned coalmine that belches out the contaminated water), there is no sign or acknowledgment of this space in the aesthetics of the site, nor in the landscape. The mine remains, as do many underground mines in western Pennsylvania, hidden from view. The tell-tale sign—

the pipe leading out of the mine that delivers the water to the purification system—emerges from a small hump in the ground with little fanfare. Indeed, the only place at the site that hints at the underground workings of the piece is the Mine No. 6

Portal, the enormous slab of polished black stone blocking the entrance into Mine No. 6. Here, standing in front of the slab, staring at the etched images of coalminers emerging from the gloom, we're forced to remember that the whole site is wedded inextricably to a subterranean economy and the repercussions of the underground mining practices. This isn't, however, an *experience* of interior space in the same fashion that the underground mazes of Mary Miss might enable. We can know, intellectually, that there is a mine under the hillside, but we do not experience the dank, damp, cool air or the claustrophobia of the narrow spaces or even the fear of the dark. The logic of the enclosure privileges a subjective interactive element, by focusing on the isolating effects of the created interior space—something this site simply does not attempt.

The permanence of the site and its prominence would seem to suggest that *AMD&ART* is not ascribing to the logic of the "modest gestures" either. The pools, signage, trails and pavilions are extremely prominent in the landscape, and the site is fundamentally designed to persist: there is no end in sight to the problem of acid mine drainage in Vintondale, let alone the rest of the country. The chemical and biological conditions at the root of the problem—the constant influx of fresh water into the abandoned mines, the stripping away of already exposed seams of pyrite, which in turn creates more sulphuric acid and dissolves more minerals—demand that the site remain in operation as long as possible. The site is designed in its

passivity to operate with a minimal amount of intervention for long periods of time. It may be *in* the landscape, but it is not *of* the landscape in the same sense that Richard Long's stone circles are of the landscape: created of local materials, potentially occurring without the intervention of man (albeit highly unlikely).

There is, however, an aspect of the site to which one might ascribe the logic of a "modest gesture": the Litmus Garden. This garden, which runs parallel to the water treatment pools, is a series of native tree plantings whose autumn foliage colors are meant to represent the increasing pH of the water in the pools that they overlook. Beginning at the first pond (the "Acid pool") with the intense red of the White Ash and Red Maple, the colors shift along the Yamada Universal Indicator litmus test pattern through red, orange, yellow, and finally green-blue, a color that indicates neutral pH².

With time, it might be possible to mistake the Litmus Garden for a naturally occurring, albeit unusually neat, row of native trees. The garden does, after all, operate with minimal intervention once established and will propagate itself and continue to spread. These trees, just as other natural materials in land art of the "modest gesture" variety, both represent something abstract in the human world (the colors associated with particular pH), as well as existing autonomously as species (and singular entities) dwelling in their habitat.

² The tree species in the Litmus garden are as follows: White Ash (*Fraxis Americana*), Red Maple (*Acer rubrum*), Sweet Gum (*Liquidambar styraciflua*), Black Cherry (*Prunus serotina*), Shadbush (*Amelanchier arborea*), Sassafras (*Sassafras albidum*), Sugar Maple (*Acer saccharum*), Hawthorne (*Crataegus spp.*), Tulip Poplar (*Liriodendron tulipifera*), Big Toothed Aspen (*Populus grandidentata*), Hackberry (*Celtis occidentalis*), Sycamore (*Platanus occidentalis*), Black Willow (*Salix nigra*) and Northern Catalpa (*Catalpa speciosa*).

The two remaining attitudes—"nature for itself" and the "idealized landscape"—come closest to articulating the attitude informing the AMD&ART site, in its relationship with the land and with land art as an aesthetic exercise. Following the logic of the "nature for itself" artists, the site appears to be a sort of choreography of natural processes, albeit toward an orchestrated end, rather than a "letting be" of the natural processes. The passive acid mine drainage treatment system relies on a number of naturally occurring processes to operate, for example. The extremely acidic water, as it passes through the treatment system, has its pH altered by a combination of biological and chemical processes. In the second, third, and fourth pools, the water flows through artificially constructed wetlands, whose annual addition of decaying biomass removes oxygen from the water and increases the pH. These pools fall squarely within the logic of "nature for itself." There is nothing special about the biotic communities of these artificial wetlands; their constituent species are identical to other wetlands found throughout western Pennsylvania. The site relies on naturally occurring, self-perpetuating plant species to provide the decomposing biomass integral to this step in the remediation process, and as each year's growth matures and topples over, it provides a new substrate upon which the heavy metals suspended in the water may be deposited.

The fifth pool, a Sequential Alkalinity Producing System, is a strategic combination of biological and chemical processes: a deep layer of decaying organic material resting atop a limestone slab. The decaying material further strips the water of oxygen, while the base pH of the limestone neutralizes the residual sulphuric acid in the water. The bottom of this pool is lined with vertically oriented

pipes, designed to hasten the flow of water through the limestone and thereby allow less time for the water to deposit the iron, aluminum, and other metals suspended in the water. This process occurs when the pH of the water increases, and by minimizing the deposition rates, the limestone slab remains operational for longer periods of time between servicing (a cost- and labor-intensive affair that's extremely disruptive to established biological communities).

The aforementioned processes simply utilize the behavior and chemical processes of naturally occurring organisms and substances. They are, however, unusual in configuration; rarely does a scenario such as this occur unaided by human intervention. The key term in this formulation—"utilization"—implies a strategic element to the planning of the site and its operation, and it is herein that the site finally conforms to the logic of the "idealized landscape." While it is perhaps not attempting to recreate the landscape as it existed before the era of coal mining (there may well have been wetland plants growing along the creeks of nearby Blacklick Creek), it is attempting to restore the water itself to its pre-contamination state. The site exists in the service of this very goal: remediation, the correction or reversal of a defective or undesired state.

At this point, it is worth considering the term remediation as it relates to the final attitude in Rosenthal's formulation, the "idealized landscape." Remediation, a term intimately linked with the more commonly used term "reclamation," occupies a contested place within the literature of environmental recuperation and landscape architecture. It resides at the nexus of a debate about the (im)possibility of perfectly recreating a pristine site, precisely as it was before environmental tragedy befell it.

Basically, it is a question of whether perfect recreation is materially possible, and if so, whether it is disingenuous to erase the traces of past encroachments by man. Frederick Turner, whose perspective advocates acknowledging the impossibility of "going back," so to speak, asks,

The often-used term *remediation* implies the restoration of health to something that was sick. But if health is defined as the status quo ante, the situation that prevailed before the alteration, then the plateau of Arizona was a healthier place before the Colorado incised the Grand Canyon in it, the devastated slopes of Mount St. Helens were healthier than the forests and meadows that have since grown up there, and the frozen rock beneath the glaciers of the last Ice Age was healthier than the mixed deciduous forest of the upper Midwest. So another question, which must accompany our question about human beings and nature, is: can reclamation go beyond remediation? (5)

This notion of "reclamation beyond remediation" is troubling to the perspective espoused by Rosenthal's final attitude, "the idealized landscape." A clue as to why this is the case resides in the title of the attitude: idealization. It is precisely this idealization that transforms what an observer might christen "nature" into an instance of artistry. Sonfist's *Time Landscape* may well be beholden to the natural occurrence of vegetation of New York City at a time before colonization by Europeans, but in final consideration, as an art object, it is beholden so primarily through Sonfist's idealized (conceptualized) version thereof. Idealized landscapes do not necessarily have to subscribe to the temporal logic of *Time Landscape* (most do not), but they do necessarily fall within the boundaries of a subjective idealization that sets them apart from their non-idealized but seemingly identical brethren.

AMD&ART, while remediative in the sense that it attempts to heal the landscape via organic processes, is not a return to an idealized landscape of

unspoiled grandeur. This idealized landscape attitude is infeasible when a site designed not only to serve as an aesthetic entity but also as a practical, functioning treatment facility. The landscape of western Pennsylvania, no matter how beautiful and precious, cannot sustain the presence of AMD; this was precisely the condition that prompted the construction of *AMD&ART* in the first place. The site, while perhaps not an "improved upon" version of the original streambed and wooded surrounds of Vintondale prior to the founding of the town, is undoubtedly a vast improvement over the despoiled and toxic town dump it replaces.

In his essay, Turner goes on to ask, "Can alteration of a landscape...[provide] the landscape with a destiny and a role that are grander than its original ones?" (5) "Grander for whom?" I am compelled to retort. This question, which presupposes that the landscape had a destiny and a role initially, haunts my thinking about *AMD&ART*. I am hesitant to ascribe a destiny or role to the land, as if those might have been somehow subverted through human interference. Was the land surrounding Vintondale and the coal in the underground seams "destined" for human acquisition and despoliation all along? If so, then perhaps Turner is correct, and the work of remediative artists and landscape architects truly is an improvement on the original destiny of such sites.

Unfortunately, Turner's claim seems preposterous at best, and truly dangerous at worst. The profoundly contingent configuration of agencies, individuals, and histories that constitute a landscape is not a projection of our destiny, nor the conflation of all destinies into one greater "destiny of place." It is not the teleological march toward a final state of completion or else obsolescence, nor is

it the realization of an intention that preexisted the landscape and guides its development. Instead, it is simply a landscape; i.e.; a specific place in western Pennsylvania, with mineral histories linking it to the Carboniferous era, plant and animal inhabitants making do and making their way in the protean world-at-large, and humans dwelling among and in tandem with a glut of other (co)narratives. Jim Cheney, whose notion of postmodern environmental narrative is deeply indebted to the philosophy of bioregionalism, knows this intimately: "Our position, our *location*, is understood in the elaboration of relations in a nonessentializing narrative achieved through a grounding in the geography in our lives. Self and geography are bound together in a narrative which locates us in the moral space of defining relations" (31). Relations, destinies, are thus defined, rather than discovered; co-authored, rather than granted. To paraphrase Nietzsche, the deed produces the doer, almost as an afterthought.

AMD&ART, while attempting to ameliorate a devastating environmental problem, is not attempting to return Vintondale to an idealized state. The designers of the site seem to have acknowledged that this prospect, while aesthetically intriguing, is infeasible when coupled with the practical aims of treating AMD-laden water. Vintondale does not need a patch or two more of second-growth hemlock and deciduous woodland, á la Time Landscape. What Vintondale needs is AMD&ART: a lease on a cleaner, more pristine future. If this necessitates the prolonged, overt presence of an artwork on the landscape, it seems that the artists, planners and designers are willing to make compromises on ideological purity, both in the spheres of art and of technology, to negotiate a successful water-treatment strategy:

"We [the *AMD&ART* team] spent long months being too environmental for the arts funders and too artsy for the environmental funders," ("Science" 66) muses Comp in an essay completed after the site became operational.

Lessons and Considerations

The dichotomy between arts funding and environmental funding—an economically-skewed version of some general tensions understood to operate within the sphere of land art—is precisely the sort of definitional jockeying for accessibility and transparency that has come to define and delimit the possibilities for artists working in public art contexts. Indeed, we return in this moment to the discussion of "nature" as a contested domain, for in this register we again find a series of polarized interpretations vying for dominance in the narrative of the site.

AMD&ART as I have described it thus far is obviously an effective, functional piece of environmental remediative technology. It has also proven plausible that a critic might attempt to view the site as a whole as an aesthetic response to environmental degradation, rather than simply an "art park" where sculptures co-exist in a bucolic setting. Both of these formulations hinge upon the acknowledgement that AMD&ART—a vibrant, material entity—is actively interacting with its environment, as well as the people of the town.

It is my hope that I have made clear how truly murky the distinction between, in this case, art and science (broadly, culture and nature) becomes when discussing a site such as *AMD&ART*. These types of art-objects trouble an easy categorization of "art" or "science" or "culture." The value of conceptualizing *AMD&ART* as an argument for regarding "ecological art" as the site of a complex

negotiation regarding values and relational dynamics is that *AMD&ART* is concerned with local phenomena. It is not just "nature" broadly that is being contested, but a vision of nature *for Vintondale*, in the Allegheny Mountains, tied to the history of the land and its inhabitants. The attitude of Comp, *et al.*, inferred from the site to be something of a modest gesture, suggests the following: the role of humans in the history and present state of Vintondale and similar communities is to be ignored at the peril of the artwork; nor can the role of the non-human players in the scenario (ranging in scale from microbes to mountainsides) be ignored or taken for granted.

To move beyond this definitional and attitudinal hubbub however, to truly plunge into the heart of the matter at the *AMD&ART* site, I feel compelled in closing to make a case not for a grandiose narrativization of the site as either a stunning example of remediative artistry, or else a failed attempt at integrating art into a damaged landscape. Instead, I think it important to acknowledge what it is that the site produces, aside from clean water: subjective experiences for its visitors, and an avenue into the relations and history of the Allegheny Mountains themselves. *AMD&ART* is the site of surprising and often unexpected instances of serendipitous, unique visitor experiences: it is still, after all, slowly transitioning back into a wilder place. By "wilder" I do not simply mean a place less regularly trod by man, a *wilderness*; if anything, more people visit the site now than ever before. Instead, I take my understanding of wildness from nature writer David Gessner:

"In wildness is the preservation of the world," wrote Thoreau, but people often get the quote wrong and use "wilderness" instead. While wilderness might be untrammeled land along the Alaskan coast, wildness can happen anywhere — in the jungle or your backyard. And it's not just a place; it's a feeling. It rises up when you least expect it (n.p.).

This is the amorphous, unmeasurable contribution of *AMD&ART* to the community of Vintondale and to me every time I visit the site: it is stumbling upon a muskrat crossing the bicycle path as it heads into the constructed wetlands and feeling the involuntary animal reaction of my body as it stiffens in shock. It is recoiling at the stench of the rotting cattails and sweating out in the open sunlight of the ballpark. It is the thrill of knowing that each visit to AMD&ART will be different, noticeably so, from the last—an experience and a promise that few pieces of art housed in galleries and museums can offer up to their audiences. AMD&ART, by offering up a space for the wild to emerge and thrive in subjective experience, reminds us of the link drawn between wildness and freedom by Gary Snyder: "To be truly free one must take on the basic conditions as they are—painful, impermanent, open, imperfect—and then be grateful for impermanence and the freedom it grants us" (5). The site at Vintondale, once poisoned and unloved, has been repurposed to precisely this aim: reminding those who visit that it is impermanence—the potential for moving our present toward a mutually imagined vision of betterment—that has given this patch of ground, this mountain stream, and this neglected town a chance to refashion itself in light the ethics and values of a new era.

Chapter Three

"Make Something Indeterminate, Which Always Looks Different, The Shape of Which Cannot Be Predicted Precisely"3: AMD&ART as System and Network

The preceding chapter laid out a framework for assessing *AMD&ART* from the perspective of land art and elucidated many of the aesthetic concerns ascribed to the site by its creators. There are other tendencies within contemporary artistic expression, however, whose tenets and practices serve to shed light upon the intricacies of *AMD&ART*: systems art and network art. In this chapter, I make use of systems theory and network theory to highlight the degree to which critics and spectators alike must examine the *AMD&ART* site. *AMD&ART* is not a neatly bounded art-object that can be hung on a wall or contained within a gallery. It is an aesthetic environment of possibility into which myriad agents enter and interact. Accounting for the conditions of this potential is the goal of this chapter.

The first portion of this chapter examines the genesis and history of "systems art" and its forbear, "Systems Theory." Systems theory is a philosophical and practical approach to research that emphasizes the interconnectedness and codependence of phenomena. As a heuristic trope, the "system" has become influential across an array of fields, including aesthetics. During the boom in Conceptual Art during the 1950s and 1960s, various artists—chief among them German artist Hans Haacke—became enthralled with the notion of utilizing systems theory as an impetus for creative expression. Haacke's systems art serves this study as an exemplar of the systems art style, and provides a useful example of the style for my examination of *AMD&ART* as systems art.

³ Haacke ("Untitled Statement" 37)

The second portion of this chapter expands upon the tendency in systems art to lay claim to extant systems as "artworks." A fairly common approach to art making that is employed by systems artists is to declare existing systems artworks of their own making. For example, the art collective Critical Art Ensemble is infamous for their aesthetic work with transgenic *E. Coli* bacteria. The bacteria were produced by CAE for the exhibition *GenTerra 2001-2003*, as a means of engaging conversations about the outcome of creating self-replicating, autonomous recombinant organisms. Damien Hirst, perhaps the most famous artist of the 1990s, utilized and claimed the decomposition of a cow's head by maggots as his own in A Thousand Years (1991). Beyond the realm of organic systems, other artists have used art to highlight and examine the systems of production whereby their careers were made possible. This is the case, for instance, in Bruce Nauman's Raw Materials (2004-2005) show at the Tate Modern, which was an audio retrospective of his career. These artworks draw upon the logic of the "readymade": the nomination of an everyday object to the status of art, by means of avowal: "This object is my art, because I say so." Marcel Duchamp, the French artist and provocateur by whom the readymade—as a style of cultural and material appropriation—was first utilized, has a long and storied history in a particular genealogy of contemporary avantgarde artistry. I explicate the act of nominating a readymade in my discussion of AMD&ART because it offers a perspective on aesthetic objects that is beholden to a conceptual doubling. The artistic quality of the readymade depends, to some extent, upon the contrast of its status as "mundane object" and its new status as "art object." In this sense, it is a space where *both* designations must exist. Similarly, *AMD&ART* is a material and conceptual environment in which the designations of "nature" and "culture" must both exist and be fused, in order for its aesthetic merit to become apparent.

The final element of this chapter is a discussion of *AMD&ART* as a profoundly complex, participatory readymade. While systems theory provides a neat framework for understanding the complex flows of affect and materials that characterize a site such as *AMD&ART*, it is insufficiently ambitious in its efforts to provide a truly comprehensive evaluative model. Network theory, whose literature provides a series of clues as to the shocking complexity of an art/environment like *AMD&ART*, provides the final, if daunting, assessment of the site: *AMD&ART* is an exercise in imbricating the viewer into a co-constitutive, performative relationship. It is co-constitutive in the sense that the readymade requires a participant observer in order to act as a site of rendezvous between different interpretations of the object that has been nominated. It is performative in the sense that the *production* of that environment of semiotic and material possibility is dependent upon the affective contributions of participant entities in order to unfold.

By radically increasing the complexity of a seemingly straightforward work of environmental art, I have provided with this chapter a glimpse at the possibilities offered by an aesthetic that glorifies a nature/culture muddling. There are lessons to be grasped in the case of *AMD&ART* that go beyond facile reminders not to pollute, and to protect our waterways. By focusing on the inclusive dynamism of the site, its systemic character and the relationships of participant actors, I have thrown into question the perceptual framework that haunts so much art criticism: critical

distance. Distance has its roots in a very different understanding of the relationship between art and life than the one that I believe informs *AMD&ART*. It is the assumed position of structuralist criticism, in which the artwork represents a key to a larger hidden interpretive reality. My analysis breaks with structuralist aesthetic criticism, which is an important philosophical milestone for this study. Clarifying this matter will put into motion the major philosophical discussions of this chapter.

Structuralism, as the name implies, proceeds from the assumption that the features of existence—particularly culture—exist as they do because of an underlying "deep" internal structure. This structure organizes and exerts influence on the manifestation of different facets of culture by means of conventionalized precedence. Structuralist critics view language, for example, as a system of communication with a series of fundamental rules that have been given consistency by virtue of historical precedence. Ferdinand Saussure makes an analogy between chess and language that is illustrative:

In chess, what is external can be separated relatively easily from what is internal. The fact that game passed from Persia to Europe is external; against that, everything having to do with its system and rules is internal. If I used ivory chessmen instead of wooden ones, the change has no effect on the system; but if I decrease or increase the number of chessmen, this change has a profound effect on the 'grammar' of the game...everything that changes the system in any way is internal (23).

As in chess, the "grammar" of language preexists as a structure that gives cohesion to the phonemes and utterances of a speaker, while allowing the speaker room for improvisational meaning making. The deep structure is, in essence, the "rules" that must be followed for a system of communication to be considered a language:

Saussure's insight about the apparent division between that which is a structural *grammar* (a conventionalized pattern of action and socially-constructed protocol) and the *effect* of that conventionalized protocol (*langue* and *parole*, respectively) results in his most famous insight: the relationship between signifier and signified. This dynamic—the signifier is a culturally-specific representation of an object (the signified) that has no *necessary* relationship to the signified, beyond convention—is important for my study because it acknowledges the importance of critical distance in a structuralist aesthetics. For Saussure (as well as Jean Piaget, Claude Levi-Strauss and other structuralists in various disciplines) the existence of the "deep" structures of culture are revealed by their effects. Examining languages leads one back to the "rules" of all languages, whereas examining aesthetic objects leads one back to the "rules" of aesthetic beauty and content. Aesthetic objects, in this view, are the result of preexisting grammars of value and beauty that are the separate antecedents to the object.

Saussure was not the first to suggest that a mental distance characterizes the relationship between the art object and its reception. A similar view is present in the philosophy of Immanuel Kant, who asserted that a certain distance must be maintained between an artwork and its viewer, so as to allow the viewer to adequately assess the artwork's "beauty." As Donald Crawford puts it, "experiencing beauty is thus, for Kant, a doubly reflective process. We reflect on the spatial and temporal form of the object by exercising our powers of judgement [sic] (imagination and understanding), and we acknowledge the beauty of an object when we come to be aware through the feeling of pleasure of the harmony of these

faculties, which awareness comes by reflecting on our own mental states" (58). This type of "reflective process" is a precursor to structuralist criticism because "beauty"—which is a Kantian expression of artistic validity—is the external confirmation of an internal mental state. In other words, form is a manifestation of the universal "grammar" of aesthetic beauty.

