A Working Guide to the Landscape of Arts for Change

A collection of writings depicting the wide range of ways the arts make community, civic, and social change.



Greg Niemeyer's Black Cloud project enlists youth in Los Angeles, California, and Cairo, Egypt in measuring air quality in polluted neighborhoods. The Xylon team carries its model for an improved neighborhood from Manual Arts High School to the Machine Project Gallery. Photo by Greg Niemeyer, courtesy of Aclima, Inc.

Environmental Art

By Sam Bower

From an environmental perspective, we are living in transitional times; the practices we engage in now have far-reaching implications for the survival of the earth and all its life forms. "Environmental Art" is an umbrella term for a wide range of work that helps improve our relationship with the natural world. Art provides a lens through which to explore all aspects of society--from urban food production, climate policy, watershed management, and transportation infrastructure to childhood education and clothing design--from an ecological perspective. This paper provides a brief history and salient examples of projects and practices in this field over the last several decades. Although primarily meant to provide a U.S. perspective of the Environmental Art movement, all of the work cited exists within a networked global system characterized by the rapid exchange of ideas.

A Working Guide to the Landscape of Arts for Change is supported by the Surdna Foundation as part of the Arts & Social Change Mapping Initiative supported by the Nathan Cummings Foundation, Open Society Foundations, CrossCurrents Foundation, Lambent Foundation, and Surdna Foundation.



INTRODUCTION

In ancient cultures whose people managed to live in the same place for thousands of years, the behaviors and infrastructure necessary for survival were also deeply connected to art, rituals, and artifacts of considerable beauty and significance. These sustainable practices--spread and maintained as culture, not just practical policy and engineering-also formed part of a coherent world view in which each element (a carved doorway, ceremonial costume, or a planting song) gained strength and resonance from the larger system. Viewed from this perspective, contemporary Environmental Art practice offers an opportunity to incorporate some of these approaches back into modern industrial civilization by offering a more holistic view of the role of art in service of our communities and ecosystems.

In a contemporary context, the Environmental Art movement is considered to have emerged from the political and social turbulence of the late 1960s and early '70s. Artists were inspired by new understanding of environmental issues and ecological theory as well as by the urge to work

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outdoors in non-traditional spaces. Since these early beginnings, the field of Environmental Art has grown dramatically into a diverse global cultural movement that has expanded the role of art and artists in society.

"Environmental Art" is an umbrella term that refers to a wide range of work that helps improve our relationship with the natural world. Many artistic practices such as land art, eco-art, and art in nature as well as related developments in social practice, acoustic ecology, slow food, interaction design, bio-art and others can be considered to be part of this larger cultural shift.

In recent years, critical scholarship, university programs, and institutional support for this type of work have grown. The Internet has played a pivotal role in the dissemination of artists' work, promoting civic discussion and increasing access to often remote or ephemeral projects internationally.

The field of Environmental Art is as diverse as the natural world that inspires it. Art provides a lens through which to explore all aspects of society--from urban food production, climate policy, watershed management, and transportation infrastructure to childhood education and clothing design--from an ecological perspective. The rich cultural practices of our ancestors combined art and respect for the natural world in almost

everything they did allowed them to hunt, farm and pattern their lives with the land and the seasons. Their art was sustainability. We are slowly seeing this whole-systems approach emerge again today, through contemporary approaches to art and environment.

TYPES OF ENVIRONMENTAL ART

As a field, Environmental Art can be categorized in many ways.

- By time: much environmental art is designed to disappear or transform while some is designed to last for centuries to provide long-lasting infrastructure, to educate or empower communities, or to heal the land.
- By place: non-localized and distributed digital works, repeatable templates that can be recreated anywhere, or site-specific installations.
- By method: individual projects made by artists in their studios or broad-based collaborations between artists and others such as scientists, educators, or community groups.

Human activity affects other people just as it does the world around them. Most art is designed with a largely human audience in mind, even when its actual impact is much greater. Environmental Art often takes into consideration this larger context, the origin of materials used, and the ecological impact of the ways an artwork was constructed and disseminated, as well as long term effects on non-human life and systems.

