

## **Art, Nature, Health and Aesthetics in the Restoration of the Post-Industrial Public Realm**

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1-05

Word Count 11,132

To be Published in: "Healing Natures, Repairing Relationships: New Voices on Restoring Ecological Spaces and Consciousness", Editor Robert France, MIT Press 2005.

### ***Introduction***

For better or worse, we have entered an era of what I would describe as participatory ecology. Ecosystems can no longer face the onslaught of human impacts without some critical support (participation in sustaining well being). Humanity has succeeded in affecting global climate; we have seriously diminished the diversity of life on the planet and recently achieved the ability to manipulate the gene pool. In the quest to control nature and expand material culture, we have discovered limits to that world view. We have fallen headlong into unwanted ownership of natural systems through use and are now faced with significant and troubling responsibilities, as shown in the previous chapter by Jill Braun. We must seek new models of perception, understanding and interaction if we are to acknowledge and act upon those responsibilities.

On the following pages, I will look to history, art and aesthetics for concepts and tools that can inform an ecologically and socially engaged art practice. I will begin by locating this discussion in the public realm and describing its relationship to nature. I will then provide a brief history of both the applied and cultural ecologies as a background for my own ideas about radical cultural ecology and its relationship to an emerging area of art practice. I define and describe an informed multidisciplinary eco-art practice that seeks to integrate nature and culture, expanding on the ideas outlined by Jill Braun in Chapter 8.. I also define strategic points of engagement for the eco-artist as interface, perception and human values. In the final section, I will explore new ideas in aesthetics. Traditional aesthetics with its focus on fine-art has lost the interest of most practicing artists, its discourse being tedious and circular. The area of environmental aesthetics, however, has the potential to awaken this sleeping dragon, (traditional aesthetics) and put it back into the world in meaningful ways. In conclusion I will extract the concepts and tools that I think are most relevant to those of us that are interested in shaping the attendant metaphors, symbols and narratives that define post-industrial nature.

### ***Locating our Discussion: Public Space and the Commons***

I am interested in the systems and ecologies which create the experiences that can be understood as the post-industrial public realm. Post-industrial refers to the shift from carbon-based industrial power and production towards a computer-based economy of information, goods and services that began to happen in the late 1970's. The public realm can be defined at two scales, in relationships between individuals as public space, and as the more encompassing social-political concept of a shared commons. It is easy to think

about being "in" a public space. Public space has both its spatial and discursive forms. Public space has a perceptible boundary. We choose to either participate or not participate in public space activities. In contrast, the commons have no real boundary. They are part of the experience of place. The commons are a shared experience that is processed through a social-political lens. Public space is to the commons as skin is to breath in the body. The skin is a clear and perceptible public-place of our body, whereas breath is the body-commons which we all share, as it sustains life. One is an obvious physical artifact and the other a ubiquitous necessity easily overlooked until compromised or removed.

The experience of public space is often framed by place, articulated by landscape, hydrology and/or architecture, and defined by social action. Public space can be found in both terrestrial and aquatic conditions. Another public space is framed and defined by voices of citizens, engaged in discussion about shared aspects of life and the issues of the day. Two or more voices in dialogue create this space, which can be casual (inter-personal) or targeted (civic). It is possible for interested parties to capture both the spatial and discursive forms of public space for private interests. Spaces can be fenced, land purchased and access controlled. Civic discussions can be captured and redefined to reflect powerful interests and to minimize the voices of less powerful interests. Public space is an intimate experience in comparison to the commons. I see the commons as diverse and ubiquitous resources which is generally perceived as too dynamic, too diffuse or too integrated into the fabric of human life to have the kind of value that leads to privatization. Where the experience of public space is intimate, the experience of the commons is expansively diffuse. Despite the collective benefit of the commons they can easily become the target of desire for powerful interests. (Hardin, 1968)

There is no greater prize than wealth that is extracted from a ubiquitous, once-public common good redefined as a desirable market resource. For this reason, the meaning, form and function of the commons is constantly shifting. For example, a century ago, rivers were considered unalterable natural commons. In the last century, industrial tools allowed us to re-define their function and manage them as resources for industrial production, minimizing their ecological values. In the coming century, it is inner commons that is the target of speculative desire. Our worldwide genealogical heritage is now the focus of new bio-industrial economies that seek to market organisms and systems previously considered part of our common heritage. The post-industrial era provides significant biological and ecological challenges. First, the external world is affected by a legacy of industrial pollutants that remain in our atmosphere, soils and waters. We are just now beginning to realize that we have been and are affecting nature and the global commons in ways never before thought possible. Secondly, the concept of resource extraction has now descended to the micro-biological level, with market interests scrambling to capture value through mapping, manipulation and patenting of genes. In the sum of these two examples we find a range of meaning, form and function which radically redefines our idea of nature embodied within the concepts of public space and the commons.

## Ecological Restoration and Art

The project of ecological restoration (like preservation and conservation before it) requires critical and radical (socially transformative) cultural components as well as pragmatic and rigorous science if it is to succeed. The project of restoration seeks to shift the environmental dialectic from a culture that sees utilitarian value in nature – with preservation as the critical solution to industrial landscape changes; to a culture that sees intrinsic value in nature – with restoration as an essential response to post-industrial legacy pollutants and global impacts. On the pages to follow I will describe the role of art, design and aesthetics in the contemporary project of ecological restoration.

### ***Restoration Ecology: The Cultural Aspects***

The emergent area of knowledge known as restoration ecology is a logical response to the post-industrial era. Preservation and conservation emerged in the years around the turn of the 20<sup>th</sup> century in response to the tools and economies of the industrial era and growth and development in the American West. As shown in previous chapters of this book, restoration ecology is a new way of thinking. It links citizens and experts, as well as cities and wilderness, in a broad program of ecological awareness and action. It is a community of disciplines synthesizing a continuum of diverse cultural practices. On one end lie the arts and humanities, in the middle are the design professions, at the other end, science and engineering. Restoration ecology has been touted as a new relationship to nature, one in which the old reductionist paradigm is reversed. Scientists are charged with re-assembling a working nature from the pieces discovered over the last 200 years, while taking it apart. While the machine metaphor was useful in the disassembly and analysis of nature, it is less useful when reassembling nature. The aesthetic roots of restoration ecology can be found in the urban-nature design projects of Frederick Law Olmsted (particularly the Fens of Boston, 1881) (1). (See also the Chapter by Louse Mozingo that follows.) The roots of its' science can be found in Aldo Leopold's work restoring the lands of the University of Wisconsin-Madison Arboretum in the 1930's (Jordan, 1984).

In Jordan's original document, restoration ecology was interpreted as a mixture of cultural and scientific efforts, "...active as a shaper of the landscape, yet attentive to nature and receptive to its subtlest secrets and most intricate relationships. The restorationist is in this sense like an artist and a scientist, impelled to look closer, drawn into lively curiosity and the most intricate relationships" (Jordan, 1984: 24). After Leopold, Jordan is clear that restoration is about restoring a "whole natural community, not taking nature apart and simplifying it, but putting it back together again, bit by bit, plant by plant", "...the ecologist version of healing. " (Jordan, 1984: 23) Jordan commented on the import of restoring whole communities in this text, but he also recognized the import of restoring (reclaiming) industrial sites, referencing the noted biologist Anthony Bradshaw's pioneering work on coal mining sites in England. Jordan sees the Arboretum as a research laboratory for work that will be in increasing demand in the future, due to the fact that the industrial revolution has provided humanity with the tools to affect nature on a grand scale.

Restoration ecology attempts to both define and reconstruct nature while staying aware (and respectful) of the complexities of the process, its ethical context and the social potential of its performative aspects. Restoration ecology is an important new area of thinking and acting. It provides us with experience and knowledge that can transform the human relationship to nature.