While this line of reasoning may seem outlandish, it is precisely the thinking that characterizes many twentieth-century artists and critics. Clement Greenberg and Michael Fried (whom I discussed in the previous chapter), for instance, championed this idea at midcentury. The Modernist ideal of a contemplative spectator remaining distant from the aesthetic object is apparent when they criticize "theatrical" artworks as aggressive or demanding. Instead of an "anthropomorphic art" (Fried 129) that makes the spectator aware of their presence or body, Fried would have an art that is thoroughly distant from the bodily experience of the spectator, and is regarded via the mental faculties. This isolation produces the sort of purity and autonomy that characterizes the Kantian view of aesthetics: a mental art-space through which the spectator may roam unburdened. In this pure "mental" space, the Greenbergian demand that each generation of aesthetic expression more thoroughly refine those elements that are its sole purview makes a strange sort of sense. The paintings of Mark Rothko, for example, demonstrate the "external" idiosyncrasies of color choice and color-block form, which reveal the specific "internal" grammatical attributes of painting: two-dimensional flatness, complementarities of color, medium-specific techniques, to name a few.

This chapter of my analysis is a break with structuralist aesthetics, particularly the notion of critical distance. *AMD&ART*, as I describe it, proceeds from the assumption that entities, processes, and visitors alike are constitutive parts of the artwork. While AMD&ART might be viewed as conforming to certain conventions associated with land art (as discussed in the prior chapter), these conventions do not explain the moment-by-moment unfolding of AMD&ART. In particular, my characterization of AMD&ART as an art "environment" makes the notion of critical distance less applicable. An immersive art—one into which the audience enters, and with which the audience interacts—undoes the binary between object and observer and collapses critical distance. My characterization of AMD&ART as a network makes it particularly unfit for description via structuralist analysis. Structuralism assumes that there is some fundamental, preexisting grammar that is being partially represented by an artwork. Networks are not "things" or "wholes" in the sense that they preexist, however. Networks such as AMD&ART do not preexist, and in fact appear newly minted in each moment, their apparent consistency of form and function an artifact of repetitious relating. The participant entities, conditions and features of AMD&ART change from moment to moment. As critics, we are not simply spectators of the AMD&ART object, we are the AMD&ART object, if only momentarily. Distance itself, and particularly critical distance, is erased. AMD&ART is not hiding any sort of interpretive secret: it is simply what it appears to be, necessarily viewed from the *inside* as a participant in an aesthetic environment.

Systems Theory: First-Order and Second-Order Systems as Perspectives

Thinking in terms of complex systems of discrete objects is a challenging mental exercise. More challenging still is thinking about the systemic nature of the objects that comprise the larger system: the system of systems. Such thinking is necessary, however, to probe how *AMD&ART* may exceed an instrumental, sculptural dimension. The task of criticism—a perspectival assessment—is fundamentally dependent upon our understanding of the systemic nature of the whole of the *AMD&ART* system.

In order to facilitate the kind of criticism that best represents the complexities of *AMD&ART*, a division must be made between what have been loosely termed "first-order systems" and "second order systems." First-order systems are, for all intents and purposes, systems as commonly understood by the layperson: configurations of independent elements whose participation, in concert with one another, results in an emergent wholeness, particular to a specific aim. This is the sense in which "the nervous system" is meant, for example. The nervous system is commonly discussed as a constellation of independent elements (dendrites, synapses, neurotransmitters and the like) whose functioning contributes constitutively to the whole "nervous system," which then functions to some end (information relay). The limiting of elements in a system suggests that there is a distinction to be made between a system and its environment, as a boundary across which inputs and outputs travel.

Systems theorists quickly realized, however, that approaching systems as self-evident groupings was an insufficient, shallow examination of the entities

themselves: were not, after all, the dendrites of the nervous system systems of their own accord? It is, in fact, possible to recognize everything that appeared to be an independent entity as a system of its own accord. The documentation of the systemic nature of systems, a so-called "second order" systems theory, has emerged and flourished in the wake of the technological and philosophical developments of the last twenty years.

The thinking of first-order systems and second-order systems is a perspectival assessment of any given system. Francisco Varela addresses the importance of the observer's cognitive perspective on their assessment of a system and its boundaries, suggesting two possible modes of conceptualizing the unity of a system: a "behavioral" view and a "recursive" view. On one hand, the behavioral point of view, "reduces a system to its input-output performance or behavior, and reduces the environment to inputs to the system" while the "effect of outputs on environment is not taken into account" (Varela 86). The behavioral view is the logic of linear inputs and outputs, focused on the environment and based upon the assumption that it is possible to comprehend clearly and completely the necessary inputs to perpetuate the system, while paying little regard to the outputs that result from the system's functioning. In Varela's terms, this system is a "simple unity." It is simple in that it appears to exist as a united system that continues to remain constant as long as its constituent parts and necessary inputs remain.

The recursive point of view, on the other hand, "emphasizes the mutual interconnectedness of its components" and "arises when emphasis is placed on the system's internal structure" (Varela 86). In the case of the recursive view, the

environment is not the object of an observer's focus for purely instrumental reasons: it is rather the operations within the system, the constituent elements of which are viewed as simple unities whose interactions form the system itself, without any consideration for the linear logic of input/output. I will return momentarily to the importance of this relationship between an observer and the system in question.

The word "recursive" serves as clue to perhaps the most fundamental of second-order systems theory's assumptions about the nature of systems: they are autopoietic, and demonstrate "operational closure." Autopoiesis (autos ["self"] and poiesis ["production"]) is a term introduced by Chilean biologists Humberto Maturana and Francisco Varela to describe the operations of a system whose continuation is predicated on the operations of the system itself; in other words, it is a recursive, self-producing production. Maturana and Varela, who applied the term "autopoieisis" strictly to living systems, realized this feature of systems while attempting to document the process whereby a system such as a cell manufactures the necessary chemical elements and repairs its structures so as to maintain its place in space. This is not to say that there are not inputs and outputs to the system, but simply that the system itself is responsible for its form and behavior, prior to these inputs and outputs. An example of this principle is the theory of Darwinian evolution. The inputs of an environment on a system (organism) do not shape the system (as would be the case in the now-debunked Lamarckian theory of evolution), but rather trigger pre-existing effects in the system that render it more or less effective at managing environmental stressors. This relationship, between a system

and its environment, is referred to as "structural coupling," and it suggests that a non-teleological relationship of plasticity characterizes the relationship between two system-structures. It is finally this plasticity that differentiates autopoietic systems from "allopoietic" (allo [other]; poiesis [creation]) systems, in that allopoietic systems are inflexible. The logic of allopoiesis, where the system does not produce the necessary elements for its continued survival but rather some other product, means that an allopoietic system is incapable to self-guided plastic alteration. The canonical example of an allopoietic system is an automobile assembly line, whose function is to produce automobiles, rather than producing machines that would be capable of producing their own replacements. As such, an assembly line cannot alter its final product without external guidance (in the form of information or data from an operator or designer, for example), and is consistently dependent on other systems for its continued existence.

As I intimated earlier, Maturana and Varela initially conceived of autopoiesis in strictly biological terms, and Varela was vocally reticent to apply the concept to other types of systems (social, economic, mechanical). John Protevi notes this, writing of Varela's fear that the application of biological logic to social phenomena regularly results in eugenics, fascism and authoritianism: "without that possibility of novel production [political change], modeled by dynamic systems means, autopoietic social systems, once formed and mature, construct a world only in their own image and, when locked in conflict with another such system, cannot ascend to an 'observer' status that would see them both as parts of a larger social system.

Instead, the two conflicting systems are locked in fratricidal combat, producing a torn civic body politic and, in turn, civil war" (101).

Autopoiesis is not, it should be clear, a workable model for a dialectical, reciprocal social contract. In its purest conceptual form, autopoiesis describes behavior that is too single-minded in focus, too constantly striving for its own maintenance. Hence Varela's (and Protevi's) fear that a brutal agenda—wherein the ends justify the means—might emerge if autopoiesis is taken at face value as a social mechanism. In an effort to address this concern, I return now to Varela's concept of perspective, which I feel is too often overlooked by systems theorists. Varela's notion of perspective depends fundamentally on a very simple distinction: does an observing entity perceive itself to be a part of the system in question, or not? If the former is the case, and the observer maintains the recursive point of view regarding their own imbrication in the system, it seems possible that there is a diminution of agency in their ability to radically alter the system at large. After all, the system (via autopoiesis) constructs the necessary conditions for the observer's continuation (as a simple unity), and the destruction or alteration of the system may result in the cessation of necessary resources or conditions. On the other hand, if the observer perceives their position to be autonomous of the social system in question perhaps able to reap its rewards or bear its burdens—but not actively involved in the operations of the system, it appears that agency is once again diminished, by virtue of the observer's isolation from the conditions of production and maintenance. This double-bind is precisely the condition against which Protevi warns would-be social systems theorists who would deploy an "observational"

rather than a participatory model. Agency must factor into the equation, including the capacity to halt autopoiesis.

Autopoiesis and Authorship in Systems Art

Protevi's concern with the participation associated with systems theory is an overlooked component of the logic of systems art. While "observation" has been understood to be a component of major trends in twentieth century art (including the sculptural land art that began the last chapter), systems art very carefully negotiates this relationship, and troubles the neat separation of observation and participation. "Systems Art," or "systems esthetics," as Jack Burnham originally characterized the style, represents one of the fundamental shifts toward a participatory impulse in contemporary art. Burnham's 1968 article "Systems Esthetics" offers the first comprehensive vision of what had, by that point, become a distinct presence in the more forward-thinking galleries of New York. "We are now," Burnham writes, "in transition from an *object-oriented* to a *systems-oriented* culture. Here change emanates, not from things, but from the way things are done" (30). As such, systems artists, chief among them Hans Haacke, began constructing or appropriating entire constellations of phenomena not for their formal appearance, but rather for their *operations*. Burnham continues, "the specific function of modern didactic art has been to show that art does not reside in material entities, but in relations between people and between people and the components of their environment" (Burnham 31). The early works of Hans Haacke (1963-1972) serve as a helpful means of discussing this relationship between artist, system and audience,

and will illuminate a number of the more conceptually challenging elements of *AMD&ART* with regards to a systems perspective.

Hans Haacke, originally a painter and printmaker, began experimenting with proto-systems art in the early 1960s. Column with Two Immiscible Liquids (1964) and Wave (1964) were sealed acrylic containers in which liquids were housed, whose "operation," as it were, was dependent upon direct involvement from the observer: *Column with Two Immiscible Liquids* is filled with two liquids of different specific gravities, which mix as the container is handled and then sort themselves according to their density once the container is set down. Wave transferred the tilting motion of the acrylic housing to the liquid inside, which created a wave that traveled up the length of the box and back down. Haacke called these works "eventcontainers," and they were the first inklings of the complex webs of affect and interaction that would define his later systems. The event-containers are bluntly systemic in two ways. They are interactive, which suggests that their autonomy as art objects is in question. This is in keeping with Jack Burnham's assessment of systems art as focused on the means whereby things (aesthetic expression) are "done." Furthermore, while necessarily interactive, they are to some extent immune from considerations as representational art by virtue of their mundane construction: they are, after all, just liquids in a box. I read their mundane countenance, which is in direct contrast to their lively relational aspect, as evidence of autopoietic closure that has little to do with "meaning," and much to do with the ephemeral effects of structural coupling. In Haacke's Condensation Cube (1965), arguably his most famous event-container, an example of this ephemeral structural

coupling is made visible in the form of water-droplets that condense on the inside walls of a Perspex cube. The ambient air temperature in the room determines the extent to which the water contained within the cube sublimates and recondenses. Temperature change, in the tightly controlled environment of an art gallery, occurs primarily because of the number of warm bodies present in the room, as well as the amount of light entering the space. In other words, the more individuals are present viewing the cube, the more rapidly condensation occurs. The water inside the cube and the gallery-goers are structurally coupled, if we understand this system to be producing not only physical alteration within the cube, but an additional dematerialized aesthetic of reciprocal interaction as emergent condition. It is the causal, reciprocal relationship between viewer and cube that constitutes the artistic "system" in question.

Haake's cultivation of an ephemeral art such as "the relationship between a viewer and a cube" is in keeping with a general trend in systems art to privilege the *operation* of the system rather than the constituent elements of the system. Lucy Lippard and John Chandler, whose 1968 article "The Dematerialization of Art" brought the notion of "dematerialized" art to the fore, write that many artists of the mid-1960s were losing interest in the physical achievement of an object's form. Instead of a craft-based approach to aesthetic creation, Lippard and Chandler foresaw a transition to an artistry that was scientific and post-aesthetic. This final, projected stage of the historical evolution of art "will make possible the manufacture, distribution and consumption of a perfect art product and will be characterized by a fusion of the art forms and materials, and, finally, a

'disintegration of art,' the 'abstraction and liberation of the idea'" (47). While Lippard and Chandler acknowledge that artists will perhaps never reach this point, their assertion that the abstraction and liberation of the idea is a goal of conceptual and systems art is spot-on. While Haacke's later systems become more technically complex and aesthetically daring, they retain a tendency drawn from Conceptual Art to focus on producing an *art idea* rather than an art object. This art/idea may prove to be the very rudiment of systems art, that thing which begets further artistic exploration, and thereby demonstrates its legitimacy as an aesthetic mode.

Accepting this assertion goes a long way to answering one of the lingering questions of systems art: is systems art itself a system, and if so, how does it autopoietically maintain its own viability and demonstrate operational closure (boundary production)?

Haacke's later systems works, as I have mentioned, demonstrate substantially more complex and nuanced understandings of systems theory than his "event-containers." They also begin to drift into working with the "natural" systems that constitute *AMD&ART*: stones, rocks, sprays of water and ice, living creatures. Some of Haacke's works, such as *Grass Grows* (1969)—a mound of earth sowed with winter wheat and annual rye—demonstrate Haacke's concern with the transfer of energy and information across systems. Haacke spoke about *Grass Grows* during a symposium on earth art at Cornell University in 1969. In the case of *Grass Grows*, Haacke stressed that he was examining "growth as a phenomenon which is something that is outside the realm of forms, composition, etc., and has to do with interaction of forces and interaction of energies and information" (Smithson 180).

Haacke produced other plant-based works, such as *Grass Cube* (1967) and *Directed Growth* (1970-1972), each of which examined similar principles of energy harnessing and systemic interaction. Walter Grasskamp suggests that this notion of energy is integral to understanding Haacke's works of this era: "The works created in the 1960s could be categorized in terms of the physical energy they harnessed or consumed. Haacke himself began to call them 'Real-Time Systems' from around 1966 on. Thus he stressed the fact common to all, that the energies and the materials used for these works of art and their functioning as a system of interrelated elements existed independent of the viewer and the interpretations an audience would bring to them" (41). Thus, it was energy transformation that was Haacke's focus, rather than, say, the plants or animals in pieces such as *Ten Turtles Set Free* (1970).

In Haacke's work, it was transformation (both growth and decay) which made apparent the operations of autopoietic systems: the grass on a lump of earth perpetuates itself, subject to structurally-coupled interactions with its environment, and in doing so the grass subverts the common attributions to the artist of intentionality and material mastery. Haacke's drift toward systems that could conceivably persist perpetually would characterize his later systems works, including a work whose similarity to the stated goals of *AMD&ART* makes it worth mentioning: *Rheinwasseraufbereitungsanlage* (*Rhine Water Purification Plant*) (1972).

Haacke produced *Rhine Water Purification Plant* as a response to the pollution of the Rhine River by a municipal sewage treatment plant in Krefeld,

Germany. The piece is composed of a series of chemical treatments and filters that restore polluted water drawn from the Rhine to a sufficient quality that it could be reintroduced into the river. Once treated, the water flowed into a large acrylic tank that housed goldfish, and the overflow was introduced into the garden of the gallery where Haacke's treatment system was located.

Rhine Water Purification Plant was intended to bring to light the questionable practices of the German industrial complex whose pollution had rendered the Rhine toxic, while simultaneously offering a galleried meditation on the problems of water pollution. The parallels between *Rhine Water Purification Plant* and *AMD&ART* are hard to miss, as they both espouse the goal of water purification through a nonrepresentational aesthetic treatment system. Beyond a concern for water quality however, Rhine Water Purification Plant and AMD&ART seem to be very different entities in my estimation. Whereas Haacke's work is small, compact, and ultimately about demonstrating the feasibility of a system to clean the earth, AMD&ART is a massively complex array of participant entities that far exceeds the neat gallery display of the Rhine Water Purification Plant. The goldfish in Haacke's treatment system, for example, are there primarily to act as a visual marker of the cleanliness of the water. They do not reproduce in the tank, nor are they expected to survive there indefinitely. The creatures at/in AMD&ART, however, are playing out the whole of their complex lives enmeshed in, and of, the AMD&ART system. They are systems within systems that contribute to the whole. In this way, *AMD&ART* is a grander, more fully systematized vision of systems art than Rhine Water Purification *Plant* could ever hope to achieve.

AMD&ART: A Systems Art Perspective

AMD&ART is clearly a system composed of many systems: the form of the pools, for example, is prescribed by the depth of water that cattails need to grow, die, and settle to the bottom. In their decay, they provide a substrate for the bacteria whose processes remove oxygen from the water and prevent iron deposition.

Tracing the wildly numerous relationships between systems, in all of their myriad forms and functions, is a daunting challenge, and it would do little to explain the functioning of the site as a whole. After all, it is not the operations of the individual "simple unities" that constitute the functionality of a system, but rather the emergent autopoietic whole that demonstrates the functionality of the AMD&ART process.

In order to consider *AMD&ART* from a recursive, systemic perspective, it is necessary to isolate a moment of the system's functioning. This step is necessary because once the notion of systemic causation is invoked it becomes tempting to retroactively assign systemic participation to prior elements of the system that have since faded away. The old "beehive" ovens used for making coke (clean-burning fuel produced from bituminous coal) that were present on the site of *AMD&ART*, for example, are undoubtedly part of the reason that the mining operations existed, and therefore, might be thought of as part of the constellation of simple unities present within the *AMD&ART* system. This line of reasoning is a slippery slope, however, one that quickly spirals out of control and begs the question of where to draw the boundaries of any one system as opposed to another. Systems routinely encounter this problem, and the temporal "event" is one strategy whereby autopoietic systems

limit the amount of novelty and complexity to which they are subject, so as to prove capable of boundary-making processes.

The winnowing of potential simple unities for inclusion into a system is the underlying logic of Haacke's assertion that a constructed system, such as *AMD&ART*, might have a series of interdependent physical elements united under a "joint purpose." This purpose, in other words, becomes a conceptual litmus test of the merit of including any particular element within the purview of the system: does it, in the case *of AMD&ART*, somehow aid in purifying the water? On a more complex, recursive level, is the element directly produced by *AMD&ART*, and does its presence contribute directly to the continued existence of *AMD&ART*?

A quick assessment of the elements necessary for *AMD&ART*'s systemic "purpose" produces a by-now familiar cast of characters: the acid mine drainage (complete with extremophile bacteria), the holding pools, the limestone slabs for neutralizing acidity, the marsh vegetation, the aerobic and anaerobic bacteria present in the mire at the bottom of the pools. Elements of the site are a model of autopoiesis, as well: the water flowing out of the mine (which is itself a constantly replenishing system of extremophile bacteria devouring pyrite, which in turn produces acid, which in turn exposes further pyrite deposits, all the while being replenished with new groundwater) nourishes the plant materials of the site, whose eventual death and decay aid in purifying the water and provide a substrate and nutrient load upon which their offspring may germinate and thrive. The site will, to some extent, regenerate and maintain its capacity for purifying acid-laden water over time.

AMD&ART, as a system, will not persist indefinitely, however. A "Strategic Alkalinity Producing System" such as AMD&ART is a combination of self-renewing and manually maintained elements. The limestone slab, for example, will slowly become clogged by deposited mineral residue and will eventually dissolve entirely. Once this slab vanishes, the capacity of the site to neutralize the acidity of the AMD will be greatly diminished. *AMD&ART* must, for this reason, be considered a system of systems: some autopoietic, some allopoietic. The same boundary-making declaration that led Hans Haacke to declare a group of seagulls a live airborne system in *Live Random Airborne Systems* (1968) have been mobilized by the AMD&ART team to impose "common sense" boundaries on the system: geographical, temporal, functional telos-driven criteria. When considering the boundaries of the *AMD&ART* system, one is typically left to negotiate closure with the materials, histories and dynamics one finds at the site. While other unseen agents may be at work on the site (sweeping trends in climate, economic and cultural shifts), the role of perspective in regarding systems suggests that as viewers (and participant systems), we are left to engage with what is present at the site during our assessment.

Systems Art and the Readymade: Material and Immaterial Skill

The assumption that the *AMD&ART* system is to be understood as "that which is present and effective" segues nicely into the idea that *AMD&ART* is an enormous, participatory readymade. The logic of Duchamp's readymade resides at the very core of systems art's methodology. The exemplary readymade is "an ordinary object elevated to the dignity of a work of art by the mere choice of an artist" (Breton and

Elúard 328). This useful and concise definition of the readymade, while most likely the work of André Breton rather than Duchamp, offers an established avenue whereby *AMD&ART* can be understood as an aesthetic system *as well as* a natural system.

The readymade, as an artistic gesture, is an inherently doubled object: it has a dual aspect, both quotidian and avowedly aesthetic. The process of elevating an object to the status of a readymade is the means whereby this doubling occurs. John Roberts, examining this conceptual operation, has dubbed the productive act of nominating an object to readymade status "copying without copying." Roberts asserts that this "doubling" is a type of reproduction, and that "reproduction becomes a form of creative re-presentation, or reenactment, insofar as it brings the thing reproduced to life, or rather, releases it from its previous identity" (16). What is evident from Roberts' assertion is that nominating the readymade is a generative moment, one that differentiates the readymade object from its mundane (albeit identical) aspect (hence "copying without copying"). The "production" of a readymade is less a question of formal or technical achievement and more explicitly an exercise in the conceptual redefinition and appropriation common to avantgarde art throughout the course of the twentieth century. The newly wrought conceptual identity of a readymade object thereby becomes the focus of sustained inquiry by critics and audiences, diminishing the importance of the physical attributes of the object in question.

