

Contextualizing Ecological Restoration through Art

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Abstract

While sustainability as an identifiable theme is both fashionable and pervasive, it is simply not substantive yet. It is meta-fiction written as cultural rebranding. The shift in plausibility needs to be witnessed in new perceptions of discarded and modified practices. In this paper I will propose that such a rich discourse can be created by using the pre-existing public and critical discourse mechanisms of art and observe this discourse transform into scientifically sound and effective design practices and projects through historical and current projects that present themselves as sustainable design, particularly paying attention to ecological restoration as one of the clearest examples of sustainable actions utilized by artists and designers currently and in historical precedents. I will discuss the historical (and political) trajectory of earth art, the recent work of Mel Chin as a key example of sustainable art activism and demonstrate through a global sampling of contemporary art as design intervention solutions that art and design methodologies can be used to manufacture functional and practical solutions to real problems caused by global warming, pollution, erosion, etc.

Keywords: Art, Design, Activism, Sustainability

1. Introduction: Contextualizing through Theory

As Carol Becker states in *Surpassing the Spectacle: Global Transformations and the Changing Politics of Art*, “Society’s resistance to embracing art fully parallels a similar cultural inability to accept the need for a universally recognized ecological consciousness.” (Becker, 2002) A truly sustainable future requires innovation, technological transformation and very usable and visibly applicable solutions that can be adopted easily and seamlessly as branded new lifestyles that can appear as parts of evolved cultures. This is a design problem. This is also a design problem that needs assistance from a critical world of discourse outside of design. The simultaneity of rapidly and pervasively appearing utopic versions of sustainability in the guise of thoughtfully designed objects and enlightened environments are encouraging, but often technically and socially ineffective with frequent negative or negligible environmental impact. The consuming global public knows this deep down in its media savvy gut and sarcasm and doubt underlie most corporate greenwashing campaigns and grassroots initiatives alike.

The inaccessible but catchy *Cradle to Cradle* “paradigm shift” (McDonough and Braungart, 2002) needed to embrace sustainability as a collective cultural shift for a techno-enlightened society is currently in the hands of branding specialists, industrial engineers, populist self-interests, as well as the global media. Rarely does the discourse of sustainability appear in the hands of the makers and the users of the raw stuff produced in the name of sustainable design. In Howard Risatti’s book, *a Theory of Craft, Function and Aesthetic Expression*, the author laments that craft has had to adopt art’s discourse as a default with consequent “low prestige and poor market value” as a result among other damaging identity problems. His prolonged argument takes on many forms ranging from questioning the value of the optical over the practical and how craft as opposed to art engages the body. It is clear that Risatti longs for craft to have a discourse of its own and his eloquent book labors to use art discourse to differentiate craft by raising the case for cultural value much as Soetsu Yanagi did years ago in romanticizing the roles of “folkcraft” in opposition to fine craft (Yanagi, 1991).

2. Critical Frameworks

Sustainable design suffers from the exact opposite problem. The lack of a significant critical frameworks and historical discourses available to contextualize sustainable design creates a void for a-contextual theories, objects and environmental strategies positioned as utopian design strategies but without proper context or clarity of intent. The shift in plausibility of sustainable actions versus intent is what James Proctor, the director of the environmental studies program at Lewis & Clark College, describes in an editorial printed in *the Chronicle of Higher Education*, in which he calls for a “contrasting vision of sustainability (that) is grounded in the reality of interdependence” and further elaborates on the paradox of short term goals versus “a more rigorously ground sustainability” in his cautionary essay of the superficial greening of curricula, campuses and culture from his vantage point. Proctor warns against pursuing the “utopias of escape” rather than “the utopias of reconstruction” that Lewis Mumford defined years ago (Proctor, 2010).

In an article written by Felicity Scott in the journal, *October*, Scott argues for a conscious political engagement with the post postmodern city by consciously revisiting the utopian architectural projects of the nineteen sixties to remedy the vacuity of form and intent that she saw in the architectural projects that were presented in the architectural competition to redevelop the lower Manhattan site of 911’s destruction. Scott locates her own exhaustive argument about architecture’s need to re-engage in a relevant historical design discourse to critique the shallow and meaningless 911 architectural competition actually produced by architects of great stature that sparked massive public interest and well as disappointment in architecture’s inability to adequately address the political and social needs of such public cry for meaningful work that instead demonstrated an “engaged withdrawal from reality” that was merely escapist (Scott, 2003).