### ***Art and Ecology***

For clarity, I want to describe arts relationship to ecological restoration in divergent yet complicit terms. First it is a fine art activity, with a relationship to the critical and intentionally socially transformative components of the historic avant garde. It is also a design activity, which is about the organization and application of content within a known context with a clarity of intent that produces form. The former is based in a tradition of creative autonomy has more propensity for a critical and radical stance. The latter is based in a tradition of creative response to the needs of a client. Framed through critical knowledge but ultimately is complicit with dominant interest. It is in the relationship between these two ways of working, (and many of us, wear both hats) that the arts serve nature and culture and the project of ecological restoration.

As stated previously restoration ecology has clear intent to change the human relationship to nature. A branch of the arts has coevolved with a similar idea which I will describe below. As summarized by Jill Braun in the preceding chapter there is a rich tradition of artists working with the environment in terms of landscape painting, earth works and ecosystems approaches. However, most of this work was created from the philosophical position of an increasingly entropic avant garde, that had severed all relations to the social and political milieu to focus upon free creative expression and the pursuit of formal and contextual innovation. This is why earth art was such a visual and theoretical sensation. The decision by artists to take their formal sensibility out of the gallery, was a radical and transgressive act. At the close of the 1970's the primary intent of all but a few artists was to steer clear of utilitarian social political and environmental issues. The primary role of the artists of that time, was one of unmitigated creative freedom...driven by a quest for innovation, an innovation without social consequence, but that was about to change.

Writing in the 1980's, the art critics Lucy Lippard author of "Overlay" and (1983) and Suzi Gablik, Author of "Art After Modernism" (1984) provide us with the theoretical and conceptual impetus to reintegrate art with society and its increasingly troubled relationship to the environment. Their project was to theorize an integration of the individual as a moral, social and ecological being. As socialists and feminists, they shared a critical unease about the artworld and capitalist society, as well as a desire to restore meaningful (2) traditions and transformative practices that embrace the full knowledge of the human condition, (both the masculine and feminine) and reintegrate art, society and the environment. More recently, in the last fifteen years, critics and theorists Rosalyn Deutsche In "Evictions"(1994), Malcolm Miles in "Art Space and The City" (1997, 2000, 2004), and Thomas Finkelpearl author of "Dialogues in Public Art" (2000), provide us with a critical baseline and theoretical standard for art informed by the social issues inherent to the discourse and agency that attend planning and development. They

have theorized directions that addresses radical (socially transformative) forms of public art that can integrate social and ecological concerns.. Recently the author Miwon Kwon, writing in "One Site After Another" (2004) has examined the role of the artist in both place based and discourse based creative practice. Grant Kester writing in "Conversation Pieces" (2004) has begun the task of theorizing a dialogic aesthetic. My goal here is to present the non-artist reader with an understanding of shifts in the theory and practice of just one sector of the arts, in recent years. The results can be described as a transformative form of art-practice that locates the artist in dialogic relationship with place based communities and ecosystems. The "form" of this work, whether it is a physical product, a plan or a process, has been shaped by multiple hands, and as a result has multiple advocates

Accompanying this critical and theoretical literature, groups of artists are emerging who are committed to a social-ecological process that go beyond the ideas of authorship and creative identity typical of previous generations. Many of these artists work collectively or collaboratively. Some of them pursue lives of art and social/environmental activism following the examples of the German artist Joseph Beuys (3). Others are involved in issues of art, science and planning following the examples of artists such as Helen and Newton Harrison, of California. (4) The current generation of artists can be divided into two groups. First, there are eco-artists who are interested in the integration of nature and culture through concepts and practices that are informed by ecology and natural systems. Secondly there is an art and bio-technology movement defined by an interest in how the new bio-technologies affect questions of humanity, nature and culture. While I am interested in both groups of practitioners (and there is some overlap), I participate socially and intellectually in an international group of eco-artists, scientists and planners, and will focus my discussion there for the remainder of this chapter.

### **Eco-Art**

The name "*eco-art*" is a term used by many, although its definition and intent is variable. Art critic Lucy Lippard (1983: 229) defined it as having an "emphasis on social concern, a low profile, and more sensitive attitude toward the ecosystem." Recently others have begun to work through the meaning and intent of this way of working. One of the most consistent thinkers and authors on the subject is Ruth Wallen a San Diego California practitioner with training in both art and biology, and a former student of Helen and Newton Harrison. Wallen offers the following definition, and guidelines written with members of the international Eco-art Dialogue group. (<http://www.ecoartnetwork.org>) (5). This reference has been edited for brevity.

*Ecological art, or eco-art to use the abbreviated term, addresses both the heart and the mind. Ecological art work can help engender an appreciation of the environment, address core values, advocate political action, and broaden intellectual understanding.*

*Ecological art is much more than a traditional painting, photograph, or sculpture of the natural landscape. While such works may be visually*

*pleasing, they are generally based on awe-inspiring or picturesque, preconceived views of the natural world. Ecological art, in contrast focuses on the system of ecological relationships. These relationships include not only physical and biological pathways but also the cultural, aspects of communities or ecological systems. Much ecological art is motivated by a recognition that current patterns of consumption and resource use are dangerously unsustainable. Instead of focusing on individual gain, ecological art is grounded in an ethos that emphasizes communities and interrelationships.*

*The focus of a work of art can range from elucidating the complex structure of an ecosystem, responding to a particular issue, interacting with a given locale, or engaging in a restorative or remedial function. Ecological art encompasses both process, i.e. design and planning, and product in the form of a discrete work of art. Eco-art may re-envision, or attempt to heal, aspects of the natural environment that have gone unnoticed or reflect human neglect. The work may challenge the viewer's preconceptions and/or encourage them to change their behavior.*

*Ecological art exists within a social context. While certain works may express an individual vision, the intent is to communicate--to inspire caring and respect, stimulate dialogue, and contribute to social transformation.*

Ruth Wallen - written with members of the eco-art dialogue  
(<http://communication.ucsd.edu/rwallen/ecoframe.html>)

Wallen's text, developed with others – makes it clear that the artists role is based in values and advocacy for an ethical ideal of collective networked relationships that reintegrate the social and the ecological. The product of the eco-artist can be design, planning and/or the manufacture of isolated objects of art. Another text, that might shed some insight on this evolving area of practice has been developed by the art historian and author Linda Weintraub working with artist Skip Schuckmann. The initial idea presented in the form of a manifesto is described (in edited form) below. I have edited the reference for brevity.

*THE PREMISE Eco artists are distinct from other artists because they sculpt their impulses with full consciousness of the effect of their work on the environment of the planet and the distribution and abundance of organisms that inhabit it.*

*A. MICRO Eco art, engages the intimacy of home (here) and the immediacy of time (now). It specializes in here and now by valuing indigenous materials, locally generated energy sources, sustainable procedures, and topical themes.*

*B. MACRO Eco artists are mindful of our universe, galaxy, solar system, atmosphere, hydrosphere, and geosphere. They consider the mutuality and interconnectedness of all forms of life. The scope of ecological science means that it cannot be limited to laboratory procedures. Similarly, eco art is not confined to the studio.*

*C. MUCKRO is a term invented to honor the middle zone in which people actively engage the complex “muck” of everyday life. “Muck” is dense and murky. It is difficult to comprehend and navigate. It is also a massive ecotone of human potential.*

*The goal of eco-art is to develop functional awareness of the proximal and distant impact of human behaviors on the living and non-living environment, and the environment’s impact on human beings. It considers the health of our bodies, our local biomes, and global eco systems*

Linda Weintraub and Skip Schuckmann.