One consequence of a shift of spectatorial attention toward a relatively consistent conceptual operation, as opposed to the particularities of the object at

hand, is that the readymade appears to represent the "deskilling" of art. At first glance, the traditional marks of artistic excellence (linked inextricably with the notion of "skill") are absent from the readymade: it is not unique, irreproducible or unprecedented, nor is it the work of a singularly dexterous individual or group of individuals. In fact, it needn't necessarily be a thing *created* at all; it might be a found object (a seed, a mountain, a galaxy) and fall under the category of "readymade" via the same conceptual operation of "copying without copying."

With this deskilling in mind, it may appear that the readymade represents the nihilistic endpoint of art-practice, the conceptual devastation of artistic skill as indication of aesthetic value, and the surest sign of an "art is anything" laxness pervading contemporary practice. This line of thought is the result of a commonplace attribution of "artistic skill" to individuals who demonstrate manual dexterity. This unnecessarily narrow definition of artistic skill is precisely that which is intimated by those who would be moan the coming to pass of the readymade, conceptual art, abstract expressionism, and a whole host of nonrepresentational artistic practices. The readymade, rather than relying on an artist's ability to work skillfully with materials (wood, paint, fiber, glass, etc.), relies on the artist's to demonstrate conceptual skills (juxtaposition, irony, recategorization). The readymade is thus not "deskilled" or without-skill at all—it is simply differently skilled than traditional craft practices. The relationship between an artistic skill defined by manual dexterity and one defined by mental dexterity is strikingly consistent with the traditional understanding of the aims of "artistic skill" more broadly: a novel transformation of materials, via some process of refining or

alteration, so as to produce a heretofore unprecedented aesthetic experience in audiences. In the case of the readymade, the conceptual "skill" demonstrated by artists employing the technique invariably manifests as at least one fundamental process of alteration to the readymade object in question: artists orchestrate its transition from the realm of valuation and labor (as evidenced by an object's exchange value on the commodity market) to the representational arena of art. This confounding ontological ambiguity between the readymade object as a mundane commodity object and as an art object is precisely the emergent conceptual terrain blazed by Duchamp. Duchamp was well aware of this resultant morass of conceptual confusion, referring to the readymade as a site of "rendezvous" for competing notions of authorship and value. Roberts notes this tension within the readymade:

By submitting itself to aesthetic judgment (and thereby losing its *objective* status as productive labor) the readymade's original sign-value is made subordinate to other sign-values. Original sign-value and other sign-values establish a hermeneutic bond; or, to be more precise, a hermeneutic *triangulation*. The readymade's empirical form as a particular kind of common object is conjoined with its conceptual identity as a form of productive and alienated labour, and with its subjective identity as a sign of non-alienated and immaterial artistic labour. (51)⁴

⁴ It is worth examing here, momentarily, the possibility for artists working in the readymade form to declare a "cultural" object "natural" (a "naturemade," perhaps?). As per the theory of tripartite rendezvous laid out by Roberts, we might consider, for instance, the automobile. First, it retains its form as a manmade object, produced in a factory according to willfully designed specifications. Second, the car retains its conceptual identity as a semiotically-loaded entity: it is a symbol of production, of labor, of freedom, and a host of other associated concepts. Finally, the car must be placed into the conceptual space of "nature." While this is a challenging—and ultimately uroboric—attempt to discern which elements of nature are "natural" and which are "cultural," for the sake of simplicity I will momentarily revert to the commonplace understanding of "nature": the material and processes of the world which exclude humanity, precede human existence, function without our input, and ultimately will persist after our demise. In this sense, the car is understood to be a "natural" object in that it is, in fact, mostly just a large rock: aluminum, iron, carbon,

This entry into the world of art (not forgetting that Duchamp's Fountain (1917) was a literal entry into the Society of Independent Artists' 1917 exhibition) is evidence of the representational *capacity* granted to the readymade by virtue of the aforementioned conceptual skill of the artist. The readymade is indicative of an artist's intentionality, at least insofar as selecting an object and nominating that object for readymade status constitutes a token form of artistic intent. This selection process reveals that while any object may be declared a readymade, it was a particular object among many chosen and nominated into the realm of art. Nomination, it seems, is an intrinsically representational prospect, and while the readymade does not necessarily represent any one thing in particular (as say, a pictorial image might), it does seem to possess the aforementioned *capacity* to represent. Indeed, without this capacity to represent, it could not function as a tripartite site of rendezvous, as Roberts previously pointed out. In order to activate the competing discourses of commodity value and aesthetic theory, it must simultaneously act as "itself" (an objective object) and as a newly minted art object (a subjective object). The capacity to represent is what distinguishes the art object from the commodity object.

sandstone (in the form of glass). Beyond this metallic aspect, the majority of the rest of the automobile is composed of intensely decomposed organic material, in the form of refined crude petroleum. The bumpers, headlights, seatbelts, floormats, hoses, and most of the rest are ferns, bark and wood. Whether or not this "naturemade" offers to audiences a productive conceptual challenge is difficult to surmise. It does remind us of that, behind the veil of semiotics and cultural appropriation, we are very much still beholden to working within the confines of the natural materials at hand. Where Neolithic man banged and polished rocks, so too do we. Ultimately, we come again into the murky space of natureculture via this route of inquiry, however, which may speak to the final necessity the natureculture thought. Is the car—a highly refined rock and plant mass—a product of culture, or a natural object? It is, of course, both.

While "conceptual skill" and other immaterial skills may seemingly be an ineffable and oft-overlooked aspect of artistic labor, these skills rise in prominence as it becomes clear that the logic of the readymade does, in fact, destroy the basis of conventional artistic labor. Concurrent with the demise of conventional artistic labor, the readymade weakens claims to the stability and coherence of the conventionalized artistic subject. Whether critics and audiences consider the displaced authorship of the master/apprentice workshop model or the unified singularity of the Modernist author, the readymade introduces radical new forms of authorship that exceed an easy ascription of "skill" tied to the production of a novel object/entity/scenario. Instead, we should consider the readymade an exercise in social dexterity: the uptake of a product of commodity labor, natural and cultural processes or traditional artistic creation into the sphere of art, with the aforementioned ambiguity about the status of the art object arising from its nomination. It is an exercise in social engineering, the readymade serving as the point of entry for a dissection of the relationship between massproduction/craftwork, high/low culture and art/everyday-life, to name a few possible avenues of inquiry. Roberts came to a similar conclusion about the effects of the readymade on our examination of authorship:

[it]...releases the hand from the tedium and preposterousness of expressive painterly mimeticism, thereby transforming not only what the artist produces, but how he or she sees himself as a maker of meaning. Author and authorship are *re*-made through general social technique. It is the transformation of the identity of the artist, therefore, that is presupposed by the readymade, and that makes the dispersal and displacement of authorship and the readymade indivisible. (101)

This notion of authorial dispersal and displacement via the readymade goes a long way toward examining the "art" in *AMD&ART*.

If we presume that AMD&ART is a series of systems (simple unities subsumed under the rubric of a larger functional system), we can assume that much of AMD&ART is transposed into the world of art by virtue of the previously discussed process of nomination. The processes of anaerobic respiration amongst the bacteria, the chemical processes of sediment deposition and acid neutralization and all of the various elements of the site are doubled, by virtue of their copying-without-copying as "AMD&ART." Were I to suggest that AMD&ART was "created" or "produced" by a traditionally defined singular author (T. Allen Comp perhaps, or else the AMD&ART group more broadly) I would reify the wholesale elision of various types of productive and creative labor whose executors pass unnoticed. The individuals driving earthmoving vehicles to clear and grade the site, hydrologists, botanists and biologists consulted for their expertise, townsfolk from whom the group drew primary source materials for various projects pass unnoticed as so many hirelings of the AMD&ART enterprise. By considering the AMD&ART site a series of readymade artifacts and processes, we are reminded that the readymade is intrinsically the work of multiple hands and that this site too is the work of generations of coalminers, environmentalists, plants and creatures. If Duchamp's Fountain draws attention to both Duchamp himself, as well as the nameless factory worker who produced the original urinal, *AMD&ART* goes much further.

It is a site whose apparent naturalness—by being nominated to the status of readymade art—reveals its very construction at the hands of a vast web of individual participants, diffuse and displaced.

As with other readymades, we are placed, by the multiple hands of a displaced, dispersed author(s) into what Eric Peterson and Kristen Langellier dub a "creative double bind" (Peterson and Langellier 242). It is of little surprise that this chapter regarding systems theory should engage "double bind theory," for it was Gregory Bateson—an original systems theorist—whose Steps Toward An Ecology of *Mind* first introduced the concept as a sociological condition. Peterson and Langellier's article focuses specifically on the double bind as a moment of creative genesis in aesthetics. Their discussion of oral interpretation tracks a series of apparent contradictions and paradoxes that performers face due to the expectations of live performance—demonstrating spontaneity as well as refined technique, for example—and the resulting aesthetic bind (and anxiety) that can arise in the face of these conflicting desires. Rather than being paralyzed by indecision in the face of apparently paradoxical demands, however, Peterson and Langellier locate the moment as a fertile breeding ground for innovation and discovery. Craig Gingrich-Philbrook characterizes this response positively, writing, "Successful performance responds to such contradiction and paradox combinatorially, embodying an emergent position between them rather than indulging in the safety of an either/or commitment" (34).

An emergent combinatory approach, arising out of the specifics of the context in question, is precisely the mode of creativity Peterson and Langellier are

advocating. "When meaning is emergent, it cannot be resolved at the level of the message" (246), Peterson and Langellier advise, continuing, "text describes a multiplicity of messages, and aesthetic text defines a multileveled discourse among messages, performer, and audience which locates meaning" (246). Here, Bateson's signature on the notion of the double bind is apparent: aesthetic texts are systems (multileveled discourses) of communication. This systematic negotiation is the process whereby meaning emerges and is altered, while meaning's dynamism is manifest as aesthetic flexibility and novelty. In short: out of the limitations and anxieties of an apparently paradoxical scenario, new insights and aesthetic avenues become necessary and apparent.

The readymade by its very definition exists at the center of just such a series of double binds, most obviously between the distinctions of "art" and "non-art." The notion that a "non-art art" could exist at all, spawning as it did Dada, Surrealism, Minimalism, Conceptualism, Performance Art and a whole lineage of twentieth century artistic practices, drew legitimacy from Duchamp's readymade innovation. Allan Kaprow, who thoroughly theorized "non-art" throughout the latter half of the twentieth-century, writes,

whatever resembles the Readymade is automatically another Readymade. The circle closes: as art is bent on imitating life, life imitates art [...]. This recreation in art of philosophical and personal inquiry, the forces of nature, our transformation of the environment, and the tactile and auditory experience of the "electronic age" does not arise, as could be supposed, out of renewed interest in the theory of art as mimesis. (110)

Rather than mimesis, the readymade (as an object and its double) relates to its "other" in a fashion more reminiscent of the doppelgänger than the copy: a fleeting

presence, halfway-glanced, and ultimately ungraspable. As the doppelgänger is often characterized as an "evil" double, or an uncanny presence, we find a bit of the unsettling disorientation that informs my reading of the readymade. The seemingly mundane aspect of an object, with which we are familiar in our daily estimation of its character, is altered by our encountering of this same object in an art context: "it is the old experience that the traditional, the usual and the hereditary is dear and familiar to most people, and that they incorporate the new and the unusual with mistrust, unease and hostility (misoneism)" (Jentsch 9). It is not that the readymade object is unknown; to the contrary, it is precisely because it is well known in its quotidian aspect that the doubleness is strange. Jentsch offers a possible reason for the strangeness of the readymade to the eyes of the general public, writing, "some stirrings of the feelings of psychical uncertainty arise with particular ease either when ignorance is very conspicuous or when the subjective perception of vacillation is abnormally strong" (10). It is the latter, the perception of vacillation, that arises as individuals are confronted with the double bind of the readymade: is it art or not? When visitors arrive at the AMD&ART site, are they experiencing nature, or artistic culture?

AMD. Art & AMD&ART: Boundaries and Networks of Art and Nature

The act of establishing a creative double bind is finally about negotiating conceptual boundaries. In order for an aesthetic event to generate novel responses to paradoxical aesthetic demands, those demands must *both* be entertained seriously. If a paradox is to operate as an actual paradox, each potential demand requires a contradictory demand to receive an equal level of consideration and

attention, without which the paradox unravels as one side is deemed "better" or "truer," or in some other way granted valuation that supersedes the alternate demand. *AMD&ART*, for example, must maintain its distinction as "scientific" or "aesthetic," as well as its competing distinction of "nature" or "culture," so as to function as the tripartite site of rendezvous. This reliance on conceptual boundaries is what allows rendezvous to occur, after all: a rendezvous is a meeting, in a particular time and place, of expectations and assumptions regarding the ontology of the art object, of productive labor, of nature, and of culture. This "meeting," so to speak, stems from the protracted meaning making exercise that is the experience of encountering a readymade. The readymade, we might say, harnesses and begins the process of "bordering" a particular sort of aesthetic environment: the network.

Craig Saper, in his seminal work *Networked Art*, describes a network as a "situation" (ix), a characterization that fits nicely into my framework of aesthetic systems. To describe a network as a situation is to declare oneself present *within* a particular context and, consequently, an aspect of that situation. As I have laid out earlier in this chapter, imbrications of discrete entities within a framework may constitute a system, binding these entities to particular functions within the system as per the operative telos of the system in question. Individual cells of living organisms (systems in their own right), for example, are conscripted into perpetuating the growth and maintenance of the greater body system as they maintain themselves. Vascular tissues cannot alter their functioning beyond a certain degree without causing widespread system failure, thereby undoing their own autopoeisis.

A network, however, is different from a system in precisely this way: a network is not beholden to a particular telos. It is less a "process" with a finite goal and more an encompassing environment within which things can occur. While *AMD&ART* may be designed with a particular aim, the success or failure in this aim does not exhaust the potential aesthetic and subjective richness of the site. Nor does the goal of cleansing AMD-laden water account for the other aspects of the site, be they aesthetic objects of their own accord (the Mine No. 6 Portal, the Sanborn Insurance Company Map mosaic) or incidental and transient elements of the network: pedestrians, wild creatures, changes in regional atmospheric conditions and the like.

Joost van Loon characterizes "network" as a trope, a conceptual "device for organizing and conceptualizing non-linear complexity," and one which "is at odds with a basic literary device: the narrative. Network also disrupts our dominant vernacular of understanding time, i.e., the chronology" (307). As such, the network defies linearity and genealogy, consequently bankrupting an overarching telos. The absence of a telos results in a perplexing question, however: how does one know where the network "ends," as it could conceivably go on linking elements together forever? Without a teleological goal to guide the delineation of boundaries of the network, nearly anything might be included, whether vital or not. Van Loon writes that whereas the structural characteristics of a network "indicate that there are limits and boundaries separating what is within from what is beyond the network, the ontological status of the network-boundary ('the rim') is unclear. It only when we come across problems of accessing networks that we discover that there are

boundaries that make inclusions and exclusions" (307). If it is a question of access to *AMD&ART*—causality supposed as a type of access across time—we must be willing to incorporate into the fabric of *AMD&ART* an awareness of the forces which maintain and perpetuate the site as a readymade object: historical subsurface mining, for example. Similarly, I am willing to grant inclusion into the network to those entities present on the site, however fleetingly: the bicyclists on the trail that skirts the ponds, migratory birds, and long-term residents of Vintondale, human and otherwise. Indeed, if it is presence that merits inclusion into the network, the very ground upon which visitors tread must be included, as do the mechanisms used in the creation of the site.

To take up a "whole" network (such as AMD&ART) as a readymade is to nominate a truly vast entity with fluid boundaries. The readymade network functions as an exceedingly complex hypertext, a non-linear manifestation of Peterson and Langellier's assertion that an aesthetic text is a "multileveled discourse" of communication. As these levels of discourse increase exponentially, "hypertext induces non-linear forms of mediation, which in turn transform the relationship between 'author' and 'reader.' There is no longer a single process of mediation (governed by the text), but instead a continuous process of remediation" (van Loon 309). Interpretation, it would seem, turns back upon itself recursively as it is introduced into the network that it is regarding.

AMD&ART is a more complex aesthetic text than an assessment based solely on its environmental good would reveal. To be content with a purely functional reading is to dramatically underestimate the value of the site to other examinations

of similarly aestheticized networks, as well as to undervalue the notion of the readymade as a vibrant contemporary practice. While at the outset *AMD*&ART appears to depend upon conceptual boundaries (rigid concepts such as "art" and "nature"), it is in reality a network: an environment wherein boundaries are constantly exceeded and subverted through relational processes. As such, the network *AMD*&ART is both conceptually autonomous and materially wedded to the site in Vintondale.

The notion of an inhabitable art community is the culmination of this chapter and the means of segueing into the fourth chapter of this document. Bruno Latour has theorized an understanding of networks that focuses on the participant elements, organic and non-organic alike. Latour's "Actor Network Theory" (ANT) understands networks to be a mechanism for creating agency among "actor" participants. "Actor networks are established around a series of relationships between humans, animals, technology, artefacts and spirits" (309), van Loon glosses, highlighting a central feature of the upcoming chapter: ANT denies the easy assumptions of contemporary Humanist thought, expanding the "social" far beyond the Cartesian subject. The social, for Latour, "doesn't designate a domain or reality or some particular item, but rather is the name of a movement, a displacement, a transformation, a translation, an enrollment. It is an association between entities which are in no way recognizable as being social in the ordinary manner, except during the brief moment when they are reshuffled together" (Latour 65; italics in original). This definition of the social begins to clear up the ambiguity regarding how one might define and understand the ontological boundaries that confounded

van Loon's assessment of networks: networks are fleeting "entanglements of interactions" (Latour 65), rather than conventionalized and persistent structures from which elements are constantly added and subtracted. Networks come about as temporary stabilizations of forces and actors, and consequently manifest a temporary border that dissipates and reforms as another network as it incorporates or sheds actants. The result of this constant shifting of borders is that networks are more aptly thought of as emergent phenomena than solid, stable "things." Their historical precedence (stability), insofar as it exists, is the result of recurring interactions. Practically, this means that the interactions that give networks their character and affective potential are those that recur more regularly than others. ANT is a processual model of network formation and dissolution that does away with the notion that a network (such as AMD&ART) can prefigure its dimensions: the network exists and generates its own multiplicity by virtue of its contemporaneous manifestation with its actants. Latour, assuming the role of pupil and teacher in a fictitious dialogue about ANT writes, "Its main tenet is that actors themselves make everything, including their own frames, their own theories, their own contexts, their own metaphysics, even their own ontologies" (147).

The notion that actants are responsible for "making everything" speaks volumes about the inherently performative assumptions of not only ANT, but of both systems theory and network theory. While Judith Butler, Eve Kosofsky Sedgwick and Elin Diamond have thoroughly explicated the repetitious, reiterative capacity of performativity to alter the fabric of identity, Judith Hamera has turned that performative lens toward the power of performativity as it relates to place and

matter. Hamera reminds readers that art communities (whose membership I am trying to extend beyond the realm of the human) are responsible for laying both the cultural *and* material groundwork for their spaces: "the vernacular landscapes constructed through performance are the settings, the literal and psychic grounds, for the daily, routine time and talk that shape art in communities of practicioners. As J. B. Jackson argues, such landscapes are always local, regardless of the ideals incarnated there; they are stabilized by idiosyncratic ways of seeing the world" ("Performance, Performativity and Cultural Poiesis" 53). Hamera argues that it is what is *done*, in addition to the representational value ascribed to an act, which has a constitutive input on place.

Hamera's performative understanding of the construction and maintenance of place is particularly useful for my argument because it is a workaround of hierarchies of valuation. By this I mean that through emphasizing the "relational, embodied nature of context" (Hamera, "Performance, Performativity and Cultural Poiesis" 54), Hamera makes way for other non-human agents, as well as the collective agency of human/non-human agents, to be acknowledged as both participants and contexts. This is the essence of a network and of remediation as van Loon sees it: the constant alteration of interaction and influence between elements of the network. In the case of AMD&ART, visitors to the site are both agents (affecting change and doing interpretive work) as well as subsumed within the larger sphere of AMD&ART's functional operations. Their exhalations are taken up by the cattails growing in the artificial wetlands, while their senses reach out into the plenum of material Being that surrounds them. In bearing witness to the history

of Vintondale—whether the unstructured and open-ended presence of the colliery ruins, or the representational Great Map—they are contributing to the work of *AMD&ART* in maintaining a contextual and historical series of associations. While *AMD&ART* can successfully purify the water of Vintondale without a human audience, the site depends upon the reiterative, productive performance of millions of entities to function and expand. That this dynamism can extend into the realm of aesthetics and be taken up as the very fabric of the naturalcultural output of the site is a testament to the importance of this wayward place.

In summation, *AMD&ART* is not a stagnant image to be interpreted. It is not designed in the likeness of another site nor the site as it stood prior to its pollution. It is a fluid, transformational network whose aesthetic dimension is, for lack of a better term, an *ambience*. The presence of *AMD&ART* colors and subsumes that which enters its sphere, and the ephemeral dimension of the term "ambience" manages to capture this strange condition of inclusive possibility that circulates within the *AMD&ART* network. The notion of ambience both supersedes individual input, and is simultaneously dependent upon it. In this way *AMD&ART* affirms its status as a network and as an artwork that is meaningfully participatory.

Chapter Four Relational Emergence and Community Unfolding

As I describe *AMD&ART* as a participatory, lived art/environment, I embed a concern for ethics deep within this project. In this chapter I address these ethical questions and, in the process, offer a final assessment of the performative ontology at work in the constitution of *AMD&ART*. *AMD&ART* is fundamentally an ethical proposition, one that offers a sense of remediative practice that combines environmental remediation with the prospect of cultural remediation. *AMD&ART* is not simply a site dedicated to restoring Vintondale's nature, but its culture as well.