The 2008 exhibition at the Museum of Modern Art, *Design and the Elastic Mind*, curated by Paolo Antonelli, confronted the outer limits of design visioning by assembling two hundred digital and interactive objects that blurred the distinctions between art and science in a quest to recognize cultural adaptations to “disruptive technologies” through design. This challenging work required the discourse of the artist and the gallery to present the project and Antonelli refers frequently to whom the artists are in her show are with pointed ambiguity. “Some examples are by bona fide designers, others by scientists and artists who have turned to design to give method to their productive tinkering, what John Seely Brown has called ‘thinkering.’ They all belong to a new culture in which experimentation is guided by engagement with the world and open, constructive collaboration with colleagues and other specialists.”(Antonelli,2008). Using pre-existing critical discourse mechanisms familiar in the worlds of art criticism and production transforms art into scientifically sound and effective design practices that present themselves as sustainable design in this project.

As John Dewey pointed out in *Art in Experience*, written nearly a century ago, “When artistic objects are separated from both conditions of origin and operation in experience, a wall is built around them that renders almost opaque their general significance, with which aesthetic theory deals. Art is remitted to a separate realm, where it is cut off from that association with materials and aims of every other form of human effort, undergoing and achievement”(Dewey, 1934). In 2010 this appears to no longer be the case for those that openly critique their own notions of practice, effectiveness and sustainability, a very rich place for a very rich discourse focused on “identifying practicable steps towards a sustainable future.” Society’s resistance to embracing art fully parallels a similar cultural inability to accept the need for a universally recognized ecological consciousness”(Becker, 2002).

3. The Artist as Advocate

The PBS television series, *Art:21- Art in the Twentieth Century*, brought practicing American artists to the public’s attention, as well as the kinds of issues that they were debating through their work. Needless to say, the subtext of questioning consumption, the environment and globalization dominated much of the discourse. If art is supposed to give us glimpses into human existence and what it all means then these artists were showing us what our collective concerns were in the late twentieth century. Art is a mercurial discipline. It is not science. Art positions itself to be able to reveal, enlighten and even foreground societal concerns, environmental woes and even problems at the scale of the cosmos, but can art change the world? Satish Kumar feels that “if the world is going to be saved, it is not going to be saved by the politicians, or by the industrialists, or by the business people, because...they are the culprits of this ecological, environmental and spiritual crisis we are facing.” Instead, he believes that artists will play an important role in this transition, because “the artist can still see the relationship of unity between human beings and nature”(Gablik, 1997).

A long-standing dialogue about art moving out of the gallery, away from mere image production, and more precisely a move from producing art as a commodity has a long tradition and a rich pedigree. Artists that would include Josef Bueys, Robert Morris, Maya Lin and Michael Heizer set the stage for art and science working together in a hybrid practice where science wins and the public utilizes art as cultural production to let seemingly obtuse endeavors like bioremediation enter the gallery, enter public consciousness and thus gain a new audience that can understand and appreciate bioremediation as a populist form of pro-activity like a 100 mile diet or meatless meals. Art is a means of communication at its most banal. How do we communicate through art, through action and through scientific principles made visible through human experience? As Susan Sontag points out, “to understand the world in the form of image is, precisely, to re-experience the unreality and remoteness of the real” (Sontag, 2001). The trajectory of “earth art” has its hallmarks, key players and major events and has produced numerous dissertations and texts. There is often, however, a remarkable gap between earth art that celebrates, waxes poetic and speaks in metaphors that can then be sold in galleries through photo-documentation and the art that does remain and can “fix” parts of the earth that have been broken.

Land and water recycling appear early in the work of Robert Smithson and others. The trope of nature as that which builds and destroys empowered many earth artists in the 1960’s and 1970’s to propose work that would be deliberately disruptive, speak to the entropic powers of nature and self-destruction as reparation. In architecture brownfield reparation occurs by siting massive civic projects in toxic superfund sites along with bioremediation ponds and other natural cleansing and healing interventions. The invasion of siting a project becomes reparative instead of destructive. This is a massive paradigm shift that is tangible to the public and is very in tune with contemporary sustainable urban design strategies. Notable examples would be the Ford River rouge plant redesign in Michigan, Bed ZED in the UK, and the 2000 Sydney Olympic housing project on Homebush Bay as very successful case studies of bioremediating brownfields through redevelopment. This is the kind of active intervention through design that makes the science plausible. This means much more than LEED certification. Historically, *Opus 40* by Harvey Fite was constructed in a quarry Fite acquired in 1938 in which he spent nearly forty years using simple hand tools to rebuild, retool and shape the damage caused by quarrying in his rural site in the Catskills.