(<http://www.lindaweintraub.com>)

Weintraub's and Schuckmann's manifesto extends Wallen's effort in important ways. Where Wallen retains the frame of the ecological system, Weintraub and Schuckmann name the components of the ecosystem, both the "living" and the non-living" extending recognition to other species. This raises an important question of spirit, the very principle of life, that is present when you are alive, and gone when you are dead. It refers to the immaterial intelligence, the aware sentient side of our very being and the increasingly flexible boundary that defines sentience within us, and amongst the creatures around us. This is an essential topic of new moral and ethical analysis in philosophy. While I am sure that both (groups of) authors share an awareness of organisms, couching the environmental context in systems language alone – reinforces the human as dominant species. Not that naming "organisms" is enough to shift the historic nature-culture dialectic to a position of equitable representation, but none the less it is sometimes important to state the obvious. The two texts share a primary interest in sustainability, with Wallen making it clear that she believes that "current patterns of consumption and resource use are dangerously unsustainable." Weintraub's and Schuckmann's approach is more prescriptive (yet idealistic and simplistic ) with a guideline to use "indigenous materials and locally generated energy sources." Finally it is important to state for the non-artist, what it is these authors claim that eco-artists do. First they both claim that art provides an awareness or understanding through the design, planning and/or the creation of isolated objects. In addition, Wallen claims that eco-art can "address core values, (and) advocate for political action." Weintraub and Schuckman raise one additional issue, the idea that we (our bodies) are linked to the environment through issues of health. I will return to this at the end of the chapter.

Ultimately, from my point of view, this work is about public realm advocacy. Advocacy for communities, organisms and entities that are not well represented within the traditional dialogue between state and capital. I would argue that the eco-artists role is to develop interface between nature and culture, and act as an agent of change. Like my

colleagues above, I believe it is our function to reveal concepts and experiences that might otherwise be overlooked. As a result I would define the practice of Ecological Art or Eco-art: as a creative process that results in interface between natural systems and human culture. It recognizes the historic dialectic between nature and culture and works towards healing the human relationship to the natural world and its ecosystems. Where much of the art (specifically the avant-garde art) of the past has focused on a critical relationship to culture, eco-art focuses on a critical responsibility for the reintegration of nature and culture. In this, we are not unlike our colleagues in restoration ecology. I would argue that the difference is that we are primarily working on restoration at the level of perception, conceptualization, experience and value. While our colleagues in engineering, and the natural sciences are working on restoration through the renewal of structural systems and interacting networks of nutrients and organisms. The action of our colleagues can result in the restoration of health to complex systems. The actions of eco-artists call into question the cultural relationship to nature. And, at times we use the tools of science to accomplish our goals. I should say that we rely upon the work of eco-philosophers who have been instrumental in clarifying the increasingly complex moral and ethical issues that define the nature and culture relationship at this point in time.

### ***Current Exhibitions and Relevant Texts***

While eco-art remains primarily outside of the arts mainstream, non the less various curators, critics and authors have seen the need to address the work through exhibition, catalogs and critical texts. Barbara Matilsky curated and exhibition "Fragile Ecologies"(1992) and overview of the area of practice, with an accompanying catalog,. She provides an excellent overview of the historic precedents for this work, as well as some of the most important work of the first and second generation of ecological artists. A text edited by Bylai Oakes, "Sculpting with the Environment" (1995), is unique and quite valuable as a reference in that he asked artists to write about their own work. "Land and Environmental Art," an international survey of both types of artists projects, was edited by Jeffery Kastner, with a survey of writing on the subject by Brian Wallis (1998). The text goes into the first, second and third generations of earth and ecological artists, providing an overview of works and accompanying articles. In (1999) Heike Strelow curated "Natural Realities" at the Ludwig Forum in Aachen, Germany, this exhibit was an international overview, which expanded the concept of ecological-art and its range of effort to include the human body as a site of "natural" inquiry. The accompanying exhibition catalog provides cogent arguments for the three areas of the exhibition - the unity of man and nature, artists as natural and cultural scientists and nature in a social context. The first exhibit to attempt to directly address the new ideas and instrumental intent of eco-art occurred at the Contemporary Arts Center in Cincinnati, Ohio. Sue Spaid and Amy Lipton (2002) co-curated "*Ecovention: Current Art to Transform Ecologies*"<sup>n</sup>. The accompanying catalog explores the artists role in publicizing issues, re-valuing brownfields, acting upon biodiversity and dealing with urban infrastructure, reclamation and environmental justice. In (2004) a new book, on "Ecological Aesthetics" initiated by Herman Prigann, a German ecological artist and edited by Heike Strelow and Vera David, provides an excellent overview of the range of work that is occurring today in both Europe and the United States. Another amazing new international resource for those interested in the range of work in this area of practice, an excellent source can be found



online (only) at the GreenMuseum.Org, (<http://www.greenmuseum.org>) This is a project developed and directed by Sam Bower.

## **Art and Radical Political Ecology**

I want to think of interface as a common boundary or interconnection between systems, equipment, concepts or human beings. Interface is the art, the physical manifestation of the "relationship between humanity and the natural world." The concept of interface is appropriately open. Its form is undetermined but its intention is explicit: it defines the art of ecology without closing out its options. Perception is the awareness of interface or awareness through interface. Human values are the target or goal of cultural agents. (The active role of agency is assumed under the interdisciplinary model.) Eco-artists manipulate the attendant metaphors, symbols and narratives of the nature/culture interface to shift human perceptions around the dual subjects of their inquiry, research and production - affecting valuation. These are the strategic points of political engagement for the eco-artist - interface, perception and human values.

## ***Theory and Interdiscipline***

As an eco-artist with an interest in philosophy and theory, I am interested in form, content and symbols as well as the concepts and theories that inform and sustain the practice. I would argue after the Harrison's and Sonfist, (Auping, 1983 P. 99) that eco-art is fundamentally interdisciplinary, in that we can not rely on the art world as the only point of engagement and interpretation. Furthermore, the artists involved in this practice can't confine their learning or production to art alone. We must reach out across disciplines to build a platform of knowledge and practice. In the interdisciplinary model, artists find critical social space to expand their practice by moving outside their discipline and its institutionalized relationship to society. In this way, we find opportunities, both intellectual and creative, that we cannot find within our own discipline (which like most other disciplines has turned inward upon itself.). Interdisciplinary practice breaks the form of discipline specific institutions. It expands the combined disciplines and provides the artist with a new path to social engagement. Inherent in that path is the responsibility for the artist to educate him/herself in several disciplines. In turn, the work needs to be received and evaluated for the totality of its intention.

## ***Dualities and The Philosophies***

It is important to understand the philosophies that can inform our actions. The environmental movement can be broadly characterized by a struggle between the oppositional ideas of nature as an autonomous and intrinsically valuable entity unto itself versus nature as both concept and focus of human exploitation for economic value. The social-ecologist Murray Bookchin (1974 P. XV) sets up a simple duality, to help us better understand these ideas: "Ecologism refers to a broad, philosophical, almost spiritual, outlook toward humanity's relationship to the natural world ...Environmentalism [which is] a form of natural engineering seeks to manipulate nature as a mere 'natural resource' with minimal pollution and public outcry." Bookchin's position on ecologism and environmentalism is comparable to the duality of preservation and conservation. But what does this mean for artists? First, ecologism provides artists a pathway into a new

area of knowledge. In that broad philosophical/spiritual outlook there is plenty of room for artists to experiment with interface, perception and human values. There is less room for artists in his concept of environmentalism.