My analysis begins by detailing what can be gained by considering the "landscape" as a "companion species." Companion species is a term repurposed by feminist scholar of science Donna Haraway to serve as the cornerstone of her project of attending more closely to the worldly, material process of relating across species lines. "A bestiary of agencies, kinds of relatings, and scores of time trump the imaginings of even the most baroque cosmologists. For me, that is what *companion species* signifies," (6) writes Haraway, suggesting a number of important considerations for those seeking to utilize her term. In particular, examining the concept of "landscape" as a companion species benefits this study as it begins to document the material effects of broadening a networked perspective into the realm of worldly relating.

The bulk of this chapter is composed of my efforts to elucidate a performative ontology, and finally collapses the divide between nature and culture irrevocably. By combining the work of Jean-Luc Nancy—in particular his ontological framework of Being singular-plural—with the performative, intra-active material

theories of Karen Barad, this chapter examines performativity as the driving force behind the emergence of Being. In particular, it is the terminology of the "re-" in performance that is highlighted. The acknowledgement of a repetitive element is foundational to the study of performance: Richard Schechner defines performance as "restored behavior" (36), action that is semiotically loaded by virtue of its representation. Elin Diamond clarifies and expands this assertion: "'Re' acknowledges the pre-existing discursive field, the repetition—within the performative present, while 'embody,' 'configure,' 'inscribe,' 'signify,' assert the possibility of materializing something that exceeds our knowledge, that alters the shape of sites and imagines other as yet unsuspected modes of being" (2). As this chapter demonstrates, it is pivotal that the implicit "re" that haunts discussions of performance be thought across the whole of Being. It is only through preexisting codes and patterns of embodiment and interaction that the world can be seen as having the level of consistency with which we are acquainted.

By asserting that "landscapes" are a type of companion species, I am stressing the importance of interaction and participation in the constitution of *AMD&ART*. We draw, fundamentally, some of our Being from our relationships with the land, and the land is constitutively altered by our attentions and presence, even our passive presence. Each of us, humans, non-humans, minerals, gases and all the rest *need* the others to give consistency to our Being. This notion, as broad as it must be early in this discussion, is the key to my final assertion regarding the value of *AMD&ART*: this site not only cleanses the water of Vintondale, but also establishes the possibility of emergent community at the site. It does so in two ways.

The first is by ameliorating some of the conditions associated with what philosopher Glenn Albrecht has termed "psychoterratic illness": "earth-related mental illness where people's mental wellbeing (psyche) is threatened by the severing of 'healthy' links between themselves and their home/territory" (S95). The work of Sue Thering—a landscape architecture professor who was associated with the *AMD&ART* team—probes the mental well being and attitudinal shifts over the course of the long process of bringing the *AMD&ART* project to completion. As I outline in my summary of her research, people seem to genuinely improve in their estimation of Vintondale's prospects for the future as the site progresses. While I eventually question a number of her conclusions, her work is the clearest indication that there is a psychoterratic relationship between the townspeople and the naturalcultural environment of Vintondale.

The second way in which *AMD&ART* serves as a model for future community-oriented works is by cultivating a beneficial, mutually constitutive ethical relationship between the many participant entities that make up the site and its surrounds. I am speaking here of a particular vision of an ethical relationship between humans, non-humans, nature and culture: a hyperbolic ethical stance that acknowledges the role of instrumentalization. I mobilize the concept of "hyperbolic ethics" from the later works of Jacques Derrida because it is an "impossible absolute": it is the acknowledgement that an absolutist ethical stance toward all of Being is the only condition under which true ethics can flourish, while simultaneously acknowledging that this condition can never be. As François Raffoul writes, "the impossible would no longer be the opposite of the possible, but on the

contrary, would be what 'haunts the possible,' what truly 'enables or possibilizes the possible" (273). The impossibility of behaving—Being—ethically toward all of *AMD&ART*, is the very condition that compels us to strive for (and acknowledge) its possibility. *AMD&ART*, defined as it is by the instrumentalization of biological and chemical processes, offers participants in the site lessons in proper comportment (particularly toward non-human, non-animate matter) when confronting a world of unfolding material Being. Our instrumentalizations are evidence of our failings at ethics—and yet also evidence, in some small way, of the failing *of* failing.

Companion Species: Landscape

The notion of "landscape" is one of the thorniest of contemporary critical concepts. While succinctly defined in the clipped language of dictionaries as "1: a portion of land or territory which the eye can comprehend in a single view, including all the objects it contains; 2: a picture representing a scene by land or sea, actual or fancied, the chief subject being the general aspect of nature, such as field, hills, forests, waters, etc.; 3: the pictorial aspect of the country" (Merriam-Webster 828), sustained scholarly inquiry from a wide-array of fields—cultural geography, art history, literature, environmental studies, philosophy, to name only a few—has dramatically expanded the scope of this term. Indeed, the preponderance of neologisms currently being generated that culminate in the suffix *-scape* speaks to this widely thought concept: Appadurai, for example, suggests that the concepts ethnoscape, mediascape, technoscape, financescape and ideoscape (Appadurai 51) could be used to map the impacts and origins of global cultural flows.

The usefulness of the suffix *-scape* for theorists is linked intimately to its etymology. Descended from the autonomous word "scape," meaning a landscape view, it is also associated with an obsolete, aphetic form of "escape." The shared definitional element in both cases is the notion of distancing, whether in order to take in a view or to escape from someone or something's presence. Appadurai expressly locates the value of the suffix in precisely this distance, as it implies perspective: "-scape indicate[s] that there are not objectively given relations that look the same from every angle of vision but, rather, that they are deeply perspectival constructs, inflected by the historical, linguistic, and political situatedness of different sorts..." (52). While Appadurai focuses his analysis broadly ("nation-states, multinationals, diasporic communities" [52]), he finally culminates his discussion of the perspectival nature of "-scapes" with a nod toward the scale in which we find ourselves most comfortable: "the individual actor is the last locus of this perspectival set of landscapes, for these landscapes are eventually navigated by agents who both experience and constitute larger formations, in part of their own sense of what these landscapes offer" (52).

This notion of the "individual actor," whose very being is inflected by "historical, linguistic and political situatedness of different sorts (Appadurai 33)," is our entrée into the discussion of landscape as a companion species. The suffix – *scape* in landscape implies precisely the same perspectival viewing and distancing maneuver that is the case with all other "-*scapes*." In this way, it signals the profound relationality between the "individual actor" and the "landscape," to the extent that the actor and the landscape are assumed to be component parts of the configuration

of myriad histories and agencies. Landscapes, as per the previous discussion, coalesce along the subjective lines of perspective and lived experience into an emergent sense of cohesive wholeness. This wholeness is, of course, illusory: landscapes, as are all perspectival views, are necessarily partial. But this does little to diminish their affective power. "Art and engineering," writes Haraway, "are natural sibling practices for engaging companion species" (*Companion* 23), explicitly acknowledging two fields whose reliance on perspective—both in the sense of visual perspective, as well as "perspective" understood as standing in for "a way of seeing (conceptualizing) the world"—is paramount. Perspective, in all of the senses of the word it must be recalled, is profoundly specific, and located fleetingly in the momentary configuration of component parts: "We are not one, and being depends on getting on together" (Haraway, *Companion* 50).

While Haraway mentions that "landscape" very much falls within the conceptual reach of the "companion species," making it both a terrain of history and sudden co-emergence, mapping this pattern of relationality is a daunting task. A landscape, a locale, is fundamentally an emergent phenomenon, made up of multiplicities of heterogenous connections between participants, who themselves are simultaneously unicitous⁵ and co-dependent. They are unicitous in the sense that at each unfolding, nonteleological moment, they are precisely and fully that

⁵ The term "unicity" specifies a precise dimension of "uniqueness." It is the acknowledgement that exactly one object with certain properties exists, coupled with the added connotation of wholeness. Unicity: "the condition of being united; quality of the unique; unification" (Webster's Revised Unabridged Dictionary 1575). In this instance, I use the term to signal that the elements of a landscape, while independent singularities, are simultaneously the result of the unification of other singularities. For further information, see: Nancy, "Limits, Borders and Shores of Singularity" 102.

which they are: the concrescent joining of all related agencies into an emergent and temporally-bound whole. Yet, without these contributing agencies, there is no "whole" to be said to exist, forcing the realization that all singularities are codependent on all other singularities, and therefore difficult to cast as a unified "whole." To simplify: any account of a landscape is necessarily partial, because the forces and agents contributing to the "whole" of it are themselves partial.

In an effort to more clearly elucidate the notion of landscape as companion species, I am going to track the term through Haraway's four-part analysis of the "tones" simultaneously resonating in her understanding of the concept "companion species." This formulation, while still acknowledging the heterogeneity of each case, should provide a workable frame of reference through which to view the concatenated histories of flesh and culture that come to be called "landscapes."

The first tone insisted on by Haraway is of "the history of evolutionary biology, with its categories of populations, rates of gene flow, variation, selection and biological species" (*Companion* 15). These categories, of course, are no longer as self-evident as they once might have seemed, in no small part thanks to Haraway herself, particularly her "A Cyborg Manifesto." Drawing on insights from her earlier work, Haraway continues, "Species is about biological kind, and scientific expertise is necessary to that kind of reality. Post-cyborg, what counts as biological kind troubles previous categories of organisms. The machinic and textual are internal to the organic and vice versa in irreversible ways" (*Companion* 15). Thus what seems to begin as a discussion of biology, as it is popularly understood, quickly expands beyond the neat tales of heredity and flesh covered by textbooks.

Landscape—post-cyborg and wedded to the new biology—is troubled by a discussion about "what counts." What might have seemed self-evidently unified the landscape defined as everything present in a given area—has now assumed a conditionality related precisely to this internalization of the machinic and textual. Rather than focusing on an imaginary idyllic past of unmediated, Edenic nature scenes, the modern landscape must be reconceived as a space of contested meanings and naturalcultural negotiation. Genetically-modified organisms, selfreplicating technomachines masquerading as drought-resistant crops, now provide the "view" lurking within landscape's busy suffix. In Vintondale, the landscape of AMD&ART, while aesthetically pleasing, is a convoluted system of mechanical operations making possible the "natural" processes of wetland growth and regeneration. The site, a manmade habitat whose purpose is to diminish AMD, is the mirrored double of the abandoned mines themselves: manmade sites in which extremophile bacteria such as Thiobacillus ferooxidans thrive in vast numbers, consuming iron oxides and producing the sulphuric acid that comprises AMD. Without these bacteria, AMD would not occur, and without the histories of industrial technological intervention in these subterranean environments, the conditions for their proliferation would not have been present. Habitats within habitats, landscapes whose overt histories of manipulation and alteration prompt new manipulations and alterations, in keeping with the "view" of how and what those landscapes "ought" to be.

The notion that a landscape "ought" to be anything, whether an unspoiled riverine valley or a technomarvel such as *AMD&ART*, demonstrates that the textual

has come to rest firmly within the bosom of landscape as well. The postmodern and poststructuralist turn toward "textualization," the recasting of all things as methods of reading and writing the world, has fundamentally undermined the easy cohesion of a concept such as landscape to an external reality. The attempt to align the word "landscape" precisely with an external reality, in the fantasy of perfect representational Truth, is the moment of rupture. Una Chaudhuri notes, "the term landscape suggests a systematicity and a coherence that often prove elusive in applications" (12). This incoherence is the characteristic avenue whereby interpretation (textuality) enters into the discussion of landscape.

Volumes of essays, such as *Uncommon Ground: Rethinking the Human Place in Nature, The Great New Wilderness Debate,* and *Placing Nature: Culture and Landscape Ecology,* trace the status of words such as "nature" and "landscape," their referents argumentatively defined as physical, material realities, or else wholly social constructs. Commonly (as in the essays included in the aforementioned examples), commentators settle on a fusion of the two perspectives: natureculture, in Latour and Haraway's term. Beyond these broad lexical struggles however, a would-be participant in a landscape's definition is forced to attend to the particularities and specificities of the place(s) in question and their attendant histories and cultures—biological, chemical, manufactured: the fusion of domains. This failure of the transcendent interpretive schema is in keeping with Haraway's body of work: "the certainty of what counts as nature—a source of insight and promise of innocence—is undermined, probably fatally. The transcendent authorization of interpretation is lost, and with it the ontology grounding "Western"

epistemology" (Haraway, "A Cyborg" 152). If we are to "read" a site such as *AMD&ART* not for its adherence to a transcendent "nature," but rather as the nexus of variously interpretable lineages of biological inheritance, historical retelling and representational valuation, we are forced to do so from our intimately situated position with regards to that place. When I gaze down the main street of Vintondale, I do not see only the quaint dilapidation of this one particular town, but an entire sensorial idiom associated with these wayward coal towns and their associated wooded surrounds. The sloping rise and fall of the Allegheny hills that tower over the town; the defunct stores and American Legion Halls; the sound of the Fox Sparrows scrabbling around in the brambles in brushy overgrown yards; all of these elements affirm a code of familiarity for me, a lifelong inhabitant of western Pennsylvania. In common parlance, it "reads" as western Pennsylvania to me. This is one final clue as to how firmly entrenched the logic of textuality has become in our relationship to the organic, and vice versa.

The second tone articulated by Haraway draws attention to the specificity and particularity of "species." "I remain alert to species as a generic philosophical kind and category. Species is about defining difference, rooted in polyvocal fugues of doctrines of cause," (*Companion* 15) writes Haraway. In other words, Haraway is attempting to signal that the construct "species" exists as a categorical distinction, drawing on the work of Thomas Aquinas. Aquinas, who remains a well-regarded commentator on the work of Aristotle, expanded upon the Aristotelian system of categorical logic from which "species," in the sense currently being discussed, is drawn. The Aristotelian notion of "genus," as a broad category that exists beyond the

material being of things, is subdivided in "species," which are subcategories of said genus. This is the logic adopted by the Linnaean system of taxonomy (binomial nomenclature), for example, wherein a genus is a broader category of organism (*Homo*), while species is the specific type of organism within that genus (*sapiens*).

For the purposes of her discussion, however, Haraway focuses on this original categorical sense of the logic of species, of which the biological "species" is an obvious utilization. Her stressing of the root of species as the notion of defining difference is the pressing concern, and it is reiterated in her characterization of the process of speciation as a fugue. A fugue, a contrapuntal musical composition, is characterized by the presence of two differentiated and complete musical lines that exist independently, yet when played simultaneously, harmonize. Benjamin Boretz has described the challenge of composing this type of music, writing, "The internal structures that create each of the voices separately must contribute to the emergent structure of the polyphony, which in turn must reinforce and comment on the structures of the individual voices" (177). In this quotation we find an intimation of Haraway's characteristic tendency to conceptualize the world as the interaction of many material flows, and of her belief in the affective power of an emergent gestalt state which recursively alters its constituent elements.

This emergent notion of gestalt states jives with Haraway's allying herself with the work of Judith Butler: "There are no pre-constituted subjects and objects, and no single sources, unitary actors, or final ends. In Judith Butler's terms, there are only 'contingent foundations;' bodies that matter are the result" (*Companion* 6). The inclusion of the word "matter" in this quotation, which follows in the original

text an assertion about the reality of all nouns functioning as gerunds, further supports this claim; bodies that do the act of "matter-ing" are the result. Attempting to trace the polyvocal causal relationships between the myriad gerund-nouns, each of which exists at the convoluted nexus of its own shifting gerund-noun causal swarm, is an exercise in seeing just how far down the rabbit-hole goes.

Haraway's work, however, is nothing if not an attempt to refocus the lens of contemporary critical discourse on the materiality of the world at large, beyond the easy binaries of nature and culture, human and animal. The use of the Thomist "species" in her argument, and the value of introducing it into her formulation of companion species, reminds readers and theorists of the importance of being attentive to the mechanisms whereby difference is made manifest—and of defining that difference. The logic of "genus" and "species" simultaneously suggests that while a broad category may exist it is also important to attend to the specific species in question. The landscape of Vintondale, for example, might be characterized along the lines of a number of genera. It might be broadly characterized as representative of the topographical, climatic, geological and biological patterns represented in the Appalachian Mountains generally; or, more specifically (a word derived etymologically from the Latin *species*), the Allegheny Mountains; or, more specifically, the Allegheny Mountains in the Laurel Highlands region of western Pennsylvania; or, more specifically still, the area surrounding a former coal mining town. This is precisely the subdivision that characterizes the logic of categorical species, and it is a perspective that offers a valuable lesson to those attempting to think the landscape as companion species. The lesson of winnowing each instance of reality down to its most specific possible form (its role as co-emergent agent in a "place" known only to the subjective experience of one individuated participant) provides a mode of valuation that is not reducible to an autonomous, and therefore transferable, object. Wendell Berry writes about the danger of scientific language (read as: objective language) for precisely this reason:

The problem, as it appears to me, is that we are using the wrong language. The language we use to speak of the world and its creatures, including ourselves, has gained a certain analytic power (along with a lot of expertish pomp) but has lost much of its power to designate what is being analyzed or to convey any respect or care or affection or devotion to it. As a result, we have a lot of genuinely concerned people calling upon us to "save" a world which their language simultaneously reduces to an assemblage of perfectly featureless and dispirited "ecosystems," "organisms," "environments," "mechanisms," and the like. It is impossible to prefigure the salvation of the world in the same language by which the world has been dismembered and defaced (8; italics in original).

The logic of Thomist "species," when coupled with Haraway's notion of contingent foundations, is a direct answer to Berry's concern about the tendency of modern language to parse the world along interchangeable lines, and it culminates in a view of the landscape as fundamentally a species of the most subjective sort: a species whose very being is contingent upon the species-being of another species. The landscape of Vintondale is not finally beholden to language (the mechanism whereby speciation would seem to occur most frequently), but instead it is constantly in flux. Indeed, Aquinas makes it clear that the irreconcilable gap between the material and the categorical rests in this flux-state: "For what is in a continual state of flux cannot be grasped with certitude, for it passes away before the mind can form a judgment of it" (Aquinas 421). Aquinas strove to rectify this

situation with the categorical notion of species as autonomous from matter, and Haraway strives to acknowledge (and perhaps widen) this gap.

The third tone of "species" emphasized by Haraway draws autobiographically on her upbringing in a Roman Catholic household: the Eucharistic species, the bread and wine that are transformed into the body and blood of Christ, via the logic of transubstantiation. "Species is about the corporeal join of the material and the semiotic in ways unacceptable to the secular Protestant sensibilities of the American academy and to most versions of the human science of semiotics (16)," asserts Haraway, whose attentions highlight the characteristic inheritance by the academy of a *fundamental* ontological assumption about the unbridgeable gap between a representation of an object and the thing-itself.

The logic of the Eucharist moves beyond the binary logic of signifier and signified, relying instead on the Aristotelian distinction between the "accidents" of a material object and the "substance" of the same. The "accident" is understood to be a changeable characteristic, whose alteration does not alter the "substance," or essence, of a thing. Aristotle articulates nine types of accident: "quantity, quality, relation, habitus, time, location, situation (or position), action, and passion ('being acted on') (Aristotle 1b25-24a)." A bottle, for example, might be made of glass or plastic, may be located on a windowsill or in a ditch, in the 2nd or 21st century, and yet regardless of accident, it does not cease to display the essential property of its essence, its "bottle-dom." The accidents of the bottle, those traits that make it a unique individuated form, do not interfere with that which *makes* the bottle a bottle: its substance.

To return in a roundabout way to Thomas Aquinas, his doctrinal understanding of the logic of Eucharist is basically an inversion of quotidian malleability: instead of changing the *accidents* of the bread and wine, the invocation of the final supper before Jesus's crucifixion alters the *substance* of the bread and wine, while leaving the accidents intact. Thus, the bread and wine are literally the body and blood of Christ, while their accidents (being composed of wheat and grapes, in some particular Catholic church, in the early 21st century) remain unchanged.

It is the moment of invocation that I believe is valuable to Haraway's project. Aristotle's distinction between accident and substance/essence seems contrary to the bridging of the material and the semiotic that Haraway espouses, and thus it is in the moment of their conflation—the moment of consecration—that makes the Eucharist an innovative mode of conceptualizing the semiotic relationship. The Eucharist isn't a sign in the classical sense, because it isn't the case of a separate signifier pointing to a separate signified via a conventionalized relationship. Instead, it is a transformative fusion of signifier and signified, a becoming-flesh of bread through the power of language.

Students of performance will recognize this moment for what it is: a performative utterance, drawing together the power of word and matter to produce novel, emergent states. The concept of performativity is drawn from the work of linguist J. L. Austin, whose characterization of the word "performative" points toward an active "doing" of something with words: "…in saying these words we are doing something…rather than reporting something…[the action in question] is at

least *preferably* (though still not *accurately*) to be described as *saying certain words*, rather than as performing a different, inward and spiritual, action of which these word are merely the outward and audible sign" (Austin 177; italics in original).

Haraway's vision of this post-representationalist conflation of corporeality and semiotics is wedded inextricably to the logic of performativity. I have dubbed Haraway's position "post-representationalist" in an effort to signal the representationalist logic of traditional semiotics, in which language has the capacity to be either "true" or "false," based on a word's capacity to "accurately" represent an already-existing condition in the world, thereby representing it. In accordance with Haraway's philosophy of worldly, co-emergent becoming of participants, the logic of representationalism must be abandoned, if for no other reason than its presumption of pre-existing entities that may or may not be representable via semiotics.