Different historical terms can serve to cluster the work by function and historical artistic context. (See this essay from the greenmuseum.org website for a discussion of terminology or search the web using these terms for books or online resources to learn more.)

Land Art, Earthworks, and Earth Art

This broad category of work had its origins in the U.S. in the late 1960s and early 1970s and generally refers to both small- and very large-scale outdoor sculpture made from earth or cement and construction materials, arranged in minimalist geometric forms. Robert Smithson's iconic *Spiral Jetty* (Great Salt Lake, UT, 1970) is a classic example. A 1,500 foot coil of basalt rocks 15 feet wide set into the shallow flats of a lake bed, its function was primarily conceptual and aesthetic, not ecological. The site is fairly remote and as the water level rises and falls, the rocky form is sometimes completely submerged.

Several artists of this period also worked in desert landscapes of the American Southwest and created architectural scale work designed to highlight the movement of the sun or astronomical phenomena (like Nancy Holt or James Turrell), while others moved soil or

documented temporary interventions that explored spatial relationships outdoors or made the act of piling, or digging, into art. These artists were influenced by the egalitarian and environmental movements of their time and tended to focus on the transfer of contemporary art ideas outdoors, beyond gallery walls and into remote places, to create works that could not easily be collected or sold.

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Art in Nature

Some early Land Art did tread lightly on the Earth. Dennis Oppenheim carved rings in snow along the U.S./Canadian Border for *Annual Rings* (1968) and Richard Long engaged in well-documented walking projects in England during that same period. These conceptual projects can be seen as

precursors for what is also known now as "Art in Nature"—ephemeral outdoor installations and simple geometric forms assembled from natural materials found on site. These stunningly beautiful ephemeral sculptures are often made from colored leaves, flower petals, twigs, icicles, raked sand, or stacked stones, which are then photographed. Some may only last minutes before they return to the earth, so documentation plays a central role in this work. The focus is usually on creating objects or subtle changes in the landscape that highlight geographical features or explore the natural forms of the materials themselves. This form of art may celebrate the beauty of nature but does not usually address ecological issues directly.

The British artist Andy Goldsworthy is commonly associated with this approach and frequently shares his work through framed photographs in galleries or in coffee-table books. Art in Nature artists have a strong reverence for natural form and beauty and a desire to create a minimal impact on the land in the production of their work. There can be a spiritual dimension as well, with mandalas and structures designed to bless or protect the land. Some commissioned projects can involve fallen trees, dry stone masonry or more "permanent" installations in museums and sculpture parks. Art in Nature can also engage the public directly in stacking stones or creating temporary shapes using natural materials on beaches or in public areas, offering participants a personal contact with nature that inspires deeper commitment.

Ecological Art

Also known as eco-art or sustainable art, this work addresses environmental issues directly and often involves collaboration, site restoration, and "eco-friendly" approaches and methodology. The form of an ecological artwork often emerges directly from its function in service to communities and ecosystems. According to a group known as the ecoartnetwork,

ecological art seeks "to inspire caring and respect, stimulate dialogue, and encourage the long-term flourishing of the social and natural environments in which we live."

The work of the pioneering collaborative duo of Helen Mayer Harrison and Newton Harrison and their studio illustrates the trajectory of this type of work. With their early food-related works the Harrisons called attention to issues of backyard farming and food security. For example, for their *Portable Fish Farm: Survival Piece #3* (1971), they installed a functioning fish farm inside a gallery and eventually caught, cooked, and served them to the public. Today, the Harrisons engage in large-scale mapping and collaborative planning projects to re-envision the resettlement of entire countries or bioregions. Their work generates dialogue and proposes bold new visions for dealing with global climate change, through poetic dialogues, printed and projected maps, and 3D landscape models.