Where do we stand in relation to nature? We can broadly situate ourselves in either the wilderness or the garden. (Mitchell, 2000) This simple duality allows us to consider wilderness as the condition of nature without human impact, and garden as the human condition (or city condition) of nature. Our value systems can flow in either direction. If value is centered in the garden, then it is the use of nature that drives our actions. The garden relationship assumes that we are above nature and capable of some charitable (and not so charitable) contributions to nature. If value is centered in the wilderness, then it is the maintenance of that boundary separating humanity from nature that drives our actions. Wilderness (by strict definition) is a condition that can be defended, defined or interpreted but never improved upon by human action. Three philosophies have emerged which inform a continuum of human thought and action in relationship to garden and wilderness ideas: social ecology, (Bookchin 1980, 1982) eco-feminism (Merchant 1980, 1982; Plumwood 1993) and deep ecology (Naess 1989; Sessions 1995). These three ecologies share a common thread -- the negative affect of human civilization upon natural systems has instigated the need for various radical communities to seek a path to action.

These three philosophies, with their spatial commitment to city, town, country or wilderness, and their political commitments to humanity, post-dominion humanity and the intrinsic rights of nature itself, provide a broad intellectual foundation for the eco-artist. This is a foundation of human values that project ways to understand and act in relationship to nature. This foundation provides room for a range of practitioners with a shared interest in the roles that art can take in the changing human relationship to natural systems. This foundation can accommodate the artist as witness, advocate or activist, but always as an agent of change in the shifting values of nature and culture.

## **Aesthetic-Ecologies**

### ***Art Nature and Traditional Aesthetics***

Nature has been a fundamental subject of artistic practice and aesthetic inquiry throughout history. Nature has filled the artist with fear, awe and wonder. Only recently has the material product of the artist, artwork become the sole subject of the philosophy of aesthetics. Since the 18<sup>th</sup> century, the dominant western philosophy of aesthetics concerned itself with the appreciation of things deemed pleasing, or things with the potential to evoke an experience of the sublime. (In minimal opposition: Marxist aesthetics has been more concerned with the social relationships of production.) The operative word here is "things," isolated objects that exist independent of context and those that view them. The concept model is simple: a human appreciator and a thing, framed in a neutral manner, which is then appreciated. The means of appreciation was primarily visual. The objects of consideration were carefully bounded to separate art from daily life. The viewer was expected to be properly (empirically) disinterested in the object of contemplation. These things were then analyzed for beauty paying attention to

their unity, regularity, simplicity, proportion, balance, measure and definiteness (6). Alternatively, works could be analyzed for their relationship to the sublime, the feeling of sublime emerging when a viewer considers an object which sets up a tension between imagination and reason. In the contemplation of the finite object, we find an experience of expansive grandeur, wonder or awe. In this historic model of aesthetics, the world is left to rational utility. These ideas of beauty and wonder are exclusive, properly separated from that world and confined within reductionist laboratories that let us see the work without the corrupting influences of social, political or environmental conflict. The white walls of the museums, the raised stage of the symphony, or the frame of the painting all provide us with a clear understanding of where to look and contemplate objects for their inherent aesthetic value. Modernist aesthetics has no value for artists that have embraced the post-studio practices. Ecological artists, informed by earth-art and enabled by the freedoms of post-modern multi-disciplinarity, fit neither the context nor the method for aesthetic analysis. Ecological art relies upon experiences that are enmeshed in complex natural systems. Authorship lies on a fine line between action and concept. Relevant form rarely stands alone. More often form is extracted from the context itself. Complicating things immeasurably, there is a whole social-political element of the work that cannot be ignored. The elite, disinterested root of aesthetic philosophy would seem a long way off from art practice focused upon strategic engagement with interface, perception and human values.

### ***Complicating the meaning of nature***

In a controversial article with ongoing repercussions, philosopher Robert Elliot (2000: 71-82) claimed that the practice of restoration ecology is nothing more than counterfeit nature, as egregious (and worthless) as a counterfeit of a great painting or sculpture. He declared that wild-nature had an irreplaceable natural quality, as irreplaceable and authentic as a fine-art masterpiece. He further declared that the practice of restoration ecology when applied at a policy level allowed developers and extractive industries to destroy authentic nature.(7) Replacing natural authenticity and intrinsic value with a counterfeit or restored ecosystem calls into question our moral, scientific and creative potential: can we only save or destroy nature? Eric Katz, Andrew Light and Cheryl Foster have all addressed this question of counterfeit nature in different ways. Katz states that "the natural is defined as independent of the actions of humanity", which in turn results in his position that "we do not restore nature, we do not make it whole and healthy again." (2000: 90) In the same edited text, Light answers by granting Katz the claim that it is impossible to restore nature (as Katz has defined it), but he contends that we still have a moral obligation to improve and refine the technological and cultural projects of restoration, restoring what he calls "*the culture of nature.*" (2000: 108) In contrast, Foster (2000: 77) comes at the question of authentic nature from an environmental aesthetic position. She suggests that within the United States, the authenticity and trust in restored ecology, geology or nature in any form, will be consistently plagued by a cultural tendency towards hyperreality and the simulation of nature. The author explores the restoration and maintenance of "natural-wonders" at parks and national recreation areas. Four philosophers who carry three views of nature. The first and second accept nature only in its independence of humanity (a notion I strongly disagree with for reasons

that will follow), the third seeks a culture of nature, and the fourth points out that, not only do we have to deal with the natural and the restored, we also have hyperreal nature to contend with. Whereas Light calls for a culture of nature, Foster describes a nature of culture which bends the meaning of the former in ways that are only constrained by the imagination.

Most of us have strong feelings about nature. We arrive at these feelings through a range of "natural" experiences and cultural training. Can we know nature without compromising its independence? Environmental restoration challenges this understanding of nature in odd ways. Is it enviro-technical or is it enviro-medical? We can approve of medical intervention for humans, pets and livestock. We even perform wildlife rehabilitation in most of the major cities in the country. We can approve of technical soil remediation, species selection, and ambulatory plant care for desirable flora (such as lawns in Las Vegas). But the idea of restoring nature and usurping its wild integrity generates a passionate defensive position in the most liberal corners. The passion that is elicited to defend disappearing ecosystems, disrupted landscape ecologies and their related organisms against a loss of authenticity truly puzzles me. The tools and economies of the industrial age have left us with an awesome ability to shape, mold and transform nature into the material goods of culture. Natural authenticity is physically compromised by industrial by-products that exist in the air, water and soils. Conceptual authenticity (wildness) is compromised as we discover, name and catalogue the genealogical complexity of nature. What we can not get to physically and conceptually, the global climate change will. Given the inalterable fact that nature has been and will continue to be compromised, do we have an ethical duty to preserve, conserve and restore what we can? If we do, how can aesthetics help us in this expansive project?

### ***Environmental Aesthetics***

There are a number of important thinkers in the area of environmental aesthetics. Those working from an environmental psychology point of view, such as Jay Appleton, Rachel Kaplan, Stephen Kaplan. And those working from an environmental philosophy point of view such as Jack Nasar, Cheryl Foster mentioned earlier, Joan Iverson Nassauer and Marcia Mulder Eaton discussed later are just a few. I will look into the work of two primary voices in the area of environmental philosophy next. They are Arnold Berleant author of *"The Aesthetics of the Environment"* (1992) and Allen Carlson author of *"Aesthetics and the Environment: The Appreciation of Nature, Art and Architecture"* (2000). In a co-edited volume of the *"Journal of Aesthetics and Art Criticism"* (Vol 56, Number 2, Sp 1998), they define environmental aesthetics at face value as "the application of aesthetic concerns to environment." This concept is almost the polar opposite of the traditional aesthetics outlined earlier. First the term environment qualifies aesthetics in important ways. It is inclusive and expansive, opening this philosophy to a range of culture of nature and nature of culture conditions that would not be considered under the exclusive and reductionist methods of more traditional aesthetics. Qualifying aesthetics with environment also raises the idea of application. Once aesthetics accepts the challenge of finding the means and methods of describing aesthetic value in complex and diverse environments, the application of that knowledge is likely to follow. (Whether

it will affect the dominance of economic-production value is another question entirely.) Most importantly, however, in the combination of environment and aesthetics, a reconstructive post-modern path is drawn out of what could be described as a reductionist endgame seeking a truth that has decreasing relevance. In environmental aesthetics, the full range of nature-culture manifestations are opened up to multi-sensual perception, emotional and intellectual analysis and social-aesthetic evaluation. What was once simplified in the pursuit of empirical truth has become complicated and complicit with the world once again. The question is, can environmental aesthetic philosophy handle the complex experience of dynamic systems with intellectual tools developed over the last two centuries studying static self-referential objects of fine-art? Can art and aesthetics provide us with more sophisticated tools to conceptualize nature than Elliot's dichotomy of natural authenticity versus restored nature as forgery? In the following pages you will see this struggle for an aesthetic understanding of nature manifest between the two approaches of Berleant and Carlson.