Karen Barad, in an article titled "Posthumanist Performativity: Toward an Understanding of Matter," presents a program of conceptual rearticulation that will be useful for examining the value of the Eucharist-as-performative to Haraway's program. The first of Barad's insights relates to the notion of "intra-action," as contrasted with "interaction." Interaction, as we understand intuitively, is predicated on the existence of two entities, each of which must exist so as to be capable of generating the "gap" across which interaction might occur. This is tied, of course, to the categories of representationalist thinking: "words" and "things." Intra-action, on the other hand, is Barad's attempt at understanding the mechanisms whereby matter comes into being as phenomena. She prefers the concept "phenomena" to that of "independent entities" because "phenomena" implies a

malleable character, while also introducing an event-like, unfolding quality to reality. "This account," writes Barad of her profoundly performative model of "mattering," "refuses the representationalist fixation on 'words' and 'things' and the problematic of their relationality, advocating instead a causal relationship between specific exclusionary practices embodied as specific material conditions of the world (i.e., discursive practices/(con)figurations rather than 'words') and specific material phenomena (i.e., relations rather than 'things'). This causal relationship between the apparatuses of bodily production and the phenomena produced is one of 'agential intra-action'" ("Posthumanist" 814; italics in original). Agency, in this formulation, is not simply a quality of some observer but rather is a performative contribution to the emergence of phenomena. This notion that agency (understood to be not an attribute but rather the name given to the "ongoing reconfigurings of the world" [Barad 818]) is integral to the local resolution of phenomena within the broader matrix of Being. This resolution occurs not (only) via language, but rather through material practices which prompt contingent, emergent "things-in-phenomena." These phenomena/things are "dynamic topological reconfigurings/entanglements/relationalities/(re)articulations" (Barad, "Posthumanist" 818), whose dynamism highlights precisely the sort of intense fusion of corporeality and semiotics for which Haraway is striving. This sort of dynamism is unthinkable when confronted with prefigured entities. I will attend to Barad's work more fully later in this chapter in an effort to flesh out the repercussions of this "agential realism" on the ethics of environmental remediation.

The Eucharist (species), we may finally sum up, is utilized by Haraway as a reminder that the performative "mattering" of corporeal practice and semiotic representation are never distinct. Instead, they are akin to Barad's formulation of agential realism, a profoundly emergent account of discursive practices that emphasizes discourse not as the process of communicating via written words or statements (this is representationalism once again), but rather as a set of discursive practices that produce phenomena and are produced by phenomena. While reified through repetition, these discursive practices—which set the stage for all other discourses, including language—are fundamentally processual and thereby both capable of radical reform as well as wedded to precedent.

The performative has been thoroughly examined in terms of race, gender, semiotics and a host of other areas of study; it's an extremely fruitful concept, and one that seemed omnipresent once I became aware of it. In terms of discussing performativity and landscapes, two dominant approaches have emerged. The first entails the consideration of the landscape as an actor and agent, capable of producing distinct outcomes on the built environment and associated cultures. This agenda is typified by the work of Czerniak (109), Howe (437), and Dirkmeier and Helbrecht (158). The second approach, which focuses expressly on the relational emergence of landscape as an unfolding co-production, is more akin to my project. Geographer David Crouch characterizes this perspective as directing attention to space (and landscapes) as "relational, dynamic and contingent" ("Flirting" 6). Crouch continues: "Space emerges from this as persistently 'in the making,' through a complexity of forces, influences, practices" ("Flirting" 6). Crouch's work, along with

the work of Elizabeth Grosz (31), Doreen Massey (140), and Edward Casey (118), has begun to articulate a distinctly performative ontological model for landscape creation/participation. The lessons are, roughly, the same as in other instances wherein the term has been applied: landscapes are understood to be after-effects of stylized patterns of interactional behaviors by many parties (read as: not only human interactions). If gender is conceived "as performance which is performative, [...] an 'act,' broadly construed, which constructs the social fiction of its own psychological interiority" (Butler "Performative" 195), might not the semiotic and material coupling of performative action produce a similar sort of transformative power in the landscape? Certainly this logic of performative landscape is present in a site such as *AMD&ART*, whose very purpose is to "act natural," and thereby restore a type of natural health to an environment. As with gender, however, there is nothing inherently "real" or "timeless" ("natural") about nature; there is only flux, and thereby only interpretation coupled with a grasping at elements consistent with one's own rate of flux. The constructs of historical gender pre-date individuals, and as per Louis Althusser's formulation of interpellation, "hail" individuals into their matrixes of behavior, ideology and affect. Might not human/non-human Other/landscape formulations hail us in the same fashion? Indeed, if this is so, Haraway's Eucharistic species, the moment of consecration, seems as good a tool as any for directing our attention toward the ways in which speaking of Vintondale as a "resource" or "liability," or even "home," might very well make it those things and hail us into ideological relationships with that very co-emergent form.

The final tone emphasized by Haraway is that of species as *specie*: coinage, gold, lucre, wealth, metal. The will-to-power of financial markets weds the collective destinies of individuals together, human and non-human alike. *AMD&ART*, however, activates a very particular facet of the notion of specie: the linkage between coinage and its representative mineral wealth. The bituminous coal, the very agent of Vintondale's precipitous rise and fall, represents a particular type of economic model and historical narrative. While the structures that served as precursors for the town may have been built in the 1840s to capitalize on the fortunate confluence of the materials necessary to make iron (carbonate ore, limestone, timber for charcoal and running water), it was not until the boom in mineral rights speculation by eastern investors that Vintondale, née Barker City, was formally established in 1892. From this point forward, in both its meteoric rise to economic prominence as well as its precipitous decline, the tonnage and pricing of coal governed the fate of this small valley town.

AMD, the very disaster that the *AMD&ART* site seeks to ameliorate, is itself a financial and economic phenomenon as much as chemical and biological. When the economic winds of fortune shifted away from western Pennsylvania in the 1970s and early 1980s, caused by an influx of cheap Asian steel that gutted the American steel industry, the coal mining industry's close ties with the steel industry became a profound liability. The mines of Vintondale were finally shuttered in 1968, setting the stage for the flooding of the mines and the acidification of the groundwater to begin. That there is still coal in the hills surrounding Vintondale is undeniable; its extraction via underground mining is simply no longer economically feasible, and

therefore the groundwater pumps, long silent, have vanished. With the closing of the mine came the final blow to an already reeling town, and Vintondale today continues its slide into obsolescence.

While Haraway attempts to sum up her notion of companion species neatly, writing that it is "about a four-part composition [the four aforementioned tones of "species"], in which co-constitution, finitude, impurity, historicity, and complexity are what is" (Companion 16), she is well aware that neatness, while perhaps possible when encountering concepts, is dramatically not feasible in material experience. It is an amorphous, inherently fluid formulation whose truest, most central tenet is the move beyond human exceptionalism and into respect. "Companion species—coshapings all the way down, in all sorts of temporalities and corprealities—is my awkward term for a not-humanism in which species of all sorts are in question. For me, even when we speak only of people, the animal/human/living/nonliving category separations fray inside the kind of encountering worthy of regard. The ethical regard that I am trying to speak and write can be experienced across many species differences" (When Species 164), Haraway finally clarifies in her later work.

Interaction and Intra-Action

Haraway is hardly alone in her desire to locate the fundamental grounds of ethical regard and respect in that peculiar configuration of historicity, biology and finitude that passes for the individual and her partner(s); as per the notion of companion species, she can hardly even be thought of as alone at all. I interpret this sense of togetherness, of the inter- (as well as intra-) dependence of worldly

relating, as the next logical step toward a comprehensive ethical program that embraces the *AMD&ART* site, the inhabitants of Vintondale, and the emergent landscape. In what follows, I draw on the work of two philosophers: Jean-Luc Nancy and the already-acknowledged Karen Barad. In both cases, the philosophies espoused by these individuals plumb the nature of relational Being at the level of matter itself. It is my hope that detailing two potential explanatory mechanisms for that most fundamental of categories will demonstrate the dire need for an ethical program which addresses, with respect and regard, all those phenomena that might count as species: "artifact, machine, landscape, organism or human being" (Haraway, *When Species* 165).

The task of addressing matter is always first and foremost a question of ontology, and requires staking out a piece of territory from which to build (in all directions, past and future, across every register) a comprehensive account of the multiplicitous, thoroughly contingent, utterly mundane graspings alongside one another that reside at the root of a companionship-ontology, a "comprehensile" arrangement. Jean-Luc Nancy suggests a revised ontological stance that focuses on "Being singular plural," a mode of conceiving the basic condition of Being as a coappearance of singularities, utterly dependent upon one another, and yet simultaneously unique and separate. From feminist scientist Karen Barad, I mobilize her theory of "agential realism" to track out the performative aspects of this mutual emergence. Combined, Nancy and Barad's contributions offer an avenue for scholars to deconstruct the binaries between nature/culture, human/nonhuman and matter/idea. The philosophy of Jean-Luc Nancy, in particular his concept of "Being

singular-plural," is illustrative of an ontological perspective that breaks with the humanist "subject," preferring rather "singularity" as a broad catch-all term for that which exists. By christening the origin(s) of Being "Being singular plural," Nancy relies on a syntactical ambiguity to advocate a complex examination of the assumptions of representationalist/atomist (and, consequently, humanist) thought. He writes that these words "which do not have any determined syntax ('being' is a verb or noun; 'singular' and 'plural' are nouns or adjectives; all can be rearranged in different combinations), mark an absolute equivalence, both in an indistinct and distinct way. Being is singularly plural and plurally singular" (Being Singular 30). In other words, Being does not consist of an essence of Being that preexists existence—only that which exists, exists, without anteriority. This requires further explication to become clear.

Singularity is the conceptual operation whereby Nancy articulates the profound strangeness of worldly Being; in an essay entitled "Limits, Borders and Shores of Singularity," Nancy asks rhetorically, "What is singularity? As what has place at only one instance, one single point—outside time, outside place—it is, in short, an exception" ("Limits" 101). All that exists, then, in each instance, is singular—and yet, as Nancy makes clear, simultaneously remains plural. How is this so? Singularity, as Nancy stresses throughout his essay, contains within it the acknowledgment of a necessary plurality: in order to be articulated as singular, it demands the presence of another singularity from which it may be differentiated. Being then, is the distancing process of singular plurality, or plural singularity—namely, the *being with* of singularity constituting the process of Being: "Being' is

neither a state nor a quality, but rather the action according to which Kant calls 'the [mere] positing of a thing' takes place ('is')" (Nancy, *Being Singular* 12).

Being, then, as *being with*, existence rooted firmly in the *with*—the coeappearance of singularities—forms the foundation of Nancy's rearticulation of ontology, and his vision of a world that *is* the co-existence of all that exists: nothing more, nothing less. This singularly plural world is free of an imposed *telos*, beyond the radical historicity engendered by an understanding of the material contingency of existence as the sharing of Being. This is what Nancy implies, I think, when he suggests that "we" no longer "have" meaning in the world, but instead *are* the meaning of the world, the constellation of singularities through which signification is produced and circulated.

What remains unclear at this juncture is the relationship between the "individual subject" and the "singularity," for it easy to consider the notion of singularity as some form of extreme heterogeneity located in a radical individuality. Upon closer thought, however, individuality is seen to rest upon the logic of a perfect individualism, which is contradictory to the utterly contingent view of existence as a being-with: individualism depends, implicitly, on the subjacent copresence of another entity from which it may be considered individuated. Hence, the individual ceases to be a practicable position within the relational matrix that is Being-with.

The various singularities that mutually contribute their Being to the emergent phenomenon that is (for example) *AMD&ART*, come into being not *in* the world (this would assume the existence of a prefigured world into which one might

enter), but rather *at* the level of Being, precisely because of their copresence with all of the other singularities in a process-oriented *doing* of Being. This is a process of differentiation and similarity, of myriad singularities interacting in their utterly contingent, codependent autonomy. As such, each singularity is perfectly strange, in each fleeting configuration for singularity springs forth from the fertile copresence of the mundane:

One cannot affirm that the meaning of Being must express itself starting from everydayness and then begin by neglecting the general differentiation of the everyday, its constantly renewed rupture, its intimate discord, its polymorphy and its polyphony, its relief and its variety. A "day" is not simply a unit for counting; it is the turning of the world—each time singular. (Nancy, *Being Singular* 9)

Or, as Nancy writes later, "The modern world asks this truth be thought: that meaning is right at. It is in the indefinite plurality of origins and their coexistence. The 'ordinary' is always exceptional, however little we understand its character as origin. What we receive most communally as 'strange' is that the ordinary itself is originary. With existence laid open in this way and the meaning of the world being what it is, the exception is the rule." (*Being Singular*, 10)

Yet this does very little to explain the happenstance of the mechanism whereby the singularities (be)come at the instant of Being, nor how the copresence of these singularities goes about producing an emergent phenomenon such as *AMD&ART*. If we are to believe that each instantiation of a singularity is foundationally heterogenous, we begin to encounter a mode of producing/Being that engages what Derrida has called iterability, which "does not signify simply...repeatability of the same, but rather alterability of this same idealized in the singularity of the event...It entails the necessity of thinking *at once* both the rule and

event, concept and singularity" (Derrida, "Afterword" 119; italics in original). Iterability further provides a clue as to how singularities come to influence one another: it is linked closely with notions of performativity (especially post-Butler), and through this connection with performativity, it engages the work of Karen Barad, feminist scholar of science, whose framework of "agential realism" seems to provide a practicable model of analyzing the interaction of singularities in their plural co-constitution.

Barad's theory of "agential realism," as I have already described in the section of this chapter pertaining to Haraway's Eucharistic tone of "species," hinges on the notion of intra-action. Interaction, following the logic already articulated by Jean-Luc Nancy's singularity, implies that entities must pre-exist in order to interact. This state of pre-existence, however, is something that Nancy's ontology of "beingwith" has articulated as impossible. Instead, in the process of coming into being (coappearance), Being intra-acts with itself, defining the boundaries of singularity and thereby giving Being the consistency with which we are familiar.

Nancy, however, never articulates the mechanism whereby this intra-action occurs, other than to simply posit its occurrence as constant and omnipresent.

Barad, offering a perspective that begins to fill in the gaps in Nancy's description, asserts that "intra-actions" are apparatuses in both the sense of a complex arrangement within a larger structure, as well as a mechanism whereby an end/knowledge is produced. We should be careful to point out that to call something an apparatus does not reinscribe its status as a "mere static arrangement[s] *in* the world, but rather [that] *apparatuses are dynamic*

(re)configurings of the world, specific agential practices/intra-actions/performances through which specific exclusionary boundaries are enacted" (Barad, "Posthumanist" 816, italics in original). In other words, calling something an apparatus does not separate it from the world-at-large as an autonomous "thing" with self-evident boundaries. Instead, an apparatus has to be understood as a contigent reworking of the world-at-large whose boundaries are the result of its emergent state. Barad notes this, writing, "Apparatuses have no inherent 'outside' boundary. This indeterminacy of the 'outside' boundary represents the impossibility of closure—the ongoing intra-activity in the iterative reconfiguring of the apparatus of bodily production/ Apparatuses are open-ended practices" (Barad, "Posthumanist" 816). An apparatus is the name given to a fleeting, emergent configuration of worldy affect that can produce other effects and boundaries (things).

In other words, apparatuses delimit and embody the possibilities of performativity. In Barad's terms, an *apparatus* is functionally similar to a "stylized repetition of action": both are mechanisms for producing novel conditions in material Being, whose formulation in some fashion prefigures the outcome of their effects, and rely on precedent. As Joseph Roach notes, "the paradox of the restoration of behavior resides in phenomenon of repetition itself: no action or sequence of actions may be performed exactly the same way twice; they must be reinvented or recreated at each appearance. In this improvisatory behavioral space, memory reveals itself as imagination" (Roach, "Culture" 46). While Roach is speaking expressly of memory as it is commonly understood, the importance of precedents in the constitution of memories links his point to Barad's material

apparatuses. The "apparatus" is also like a "stylized repetition" in that it operates largely by virtue of exclusionary practices: if Being is assumed to be an ongoing, dynamic, intra-active emergence, whereby the process of intra-action reconfigures the boundaries and properties of "parts" of the world, it does so by delimiting "parts" of the plane of material immanence as such. Barad clarifies: "This ongoing flow of agency through which 'part' of the world makes itself differentially intelligible to another 'part' of the world and through which local causal structures, boundaries, and properties are stabilized and destabilized does not take place in space and time but in the making of spacetime itself. The world is an ongoing open process of mattering through which 'mattering' itself acquires meaning and form in the realization of different agential possibilities" ("Posthumanist" 817). As Nancy tells us, "meaning is itself the sharing of Being (Being Singular, 2).

The topic of exclusionary practices rests soundly upon a practice of bordering, the discursive practices which result in temporary and locally contingent demarcations of one "part" from the next. It is important that an account of agential realism stresses this not as a proxy for "individualism," nor as an attempt to formulate a "comprehensive" account of a phenomenon. The *process* of delimiting, of establishing borders, suggests that boundaries do not preexist their limits: "If 'humans' refers to phenomena, not independent entities with inherent properties but rather beings in their differential becoming, particular material (re)configurings of the world with shifting boundaries and properties that stabilize and destabilize along with specific material changes in what it means to be human, then the notion

of discursivity cannot be founded on an inherent distinction between humans and nonhumans" (Barad, "Posthumanist" 818).

In sum, the singularities associated with *AMD&ART*—the townsfolk, the coal seams, the bacteria and reeds, the Hawthorne trees, the plastic pipes and soccer field dirt—aren't singular subjects at all, but rather phenomenal singularities, the result of the exclusionary practices of an apparatus whose performative operations depend upon other singularities to produce roughly cohesive phenomena that may pass, from moment to moment, as the "same" entity, something we've come to call in our peculiar shorthand, an "individual." What we might understand as the very Being of Vintondale, of *AMD&ART*, of each "individual" townsperson and backyard bird, is thusly wholly and truly dependent on the Being of the others.

Intra-active Ethics: Art and the doing of Being

My goal in articulating these profound, ontological matrices that constitute and reconstitute phenomena is, finally, to justify a comprehensive ethical program. This is made particularly obvious in the case of an artwork such as *AMD&ART*, indebted as it is to a wide array of disciplines, composed of such a variety of species, and with the capacity to potentially impact the naturalcultural world in many ways. It is, after all, a biological, chemical, cultural response to a particular set of contingencies, co-constructed by singularities ("individuals"), generationally as well as in the unfolding present. It is the result of the histories of human migrations and economic policies as much as the forest of the Carboniferous era, whose thickwalled cells eventually became the coal seams. As daunting (and intellectually stimulating) as tracing these lineages of affect and happenstance may be, however,

critics, researchers and participants alike cannot forget that *AMD&ART* is very much still a material phenomenon with very real repercussions for the inhabitants of Vintondale. The site does not exist in a vacuum, and it must be accountable for its contributions to Vintondale as an emergent whole, particularly those seeking to remedy some of the social malaise and mental hardship that comes with dwelling in a despoiled place.

I can offer firsthand accounts of the mental and emotional distress in the battered watersheds of western Pennsylvania. As my family drove through downtown Johnstown, PA, in the 1980s and 1990s, we passed often over the Little Conemaugh River and Stony Creek, both running orange with the iron sediments precipitated out of AMD. There was no life in these rivers, no grasses growing on the banks, no migrating birds stopping over to feed. They were otherworldly, godforsaken scenes, and were not rare in Cambria County. The town of Nanty Glo, a former coal camp in a valley near my childhood home, possesses not only a stream tainted by AMD, but is also towered over by immense "bony dumps": piles of burned refuse coal. These mountains of coal and ash, hundreds of feet tall and the size of a city block, loom at the edge of the town, spewing mine acid and particulate matter into the air. The bony dumps are too caustic an environment in which any plant might begin to grow, at least without substantial remediative intervention.

These are challenging environments to love, made even more so by the conventional beauty of the lush second-growth forest and clear, cold, mountain streams that dominate the Allegheny Mountains in areas without AMD or a history of surface mining. By contrast, the startling orange color and foul smell of an AMD-

laden stream is hardly a thing of beauty. Blacklick Creek, contaminated with AMD, runs directly through the center of the town. It is impossible to ignore. It is a constant reminder of both the lurking specter of toxic contamination and of the abandonment of the town at the whims of economics. Reading firsthand accounts of growing up in Vintondale in the 1940s and 1950s, the years following the first shuttering of surrounding mines, makes clear that Vintondale has hardly been a place of idyllic beauty or ease. Lucille Beistel Hagens, who graduated from Vintondale High School in 1945, has penned a short essay titled "Front Porch Panoramas" that recounts her experience living in Vintondale in the 1940s and describes the conditions in the town. In Vintondale, she writes,

Houses are like grey ghosts, haunting the night, indentical [sic] in their weather-scarred structures and resigned look of poverty, thirsting for a coat of paint, a touch of beauty to distinguish them from their neighbors. Nothing unneeded had been added in a community which struggles for survival and is afraid of tomorrow. Windows are blind eyes, heavy lidded with blue-green shades. Curtains are as varied as the numerous races who live in this ugly town. [...]This is my town; the dirt streets run through with deep cracks due to the miles of mine tunnels dug beneath their surface, the coke ovens burning nonstop, the reeking rock dumps, the company houses, even the stale odors that hang around like unwanted visitors. I am to learn in the years to come that this is a depressed area (Hagens).

Clearly this is not a sentimental idyll, and while perhaps a bit overwrought, the prose speaks of a troubled and emotionally taxing environment. This history, even 70 years later, is difficult to escape: the material conditions of this earlier era persist, and the inhabitants of the town, many of whom are elderly, lived their formative years in this troubling milieu. The town itself is slowly slipping away: a historic building turned apartment complex burned on February 4th, 2011. This

building (the old Cresswell Electric Company) will almost certainly not be rebuilt or replaced.

To reorient the sensibilities of local inhabitants away from a disdain for the polluted environment and their associated despondent emotional state is a daunting task and perhaps the greatest possible legacy of *AMD&ART*. To achieve a goal such as this, to heal both the land and its inhabitants in one fell swoop, is a promising future direction for public art practice. This tendency must be cultivated if public art is to become, as I think it must, a truly ethical proposition: a mode of examining not only the lives and histories of inhabitants of communities, nor solely the experimentation with aesthetic forms, but a multivalent method of enriching the lives of those who encounter the artwork in question.