Other leading figures have addressed land-use issues through projects that have inspired numerous variations internationally. In these projects, artists designed habitat sculptures, created toxic soil and water clean-up installations, and developed urban gardening related concepts. Alan Sonfist's *Time Landscape* (1978) was a small fenced plot of pre-colonial native vegetation in NYC; Patricia Johanson created larger-scale innovative landscape designs like *Fair Park Lagoon* in Dallas, TX (1981); and Agnes Denes planted two acres of wheat in Manhattan for *Wheatfield: A Confrontation* (1982). Betty Beaumont's *Ocean Landmark* (1978-1980) reprocessed 500 tons of coal waste into blocks to form an artificial reef 40 miles off the New York Harbor. Other artists such as Lorna Jordan bring art and ecological design principles to bear in projects like *Waterworks Gardens* (1996), a large and verdant wastewater treatment park.

Ecological art projects range from the humorous, poetic, and visually captivating, to imminently practical initiatives that might not look like "art" at all but serve to shift public perception about important issues in innovative, memorable ways to create lasting change. For an ecological artwork to succeed, the science and the practical implications need to be thought through, so many of them involve collaborations with scientists, architects, educators, community members, and resource managers. For artists doing this work, the research and creative discussion that emerges from these interactions can be as important as the finished projects.

Environmentally Themed Gallery and Museum Work

For the past five years there has been a tremendous increase in museum and gallery exhibitions with "green" themes. For many traditional arts institutions, this has meant working with media that are most familiar and that lend themselves most easily to indoor display and exchange. From painting and photography to various forms of installation, sculpture, video, and multimedia, these projects are often more easily recognizable as art and generally take a far more descriptive or thematic approach to environmental issues.

Painting and drawing continue to be powerful as people work with natural pigments or in traditional media with ecological themes. Photography and video are also very strong on their own and they are convenient ways to showcase projects or issues anywhere, since entire exhibitions can be copied, projected, or reprinted digitally to eliminate shipping costs. Much of this work can be related to, or part of, the visual display of conceptual Land Art, Art in Nature, and Ecological Art, with frequent blurring of distinctions. It ranges from documentary to abstract to poetic to digitally manipulated visualizations of data.

Artworks that directly address issues of pollution and consumption often involve connecting people to the world outside the gallery or museum walls. For many, the use of trash and found objects in art is a powerful point of entry. Inspired by Mierle Laderman Ukeles, who has worked with the New York City Department of Sanitation on a wide range of art projects since the late 1970s, artist Jo Hanson founded the Recology Artist in Residence Program at the San Francisco Dump in 1990. This innovative program has brought more than 80 artists direct access to the City of San Francisco's waste stream and connected them to gallery and museum exhibition opportunities; the artists also give public talks to school children visiting the facility. The artworks themselves may or may not have environmental themes but their provenance offers a strong opportunity for commentary, dialogue, and awareness of the flow of materials through our cities.





In the Moment, Rick Carpenter, 2002, one of more than 35 sculptures created through the Recology Artist in Residence Program at the San Francisco Dump. The sculpture garden functions as a buffer between the dump's transfer station and the adjacent residential neighborhood. Recology is a private, employee-owned company that provides waste collection, recycling, compost, and disposal services.

Lastly, the elegant display of nature-related information and collections has itself become a form of artistic commentary. As windows through which we frame and view the world, our institutions and cultural infrastructure have their own idiosyncrasies and historical models to explore, poke, and dissect. Nearly any topic, from evolutionary theory to local natural

history, can serve as inspiration to artists seeking to create indoor work through new installations, re-shuffling existing collections, or additional research into our sense of place.

Crossover from Other Fields

Art is a fluid and rapidly hybridizing phenomenon. As artists and communities begin to reconsider everything as potentially artistic and related to the natural world, all manner of new fields open up. What follows are just a few of the many fields impacted by this.

For years now, the fields of "sci-art" and "bio-art," essentially science research and experimentation as art, have addressed "environmental" issues as well. Much of this work tends to be more about the science itself and less about how the science affects or relates to the world but it can occasionally overlap very effectively with broader concerns. For example, artist Brandon Ballengée does research on malformed amphibians with Dr. Stanley K. Sessions and then presents it in galleries with live specimens, beautiful high-quality scans of tiny multilimbed frogs, and local pollution data.