### ***An Aesthetic of Engagement***

Berleant is a philosopher and a trained musician interested in both the theory and application of his work. Since 1970, his provocative and bold writing is intended to expand the focus and purview of aesthetic philosophy. In *"The Aesthetics of the Environment"* (1992), Berleant outlines an aesthetics of engagement which seeks ultimate unification of nature and culture, declaring "there is no sanctuary from the inclusiveness of nature." (1992: 8 ) In this model, Berleant outlines a radical aesthetic theory that casts aside the subject-object (8) relationship for what I would describe as an integrated systems analysis (9) approach to aesthetics. In this theory, nature and humanity are one field. Artifacts as the material product of culture are no longer isolated and the disinterest which has marked two centuries of aesthetic philosophy gives way to passionate engagement with contextual experience. Berleant claims that "The aesthetic is crucial to our very perception of the environment. It entails the form and quality of human experience in general. The environment can be seen as the condition to all such experience, where the aesthetic becomes the qualitative center of our daily lives." (1992: 57) He works to provide an aesthetic paradigm intended to open the world to a "full perceptual vision of aesthetic, moral and political conditions." (1992: 60)

His proposal is based on the following three points: 1.) the continuity between art and life; 2.) the dynamic character of art; and 3.) the humanistic functionalism of the aesthetic act. He applies these ideas to the city, working to develop what he calls an aesthetic paradigm for urban ecology. The components of his paradigm, (1992: 62-69), with examples, are:

- The integration of purpose and design as typified in a sailing ship.
- The integration of fantasy and spectacle, subhuman and human, found in the circus.
- The communion between heaven and earth, sanctuary and steeple found in a cathedral.
- The union between the individual and the celestial, organism and cosmos found in a sunset.

These four components are described as typical dimensions of a city that are overlooked, subsumed or subordinate to utilitarian development. In turn, they are presented as strategic interventions in cities to achieve a "critical measure of urban aesthetic." I am in agreement with Berleant's "aesthetics of engagement" but find the examples limited. It occurs to me that what he has left out is any sense of a critical-social or creative-social approach to art and urban ecology. He has kicked aesthetics into the present but left art and natural science in the past. There is no sense of the artist or restorationist as a strategic cultural agent acting with full awareness to shift the symbols and metaphors of a culture invested in the power of state and capital who are in turn, invested in utilitarian approaches to cities. The historic components presented by Berleant provide us with a historically referential framework for a culture that integrates the aesthetic with the functional. It does not give us the right tools to achieve those goals in contemporary culture. Glorious sailing ships, spectacular circuses, breathtaking cathedrals and cities oriented to the sun emerged in cultures that put primary value on those things. The integration of the subject-object provides us with a new conceptual framework. But, the components of the paradigm are passive and more likely to conform than to transgress. Integration, communion and union are based on relationship. The culture of capital and its utilitarian approach to city building are the dominant economic and political power. Reestablishing humanistic-aesthetic values in a culture of capital will require a strategy that is both cognizant of that power and able to develop strategies to achieve the desired relationships. Artists and aesthetic philosophers who are committed to an aesthetic of engagement are going to have to get realistic about the application of their ideals. This will be a significant challenge, I would add three components to his paradigm to open up that potential:

- The critical relationship between society and art, aesthetics, morality and equity.
- The creative relationship between places and people, need and awareness of limit
- The respect and ethical rights that are shared or denied amongst sentient beings.

### ***A Natural Environmental Aesthetic***

Carlson's (2000) work in *"Aesthetics and the Environment: The Appreciation of Nature, Art and Architecture"* is a more deliberate approach to environmental aesthetics. The depth and rigor of his analysis is quite remarkable. This is reflected in his conceptual organization of the issues and models for aesthetic appreciation of nature. He begins by defining the scope of environmental aesthetics in terms of the range of things we are to consider, from pristine nature to human art and cities. He also defines the environmental aesthetic scale from objects to bounded properties and forests. (He does not identify ecosystems or the nature-commons.) He identifies the range of experiences, from mundane to spectacular, and goes on to talk about the complex experiences that can be found in even the most common forms of nature. His stated goal is to create a set of guidelines for aesthetic appreciation that will allow "serious and appropriate interpretations" of nature. Answering the "what" and "how" questions is one of his essential preconditions for genuine aesthetic appreciation. He describes two basic orientations when we attempt to appreciate nature aesthetically. The first he describes as subjectivist or skeptical, whereby the viewer is frustrated by nature's lack of frames,

design and designer. (The viewer does not know what or how to appreciate the unframed landscape.) His second point is described as objectivist. "In the world at large we as appreciators typically play the role of artist and let the world provide us with something like design..." (2000: xix) If I understand him correctly, within the recognition of pattern, we can then set boundaries which allow us to define the "what" which then provides the question of "how" to appreciate nature. He provides specific ideas about categories or models which can inform the appreciation of nature. (10)

Carlson concludes that the natural environmental model and its close ties with scientific knowledge is the right approach. He sees its roots emanating from a tradition of thinkers like George Bernard Marsh, Henry David Thoreau, John Muir and Aldo Leopold. (I wonder if Berleant would not claim the same roots for his aesthetics of engagement) Qualifying the aesthetic with the scientific adds a cachet of objectivity that he believes is important if aesthetics is to have any impact on practical environmental assessment. He is quite clear in his position, "...appreciation must be centered on and driven by the real nature of the object of appreciation itself. In all such cases what is appropriate is not an imposition of artistic or other inappropriate ideals, but rather dependence on and guidance by means of knowledge, scientific or otherwise, that is relevant given the nature of the thing in question." (2000: 12) In this bold statement, Carlson makes his own definitive leap for aesthetic philosophy, distancing it as far away from art as possible. Carlson grounds aesthetics in knowledge which I agree with, but I feel the need to question the standard of science as the only path to knowledge. (This approach is central to the technical aspects of the project of restoration ecology.) Authorizing science and disavowing the sensual, kinesthetic, social and cultural aspects of life, seems biased and collusive. Carlson's critique of the "engagement model" is, of course, in direct opposition to Berleant's ideas which I have said earlier that I clearly support. I would place my own interests somewhere between these conflicting positions.