The type of cultural change that I am advocating is not always easily swallowed, especially in a place like western Pennsylvania where established ways die hard. When I visited *AMD&ART* in July of 2010, one of the interpretive signs had either fallen or been pulled from its support structure of painted 4x4s, but not before being shot with some type of high-caliber rifle (judging by the size of the bullet hole). Whether this attack was intended as a crude commentary on the site or was simply the mark of a ballistics-inclined vandal is difficult to surmise. This bedraggled sign provides a telling bit of symbolism nonetheless. Regardless of the intentions of this mysterious marksman, the shot-up sign is just that: a sign. It has become a graphic representation of the tensions that exist in a community between an industrial heritage and a budding ecological consciousness, between those who are "insiders" (e.g., townsfolk, locals) and those who are "outsiders" (e.g., tourists,

designers, artists, critics), and perhaps broadly between those who see the value in a site such as *AMD&ART* for ideological reasons and those who will not or cannot.

An example of this tension as it has played out in a widely-known public artwork will offer some guidance as to how to conceive of this dialectic between the "insider/outsider" tension. Beginning in 1983, Michael Heizer began work on a project titled *Effigy Tumuli*, a series of earthen mounds in the shape of abstracted animal forms, outside of Ottawa, Illinois. The area under reclamation was an abandoned stripmine suffering from many of the same problems of acidification as the *AMD&ART* site. Ottawa Silica Company donated the land for reclamation into a public space, prompting environmentalists and fans of contemporary art to swoon. Erika Doss, whose book *Flying Pigs and Spirit Poles* devotes an entire chapter to *Effigy Tumuli*, describes the art public's response: "Anticipating public accolades and admiring Heizer's artful reclamation of an industrially spoiled landscape, one writer declared *Effigy Tumuli* 'a paragon of art in the '80s: a little corporate ingenuity, a dash of public/private cooperation, and a lot of artistic vision'" (117).

The only problem with this strip of abandoned land is that it wasn't, in fact, abandoned at all. The rain-eroded gullies and gravel hills had become a haven for off-road vehicle enthusiasts from across the Midwest, drawn to one of only a handful of truly free-access off-road sites in the region.

"It was a dirt bikers' paradise," [...] Kelly Dempsey recalls. "It was known all over the Midwest for great off-roading and every good weekend some sixty to eighty people would use the area to ride—more on holidays. Off-road riding isn't about drugs or drinking, you know, it's about whole families doing stuff together, and this place was famous. It was a free space for public access, and we don't have too many of those left in this country" (Doss 143).

In remediating the site to a state of environmental health, and situating that remediative strategy within the formal constraints of environmental art, Heizer and his corporate sponsors undid precisely what was most valuable to the off-roading residents of Ottawa: free access to space, and the capacity to build meaningful communities of their own accord. Doss excoriates Heizer and his supporters on this account and many others, ranging from the poor construction of the earthen mounds (most have eroded and proven incapable of sustaining the necessary vegetation to stabilize) to the clandestine planning process and inaccessibility of the plans to local residents. Characterized "more as a stellar example of misguided environmentally correct art than anything else" (Doss 117), as well as "a corporate tax dodge contemptuously disguised as modern sculpture and disingenuously posed as public art" (Doss 155), Effigy Tumuli has come to symbolize the worst practices of imposing external values and "High Art" pretension on a community whose voice remains stifled throughout the process. It's little wonder that Paul Smith, one of the most vocal dirtbike activists, descended upon the opening ceremony of *Effigy* Tumuli on his bike, unceremoniously riding through the attendant crowd and showering them with a hail of dirt and stones. Few other modes of expression remained available to the local residents.

These anxieties, as well as others, plague many types of remediative artwork. *AMD&ART* avoided many of the pitfalls demonstrated by *Effigy Tumuli* by actively involving the community in the planning and execution of the site. Community meetings designed to assess local interest in constructing the site that would eventually become *AMD&ART* began as early as 1995, and the townsfolk were involved in clearing decades of rubbish from the "coal flats," the old town dump that would become *AMD&ART*. The design of the site is attentive to the need for multiple utilizations of the land in question and includes a multi-purpose recreation field and walking trails in addition to the elements that might be considered conventionally "artistic": the Litmus Garden, the sculpture park, and so forth. Rather than a dedication ceremony attended by corporate luminaries, the dedication of AMD&ART in July 2005, was a celebration of the mutual achievement of the AMD&ART team and the townsfolk of Vintondale. The "AMD&ART Hometown Parade" drew residents past and present to Main Street, where heritage organizations (the Ancient Order of Hibernians, the Slovak Heritage Association of the Laurel Highlands and a Welsh heritage group), local sports teams, volunteer fire companies, a local group of "Coal Miner's Daughters" on a float decorated with old-timey ephemera invoking the hardscrabble history of the town (washtubs and butterchurns, old enameled stoves piled next to a faux outhouse) and others paraded through town to the fanfare of local marching bands. At the head of the parade, the Vintondale V.F.W. Color Guard—associated with the very V.F.W. organization into which T. Allen Comp walked ten years prior to pitch the idea of *AMD&ART* to the townsfolk—led the procession through what passes for a throng...at least in Vintondale ("AMD&ART news").

While these events paint an idyllic, inspiring picture of the relationship between the townsfolk and the *AMD&ART* entities, my mind invariably drifts back to the bullet-riddled sign. My visit to the site came five years after its dedication, almost to the very day. Have relations between the townsfolk and *AMD&ART* soured,

as their hope for renewed tourism revenues in the town failed to pan out? The site is well known in the "green" art community but maintains a shockingly low profile in the minds of western Pennsylvanians; while anecdotal, my description of this project to fellow residents of western Pennsylvania in the course of this study was invariably met with incredulity. The most common response to my assertation that <code>AMD&ART</code> exists at all in Vintondale is undoubtedly a suspicious, "<code>Are you sure?</code>" It very much seems that the idea of a relatively famous artwork existing in western Pennsylvania, let alone a wayward place like Vintondale, is too much for locals to believe.

Remediation and Amelioration: Healing Through Aesthetics

It is unfortunate that most residents of western Pennsylvania (my own family members included) are so skeptical of the existence or importance of *AMD&ART*, for the site has much to offer the residents of Vintondale and western Pennsylvania more broadly. The site is a stellar example of the kind of change made possible by a scenario in which, because there is so little left to lose environmentally and financially, radical solutions to environmental problems can be enacted more easily. The benefit of *AMD&ART* is not simply "arts education," nor is its primary contribution solely aesthetic. There are environmentally derived psychological effects that are extraneous to the artwork itself, while remaining firmly dependent on *AMD&ART*. The relationships between townsfolk, non-human Others, natural phenomena and the myriad of other factors which contribute to the notion of "landscape" flow through and are co-constitutive of the *AMD&ART* site, just as the impacts of *AMD&ART* affect the rest of the phenomena of the town.

Philosopher Glenn Albrecht has dubbed these psychological effects "psychoterratic," (*psycho*: mind; *terra*: earth) making explicit an intensely relational co-constitutive model of mental processes. Albrecht drew his initial conclusions about the features of these psychological states from narratives of loss and anxiety in the Upper Hunter Valley of New South Wales, Australia, a newly minted coal mining community. As the residents of this area described the impact of vast "opencut mining" ("stripmining" in the United States) on their emotional and physical health, Albrecht began to suss out a workable psychological typology that described the psychological repercussions of the mines.

Before the advent of coal mining in the area, the Upper Hunter was known as the "Tuscany of the South"; lush, rolling agrarian hills. Twenty years ago however, open-cut (strip) mining came to the Upper Hunter, and the landscape was decimated by the absurdly vast blast-wounds left by exposing the coal seams to surface mining. The relatively bucolic farm tractors and combines were replaced with dragline excavators, which are among the largest machines ever constructed. Explosive charges are detonated across the region many times daily, and the miasma of rock dust and trapped gases, coupled with the emissions of enormous coal-fired powerplants built nearby, permeates the countryside.

The Upper Hunter Valley changed within the span of a human lifetime from a conventionally beautiful landscape to a scarred industrial waste, leaving those who had settled in the valley years earlier trapped where they stood. Property values tanked, and the productivity of the surrounding lands diminished. The Upper Hunter is gone, in a sense, yet the people remain. This experience, the sense of

"homesickness while still at home," lies at the heart of "solastalgia," Albrecht's neologism for this particular psychoterratic condition. Etymologically, the word reveals this backward-looking tendency: it is a combination of *nostalgia* (originally a psychoterratic illness itself) and *solace* (implying a sense of comfort, particularly *in place*). Albrecht writes "solastalgia refers to the pain or stress caused by the loss of, or inability to derive, solace connected to the negatively perceived state of one's home environment. Solastalgia exists when there is the lived experience of the physical desolation of home" (Albrecht, "Solastalgia: The Distress" S96).

While his work on psychoterratic illness began with negative states, Albrecht quickly realized that there must also be converse positive states, leading him to develop a typology of psychoterratic mental states. This typology draws on the extant work of contemporary environmental philosophers, theorists of space and place and a number of other specialists. At a lecture I attended associated with the Louisiana Folklife Society Annual Convention in Lafayette, Louisiana, Albrecht detailed his completed typology:

Realm	Negative	Origin	Positive	Origin
Educational	Nature-Deficit	Louv 2005	Biophilia	Fromm 1965
	Disorder			Wilson 1984
Personal and	Ecophobia	Various	Ecophilia	Sobel 1995
Ecological	Ecoanxiety			
Cultural and	Ecoparalysis	Various	Solophilia	Albrecht 2009
Political				
Personal and	Solastalgia	Albrecht 2003	Topophilia	Tuan 1974
Place				
Home and	Nostalgia	Hoffer 1688	Endemophilia	Albrecht 2010
Place			_	
Psyche	Global Dread	Albrecht (Jill)	Eutierria	Albrecht 2010
		2003		

Fig. 5. The topology of psychoterratic states (Albrecht, Solastalgia and the Landscape)

As can be seen, Albrecht considers a number of facets of the psychological experience of landscape relation, rather than simply focusing on the perceived relationship between individuals and their home/place. I will focus my attentions only the neologisms coined by Albrecht: solastalgia, soliphilia, endemophilia and eutierria. I do this primarily with the aim of introducing these concepts more widely into the discourses of environmental relationality, as well as an acknowledgment that Albrecht's concepts are *explicitly* about the dynamics of reciprocal constitution of landscape. Furthermore, Albrecht's concepts cover the breadth of the potential psychological effect of *AMD&ART* on the landscape of Vintondale, ranging from a solastalgic state prior to the introduction of a the site, through the active construction of the site in the name of soliphilia, on to a state of renewed hopefulness about the status of the town in endemophilia.

Thus, I begin with solastalgia. As I have stressed throughout this document, the acidic water that would eventually prompt the construction of *AMD&ART* was but one of a number of serious environmental problems facing Vintondale. From the enormous piles of burned refuse coal, the garbage and pollution of the "coal flats," to the persistent acid rain problems faced by much of Appalachia, the environment in Vintondale was, and is, badly degraded. The town itself was degraded as well: there are no longer any grocery stores, gas stations, or schools in the town. The median household income in Vintondale, according to the 2000 US Census, was 33,417 dollars, and 0% of residents possessed a degree higher than a high school diploma. In sum, Vintondale is a depressed community in a number of senses. T. Allen Comp, the founder of the *AMD&ART* program, links this to the town's history as a coal

camp; the "nothing good happens in Vintondale" attitude that I reference in the introduction is the result of precisely this economic and social stagnation.

In searching for a model that explains the psychic and emotional toll on Vintondale residents, critics must consider a wide array of possible causes. To overlook the effect of the environment on the inhabitants of Vintondale in favor of a model stressing economic conditions is to miss perhaps the dominant feature of the town: its rural location. Vintondale exists in a valley, surrounded on all sides by mountains and streams, covered by thick wooded patches and miles from the nearest town. Vintondale is isolated, a veritable outpost in the wilderness compared to a suburban area outside of even a modest city. To drive into Vintondale from any of the four possible routes is to pass through tunnels of greenery in the summer that are replaced with stark, snowy ravines in winter. Vintondale is, as is the town nearby in which I was raised, defined and to some extent delimited by its natural environment. This plenum, in my experience, prompts a greater awareness of the flora and fauna, not to mention the more immaterial forces such as weather, that shape the experiential fabric of a landscape.

An assertion that a decrease in overtly man-made elements will increase one's awareness of "natural" elements should come as no surprise, given the prior discussion of the fundamental "with-ness" of unfolding Being, and the manner in which inescapable, mandatory relations with other phenomena constitute performative apparatuses that produce the very Being and sense of a place. The link between an environment and its persons (human and non-Human) is coconstitutive, and subject to influence in both directions. Writing in the 1970s, during

the height of another Pennsylvania ecological crisis (the profound pollution of Lake Erie via heavy industry), Gregory Bateson decried the dualistic Cartesianism at root in conceiving of the environment as something aside from culture, and therefore aside from a "mind": "You decide that you want to get rid of the by-products of human life and that Lake Erie will be a good place to put them. You forget that the eco-mental system called Lake Erie is a part of your wider eco-mental system—and that if Lake Erie is driven insane, its insanity is incorporated in the larger system of your thought and experience" (Bateson 492). Jon Goodbun explains that Bateson's "mind" is not to be understood solely as a psychological construct (though it does operate in this sense, once compounded), but rather as a type of agency:

For Bateson, the ecology of the living world is full of mind. They are minds that are constituted relationally, in networks, through their activity, their actual life-process. Bateson sees ecosystems as ecologies of mind. He also sees organisms as ecologies of mind. Today we might call much of what Bateson meant by mind as "agency." (42)

In other words, as per Karen Barad's formulation of agential-realism, mind is an immanent, intra-active doing of Being, emerging via apparatuses (patterns of relationality) that shape and alter the extended concept of "mind," beyond any simple activity located within an individual brain. Goodbun goes on to quote Bateson: "The individual mind is immanent but not only in the body. It is immanent also in the pathways and messages outside of the body; and there is a larger Mind of which the individual mind is only a subsystem...immanent in the total interconnected social system and planetary ecology" (42).

If Lake Erie was being driven insane by industrial waste, surely Vintondale was being driven mad as well. Histories of use and abuse make manifest truly

wretched conditions once left to fester unchecked, and Vintondale just prior to *AMD&ART* was just such a case. The mind-system of Vintondale was a prime situation in which Albrecht's notion of solastalgia, the feeling of "homesickness while still at home" might emerge. In Albrecht's original formulation, it was after the Upper Hunter was "gone," that people began to pine for its unspoiled beauty; in Vintondale, the residents never had the luxury of seeing the Blacklick Valley before the iron smelters, timber companies and coal barons swept in. This doesn't mean that the residents of western Pennsylvania might not have a sense of that which is missing, or else that which is undeniably present; Stewart Run, a nearby stream that is a tributary of Blacklick Creek, remains unpolluted by AMD, while Shuman Run and Blacklick Creek struggle under a caustic blanket of orange sediment. The old growth forests were long gone, replaced by second and third growth trees barely one hundred years old. Other area towns continued to grow and prosper, while Vintondale shrank to an eighth of its former population of 2,000.

As is often the case though, it is difficult for individuals living under duress in ecologically degraded mind/systems to reflect with sufficient distance upon the situation in which they find themselves; in an aptly eco-centric metaphor, it is difficult to see the forest for the trees. It is only once the symptoms have been alleviated that individuals are able to retroactively assess the extent to which their perceptions of a state and its associated emotional load have weighed upon them. This is the precisely the case with *AMD&ART*: once the site was constructed and the subsequent cleansing of the area surrounding Vintondale were underway, measurable improvements in the emotional and mental states of Vintondale

residents were evident. Susan Thering, a researcher whose work focuses on communities dealing with the repercussions of historical events ("survivor communities"), conducted a series of surveys in Vintondale associated with the AMD&ART project, and reported significant findings in a number of areas of interest. Thering's survey asked participants to rate a series of possible benefits of cleaning up acid mine drainage in their community and was administered twice: once in 1998, three years into the *AMD&ART* project, and once in 2005, after the completion of the site. The resulting comparison found that townspeople reliably ranked 8 of the 9 benefits as "more important" in 2005 than in 1998: "Reintroduction of fish to the area"; "increased tourism"; "new recreational facilities are included in AMD cleanup and land redevelopment"; "resident participation in AMD cleanup and land redevelopment decisions"; "more visitors spending money in the area"; "educational activities, illustrations, and field trips for students"; "increased community cooperation as part of planning cleanup and redevelopment"; and "restoration of scenic beauty". Only "restoration of stream health and clean water" was ranked less important, though only by a one-hundredth of a percentile, which implies that it was originally deemed of such import that little change in attitude could be reported.

Are these blanket increases evidence of the presence of a solastalgic mentality prior to *AMD&ART*? It is difficult to surmise from the whole of Thering's data, but a niggling lexical ambiguity in the wording of her survey reveals the tell-tale traces of solastalgic thinking: the word "possible," as in the statement "possible environmental benefits," might variously be interpreted as "potential" (Thering's

original intent), and also as "that which is likely to be done" (the possible). Likeliness, in other words, plays an important role in the thinking of survey participants, and the four questions that displayed the most statistical variation ("Increased tourism"; "Resident participation in AMD cleanup and land redevelopment"; "More visitors spending money in the area"; and "Increased community cooperation as part of planning cleanup and redevelopment") appear to be those facets of the *AMD&ART* experience that Vintondale residents thought were least *likely* (possible) to occur.

We might broadly group these four statistically significant potential benefits into two categories: the likelihood of Vintondale residents becoming actively involved, and the likelihood of anyone wanting to visit Vintondale. Either way, it's a pretty bleak prognosis on the likeability of their home. They either felt powerless to change their surroundings, or else were skeptical of their fellow townsfolk's desire to get involved. Nobody would want to come to Vintondale, and if they did, they certainly wouldn't feel compelled to spend any money in town—after all, where would they? In other words, mired in solastalgia, the residents felt that their surroundings, and therefore their fellow inhabitants, were intrinsically devoid of merit, with nothing prompting outsiders to visit or spend time in their town. This is a bleak outlook, and it is perpetuated by the whole *system* that is Vintondale: natural landscape, manmade landscape, and cultural landscape, which are, as per Haraway's formulation, companion practices. As goes Blacklick Creek, so goes the psychological wellbeing of Vintondale's inhabitants.

The positive psychological effects of AMD&ART do not make change manifest in an inexplicable, untheorizable, emergent fashion, however. "Soliphilia" (soli: solidarity, philia: attraction, affinity, love) is a concept developed by Albrecht to act as an "antidote" to solastalgia and to characterize "the love of and responsibility for a place, bioregion, planet and the unity of interrelated interests within it" (Smith). Soliphilia, as is evidenced by its location on the topological chart, is intended by Albrecht to be understood as a political and cultural stance, one that is focused on a holistic affinity for place as manifest in direct action (solidarity in action being the natural remedy to the feelings of helplessness and wistfulness associated with solastalgia). He aligns soliphilia with other "-philias"—E.O Wilson's "biophilia" and Yi-Fu Tuan's "topophilia"—hoping to provide an overarching conceptual category that is attentive to the relationality of landscape, rather than signaling an adoration or affinity for specific constituent parts. Soliphilia draws on an understanding of place as a process "wherein people are the creators of places, and place creation and meaning flow from a continual process of interaction between the person, their social milieu, and the physical setting; this process results in the meanings that are endowed in a place, and thus a sense of place (SOP) that is personally and socially constructed" (Smaldone, Harris and Sanyal 397). I would interject that "people" ought be understood to stand in for those singularities with the capacity for agential impact, whether animate or inanimate. By doing so, we are reminded of the dynamic exchange that occurs between agents and environments, to the point that the boundaries between each become increasingly blurred.

AMD&ART activates the discourses typified by soliphilia because it is an avowedly interventionist program, as evidenced by a section of T. Allen Comp's "Founder's Statement": "this vast eastern mountain ecosystem seemed to be a place in which this nation could best confront — and overcome — its environmental and economic past, adding thousands of acres of reclaimed, healthy lands and waters and peoples — to our national treasure — and where we could establish that the Arts and the Humanities are critical to that recovery process" (Comp, "Founders"). AMD&ART, motivated by an affinity for this "vast eastern mountain ecosystem," is conceived by Comp and his fellow designers and executors of the site as a means of cultivating *further* solidarity, across the whole of the landscape and its inhabitants, as well as across the divides that separate academic discourses in the arts and humanities from those in the natural sciences. Solidarity, we can assume, is also being cultivated among the inhabitants of Vintondale. The results of Thering's study support this hypothesis, because people deemed it more possible that people would cooperate in restoring the habitat surrounding *AMD&ART* as the study progressed. Yet, in the vein of Haraway's companion species, we need only look beyond the seemingly neat divide between humans and the rest of nature to find solidarity, affinity and caring cultivated in many registers. The reintroduction of fish to Blacklick Creek, for example, was deemed to have substantial importance by those residents who participated in Thering's survey (4.73/5.00). The fish's presence in Blacklick Creek has little to do with edibility and everything to do with the sense that they "ought" to be there; their absence has obviously been keenly missed, if their reintroduction is such a high priority. They are an absent partner in

Vintondale, without whom Vintondale is not quite itself, and whose absence has been felt: the old Mill Pond—now drained—served as a source of fresh fish for the loggers and miners of the town. The absence of warm-water pond species such as Bass and Sunfish, and particularly the absence of the native Brook Trout from the streams surrounding Vintondale, is a glaring omission in the landscape.

This solidarity, in the face of environmental despair, is thoroughly focused on a particular goal in Albrecht's formulation: it is about acknowledging, as well as cultivating, psychological states wherein people draw contentment and joy from their relations within *specific* environments. Albrecht's concept "endemophilia" (endem: based on the French endémique, with the Greek roots endêmia [a dwelling in] and endemos [native in the people]) is intended to bolster current trends toward localism, typified by Lucy Lippard's notion of the "lure of the local": "The intersections of nature, culture, history and ideology form the ground on which we stand—our land, our place, the local. The lure of the local operates on each of us, exposing our politics and our spiritual legacies. It is the geographical component of the psychological need to belong somewhere, one antidote to prevailing alienation" (Lippard 7). It is no idle coincidence that Lippard offers the "local" as an antidote for alientation, and Albrecht offers "endemophilia" (love of the local) as an antidote for the "physical desolation at home" of solastalgia. In both cases, the local is assumed to be a responsive, flexible scale, at which individuals might find direct access to their surroundings and their compeers.