"Acoustic ecology" is the sound version of this movement. Musicians and nature recording artists present the natural soundscapes of remote or urban areas and advocate for reducing noise pollution. Some of these artists edit the resulting compositions while others leave them as is, searching continually for the most pristine or exotic sounds and habitats. Jim Nollman and David Rothenberg create live improvisational "interspecies" music in a type of call-and-response with whales and wildlife, while Walter Kitundu, with his *Ocean Edge Device* (2008), creates wind- and wave-powered turntable instruments and platforms for improvisational compositions with nature.

"Slow food" offers a gastronomic and culinary approach to the same issues. Advocating for delicious and beautiful alternatives to fast food and fast life, this global movement approaches food from a cultural, biologically diverse, and organic agriculture perspective. Many chef-artists such as those in the group OPENrestaurant are serving conceptual meals to illustrate food production-related issues in conjunction with slow-food events. Some artists orchestrate high-end gastronomic productions held in farm fields while others initiate pay-it-forward style meals or free fruit distribution networks.

"Green theater" productions also play an important role, from indoor work to street festivals to outdoor performances such Jennifer Monson's *Bird Brain Dance*, which follows wildlife migratory patterns. "Social Sculpture" often has a performance element. A term first coined by the German conceptual artist Joseph Beuys (a co-founder of the German Green Party), "Social Sculpture" refers to the radical (and very ancient) notion that everyone is an artist, engaged in transforming the world and their lives in accordance to their own sense of aesthetics. This work tends to have a personal, transformational, and participatory methodology. Shelley Sacks, a South African artist living in the UK, has explored banana

farming and our relationship with trees through long-term projects that involve interviews with growers and experiential tree-hugging installations as part of her social sculpture practice.

Lastly, the fields of architecture and landscape architecture frequently engage artists in conceptual planning and design and have initiated bold, ecologically innovative sculptural developments of their own that echo many of the themes and methods of environmental artists. The architect/artist Maya Lin, for example, has had a long-standing interest in these issues, including the *Confluence Project*, a series of environment-inspired projects along the Columbia River Basin. A further aspect of the transformation of public space and the evolution of social movements is addressed in the field of "social interaction design." This emerging discipline applies insights from sociology, psychology, and communications theory to help influence the ways people experience a place, how they learn and feel. The idea is that art and physical infrastructure can help connect people to the living systems they depend on in healthy ways. Shaping these interactions can be seen as a design challenge.

The point to take away from all this is that many concepts in these and countless other disciplines are beginning to converge. It matters less what we call it, so long as people can work together to make sound ecological stewardship a bit more aesthetically and metaphorically rich (and therefore more culturally sustainable). Almost any place is a good place to start.



As part of the Confluence Project, Maya Lin's *Story Circles* at Sacajawea State Park tell seven confluence stories of history, people and culture where the Columbia and Snake Rivers meet. A combination of natural forms, restored Native landscape, and the words of both western explorers and Chinook people offers opportunity to contemplate the larger story of the land. Photo: Courtesy of Confluence Project.

CONTEXT

This document is primarily meant to provide a U.S. perspective of the Environmental Art movement. It is important to note that all of this work exists within a networked global system in which international travel, exhibitions, conferences, and online media contribute to the rapid exchange of ideas. Concurrently, national borders, cultural predispositions, and varying models for funding the arts have led to an efflorescence of exciting programs and investigation worldwide. Learning from and sharing ideas with practitioners internationally is vitally important.

The frequently ephemeral, geographically dispersed, and non-commodity nature of this type of contemporary art has had interesting implications for cultural institutions and funders. For decades, the Environmental Art movement was largely under-served by a traditional arts infrastructure designed for the display and sale of portable objects and ideas. Contextual projects designed for remote places were often hard for people to find, or even recognize as art. The occasional exhibition, magazine article, or art history book offered tantalizing glimpses of something larger, but the breadth of this work was largely invisible to the general public. Foundations supported art or environmental activism but rarely both together. Artists working in this field were often forced to be even more creative and interdisciplinary by default, relying on multiple funding sources and unconventional private and institutional support.