Berleant and Carlson are obviously diametrically opposed in their positions on the appropriate model for aesthetic appreciation of nature and the environment. Where Berleant clearly states the need to collapse the subject-object dichotomy to integrate nature and culture once and for all. Carlson states that aesthetic appreciation is actually reliant upon the subject-object dichotomy, declaring that if you cannot define the object you can not achieve the goal of serious and appropriate aesthetic interpretation. I want to take a moment and consider an integrated subject/object experience and see if this is true. Five years ago, I was in Tokyo, Japan. I emerged from Shibuya railway station with my sense of personal space intact - and walked into a sea of humanity. I have walked and considered numerous cities around the world but nothing prepared me for the experience I was about to have. Waiting at the sidewalk for the lights to change, I stood in the densest crowd of people I have ever experienced. Piling up against the barrier of the street, the pedestrians blocked from crossing a road by rush hour traffic. As the light changed, I was amazed, amused and somewhat concerned when I realized that two opposing waves of humanity (literally thousands of people) were surging forward about to engage in the middle of a large urban crosswalk completely hemmed in by idling automobiles. As we moved forward, the crowd adjusted, ebbing and flowing like a school of fish and somehow making room for twice the population to occupy the same space. I stopped in

the middle of the crosswalk and just watched in delight as this phenomenon engulfed me. Upon exiting from the station, I had entered into a public space where I, the appreciator, became part of a field of objects which I was experiencing. The subject/object relationship was completely dissolved. Yet I witnessed this event with a certain amount of disinterest, and was able to retain my sense of who I was and what it was outside of myself that defined the experience I was having. Indeed, not only did I emerge with my subjectivity intact, but I would submit that I was equipped to arrive at some serious and appropriate aesthetic interpretations exactly because of the collapse of the subject/object relationship. In comparison, an aesthetic philosopher with his subjectivity separate from the object of consideration - peering into this dynamic sea of humanity from a high rise building above this intersection, will likely miss important elements of the sensual, kinesthetic, social, cultural and scientifically informed experience of being on the ground as an object amongst like objects. Based on this experience, I can assume that the collapse of the subject-object dichotomy can occur at the level of experiential and conceptual understanding of the object without undermining the process of aesthetic appreciation. I would even suggest that a well trained philosopher (or artist in my case) can retain a sense of intellectual distance from the collective intent (commuting) of such an environment. These thoughts make me wonder if Carlson's defense of the subject/object dichotomy doesn't say more about the latent authority of critical appreciation as it relates to a separation between the making and thinking about artifacts than it does to the actual process of appreciation. With that said, I think its important to state that I agree with Carlson's position, but not his definition of the natural-environment model. In an increasingly complicated world where industrial residues from decades past have piled up to the point that they affect the global commons -- the air, water and soils that sustain life -- we must seek rigorous knowledge to inform the experience and appreciation of environment. Scientific knowledge is a primary choice to inform experience, but Carlson's decision to negate other forms of knowledge is short-sighted.

As a practicing eco-artist and theorist, I believe that we must allow for Carson's standard of significant and appropriate interpretation, carefully choosing the knowledge which informs aesthetics. But we must also allow for Berleant's aesthetics of engagement. Without a collapse of the subject-object relationship, we sit too far outside nature to understand the potential and moral imperative for integration.

### ***Aesthetic-Systems and Health***

Throughout this chapter, I have been clarifying the challenges that occur as we move from the industrial into the post-industrial and humanity, or culture, becomes aware of the pernicious impacts upon the essential commons that support life. In one century we have gone from the need to preserve and conserve to what I believe is an era where the ability to restore nature will become a paramount challenge. How do we appreciate (and act upon) the complex nature-culture systems of post-industrial nature? Traditional aesthetics would constrain us (the subjective viewer) to what can be known through direct visual experience of the object of contemplation, primarily the static formal qualities. Berleant's environmental aesthetic approach unifies nature and culture through the collapse of the subject-object relationship, and while Carlson's informs culture about nature through collaboration with science.



Another way to approach this question is to leave environment behind for a moment and go back to the question of aesthetics and beauty. Marcia Muelder Eaton in *"The Beauty That Requires Health"*, (1997: 88) suggests, "Aesthetic experience is marked by perception of and reflection upon intrinsic properties of objects and events that a community considers worthy of attention... anything that draws attention to intrinsic properties of objects and events can be described as aesthetically relevant." In this definition, she opens the door to senses beyond the visual and provides room for dynamic experiences by considering both objects and events. This definition is part of her ongoing work in philosophy and has been used in a number of her texts. I first came across it in a book edited by Joan Iverson Nassauer called *"Placing Nature: Culture and Landscape Ecology."* Eaton's chapter "raises (but does not resolve) the integration of beauty and the perception of ecosystem health as a concept relevant to aesthetics. Admitting that the idea of health is general and poorly understood at the level of natural organisms and ecosystems, Eaton suggests a general policy to "...label ecological function with socially recognized signs of human intention for the landscape." (1997: 94) She relates this idea to our learned ability to read the urban landscape for patterns that indicate abstract concepts like social or economic stability. She discusses aesthetic inventories and aesthetic examples as one way to inform the question of healthy natural systems. She concludes with the general idea that native flowers can bio-indicate soils without harsh chemicals and that slow and pleasing surface waters can indicate an intact and functioning natural hydrology of intact streams and porous surfaces.

Nassauer extends this idea in her own chapter, *"Cultural Sustainability: Aligning Aesthetics and Ecology."* (1997: 65-83) She notes that ecological function is an increasingly dominant "intention" of public land but is still not part of the aesthetic that informs the design and management of private lands. Nassauer identifies the idea of "sustained attention" and the evolution of care (interface) as the path to new aesthetic knowledge and appreciation based on concepts of health. Her position is couched in rigorous knowledge of landscape ecology as a key concept in the aesthetic restoration of health in "settled landscapes". She provides a helpful comment in relationship to Carlson's over-investment in scientific knowledge. "Every possible future landscape is the embodiment of human values. Science can inform us; it cannot lead us." (1997: 5)

What is environmental health and why should we care? There are two scales of health to consider - the organism and the ecosystem. There are three ways to think about health. One is the general perception of health, through knowledge gathered over time. We learn through regular interaction and experience to recognize a pattern of behavior that indicates the health, or illness of both organisms and systems. The second way to think about health is in terms of "a measure of the overall performance of a complex system that is built up from the behavior of its parts." (Costanza, 1992: 242) The third way to think about health is in terms of autopoiesis, defined as a transliteration from two combined Greek words meaning self-making. The reason to care about environmental health is essential to Berleant's concept of engagement and it is embedded in Carlson's idea of a natural environmental model. Understanding the lack of care and paths to change are the foundation of Naess' deep ecology, Plumwood's ecofeminism and

Bookchin's social ecology. It is embedded in the struggle over the meaning of nature and its counterfeits which has roiled the philosophers and practitioners interested in restoration ecology. These environmental aesthetic theories emerge from a gnawing feeling that our natural and cultural systems are out of balance. That lack of balance is palatable and perceptible in experience but it lacks what Carlson calls serious and appropriate interpretation. I will discuss the general perception of health which, I believe we arrive at through pattern recognition and aesthetic analysis.

The relative health of a landscape, organism, ecosystem, even a technological construct, is a concept that most contemporary humans have experienced. While we may not be able to go into the details of systemic health, we share the zeitgeist of the term. We all know what a healthy person looks like. Many of us recognize factors that indicate a disrupted family unit. Failing communities, even failing management systems are obvious to most of us. Most of us even know when our computers or automobiles are getting "sick". We recognize health or the lack of health, through intimate multi-sensual experience and knowledge gained over time. Of course, there are numerous points of specific conflict in the application of the term health. Because of this, it requires a well-defined and carefully contextualized statement to provide a clear communication of the conceptual continuum in which health (or the lack of health) is being communicated.

The second aspect of health is in terms of measured performance. This following definition was developed as a result of a series of interdisciplinary meetings on ecosystem health at the Aspen Institute in Maryland (11),. "An ecological systems is healthy and free from distress syndrome if it is stable and sustainable - that is, if it is active and maintains its organization and autonomy over time and is resilient to stress." (Haskell et al , 1992: 9) Environmental economist, Robert Costanza compares the knowledge of ecosystem health to human health. "Assessing health in a complex system - from organisms to ecosystems, to economic systems- requires a good measure of judgment, precaution , and humility, but also a good measure of systems analysis and modeling in order to put all the individual pieces together into a coherent picture." (Costanza 1992: 252) Costanza proposes a general index of ecosystem health which measures the relationship between vigor, organization and resilience. Costanza points out that the range of knowledge (reference data) and diagnostic tools for human health far surpasses what we know about about natural systems. Without significant investment in research, it is still difficult to tell when we will be able to quantify a healthy natural environment. Returning to our aesthetic focus, I would argue that the intent of a quantitative system of measuring health in ecosystems, is primarily outside the realm of aesthetics. However quantitative health measurement could confirm or deny the value of pattern recognition as a relevant alternative approach to the question of health.