The intention to use the quarry to display his carvings transformed the quarry into an elaborate land reclamation project that motivated him to clear rubble and make logic of the abandoned quarry. Broken unusable stones were adapted for other purposes, ramps and passageways were constructed in ridges and fissures and digging down to the core unquarried pure stone was also an intention in his crafted intervention in the earth. Influenced formally by the Mayan temples and the timelessness and respect for nature, Fite’s opus was at once reparation of human damage and participation in the forces of nature (Beardsley, 1994). Michael Heizer’s 1969-70 *Double Negative* is a case in point. A well-known sculpture, it consists solely of two deep cuts (30’ wide x 50’ deep x 1500’ long) into facing slopes of Mormon Mesa in the Nevada desert. By all normal accounts it should be thought of as noting more than an excavation in the earth, a negative quantity rather than a ‘piece’ of sculpture. But it is seen and regarded as sculpture because it fits into the ideational and conceptual discourse surrounding sculptural works of art in the United States at a particular time (Risatti, 2007).

Fite’s work is different than projects like Michael Heizer’s *Double Negative*, which posits earth art as metaphor and offers noting in the form of remediation or efficacy from a scientific point of view. Robert Morris’ massive earth projects, *Evanston Illinois Earth Project*, *Ottawa Project*, and *Observatory* likewise are profoundly rich and beautiful, but beyond challenging notions of art, production and calling us back to the earth serves no tangible purpose outside of art discourse and critiques of the era. Earth works, crop circles and even Charles Simonds’ *Growth House* for the Lower East Side of Manhattan in 1975 are filling voids and raising awareness, but none of these projects in light of today’s global crises are not providing remedies that fulfill the usefulness that design demands. Urban Artists like Nancy Holt (*Dark Star Park*, 1979) and Elyn Zimmerman (*Marabar*, 1985) as well as contemporary developer driven redevelopment projects like Sugar Beach in Toronto do raise awareness, bring elements of nature into the urban landscape using the aesthetics of contemporary art to appeal to a sophisticated market and do add to the quality of life of cities, but they still serve no real purpose in quantifiable scientific terms. Superimposing quantifiable scientific goals is also not a solution for art practices. “Adopted in the process was a functionalist ethos that prioritized public art’s use value over its aesthetic value, or measured its aesthetic value in terms of use value.

This shift, predicated on the desire of many artists and public art agencies to reconcile the division between art and utility – in order to render public art agencies to reconcile the division between art and utility – in order to render public art more accessible, accountable, and relevant to the public – conflated the art work’s use value, narrowly defined in relation to simple physical needs...with social responsibility”(Kwon, 2002).

4. Mel Chin’s Work

Chin’s *Revival Fields* from the 1990’s consisted of Chin working with scientists to plant six different crops engineered to leach heavy-metal contaminants from a Minnesota landfill that had been so polluted it once burned for two months straight. The soil was constantly monitored throughout the duration of the project over a period of ? and the plants were harvested and replaced and burned. The metals left over were also harvested for reuse afterwards. The project was then documented through photographs which were presented and sold in galleries. This project was repeated in Minnesota, Pennsylvania and the Netherlands.

Another of Chin’s projects similarly deals directly with bioremediation, but is a very different setting. The night before Halloween is known as hell night in the abandoned inner city of Detroit. On this night each year abandoned houses are burned in a one night spree of arson and vandalism. Chin wanted to confront this tradition and comment on the “tradition of urban agriculture and the imperative of economic self-sufficiency, turning burned-out houses into miniature farming systems.” This project, known as S.P.O. R.E. (Sustainable Products in a Response to the Environment) utilized a Detroit hell house, with its roof removed and having the roof placed on the ground as a cover for fancy mushrooms to be sold at gourmet markets. S.P.A.W.N. (Sustainable Projects in Agriculture, Worms and Nature) placed abandoned homes on a pivot to reveal a night crawler farm when the structure is rotated off its foundation. Chin’s hard science in all of these projects comes from working with real scientists and experts to create a network of engaged individuals that are not working on metaphors or awareness raising, but truly doing what they are saying.

In the greying lines between art and civic activism, Chin prefers to be an activist and community facilitator., In that sense Chin does not rely on the typical artistic response to responsibility as awareness raising, but does projects that are scientifically accurate and effective. His projects are seen as art because he is doing them. The press and attention they garner is unusual and extraordinary. He is aware of this. His artistic output that shows up in galleries is frequently subversive and appears in the form of a video game (KNOWMAD, 1999), an animated cartoon film or in outrageously covered live feed on the web. Chin’s relationship with, and to science and scientists is what differentiates him. “Referring to his work in Revival Field he says, “Now we live in a world of pollution with heavy metals saturating the soil. If that pollution could be carved away, and life could return to that soil, creating a diverse and ecologically balanced wildlife, then that would be a wonderful sculpture. I think there is a profound aesthetic in there and it’s really simple. But we have to create the chisels, we have to create the tools, and we have to isolate the problem before we can carve it away.” USDA agronomist, Dr. Rufus Chaney and Mel Chin’s collaborator on the project stated (Art in Action, 2007).