By the end of the 1990s, with the emergence of the Internet, information could finally leap geographical barriers; artists and their collaborators were able to begin sharing information and ideas instantaneously around the globe. Websites and organizations dedicated to serving the environmental art movement (such as greenmuseum.org, the Women's Environmental Artist Directory, ecoartspace and the Arts and Healing Network) began to appear and people could finally begin to understand the international and diverse context for this work. By the mid 2000s the environmental art movement was growing rapidly. Improvements in website technology and an increasing awareness of climate change and environmental issues contributed to a surge in interest and activity among artists, arts organizations, government agencies, environmentalists, and educational institutions.

For many sponsors and collaborators, the impulse to engage the arts was initially an opportunity for propaganda. Environmental organizations welcomed art that could illustrate their causes. Arts organizations thought environmental themes could provide a "green" aspect to their programming. For both, the limits of their own understanding of what art was or could do often collided with institutional barriers and traditions. For the artists, fortunately, it provided new opportunities to encourage cross-sector collaborations and innovative problem solving. Initial contacts often led to deeper transformative collaborations.

STRATEGY

Addressing the most widespread and interdependent issues of our time such as climate change, sustainability, species depletion, and the health of our oceans will require unprecedented systemic collaboration on a local, national, and international scale.

At the level of the individual artist or artwork, research and collaboration often plays a vital role in the conception, creation, and function of a particular project. Artists must frequently work with educators, scientists, communities, and organizations interested in, and impacted by, an artwork. Ecological artworks designed to address an ecological issue must be based on sound science. For example, an art park designed to clean up acid mine drainage (AMD), like the AMD&ART in Vintondale, PA, has to involve hydrological engineers, biologists, and specialists in soil restoration, as well as local historians and community members if the artistic elements and overall vision are to fit together.

Environmental artists employ a wide range of strategies for sharing their work and catalyzing change. Many approaches help insure that there is indeed something for everyone.



Lawns in the Desert, Kathryn Miller. Photo: Courtesy greenmuseum.org

Beauty is a classic approach and explains the enduring popularity of Art in Nature in parks and along trails and beaches. Humor is another, through the use of spectacle or vaudevillian performances and endurance feats as in the work of Billy X. Curmano, who swam the entire length of the Mississippi River. Some artists like Kathryn Miller have staged ridiculous images for comic effect in her 1995 Lawns in the Desert series of photographs showing rapidly drying

sections of lawn sod on medical gurneys in the desert. Others like Vaughn Bell create portable ecosystems: in Bell's case, clothing with pockets filled with soil and plantings to carry around and tend.

Data visualization is another very effective strategy. Chris Jordan's large digital photographs dramatically highlight waste and consumption data. Andrea Polli converts weather and CO_2 pollution information into sound to create immersive hissing environments and degraded video images. The French duo known as HeHe (Helen Evans and Heiko Hansen) used laser projection and civic engagement to highlight live urban

energy consumption in the city of Helsinki, Finland, in their impressive *Nuage Vert* project (2008). Lea Redmond's ongoing clothes tag mapping project, *Changing Clothes: Care Instructions/Tag Exchange*, invites participants to cut off their own clothing tags and pin them on a map to indicate where the garment was from to create a fabric map that reveals previously hidden consumption patterns.

Another technique is to enlist people in a grand vision for a place. Fritz Haeg's *Edible Estates* is a project that invites homeowners to convert their front lawns into vegetable gardens that can be seen by neighbors and inspire discussion and food exchange. Amber Hasselbring's *Mission Greenbelt* in San Francisco provides a long-term vision to enlist residents and businesses in connecting two city parks via a continuous strip of sidewalk gardens. Projects like these, as well as even larger ones such as *Peninsula Europe* (2000-2003) by Helen Mayer Harrison and Newton Harrison, provoke public debate and challenge government planners to imagine alternative land and water use patterns, eventually creating shifts in policy.