One must be careful, though, not to romanticize far-flung hamlets like

Vintondale in the search for an increasingly "authentic" localism, one that seems to

retreat in the face of anyone's scrutiny save our own. "Local" isn't a stand-in for "unknown" or "remote" or any of the other means of characterizing a place as special precisely for its novelty, in the face of homogenizing economic and cultural trends. Novelty of a different sort—novelty in familiarity—is at the root of the push toward localism. Former Poet Laureate Ted Kooser has written a short poem that cuts to the heart of this affair and published it in a book that bears the name of his thoughtful contribution toward articulating the local, *Local Wonders*:

If you can awaken inside the familiar and discover it new you need never leave home. (94)

Localism is not a proxy for an old-timey, homespun "life-in-place," to which denizens of the 21st century can only aspire. It is instead a mindful perceptual shift within the domain of the familiar, wherever and whenever that may be. In a word, what Kooser, Lippard and Albrecht are suggesting is imbrication, the day-by-day overlapping of experience and familiarity that breeds a depth of understanding and (re)discovery. This overlapping natural, cultural, ideological framework refines not only our narrativized sense of who we are, and from whence we spring, but also assures us that our fate is not to become unmoored from that which we know and might rely upon to bring us comfort and joy. To reiterate Wendell Berry's assertion from the introductory chapter, "the real infinitude of experience is in familiarity" (139).

Infinitude, if this is not too grandiose a goal to ascribe to *AMD&ART*, is at least integral to my final estimation of the possible value of the site to Vintondale. Glenn

Albrecht, describing the most profound psychological component of his typology, "eutierria" (eu: good, tierra: earth, ia: suffix for member of a group of [positive psychoterratic] conditions), describes it "as a positive feeling of oneness with the earth and its life forces" (Albrecht, "Solastalgia and the Landcape"). The state is also described by Albrecht as "that oceanic feeling," clearly drawing on Freud's expansion of Romain Rolland's view of an "oceanic" feeling associated with oneness with the cosmos, particularly in mystical traditions. In *Civilization and Its*Discontents, Freud attempts to understand Rolland's concept (which he claims to be unable to access), writing, "it is a feeling of an indissoluble bond, of being one with the external world as a whole" (12). Further along in this text, Freud equates it with the sensation of boundary dissolution associated with love: "Against all evidence of his senses, a man who is in love declares that 'I' and 'you' are one, and is prepared to behave as if it were a fact [...] Thus even the feeling of our own ego is subject to disturbance and the boundaries of the ego are not constant" (13).

Norman O. Brown, counter-culture icon and Freudian disciple, interprets

Freud's reading of the oceanic as the unmediated condition of the unconscious, "that immortal sea which brought us hither; intimations of which are given in moments of 'oceanic feeling'; one sea of energy or instinct; embracing all mankind, without distinction of race, language, or culture; and embracing all the generations of Adam, past, present, and future, in one phylogenetic heritage; in one mystical or symbolical body" (81). Albrecht's concept of eutierria is similar to Brown's vision of the oceanic, in that it is contingent upon a sort of boundary dissolution, and as per Haraway, Nancy and Barad, must be understood to grow and change

phylogenetically; as our imbrication in the local reveals, the unfolding, emergent doing of relational Being constitutes an infinitely malleable plenum. Eutierria is felt, I would hazard to suggest, when we become aware, even momentarily, of the vast web of companionship and contingent affect that is the immanence of Being. This is the "wonder" of Kooser's "local wonder," our amazement at the revelation that as the myth of our autonomous humanist subject fades, we feel not as if we've evaporated or fallen from grace, but rather find ourselves caught up in the cat's cradle of Being.

Asking whether or not AMD&ART provokes an oceanic feeling in visitors or townsfolk of Vintondale is a daunting and ultimately unanswerable question; Freud reports that Rolland acknowledges the oceanic as a "purely subjective fact, not an article of faith" (11), suggesting that it is unlikely that a scenario or instance could be fabricated that would reliably produce this sensation across groups of individuals. But, as AMD&ART attempts to remediate the area surrounding Vintondale, and in the process grows vibrant flowers and foliage, attracts animals and birds, transforms with the seasons and draws people to the town, it turns a formerly polluted site into a site in/with which people might feel *capable* of experiencing eutierria. Revulsion at the pollution of a site is in keeping with our intellectual inheritance from the Romantic tradition of a preference for unspoiled, grand nature, seemingly untouched by the hand of man. While AMD&ART is obviously a construct, and a technologically advanced one at that, it does encourage the flourishing of the people, environment and historical consciousness of the Vintondale area in a fashion that is in keeping with this Romantic tradition.

Finally, it is upon this point—the acknowledgement of the flourishing of Vintondale in the wake of *AMD&ART*'s construction—that ethics enters unequivocally into the conceptual terrain of the site. Chris Cuomo has written that ethics (in particular a feminist ethics) must indeed focus upon flourishing, as it makes possible an ethical stance that both acknowledges the necessity of a human instrumental relationship with the rest of nature, while simultaneously providing a framework that values nature (including humans) for their intrinsic worth in a non-instrumental sense:

if we are to consider anything morally valuable, or if ethics is to get off the ground at all, some amount of human flourishing is necessary. So ethics implies human flourishing, both logically and practically. Also, ethics that assert the value of all people, and reject hierarchies that have led to the unjustifiable, categorical devaluation of women and others, assume that a preferred state of affairs is one in which, *prima facie*, as much human flourishing as possible occurs. Since nonhuman communities and entities are necessarily, intrinsically bound up with human life and interests, the well-being of nature is implied, to at least a minimal degree, in human flourishing. Some degree of nonhuman flourishing is instrumentally necessary for human flourishing. In addition to the necessity of nature for human life (and hence human moral life), ecological feminists hold that all living beings and systems are appreciable within ecological systems and values—as members of the moral universe, whose interests ought to be taken seriously by moral agents, and as entities that ought to flourish in their own right whenever possible. That is, even when we are unable to accommodate the interests of every relevant entity, the 'greatest good' that is sought by ethics includes the interests of all living beings and systems. (63)

This lengthy quotation nicely summarizes the extent to which instrumentality and non-instrumentality overlap in our relationships with the other component elements that constitute Being (our intra-active phenomena). Instrumentality is operating, in many cases, as the mode of interaction that first alerts participants to the existence of a thing, which over time becomes valued for non-instrumental

reasons. *AMD&ART*, for example, has obvious instrumental value. It is cleaning the acid mine drainage of Vintondale, providing space for pleasant walks and recreational facilities. It is also a community of living entities, whose discrete lifestyles and interactions form the very core of *AMD&ART*, introducing visitors to creatures of all scales and sorts toward whom they might feel compassion or fondness. I might find a kind of partiality growing along with my repeated visits toward the trees of the Litmus Garden that has nothing to do with the conceptual content of the garden as an artform and everything to do with the trees as individuals with whom I am familiar.

AMD&ART, by this logic, is an ethical proposition. It is intended to cultivate the maximum amount of flourishing in the lives of wild plants and animals, in the psychological health of the inhabitants of Vintondale, and in the social and economic status of the town. This is a flourishing with an ecological bent, understanding that to bolster the capacity for flourishing in one sphere of possible improvement is to invariably assist with the rest of the constituent parties. Cuomo asks, "What would follow from the observation that we are ecological beings—"mere citizens of the biotic community,' in Aldo Leopold's words—as surely as we are human? Perhaps our social units ought to promote our flourishing as ecological selves, and therefore some degree of flourishing of nonhuman life, in order to create a stronger ecological community" (69). This is precisely the type of thinking whose logical framework I have been outlining in this chapter and throughout the course of this dissertation as a whole. It is, after all, always a matter of what "counts" as a member of a community: Rocks? Plants? Sentient creatures? The poor? The rich? What, whom,

and under what circumstances? What determines moral considerability, and therefore entre into the sphere of ethical concern, rather than simple instrumental valuation?

Hyperbolic Ethics

On the point of extending ethics, I defer to Derrida, whose later work on hyperbolic ethics makes clear that in order for a truly ethical stance to exist, society must demand an absolute ethical stance: unconditional hospitality. Derrida implores, "let us say yes to who or what turns up, before any determination, before any anticipation, before any identification, whether or not it has to do with a foreigner, an immigrant, an invited guest, or an unexpected visitor, whether or not the new arrival is the citizen of another country, a human, animal, or divine creature, a living or dead thing, male or female" (Of Hospitality 77; italics in original). What is pertinent in this quotation is the requirement that we open ourselves to the arrival of the stranger; hence, we cannot pass judgment on their arrival, even to the extent that we assess their form. A truly unconditional ethic of hospitality receives the Other as a matter of due course—the very price of Being singular-plural, knowingly entering into an intra-active relationship. The very richness of our ontological condition depends precisely upon the perfectly mundane encounter that exceeds the very notion of encounter. For an "encounter" occurs between two things, and the scenario at hand is the genesis of two encountering things out of an event that produces both the encounter and its production. We must "say yes" to who or what turns up, because it is oftentimes us who is just arriving.

Derrida knew that this formulation would quickly stray into the realm of untenable utopianism, but that it is the perfectly pure *impetus* for the practical modes of ethics. The practical ethics of interaction (the laws of ethics, plural) are thus antithetical to the unconditional law of ethics, and yet mutually dependent. Herein an antinomy arises that defines the very working paradox of ethical thought. On the one hand, the law of hospitality requires that we "give the new arrival all of one's home and oneself, to give him or her one's own, without asking a name, or compensation, or the fulfillment of even the smallest condition" (Derrida, Of *Hospitality* 77). Yet this hyperbolic formulation is tempered in practical application, demanding that we establish the laws of hospitality (plural), descended as they are from prior social formulations, particularly Greco-Roman tradition and Judeo-Christian tradition. These laws govern a broad spectrum of social behavior, including family, civil society and the State. The antinomy arises at the juncture of this application, for the law of hospitality transcends and supersedes the laws of hospitality, rendering them illegal and transgressive (in an ethical sense), while simultaneously depending on the laws of hospitality to prevent it from slipping into dim suggestion or utopian abstraction. The laws of hospitality, on the other hand, require the law of hospitality to guide their hospitable actions as a singular concept, which is constituted by its application to the structures of the world: "It wouldn't be effectively unconditional, the law, if it didn't have to become effective, concrete, determined, if that were not its being as having-to-be" (Derrida, Of Hospitality 77; italics in original).

The negotiation between ethical demands for absolute, hyperbolic ethics and a programmatic series of implementable ethical laws does not occur in an abstract conceptual space alone. Instead, it is played out in the material practices of singularities in their emergent onto-encounters. Derrida characterizes the relationship between parties engaged in this ethical dyad as a relationship of mutual hostages. For Derrida, the stranger "is not only someone to whom you say 'come,' but 'enter,' enter without waiting, hurry up and come in, 'come inside,' 'come within me,': take place in me, which means, by the same token, also take my place" (123). In taking the place of the host, the stranger takes possession of that which the host is master: "it's as if the master, qua master, were prisoner of his place and his power, of his ipseity, of his subjectivity" (Derrida, Of Hospitality 123; italics in original).

Insomuch as we are able to preexist our existence, we are awaiting the arrival of the guest to free us of the burden we cannot shed alone: the emergence of singularity. That is our ultimate and most burdensome responsibility, one which can only be exercised through mutual irruption. We *must* await and welcome the guest so as to *be* the host, and in this way we are the guest's hostage. Conversely, the guest, initially hostage to the host's invitation and domination, is set free by assuming the reigns of mastery—only to fall prey to the host's being held hostage. Ethics is coextensive with this negotiation of hospitality, for we are both host and guest, and thus embody both judge and judged; the powerful and the powerless.

The very foundation of an ethical contract—one which balances the absolutist imperative of *the* law of hospitality with the multifarous laws of hospitality—is further complicated by my extension of the possibility for ethical

consideration so broadly to so many singularities. The ethical aim must be to distribute hospitality (and respect and valuation) more generously and evenly across the whole of Being, and particularly to those bodies whose grasp on existence is tenuous (including humankind).

As I discussed in the introduction to this chapter and have demonstrated presently, a hyperbolic ethical stance is predicated on the aporia that makes impossibility the condition of possibility, and forces us to acknowledge failure to behave absolutely ethically as that which makes the striving for success (as the failure of failure) possible. The ethical standard for which *AMD&ART* makes a case is therefore an entirely *aspirational* ethics. It is the ambition to behave and embody ethically that informs our failings, and over time, refines them in an intra-active crucible of Being. To snatch a quotation from Edward Abbey, "the idea has nothing going for it but desire, the restless aspiration of the human mind. But when was aspiration ever intimidated by fact?" (Abbey 55) By putting forth our instrumentalizations of nature as inescapable—but not inexcusable—we enter into embodied, reciprocal, and possibly ethical co-production with the rest of Being.

This does not mean, of course, that all instrumentalization is permissible in some whitewashed, forward-oriented, "we're getting better all the time" apologetics. As Cuomo pointed out, a general increase in *flourishing* is still the guideline against which an instrumentalization of Being must be judged: flourishing of an individual, a species, a landscape, a world. Some acts—mountaintop removal mining, for instance—are patently unethical instrumentalizations. This is by virtue of their status as the utter antithesis of widespread flourishing. Save for pocketbooks,

nothing flourishes in the wake of mountaintop removal: no plants, no animals, no streams, no communities. It is a pestilence in Appalachia, and demands the utmost reproach.

In different proportions, under particular circumstances, there are unsavory elements that form the basis of a practicable ethical formulation: killing, destruction, consumption, disposal. Jane Bennett writes that a materialist ethics of this sort demands that we "speak of promoting healthy and enabling instrumentalizations, rather than treat people as ends-in-themselves, because to face up to the compound nature of the human self is to find it difficult even to make sense of the notion of a single end-in-itself" (12). The practice of relating under the auspices of an "enabling" instrumentalization is probably the most acceptable resolution to the antinomy laid out by Derrida. It is an acceptable resolution only in the sense that it fails both the call for an absolutist ethics, as well as that which is based in the laws of family, society, and State. This is an essential character of any actual, worldly practice in the realm of ethics, however, and is to be expected. Instrumentalization, though seemingly a contrasting force to the agency that I so liberally spread about this document, is a very real element of living in significant-otherness with our companion singularities. This is precisely because responsibility and suffering are inescapable, and yet also never calculable. Haraway, writing about the practices of laboratory testing on animals, writes that this incalculability "does not mean people cannot ever engage in experimental lab animal practices, including causing pain and killing. It does mean that these practices should never leave their practicioners in moral comfort, sure of their righteousness...The needed morality, in my view, is

culturing a radical ability to remember and feel what is going on and performing the epistemological, emotional and technical work to respond practically in the face of permanent complexity not resolved by taxonomic hierarchies and with no humanist philosophical or religious guarantee" (*When Species* 75). The instrumentalization of animals, plants—and especially inanimate/inert/dead matter—is a material necessity bordering on absolutely fundamental. An *enabling* instrumentalization means engaging in that instrumentalizing relationship in the same way that Derrida perceived the ethical act: recognizing in oneself the indebtedness to, as well as the mastery over, the singularity in question. I mirror Haraway's sentiment when she writes that in the case of the pure and unadulterated suffering of laboratory animals, "calculations—reasons—are obligatory and radically insufficient for companion species worldliness...We have reasons but not sufficient reasons" (*When Species* 89).

For the artists, townsfolk, dragonflies, ghosts of coalminers, seams of pyrite and all the rest who creep, soar, walk and persist across and within *AMD&ART*, instrumentalization is the very foundation of material Being, and the unfolding relational aesthetic sphere. Relationships of use are the practical, remediative heart of *AMD&ART*, and it is the fruit of the relationship's ongoing presence that gets drawn up into the realm of representation. To do the work of criticism of *AMD&ART* is, in fact, to enter into a sort of instrumentalized relationship with the site as a whole. This is particularly true if we consider momentarily my relationship with the site—geographically aloof, seemingly disconnected, and yet mobilizing the site in concept and image to forward my theories regarding the fundamentally performative dimensions of nature, and culture, and finally natureculture. My hope,

of course, is that I am doing so in a way that is enabling, and that an increased profile helps not only maintain *AMD&ART* but boosts Vintondale in the process. Perhaps, with this in mind, *AMD&ART* is using *me*: instrumentalizing me as a mouthpiece for a peculiar place in a forgotten part of the country.

Cuomo's reference to Aldo Leopold reminds readers of Leopold's famous "Land Ethic": "A thing is right when it tends to preserve the integrity, stability and beauty of a biotic community" (Leopold 262). But as the work of Haraway, Nancy, Barad and Albrecht suggest, "integrity" and "stability" are hardly features of individual singularities in their momentary state, let alone entire biotic communities. The third element of Leopold's triumvirate, beauty—overlooked, unquantifiable, whimsical compared to the others—is finally that which most aligns with an ethics of flourishing, and thereby an ethics of companionship. Haraway's program and the ethics of AMD&ART depend upon it: significant otherness, that "vulnerable, on-the-ground work that cobbles together non-harmonious agencies and ways of living that are accountable both to their disparate inherited histories and to their barely possible but absolutely necessary joint futures" (Haraway, Companion 7). AMD&ART, a beacon of hope for environmentalists and industrialists alike, for local "insiders" and professional "outsiders" (and vice versa), for singularities human and non-human as well as sentient and non-sentient, is finally about love—affinity, respect, infatuation. It is the very manifestation of significant otherness, a compact drawn up between the townsfolk of Vintondale, with their disparate histories of oppression, exploitation and environmental despoliation, and their landscape, a place that if not broken, is at least badly bent.

Together, in what once seemed very much like a "barely possible" future, the myriad singularities of one small, out of the way western Pennsylvanian town have come together and made manifest precisely the system within a system, network with a network, world within a world that Surrealist Paul Éluard meant when he wrote: "Il y a un autre monde mais il est dans celui-ci.—There is another world, but it is in this one" (xi). An entire cosmos—a world within the world—tucked away in Vintondale, awaiting its next emergence.

Chapter 5 Conclusion

The purpose of this study has been to develop a perspective on ecological art grounded in radical philosophies of engagement. I selected *AMD&ART* as a representative example of responsible, complex and ultimately performative art not only because it is an artwork with much to offer critics, but also because of a sense of "hometown pride." Very little is written about the mountains of western Pennsylvania that is not written in the past tense. The high-water mark, so to speak, of the area's fame came in 1889 with the near-erasure of the largest city in the county during the Johnstown Flood, and books like David McCullough's celebrated portrait, *The Johnstown Flood*, focus the public imagination deep in the past. The economic and cultural decline of the last forty years has been unkind to the area, and the noteworthiness of Cambria County has diminished. *AMD&ART* has offered a glimmer of notoriety to the Vintondale area and, in the process, radically altered my thinking about the nature of ecological art.

Successful ecological art, as this study demonstrates, must finally exceed a critic's efforts to easily categorize the artwork along an axis of dichotomous terminology. It cannot be understood to be "natural" and "cultural"—that is, existing in a sphere of nature and in another sphere as culture, simultaneously—nor can it be understood as "natural" or "cultural"—regarded solely as one or the other.

Instead, I offer that ecological art must be regarded as art that—even if it does not deal expressly in environmental themes—is actively involved in the task of integrating singularities of all sorts into newly emergent constellations of relational Being: natureculture. As Grant Harman states, art is a system of "expressive signs"

whose function [is] not to tell us about things but to present them to us in the act of executing themselves" (105). *AMD&ART*, operating under the "nomination" logic of the readymade, offers up the interwoven process of cultural and environmental remediation as art, thereby rendering the processes both "expressive signs" and "things" executing themselves.

The notion that art is a framework whereby we might witness things executing themselves is emphasized in my study by Bateson's notion of an "extended concept of mind." According to Bateson's theory of extended mind, the very act of bearing witness to an outside is a reflexive act, as it is the coming into being of a new manifestation of our imminently mutable mind. The environment and our experiences regarding it become dramatically participatory, and in the process suggest that what we used to call "nature" is an artifact of social convention and practices of Othering that historicize and reshape the basic materials of Being in light of the preexisting codes of "naturalness." The inverse is true, of course, with regards to "culture": it is interwoven with chemical, biological, elemental processes without which it can never manifest nor be transmitted (perhaps the defining feature of any culture). With these facts in mind, this study has from the very outset sought to answer Jane Bennett's rallying cry: "Give up the futile attempt to disentangle the human from the nonhuman. Seek instead to engage more civilly, strategically, and subtly with the nonhumans in the assemblages in which you, too, participate" (116).

Following my introductory chapter, wherein I introduce *AMD&ART*, the need for a performative understanding of both art criticism and ontology, and offer a

strategic overview of my method for addressing this need, my second chapter examined the AMD&ART site according to the tenets of the artistic genre with which it is most commonly associated: land art. It was my hope that the existing body of literature and conceptual frameworks that have been developed by critics over the course of the past forty years would allow me to account for some of the formal aesthetic dimensions of *AMD&ART*. While this is the case, the majority of that chapter acknowledges that formal characteristics are a poor set of criteria for assessing AMD&ART's place within the cannon of contemporary art. This is primarily because *AMD&ART* is only partially devoted to the ocular-centric, sculptural and purely aesthetic presentation that characterizes the majority of land art in the "golden age" of the 1960s and 1970s. Instead, I examine and expand upon Mark Rosenthal's notion of "attitudes" of land art to account for the very prominent relational component of the AMD&ART site. It is a site devoted to the betterment of the environmental woes of Vintondale, as well as an exercise in fostering community-pride and activism among a disenfranchised community.