The third concept of environmental health is contained in the concept of autopoiesis, a relatively new idea only a little more than a decade old. Lynn Margulis and Dorian Sagan (1997: P. 56) describe it as "to be alive, an entity must first be autopoietic – that is, it must actively maintain itself against the mischief of the world." This is a dynamic and reactive concept of health. The basic idea is that an autopoietic organism or an autopoietic ecosystem must have the ability to reproduce and sustain itself in terms of

both structure and biochemical integrity. Autopoiesis can be perceived in terms of aesthetic pattern. It is easy to see when an organism has lost its integrity, harder but not impossible to see when an ecosystem has lost its physical, biochemical integrity, or when the organisms that define the system start to fragment and begin to lose their interactive complexity. Autopoiesis complicates both the general and the quantitative model of health, it embraces disturbance. This suggests a different sort of understanding and a new aesthetic model, which is not only dynamic, but also transactional.

Following Eaton, an aesthetic of health is, in my mind, an essential concept. According to the three models, health can be a general-aesthetic appreciation, it can be an expert-quantitative appreciation, and in the autopoietic lies the potential for the integration of the two. The first two are quite clear in terms of the "what" and "how" questions, posed by Carlson. An autopoietic aesthetic challenges the appreciator to embrace two entities (culture and nature for example) in relationship to one another. This adds a level of complexity in the decision to collapse or retain the subject-object relationship. Earlier I suggested that the "what" can be left to the appreciator; this works for the autopoietic as well as the first two models. "How" is a question that is less clear, defining what to consider would require a judgment about the state of the relationship as well as the state of the individual systems. This is a very specific and theoretical area of inquiry that is quite sophisticated. Understanding the science is a matter of attending to the patterns of relationship. There are a range of disciplines trained to perceive and clarify pattern. They should all have a voice in the development of this theory. Art and aesthetics can participate at the level of theory or at the level of interpretation. Establishing a voice is a matter of engaging oneself in a productive manner within the ongoing discourse.

### ***Concepts and Tools to Aid Restoration Design***

Can art also provide concepts, practices and tools for society and for restoring ecological spaces and consciousness? It surely can, although most of us in the United States have little understanding of art as a modern area of knowledge. The contributions of modern art are seldom discussed in our formal education programs, and are further undermined by a cynical response by the press and politicians to challenging contemporary work. At the same time, most of us with an interest in the environmental questions, have some sense of the historic contributions that artists and authors have made to the evolving idea of nature. There is a good chance, that works by Muir and Thoreau; Lorraine and Monet; Claude, Church and Audubon have had some impact upon our understanding of nature. The contemporary artists Robert Smithson (an original thinker in earth art) or Helen Mayer Harrison and Newton Harrison (original thinkers in ecological art; see chapter 9 by Braun) are less likely to impact our educational or social realms of experience and learning. The meaning of art has changed radically in the last 100 years. At this moment in time, the word art standing alone refers to the artist's production framed by the authorizing reaction of institutional support, and an impact upon the viewer that demands intellectual and/or material consideration. What sounds like madness to the gatekeepers of another discipline is actually the strongest point of the fine-arts approach to knowledge. Without a deep institutional relationship to "knowing the world" in a specific way, we have the liberty to imagine, and dream the world in new ways. Theorists and

philosophers as diverse as Kant (1886/1983), Gablik, (1984), Kosuth (1991) and Danto (1997) have raised issues about the end of art as we know it, but few outside the discipline recognize this condition. (Our subject has been art itself.) I would argue that art has reached the end of the reductionist pathway ahead of most other disciplines. I would argue that we are now reconsidering art and its relationship to knowledge, as well as its relationship to the world.

### ***Conclusion: Art and Ecohumanism***

In the introduction to this chapter I claim that we have entered a period of participatory ecology. We can no longer take for granted nature's ability to maintain itself in the background, while humanity lives in the cultural foreground. We could describe the innocence of the industrial period, where nature was assumed resilient, and constantly functioning in the background as a second Eden. In the original garden, Adam and Eve only had to bite the apple, to learn what they had lost, today within what was what I would call a second Eden, we have begun to understand that we have consumed the entire tree, poisoned the soil and changed the climate of the garden. Consumption is once again, the path taking us to the point, where we realize what we have lost. Moving away from Eden-1, we found cultural awareness, which we believed was separate from nature. Moving away from the conditions that were Eden-2, we may find a new awareness, a fusion of humanity with nature, that results in a single consciousness. We could call this paradigmatic shift in human consciousness ecohumanism (12) (Tapp, 2002), whereby we become responsible for the restoration, healing and long term health of nature as an extension of the human condition. I would describe this as the emergent condition of Eden-3.

The question of nature is increasingly addressed by a range of radical interests, radical in their intent to change the social relationship to nature. The theorists and practitioners that have informed this section describe specific problems of the nature-culture relationship. Jordan describes restoration as an intimate relationship, where we become privy to "secrets" about nature. Elliot and Katz suggest that there is nothing that can be done with those secrets. Light and Foster provide us with critical insight on integration, and how it differs when viewed from either end of the statement, as a culture of nature and a nature of culture. Bookchin, Naess, Merchant and Plumwood provide us with radical frameworks to reconsider our beliefs. Berleant and Carlson provide us with philosophical frameworks that either transcend the separation of nature and humanity, or clarify the import of outside perspective (objectivity) when we advocate for nature. Costanza, Eaton, Margulis and Sagan provide us with an overview of the tools that are evolving as we grapple with the nascent concept of the health of nature.

The ecological artist has incredible potential to participate in the post-industrial project of ecohumanism. (See Chapter 5 by Andrew Light.) Humanity has lost its relationship to nature. Nature has faded into the background during the industrial period. What is the role the arts can play in response to this loss? Artists with a knowledge and passion for new cultural concepts, have always been on the forefront of metaphorical and symbolic knowledge (See Chapter 8 by Braun..) I would argue that metaphoric knowledge is the

root of a paradigmatic understanding. Contemporary artists are comfortable with complex ideas and their affect on human perception. Artists understand the impact of systems with a good interface, as well as what happens when interface is lost. Perception can be enabled or constrained by interface and human values follow perception, framed within known concept models. Like the contemporary aesthetic philosophers, artists have to slip some of the bonds of history, and think carefully about how to define interdisciplinary practice and what it means to act upon these ideas within culture. In a culture dominated by science, which expands and defends what we know based upon a foundation of knowledge, the arts have to develop new critical and strategic tools to act upon society. We need to create a supportive interdisciplinary community of creative individuals that are committed to, and take responsibility for, positive shifts in the "culture of nature." We also have to be responsible for the knowledge and impact of our work across disciplines. In the interdisciplinary model, we find new reasons to think about the efficacy and impact of the artist. At the same time we must consider how we make these arguments in the context of a discipline that denies a foundation approach to knowledge. The cultural value of art lies in its ability to question the canon, rules, principles and standards that confine the thinking of other disciplines. The artists unorthodox approach to knowledge often opens unexpected doors. Shedding daylight upon options, issues and solutions that would not be considered or pursued through more tradition-bound disciplines, conventional social programs or political and economic institutions. This is not an issue of comparative value, but rather one of complementary value.

Notes

(1) The argument for this was made by Anne Winston Spirin during a pre-conference discussion on Healing Nature at the Brown Fields and Gray Waters Conference held at the Harvard Graduate School of Design on November 9, 2001.