Educators and organizations have long used art as a teaching tool. Paintings and photographs can help inspire, illustrate, or document environmental concerns or highlight the magnificence of natural places. Since the early days of the Sierra Club, stunning images of endangered habitats have been used as lobbying tools and vehicles for public outreach in the form of exhibitions or coffee table books. Now online exhibitions, video, and audio tours can help connect people to places through additional forms of distributed media. Ecological Art, in particular, lends itself well to interdisciplinary projects and advocacy efforts in a wide range of non-traditional art settings. From creative maps to text-based works, trail signage, and interactive installations, artists and their collaborators are finding opportunities to communicate and inspire no matter where we are.

Hybrid strategies involving educational games, online media, and ground-based interventions can be particularly effective for young people and communities. Amy Franceschini and Futurefarmers have a strong history of multi-modal educational, online, and community engaged projects. *The Reverse Ark: The Flotsam and Jetsam* (2008) turned a college gallery into classroom/workshop/exhibition space in which pallets of newspaper, cardboard, and plastic bottles were used to create art and a platform for films and lectures and then returned to the pallets. Greg Niemeyer's collaborative project *Black Cloud* (2008) uses online platforms, gaming technology, a cartoon character, and portable air sensor units to enlist youth in Los Angeles, California, and Cairo, Egypt in measuring air quality in polluted neighborhoods. Pioneering artist Mel Chin's *Paydirt/Fundred* (2010) takes this approach to a national level through participative "money" drawings, online advocacy, educational resources for teachers, an armored truck, and a safehouse, plus an innovative lobbying/funding strategy to pay for the cleanup of lead-contaminated soils in New Orleans.

Organizations working with artists to create and present their work have numerous strategies for generating effective change. In 2006, Lauren Bon, an artist, architect, and trustee of the Annenberg Foundation, combined her many talents and resources to turn a 32-acre brownfield in Los Angeles into an artwork called Not a Cornfield. This project then became the base for the creation of FarmLab, a thriving think tank, studio, and community arts center dedicated to "sustainability,



A *Safehouse* in New Orleans (a house converted to be a local repository for Fundred bills) keeps Operation Paydirt by Mel Chin visible to the community

livability, and health." EcoArt South Florida provides another model as a unique nonprofit dedicated to catalyzing the emergence of Ecological Art in that region through symposia, exhibitions, and unique mentoring programs for young artists. Artist residencies and parks such as LAND/ART in New Mexico, the Colorado Art Ranch, and others offer exhibitions, educational programming, and site-specific artworks with an ecological focus. As nodes of creative production and discussion, they play a very important role as catalysts for new work and collaborative interaction.

In 1979, the King County Arts Commission in Washington state sponsored an innovative symposium called "Earthworks: Land Reclamation as Sculpture," inviting several of the leading artists of the period to propose artworks that could help rehabilitate former gravel pits, surface mines, and landfill sites. The projects that emerged were funded and made possible by an unprecedented coalition that included local, county, state, and federal agencies; the Seattle Museum; and community groups. This model of multisector collaboration and sponsorship continues today despite the economic downturn, as an increasing number of city, state, and federal agencies work with nonprofits and developers to sponsor artist-engaged projects and research. Over several years, ending in 2008, the New England Foundation for the Arts' Art & Community Landscapes program, the National Park Service, and the National Endowment of the Arts funded 18 site-based artworks as a catalyst for increased environmental awareness and stewardship. Internationally, as their contribution to the 1992 Earth Summit in Rio de Janeiro, the Finnish Government took on the construction of Agnes Denes' Tree Mountain - A Living Time Capsule - 10,000 trees - 10,000 people - 400 years (Ylojarvi, Finland 1995). The project was located in reclaimed gravel pits planted with a mathematical pattern of Finnish pine trees, each paired to an individual who would take care of it.