Chapter Three begins by suggesting that the task of addressing the ethical, participatory demands of the *AMD&ART* site warrants a rethinking and clarification of the tropes that are commonly used to discuss the site. Rather than considering the site as a unified whole—a fixed art-object with discrete features and boundaries that persist through time—I argue that the tropes of "system" and "network" allow for a more engaging and rewarding way of conceiving of *AMD&ART*. By examining systems theory—and Systems Art—I offer that *AMD&ART* is a self-sustaining aesthetic environment, one that continually maintains its own physical and aesthetic

integrity. As such, it is best thought of as an enormous readymade, in the style of Marcel Duchamp. While a constructed entity, it is undoubtedly the harnessing of natural forces and cultural histories that preexist the genesis of the site with a particular aesthetic aim: remediation.

The trope of the "system" is a fairly limiting perspective on *AMD&ART*, however, as it implies an unseemly focus on the *telos* of the site. In other words, while the site was no doubt erected and maintained with remediation in mind, it has since developed to the degree that its original goal can hardly be said to comprise the entirety of its reason for being. The surpassing of its original *telos* speaks to the value of the "network" trope in understanding *AMD&ART*. The concept of the network forces critics to consider the possibility that any one particular aim is merely one of many possible interpretations of the complex functioning of the site, which I believe is the case with *AMD&ART*. Beyond a simple explanatory discourse, however, the network trope signals an encompassing material and semiotic web that extends to surround visitors, critics, human and non-human agents alike, binding them together with flows of affective influence. Indeed, the very act of regarding *AMD&ART*, let alone being present in/at the site, is a constitutive act.

The fourth chapter of my study takes seriously the repercussions of this network perspective and makes a case for explaining the ethical considerations that are foregrounded at *AMD&ART*. The chapter does this in two ways. First, I have rehearsed the application of Donna Haraway's rubric of "companion species" to a landscape, as a way of accentuating the degree to which on-the-ground, embodied, and deeply affective ties bind us to the non-human. This relational vision does not

hesitate to acknowledge the power of personal commitment, love, memory and other emotional components that are the tell-tale signs of our emergent engagement with individuals and places.

The second effort that I have made in this chapter to document the repercussions of the network perspective is the task of examining and synthesizing the philosophies of Karen Barad and Jean-Luc Nancy. These philosophies offer a lively and rewarding perspective on how each element (singularity) of an encounter is dramatically important to the whole. In both cases, Being is seen as an emergent phenomenon, the result of individuated singularities producing one-another by a process of differentiation. In this sense, it is a performative act: the doing of Being is prescribed, to some extent, by the conventions that preexist the current instantiation of Being. In this sense, of course, performance studies can offer a unifying concept to a profound series of ontological questions, and needn't defer to the god-terms "culture" or "nature" to explain the continuity of Being. I personally find a great deal of wonder—as well as a legitimate sense of enchantment in the world—in these "animist assemblage" models of Being. In the face of a world so inured to the radical separation of humankind and the rest of material Being, as well as blinded and hogtied by the competing narratives of science, religion, free-will and destiny, it is reassuring to feel again the possibility that my interaction (and intraaction) with the world is fundamental and important.

The diminishing of the gap between ourselves and the rest of Being results, finally, in a need for this study to account for the ethical dimension of an entity such as *AMD&ART*. Ethics are not conventionalized rules of engagement, but rather are

those fraught and delicate conditions that must be met so as to make moral consideration available for ever-increasing numbers of singularities. While this is a grandiose goal, it is, as my reading of Derrida demonstrates throughout the conclusion of the fourth chapter, the only truly ethical approach to Being that can exist. If we, as humans (singularities), seek our own flourishing and hope to increase the degree of flourishing that surrounds us, we must acknowledge that "the 'greatest good' that is sought by ethics includes the interests of all living beings and systems. Ethics that begin with flourishing capture the sense in which instrumental and noninstrumental value are often enmeshed" (Cuomo 64). While I would hasten to add to Cuomo's assertion that it is not only living beings that deserve this level of moral consideration, the gist of her statement is sound: we must ask, in the case of AMD&ART, if the conditions emergent within/alongside AMD&ART provide for a general sense of flourishing. In the case of AMD&ART, not only has the community of Vintondale flourished, but so too have living beings on many scales. Nonliving matter is both conserved and utilized, instrumentalized in a way that aids in a generalized flourishing, rather than in a way that unilaterally favors one party (as, say, coal mining might have traditionally done in Vintondale). Perhaps in an obtuse way, I have flourished as well: my life enriched, my scholarship expanded, my regard for my homeplace altered by my association with the site. Ethics is not bankrupted by its expansion beyond the realm of the human; it does not lose its potency, nor does it become a permissive "new normal," under which the same domination can occur anew. Instead, it is an intrinsically doomed, yet wholly worthy endeavor. This is the essence of Derrida's hyperbolic ethics, and the only moral

approach to a world wherein the very stuff of the world *actively* constitutes us as we constitute it. It is also the basis for an ethical nature culture.

Performance is a concept that is integral to natureculture. As this study has shown, the very emergence of the world is relational, and therefore symbolic and embodied. The lived process of creating Being is the constant, reciprocal play of physical and emotional desires and satisfactions. We take much from one another (human and non-human alike) in the process of doing the World. But, of course, we give much back. As Gary Snyder has written, "performance is currency in the deep world's gift economy" (75). AMD&ART is a giving-back to land in the ways in which we can enact: it is a way of giving back a functioning watershed, a vibrant sphere wherein the world can unfold, a town with a glimmer of hope for the future. We cannot restore what has been taken; the coal is long since burned, the mines shuttered and sagging. But by producing an artwork such as AMD&ART we can make manifest our continued, embodied regard for such a place. Thinking the thought of performance and performativity help remind us to give credit and praise to those actants whose important contributions can sometimes get elided, by scientific rationalism, Cartesian dualisms and other Enlightenment and post-Enlightenment philosophies. The performance perspective spares us from the brutal, mechanic worldview of science and allows us to experience, even if briefly, a collaborative world of other performers.

Instead of looking at *AMD&ART* as an object that rests "upon" nature or are placed into it, my efforts in this dissertation have been from the first dedicated to casting *AMD&ART* as a performative player *in* an environment, as well *as* an

environment. It is important to do so because I think that the field of performance studies benefits from any excursion into the material and conceptual realm of environmental communication. It is not, however, without a certain limitation in my treatment of the problem. Tim Ingold has written that nature comes about as a cultural construct because humans "can describe their environment and report on their actions within it, as though they had themselves steeped outside it, posing as mere spectators. But in doing so the environment reverts to nature" (52). Rather than being "of" an environment, humanity utilizes its reflexivity to "produce" a nature that they are then capable of being "in" (or in-habiting). Thus while I commit something of a cardinal sin of nature/culture division by suggesting that the "nature" of Vintondale has AMD&ART thrust into it, my hope is that readers will understand my focus on performative ontologies as a way of recasting AMD&ART as our environment. We are too heavily invested as intra-active participants to deny our own agency.

The task of accepting our agency means that we must become comfortable with the idea that some constitutive actions taken by our forebears are not able to be undone: the AMD problem is perpetual, meaning that *AMD&ART* can never be dismantled. It has now become a part of the Allegheny Mountains, whether it is an ideal situation or not. These "hybrid" environments of nature and culture are all around us, perhaps to the extent that they are *all* that is around us. "Changing our surroundings is in large part what it means to be human," writes naturalist Tom Wessels, "but as a species, through the last couple of centuries we have dramatically increased both the area and the frequency of our disturbance regime. To give

ecosystems the time to adjust, our landscape alterations need to be cautious and thoughtful" (18).

My thought on how to proceed from this point is that we need a newer, older vision of our place in the world. It is a newer vision because we must move past our current fascination with nature as a stagnant thing to be "preserved" in the face of a dominator culture. While the creatures and places of the world undoubtedly do need protection, to do so because of their value to us—either monetarily or emotionally—is motivated by an end-use agenda. Beyond this point, this type of conservatorship of the natural world diminishes the agency of the world-at-large, and elides the strange truth of human existence: the human is not so much human, as it is an elaborate collection of "its." The "its"—biological its (symbiotic and hostile organisms), chemical its (elements and processes), cultural its (material culture as well as immaterial)—are external to the individual and yet *produce and are manifest in* the individual. To speak of "preserving" the natural world is to ignore the fact that we are the natural world. It is not new technology that will save us, but rather new, old *philosophies*. In this sense, I suggest my vision of our place in the world is older. The patterns of deep-engagement with place, attentiveness to specificity, and a worldview that springs from the particularities of a context shared by people, animals, plants and inert matter is a very old worldview: it borders on animism. Indeed, as W.J.T. Mitchell notes, "we want works of art to have 'lives of their own,' but we also want to contain and regulate that life, to avoid taking it literally, and to be sure that our own art objects are purified of the taint of superstition, animism, vitalism, anthropomorphism, and other premodern attitudes" (What Do Pictures

Want? 149). My efforts with this document have been to unleash those lives, and to unsettle what might even be thought *a life*. Inert matter—"dead" matter—has a historicity, the capacity for agency, the ability to change over time; in short, a sort of life. *AMD&ART* is an art environ that *is* life, at work.

As Mitchell points out, this reemergence of an animist, vitalist tendency has its roots in the Romantic era. I am forced to acknowledge here at the conclusion of this document that I haven't quite been able to shake the impulse toward a Romanticized nature, in the sense that Romanticism looks to nature for succor. It very well may be the animating force that drove me toward examining the topic of nature (and art) from the first, and consequently informs all of my subsequent theorizing. For example, it might be said that a type of Romanticism prompts the work of defamiliarizing an artwork such as *AMD&ART*, as I hope to make it a place wherein the viewer can belong rather than simply observe. My desire to elevate our regard for singularities of all sorts—plants, animals, people, animate and inanimate objects alike—is similarly a Romantic gesture. It is the search for companionship and a momentary escape into wonder—in the face of a crushing and routinely demoralizing world order. I am guilty of this escapist daydream, as I think are many people whose proclivities stray toward the aesthetic dream of the agricultural, the untrod path, mountaintop or seaside or patch of scrubby suburban woodlot. Romanticism has great power as a motivating force because it works upon us beyond the realm of reason and rational thought. It is the province of faith.

This is not to say, however, that my flair for the Romantic has remained untempered in writing this document. On the contrary, I am now more aware than

ever that Romanticism depends, to a great extent, on the maintenance of the boundaries of nature and culture. As I strove to undo the traditional nature/culture divide with my research, I became finally convinced that the division is untenable. Searching for a conceptual framework that allows "nature" and "culture" to be reimagined as shorthand titles for ways of considering one unified Being (rather than autonomous spheres) does not preclude me from hoping for a kind of escape. Indeed, I find that my research enables a certain kind of axiological regard for the everyday that makes the "escape" to a grand, Romantic nature unnecessary. If nothing else, the ability to find the "natural world" in an herb garden or roadside ditch undoes some of the isolating effects of our grander visions of nature as glacierstrewn peaks or dense stands of primeval timber. While these areas—National Parks, restricted areas, UNESCO World Heritage Sites—are important for the preservation of both fragile habitats and fragile sites of imaginative possibility, they cannot be the working definition of the wild or the natural. They are simply one facet of a complex fusion of nature and culture.

I wrote, in the introduction to this study, that I intended to proceed with a course of examination that is characterized by an interdisciplinary approach, rather than transiciplinary. Interdisciplinary scholarship takes as its primary goal, I claimed, the integration of existing bodies of literature into an interrogative tool that produces *new* knowledge. To this end, I have synthesized the literature surrounding land art, Systems Art, systems theory, network theory, the readymade, companion species, Being-Singular Plural, Intra-action, hyperbolic ethics (and other, more nuanced and minor theories) and used it to produce a new interpretation of

AMD&ART. Emergent from these widely-arrayed disciplines is a perspective that fits more neatly within the discipline of Performance Studies than in any of the aforementioned modes of inquiry. Performativity is not simply a tool for examining why the potentially arbitrary modes of culture develop consistency and are clarified over time. Or more to the point, it *is* that tool, while simultaneously being expanded beyond the realm of culture into the realm of nature. The tools and concepts of the sciences have produced worlds of scientific knowledge; the tools of the (post)humanities can produce worlds of (post)humanistic knowledge. It is in this direction that I foresee Performance Studies moving in the future.

I am left with a series of questions, however, that while pressing, are beyond the scope of this study. A number of the questions spring from the repercussions of conceptualizing the world as many actants. Ethical questions are among the thorniest in this brave new world. I have suggested that, along with Wendell Berry and Gary Snyder, a return to the question of propriety may be necessary, if we are to seriously consider the world as a series of partners with more equal footing. The conventional standards of behavior suggested to us via the concept of propriety, however, are hardly worth taking up. We have been variously afraid to engage the world as actants, and eager to capitalize on it as raw materials. What are needed are new standards of behavior and moral guidelines that rely less on compunction and more on a communitarian flourishing. I have begun to outline those standards (and describe how AMD&ART embodies them), but their full articulation is a profound and far-reaching project.

Additionally, the goal of attending to the specific actants, in specific environments like Vintondale, makes extrapolating the lessons learned in this document more difficult. While local problems may call for local solutions, it is sometimes difficult to find local philosophies that can ground practical works or expand the reception of a particular aesthetic object. I have attempted to do just this with *AMD&ART*, and firmly believe that a similarly in-depth examination of other aesthetic objects would lead to a wide array of local histories, conceptual discoveries and enrichment opportunities. The rate at which this can happen (as the years it took to craft this document demonstrate) is glacial, however. It requires a sort of dedication to a not-always-interesting site, and the conceptual marathoning to continually find new ways to enliven the critical duties of scholarship. I hope that many of the lessons of my study will be transferable to other sites, contexts and scholarly discussions; I am well aware that many are not.

A related conundrum that arises at the conclusion of this study: if we are "more" ethical, or better community members, as our regard for other actants grows, how does a scholar know when to stop "meeting and greeting" and when to get to writing? It is difficult to avoid getting hung up on the details while trying to make larger points about the relationship between humankind and the rest of Being. If we are expected to account for so much—the effect of the weather on thought, for example—it becomes almost burdensome, a task to be finished so that the "real work" of broad theory can begin. I have attempted to balance these impulses to "get to know" the actants—stories about Vintondale's coalmining past and accounts of growing up in the city, alongside lists of tree species and discussions of anaerobic

bacteria—with the necessary and enjoyable work of theorizing broadly about their relationships to each other, to aesthetics, and to the means whereby the world is performed into Being. Yet one could always do more: might not the lifecycle of the Brook Trout (*Salvelinus fontenalis*), integrated into the story of *AMD&ART*, make for a sympathetic character? To bring the fish into the fold might mean a discussion of the fishing industry (the economics of conservation), streambed ecology, and my own reminiscences of fishing with my father and grandfather. This is all a roundabout way of saying that any approach is partial, and local approaches—while seemingly so limited in scope as to be potentially exhaustive—are partial nonetheless.

I am sometimes asked, by those who have been keeping abreast of my study's progress, if I still like *AMD&ART*; if I'm not sick of talking about the site, or if I haven't ceased to care about the place as I've grown so familiar with it. While my affections do show some signs of fatigue, one of the major thrusts of my study is precisely a rebuttal of this line of questioning: familiarity brings not wearisome consistency, but rather enables a nuanced awareness that makes even the seemingly mundane dynamic. To look upon *AMD&ART* as a series of ponds in a grassy meadow is to see its form; to understand *AMD&ART* as a complex community makes it infinitely richer. The last time I visited the site with my wife, I found a dead shrew on the path near the Litmus Garden, saw the Orange Jewelweed growing in shady spots, stood on the ruins of the Vinton Colliery and watched an elderly couple coast by on their bicycles along the Ghost Town Trail. To return tomorrow would bring a host of new experiences, finds and relationships. A layperson can sense that

AMD&ART is a constantly changing environment; this study has been an effort to articulate how profoundly that is the case.

My study suggests a number of possible avenues of further inquiry. The most ambitious of these possibilities is the distancing of the perspective I have articulated from the notion of the "environment" as the term is commonly used. Too much environmental art takes as its genesis the tendency to separate ourselves from the rest of nature, and either bemoan the passing of that (illusory) unspoiled nature, or seek to enable conditions under which this mythical terrain could be regained. Consequently, work, daily consumption, economic activity and social relationships have been cast as a separate (and often opposed) sphere. While I have, in this study, sought to blur these lines, I have done so from a perspective that deals expressly with those elements so often associated with the environment: trees, rocks, water, plants, and animals, not to mention a very pervasive and tempting strain of American Romanticism bequeathed to us by Thoreau, Whitman, Emerson and the like. In other words, the perspective that I have articulated could be applied to a factory, a town, a friendship or a bureaucracy, with compelling results. Accounting for the myriad relationships—especially their constitutive power and affective dimension—is one way of examining an artifact that needn't depend upon the swelling sense of "environmentalism" that informs AMD&ART.

The other benefit of this sort of post-environmentalist ecological art might be the enabling of a counterpoint to the rosy temperament and sentimentality that haunts environmental art. The counterpoint of which I'm speaking is not, as we might assume at first, a maudlin, elegiac tone: these are one and the same impulse.

The rosy temperament is present in contemporary environmental art even when it is concerned with tragic occurrences like AMD or oil spill tragedies, because in mourning the despoliation of a landscape/environment, we *assume* that it must once have had great vitality, vigor, or self-determination that borders on a kind of "happy stasis." Thus the elegiac variety of contemporary environmental art trades in the rosiness of a separate and pristine nature *through* mourning its loss.

The counterpoint of which I speak is rather the doing away with the rosy/elegiac tone in light of a realization: that the separate nature we are mourning or celebrating *has never existed*. This is not to say that the environments have never existed, of course, but that our desire for them to return to their state as perfectly preserved and unspoiled places is preposterous. Places (and things) are, as this study demonstrates, given their very consistency and capacity to be, by virtue of myriad instrumentalizations (even instrumentalizations that do not depend upon consumption or utilization to any finite end: the process of singularities differentiating themselves). Nature has never been separate, nor distant, and it makes no sense to mourn its passing as such.

The research agenda of this document lends itself to examining the ecology of art objects that are not expressly environmentalist. Conceptual art, performance art, and pre-twentieth century art alike could benefit from their critics assuming a less art-historical lens, and a more broadly-wrought approach based in articulating the moments of their becoming present. This might strike readers as a call for historiographic research, and to some extent, it is. Foucault, in calling for a historiographic approach to scholarship writes, "what is found at the historical

beginning of things is not the inviolable identity of their origin; it is the dissension of other things. It is disparity" ("Nietzsche" 79). Yet, as this paper clearly asserts, it is not as if disparity is in any way diminished in the present: it is the fundamental unit of the present's unfolding. While we may try to stay *au courant* with the unfolding of the present, it is invariably a losing gambit, and a noble goal. In accounting for our fellows—human and non-human, living and non-living alike—we expand our affiliations, and further our acknowledgement of the nested realities that make up nature, culture, and natureculture.

Finally, it is my hope that the perspective I have articulated in this document might be useful for examing and generating new aesthetic expressions, both in the vein of AMD&ART, as well as in other mediums. Live performance has a history of interest in site specificity—the works of Allan Kaprow, Ana Mendieta, and Violet Juno come to mind—as well as an interest in other, nonhuman participants: Joseph Beuy's Coyote: I Love America and America Loves Me being among the most noteworthy. My focus on the local, the intra-active and the generative might serve as a meaningful and intriguing launching point for live performance. If nothing else, it would offer artists a way to avoid the phenomenon of "live action plop-art," wherein a piece is site-specific only because it occurs at one site. A related phenomenon is performance that is site-specific in the sense that it depends on the physical site as a sort of enabling prop. My study makes clear that it is possible to have great regard for other actants, their histories, their unfolding presents and relationships that are not simply features of a site. This would be a site-specificity that draws on ephemeral, relational qualities of place and makes possible the articulation of

personal relationships to spaces in all sorts of registers. The perspectives that I articulate can be thought of as operating along the lines of mythology: communicative relationships with nonhuman Others, emergent personal symbology, trials in unfamiliar lands aided by guides and gurus. As Joseph Campbell has written, "clearly, mythology is no toy for children" (19). In any case, it makes concepts such as the "totem spirit" more accessible and meaningful to contemporary artists. As Mitchell writes, "totem" is an Ojibwa word usually translated as "he is a relative of mine' and associated with ideas of animal, vegetable, and sometimes mineral 'tutelary spirits,' and thus with destiny, identity, and community" ("Romanticism" 174). While perhaps the actants of which I am speaking are not necessarily spirits (although...), they are akin to a tutelary force, and are without a doubt involved with destiny, identity, and community. Performances of personal mythology, drawn from the intra-action that is the coming into Being of the world, might have the capacity to open up new and meaningful avenues not only for aesthetics, but also for personal growth.

I embarked upon this course of research out of a peculiar combination of homesickness and isolation: the pining for a mountain landscape I've long left behind, and the isolation of one so very deep in critical and continental philosophy that directly affecting the world around me seemed unlikely at best. Unwittingly, of course, I've managed to put together—by no small imaginative striving—an unlikely panacea for both problems. I now understand "home" to be, of course, a matter of relations temporal and physical, but one that can be actively managed just the same. As I try to make my home in a new and different environment, I look forward to

"meeting the neighbors": those living and non-living singularities with whom I will spend my time. On the second count, I have discovered that perhaps the so-called "linguistic turn" is not the final whistle-stop of continental philosophy, and that the coming years—when "speculative realism," "vibrant materialism," and "object-oriented ontology" finally draw to the fore—are to be an era of renewed hope in our affective abilities and potential. At the dawn of a dire age—on ecological, naturalcultural grounds—hope begins to spring anew.

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Vita

Travis Paine Brisini is a native of Johnstown, Pennsylvania. He spent his childhood reading books and exploring outdoors, usually while birdwatching. After completing high school, he attended Kutztown University, receiving a Bachelor of Arts in English in 2005. Subsequently, he attended Southern Illinois University at Carbondale, and received a Master of Science in Speech Communication. His teaching career includes two years as a graduate teaching assistant at SIUC, and four years as a graduate teaching assistant at LSU. He has taught classes in public speaking, the performance of literature, performance composition, and creative collaboration. His interests lie in performance studies, environmental communication, contemporary art and continental philosophy.