(2) The modernist goals of creative autonomy and free creativity resulted in a discipline without traditions, so heavily invested in discipline specific innovation that it was eventually entropic. See Gablik (*Art After Modernism*: 1984) and Arthur Danto (*After the End of Art*: 1995) for a good overview of this phenomenon, and the authors argument that art must reengage social and environmental issues. Gablik extends her argument, with a strong focus on the environment in (*The Reenchantment of Art*: 1989)

(3) Joseph Beuys, was a German artist internationally recognized for his art and his social activism. Beuys had a role in founding the German student party, and the German Green Party. One of his last works, 7000 Oaks for Kassel Germany, began with the dumping of 7000 basalt columns in front of the primary exhibition building at Documenta 7, in 1982. His intention was to pair the columns with Oak trees to be placed/planted throughout Kassel. The Work, an act of urban regeneration and nature/culture restoration took 5 years to complete. (<http://www.diacenter.org/ltproj/7000/>). The legacy of Beuys includes both practice and theory.. He is best known for his idea of social sculpture whereby we –all- (everyone is an artist) must take responsibility for shaping the world in which we live. The shift from Beuys theory to the theoretical and philosophical position of today's neo-Beuysian practitioners can be described in terms of a post authorship practice. Where Beuys, retained his role as primary author, the new practitioners share authorship with a focus on effecting change. The clearest example of this can be found in the Austrian group Wochenklausur . ([http://www.wochenklausur.at/projekte/menu\\_en.htm](http://www.wochenklausur.at/projekte/menu_en.htm))

(4) Helen and Newton Harrison are best known in the U.S. for the work on the "Lagoon Cycle" A 12 year study of coastal lagoons. (<http://www.communityarts.net/readingroom/archive/ca/raven-harrison.php>) Their work focuses upon the co-evolution of biodiversity and cultural diversity. They have worked all over the world developing visionary plans for the restoration of major rivers systems such as the Sava River in former Yugoslavia, the North American Rainforest – the redwoods of the northwest, and their most recent project Peninsula Europe, a study of the uplands of Europe and their ecological and cultural value for the entire European Union. Still active internationally, the Harrison's have recently wrote about their own work, at (<http://moncon.greenmuseum.org/papers/harrison1.html>). Their work with ecosystems and creativity; discourse and policy; at a planning scale is held in high regard. Their ongoing work affects the ideas and practices of artists like Aviva Rahmani in Maine, Ala Plastica in Argentina, and David Haley in England.

Other important contributors include Hans Haacke, Alan Sonfist and Agnes Denes. Haacke explored plants, natural phenomena and the water quality of the Rhine. In New York, Alan Sonfist proposed the restoration of a native forest to parklands throughout

Manhattan, resulting in the "Time Landscape" in SoHo. Agnes Denes grew wheat at Battery Park City beneath the shadows of the twin towers. Shifting a brownfield site from a wasteland, "Wheatfield" became a symbolic source of wheat and bread for a city that had long forgotten its relationship to agriculture. In 1974, Jack Burnham wrote an important book that featured many of these artists. Titled, "Great Western Salt Works" (1974: 15-24), it was notable because it developed an initial approach to systems aesthetics.

(5) Other Eco-art Dialogue members contributing to this definition and guideline include Lynne Hull, of Colorado, one of the most consistent practitioners of "trans-species" art, or work with/for animals and wildlife. Aviva Rahmani of Vinalhaven, Maine has spent nine years restoring a tidal wetland on property she owns there. Susan Liebovitz Steinman of Oakland, California, has recently finished a large collaborative ecological restoration and planning project working with the U.S. Park Service. Artists Ann Rosenthal of Massachusetts, Jackie Brookner of New York (Steinman's collaborator on the Park Service Project.) and the curator Amy Lipton of New York have provided additional input and support for this effort and its realization. Others members that are active on the list include, include the artists Jeroen Van Westen of Holland, Shai Zakai of Israel, Shelley Sacks of the U.K., and curators Heike Strelow of Germany and Tricia Watts of Los Angeles. All of their work is available online, or through the Greenmuseum.org.

(6) These formal standards were the fundamental precepts of Plato and Aristotle's aesthetic of beauty.[Beardsley, M., G., 1966, Thompson 1999]

(7) Mitigation policies for wetlands trading in particular have been disastrous. There is little or no knowledge and oversight at the state and local levels when natural systems are removed and replaced to enable development

(8) I am using the standard dictionary definition of philosophical subject: that which thinks, feels, perceives, intends etc., as contrasted with the object of thought, feeling etc.

(9) I refer to general systems theory that helps us see the complexity of a problem as an interacting collection of parts which function as a singular whole.

(10) Allen Carlson's models for the aesthetic appreciation of nature. (2000: 6-8)

1, the Formal object/landscape models – The appreciation of identifiable objects within a landscape or as a scene carefully framed and chosen for consideration.

2, Metaphysical imagination model – Aesthetic appreciation as deep meditation and wild speculation. An attempt to learn the "true character of nature and our proper place in its grand design."

The first model makes the case for an environmental aesthetic by neglecting normal experience and the second raises the question of the nature-culture relationship. Carlson considers neither to be plausible contemporary models.

3, Natural environmental model – "The appreciation of nature for what it is, and for what we can know about it through the natural sciences – accommodating its true character as well as our normal experience and understanding of it."

4, Arousal model – Appreciation of nature through emotional arousal. "This less intellectual more visceral experience of nature is a way to legitimately appreciate nature without involving any knowledge gained from science."

5, Pluralist model – Acceptance of the post-modern range of ideas that attend nature, qualifying them with "serious appropriate interpretation".

This next grouping provides the working set for his decisions. The third, the intellectual is qualified by the fourth the emotional, and the fifth, a (modified post-modern) pluralist model, provides permission for qualified consideration of both approaches to knowledge.

6, Engagement model – Absorbs the appreciator into the natural environment. This model is intended to remove the traditional dichotomies of subject and object

7, Mystery model – The only appropriate aesthetic experience of nature is based on its mystery, an appreciative incomprehension which can only come from separation from nature.

8, Non-aesthetic model – Based on the view that aesthetic appreciation is directly tied to human artifacts, therefore the aesthetic appreciation of nature is impossible.

9, Post-modern model – Art, experience, knowledge, literature, myth, science and stories all inform our aesthetic appreciation of nature, with none weighted above or below the other.

The final grouping are considered out of the question for Carlson. These are models which help define his understanding of the limits of aesthetic appreciation. Briefly, the sixth identifies a need to retain the subject-object dichotomy, because its loss negates aesthetic interpretation, the seventh clarifies the point that one cannot appreciate what one does not know, the eighth is merely self-canceling, and finally, he deems the ninth unworkable due to open-ended multiple source interpretation without qualifiers.

(11) In 1990 a three day meeting was held at the Aspen Institute. This definition was accepted by the workshop participants. It defines health in terms of four major characteristics relevant to complex systems, sustainability, activity, organization and resilience.

(12) I came across this term as a natural part of the inquiry, thinking and wordplay that occurs while writing an article like this. Realizing its obvious logical application I did a little research and discovered that ecohumanism is a concept that has emerged in the humanist literature. A very brief overview of that literature indicates that it has a more anthropocentric and theologic intention, in that context. Without getting into a detailed analysis of the term, its definitions, and its emergent literature, what seems to be consistent is the sense of limits and responsibility which emerge from an integration of nature and culture. I intend to think more about this in the future, considering the position of fusion rather than integration and what that means in terms of the artist's work on issues of individual perception, values and impact on society and politics. The text that I found most relevant to the concept, is Robert B. Tapp, *Ecohumanism*: Vol 15, of *Humanism Today*, Prometheus Books, N.Y..



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