Other projects bring together art, exhibition, nonprofit advocacy, and socially and ecologically responsible business sponsorship in multiphase projects. Barbara Hashimoto's *Reverse Trash Streams: The Junk Mail Project* (2007) mobilized arts organizations, a forest conservation nonprofit, local green businesses, and companies that recycle paper. The shredded paper resulting from one year's worth of junk mail (3,000 cubic feet) was piled into enormous mounds and involved performance elements as well as public presentations and educational outreach by participating organizations. Frances Whitehead's *Embedded Artist* projects with the City of Chicago and students from the Arts Institute offers an additional model for creative partnerships to address urban renewal and design. Together, these strategies offer new and deeper levels of

IMPACT

Taken as a whole, the field of Environmental Art spans a wide range--from beautiful and inspiring, to provocative and insightful, to engaging and practical. Some projects are clearly designed for people, while others are more for the worms and watersheds. The right powerful symbol or resonant artwork can always capture the spirit of a time and place and become a rallying point for change. Art has a way of surprising us.

From an environmental perspective, we are living in transitional times and we need as much passion and creativity as we can muster to heal our relationship with the Earth and develop new ways of working together. Artists, their collaborators, and their supporters all have roles to play in this shift and it will take a lot of experimentation and all manner of innovation to get us there. Even the smallest steps can be helpful, as can the boldest initiatives.

Each project exists in context with other artworks and serves as potential inspiration for future work. What follows are a few examples of projects that show how work serving specific goals and objectives can influence change from a local to a national level. The impact of any one artwork can ripple outward in the form of "conversational drift" to provoke ideas and change people's thinking over time. A considered, systemic approach to the placement and function of art throughout a neighborhood or bioregion could naturally have an even greater impact. (Some of the curatorial and policy implications of this will be explored in the next section.) Effective documentation and online outreach, therefore, are very important.

A shift in the role of art as a commodity to art as a service affects us all. If sustainability is truly a goal, then we must enlist our cultural infrastructure effectively and deliberately to maximize beneficial patterns for change. The following three projects illustrate the potential impact of this kind of work.

Deborah Small's *Bathroom Site Project* (1979) is an early example. As part of her project, Small gave several ceramic art bricks depicting various views of California's Mono Lake to state government officials. Her intention was to help call attention to the fact that this desert lake, an important survival nesting site for several bird species, was being steadily drained dry by the City of Los Angeles. Text and images on the bricks explained that if everyone in the city of LA had one in their toilet tank, they would displace enough water to save Mono Lake. This caught the eye of certain government officials who decided to launch a series of legal challenges against the City of Los Angeles. The resulting testimony led to a legal victory that not only ended up saving Mono Lake but also provided an important legal precedent for a Public Trust obligation to maintain wild places. Deborah Small's gift of art is credited for motivating and inspiring the original legal challenge by government officials. The story of this brick and its subsequent impact helped convince the founders of greenmuseum.org that art could indeed catalyze real change and has since been shared at events and online with many thousands of people.

The Reclamation Project is an exceptional participatory mangrove restoration project launched by Miami artist Xavier Cortada in 2006. At its most basic level, according to the artist, "it explores our ability to coexist with the natural world." With these modest ambitions as its starting point, the project succeeds by making reforestation so compellingly beautiful, fun, and engaging that people want to see it continue. The artwork involves the annual collection of mangrove propagules in coastal areas with the help of volunteers. The plant material is then exhibited in long rows of clear water-filled cups suction-cupped to windows and walls in local museums, schools, businesses, and other public spaces. The propagules are nurtured into seedlings and then planted along coastal areas with the help of additional volunteers as part of an ongoing reforestation program. The Reclamation Project proved so popular that the Miami Science Museum committed to managing the coastal reforestation component and



Xavier Cortada's "The Reclamation Project: Installation at the Verge Art Fair, Miami Beach, FL," 2009 (curated by Amy Lipton, ecoartspace). Annually, Reclamation Project volunteers collect mangrove propagules in coastal areas and distribute them across the community, symbolically "reclaiming" urban areas that once flourished with mangrove forests. The propagules are then exhibited in clear, water-filled cups, nurtured into seedlings, and eventually planted along coastal areas to create new habitats above and below the water line.

hosting a permanent ongoing exhibit of 1,100 mangrove seedlings in their facility. A Foundation was also formed to support additional installations in neighboring counties and communities.