In his proposal to the National Endowment for the Arts, Chin wrote, “Revival Field is a conceptual artwork with an intent to sculpt a site’s ecology. In a traditional sculpture, the artist with an idea approaches a material and fashions it into a concrete reality. Here the idea is the radical transformation of a hazardous site incapable of supporting life. The material will be toxic earth and the tools will be a scientific process utilizing heavy metal plants called ‘hyper accumulators’. The aesthetic reality will be recreated Nature. The sculpting process starts unseen in the ground below in order to reveal the eventual work, a living, revitalized landscape above”(Chin).

4. Conclusion

As a coda to the question of art and science uniting I will refer to another previous article in *Ecological Restoration* written by Lillian Bell in 2008 titled, *Call to Action: Environmental Restoration by Artists*. This article was written as an afterward to an exhibit, *Called to Action*, that focused on works of art that “intercede to halt degradation and nurture environmental health.” A number of artists who are “passionately involved in the processes that restore different ecosystems worldwide” and were working with scientist, planners, government officials and others to influence land management and policy were chosen by Bell for their focus on “action.” Projects in this article covered oil spill cleanups, wetland restoration and brownfield reclamation in places like Argentina and New Jersey(Bell, 2008). The appearance of a gallery exhibition critique in an engineering journal is the measure of success and opening of discourse sharing.

References

- (2007). *Art in Action: Nature, Creativity and our Collective Future*. San Rafael, CA: Earth Aware Editions.
- Beardsley, John. (2006). *Earthworks and Beyond*. New York: Abbeville Press, 4th ed.,
- Beardsley, John. (1994). *Visions of America: Landscapes as Metaphor in the Twentieth Century*. Denver, CO: Denver Museum of Art; Columbus OH: Columbus Museum of Art. Harry N. Abrams, dist.
- Becker, Carol. (2002). *Surpassing the Spectacle: Global Transformations and the Changing Politics of Art*. Lanham, Boulder, New York and Oxford: Rowman & Littlefield Publishers, Inc.
- Bell, Lillian. (2008). Called to Action: Environmental Restoration by Artists, *Ecological Restoration*, Vol. 26, No. 1, March 2008.
- Braungart, Michael, McDonough, William. (2002). *Cradle to Cradle: Remaking the Way We Make Things*. New York: North Point Press.
- Dewey, John. (1934). *Art as Experience*, New York: Perigree Books.
- Engler, Mira. (2004). *Designing America's Waste Landscapes*. Baltimore and London: Johns Hopkins University Press.
- Flam, Jack, ed. (1996). *Robert Smithson: The Collected Writings*. Berkeley, Los Angeles, London: University of California Press.
- Gablik, Suzi, (1997). *Conversations Before the End of Time*, London: Thames and Hudson.
- Goldstein, Anna, Rorimer, Anne. (1995). *Reconsidering the Object of Art: 1965-1975*. Los Angeles: Museum of Contemporary Art; Cambridge, Mass.: MIT Press.
- Grande, John K. (2004). *Art Nature Dialogues: Interviews with Environmental Artists*. Albany: State University of New York Press.
- Kagan, Sacha. (2008). *Sustainability: A New Frontier for the Arts and Cultures*. Frankfurt am Main: Vas Verlag für Akademisch.
- Kastner, Jeffrey, Wallis, Brian. (1998). *Land and Environmental Art*. London: Phaidon Press.
- Kwon, Miwon. 2002. *One Place After Another, Site-specific Art and Locational Identity*. Cambridge, Mass: MIT Press.
- Proctor, James. (2010). Sustainability Involves More than Being Green. *The Chronicle of Higher Education*, December 3, 2010.
- Scott, Felicity. Involuntary Prisoners of Architecture. (2003). *October* 106. Cambridge, Mass.: October Magazine, Ltd., MIT.
- Storr, Robert. (2001). *Art:21, Art in the Twenty-First Century*. New York: Harry N. Abrahams.
- Sontag, Susan. (1979). *On Photography*. New York: Penguin.
- Yanagi, Soetsu. (1991). *The Unknown Craftsman: A Japanese Insight into Beauty*. Tokyo: Kodansha International.