Northern California artist Daniel McCormick creates elegant sculptures woven from green willow branches that are designed to control erosion, improve fish spawning areas, and stabilize river banks. He works with biologists, hydrologists, and park managers to find the most effective locations to support ongoing watershed maintenance efforts. Beautiful and highly functional, these forms trap silt and gravel and in contact with the moist soil eventually sprout and become a willow thicket. McCormick often enlists local community members, school children, and the Conservation Corps to install his work. Educational events and public discussion about the role of riparian restoration efforts contribute to a culture that supports mixed use strategies which can combine responsible ranching, agriculture, tourism, and development. Once the land is healed and natural systems are reestablished, the artist's presence is no longer felt.

FUTURE IMPLICATIONS

If human beings cannot find ways to live sustainably on the Earth, we will become extinct. If our culture cannot find ways to make the behaviors and infrastructure we depend on so compellingly beautiful and meaningful that we are moved by passion and love to maintain and evolve them, then the human

reinfusion of art and ecological thinking into the daily fabric of our lives and infrastructure will require tremendous flexibility, educational initiative and innovative problem solving.

experiment will come to an end. The stakes are high, but the issues are as ancient as life.

A contemporary sustainable culture will likely find useful models in the rich traditions of our ancestors and in the wisdom of indigenous peoples today. Research into the ecological and social benefits of various practices should help us envision modern analogs and inspire integrated arts programming and policy. Many contemporary views of what art is, and where it needs to go, stand in the way of this more distributed approach. There is more room outside of our galleries and museums than inside them, yet these organizations receive a disproportionate share of already scarce cultural resources. Our funding models tend to favor packaged proposals rather than open-ended micro-philanthropy, the gift economy, and collaborative interdisciplinary systems.

"Art with a job to do." "Activist art." The notion that there's a practical role art can play in remediation and practical land management can be challenging for people who expect that such a thing must necessarily mean a sacrifice in quality or aesthetics, or that it will lose its "value" or impact as art. Much of the work mentioned in this essay implies an expanded aesthetic that extends beyond the object.

A reinfusion of art and ecological thinking into the daily fabric of our lives and infrastructure will require tremendous flexibility, educational initiative and innovative problem solving. A shift away from the centrality of the discrete art object, the onemonth-long art exhibition (with catalog and shipping crates), and the individual funding of separate public artworks will help inspire new systems of public engagement, collaborative planning, and dialogue. Just as fast food has transformed our nutrition, the emergence of the "slow food" movement is beginning to encourage compelling alternatives that emphasize the local, ecological, and delicious. The fast pace of contemporary art has similar implications in terms of the loss of traditional skills, increasing economic disparities, and promoting faddish consumerism. A culture is influenced by the society as a whole. What are the implications when we begin to more fully reintegrate art and slower-paced, multigenerational ecological thinking back into our agriculture, forest and water management, energy use, medicine, economics, spirituality, governance, etc.? What defines an artwork when curators and policy makers begin to think of art and issues in groupings that relate to and support each other, and evolve over time?

We are just scratching the surface of what's possible and the outcome of the human experiment is far from certain. We do know, based on millennia of trial and error, is that unless what's good for us and the Earth is also fun, metaphorically rich, beautiful, and delicious, we won't embrace it fully or pass it down from generation to generation. This is an opportunity for an artful and effective future that we cannot afford to miss.

Sam Bower is the Founding Executive Director of greenmuseum.org, an online museum of environmental art. He is also an educator, public speaker, curator, and consultant. Sam created environmental art for eight years as part of the San Francisco Bay Area collaborative art group Meadowsweet Dairy. He helped found Cellspace, a nonprofit community art space in San Francisco, and Co-Directed Crucible Steel Gallery. Sam has worked as a solo artist, puppeteer, designer, and in the environmental nonprofit sector in the U.S. and Ecuador. He has served on the board and as an advisor to various nonprofits and art projects.

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