

Art + Ecology: the land reclamation work of artists Robert Smithson, Robert Morris, Helen Mayer Harrison and Newton Harrison

“The problems of mining are a bit like Humpty Dumpty. In other words, Humpty Dumpty sat on the wall, Humpty Dumpty had a great fall, all the king’s horses and all the king’s men couldn’t put Humpty together again. The idea in mining is that a lot of people would like to put the landscape back together again the way it was, back in the nineteenth century. And of course that won’t happen. But you will be able to perhaps confer a different kind of value through a different kind of cultivation. I think it is possible to cultivate waste, spoil banks, or the cuts in strip-mining areas. It’s a matter of developing a different value structure, and also to have some kind of relationship between the industrial processes and the ecological controls.”¹

EARTH WORKS opened in October 1968 in Virginia Dwan’s New York gallery. Ten artists were invited to participate in what would be the first art exhibit to take up earth as subject matter, as material, and as site.² The engagement with earth was literal, direct, and center stage.

In the middle of the gallery floor was Robert Morris’ *Earthwork*, a six-foot diameter haphazard-looking pile of dirt and bricks scavenged from a construction site and

combined with industrial grease, felt remnants, and scraps of metal and pipe. Morris' "sympathy for matter" established the form of a thing to be dependent on the physicality of the material. A few months earlier, in an essay published in *Artforum*, Morris had asked how materials might precede form, rather than follow or support a predetermined form. "Disengagement with preconceived enduring forms and orders for things is a positive assertion," Morris concluded. "It is part of the work's refusal to continue estheticizing the form by dealing with it as a prescribed end."³

Robert Smithson, who curated the exhibition with Dwan, installed a recent work, *A Nonsite, Franklin, New Jersey* (1968). It consisted of five trapezoidal-shaped painted wood bins filled with large, rough chunks of gray ore that he gathered from the Franklin Furnace zinc mines in northern New Jersey. Above the bins were five trapezoidal sections of topographical maps of Franklin, along with twenty Instamatic photographs and a descriptive paragraph offering artist-led tours of the site itself. The retreating sizes of maps recalled diagrams of one point perspective images, but rather than an assigned view, the information organized a view of what was not seen.

Smithson developed "Site/Nonsites" as a methodology that grounded a dialectic relationship between the gallery interior and the physical ground outside.⁴ The sites selected were transitional and post-industrial, such as quarries, lake beds, and mines. For each nonsite, Smithson would individually "subtract" up to a ton of rocks from scattered spots on a site, and ship them to his New York studio where he composed them into an "abstract reality" of his experience of the site.

Site and nonsite were interdependent and interrelated. The work remained open-ended because the qualities or definition of one inferred the continuing presence of the other. Site/nonsite works existed in the reverberation between the site's resistance to containment and the boundedness of the gallery. While the *site* was expansive and approaching boundaries (that it could not possess), the *nonsite* was a contraction and containment of the site. It "pointed back" to a place, even as it can never be re-placed. "The dialectic can be thought of...as a bipolar rhythm between mind and matter," Smithson explained in a 1969 interview. "You can't say it's all earth and you can't say it's all concept. It's both. Everything is two things that converge."⁵

A nonsite demonstrated what falls out, or between, in the traditional representation of a site, moving back and forth from what was present to what was absent. It recalled the observation made by mathematician and philosopher Alfred Korzybski that "The map is not the territory." The site was conspicuously absent in the nonsite, which in turn was about itself and about what wasn't there. The notion of "site" had shifted dramatically in Smithson's discourse. It was no longer background or support for a discrete art work. "Site" expanded as a place of open limits and constant change. The land became an art object that was as insistent as the bins of rocks in the gallery.

Earthworks was also the name of a 1966 science fiction book by British author Brian Aldiss. The story opens with Knowle Noland aboard his ship the *Trieste Star*, transporting sand from Africa's Skeleton Coast to soil factories in Europe that are making

earth to replenish lost topsoil. As a result of technologies which had erased the feedback processes of self-organizing systems that would naturally regenerate earth, soil has become a rare and precious commodity:

“Trees had been cut down to get rid of the birds, which were currently being destroyed because of their ability to spread crop disease. Now we were building tree-substitutes; they would act as wind-breaks, as the trees had done, and stop the wind from blowing away the soil and exposing more subsoil.”⁶

Life and soil are threadbare in Noland’s world. Food is scarce, the air is filled with poisoned dust, and everyday life is consumed with fulfilling basic needs for survival.

A Suburban Odyssey

When Smithson left on a “suburban Odyssey” to Passaic, New Jersey in the fall of 1967, he brought a paperback copy of *Earthworks*, a daily newspaper, and an Instamatic camera. On the ride from the Port Authority bus terminal, Smithson read a newspaper review of Samuel F.B. Morse’s *Allegorical Landscape* (1835-36), an idealized landscape with faded “‘Gothic’ buildings” and a sky of “subtle newsprint grey.” Although the newspaper caption truncates the name of the painting, the full title was *Allegorical Landscape of New York University*. In the painting, Morse relocated New York University’s University building from its Washington Square address to a pastoral setting that recalled Claude Lorrain’s classical landscapes. Morse used the idealistic lens of an imagined, Arcadian past to lend a historical continuity to the contemporary cultural monuments of the early nineteenth-century United States; as the reviewer exclaimed, it could “stand confidently” as a representative of the “high ideals that universities foster.”⁷

As Smithson traveled down the highway to Passaic, the bus window became a Claude glass reflecting and isolating scenes of the orange and blue roof of Howard Johnson's Motor Lodge and its derelict suburban setting. His odyssey skirted around the edges of town, along the river, past construction sites, and across the forlorn wastelands that inhabited the fringe areas of town. With Morse's allegorical landscape at hand, Smithson reinvented Passaic as the "new Rome," a "kind of self-destroying postcard world of failed immortality and oppressive grandeur."⁸ Passaic's contemporary and post-industrial monuments – outfall pipes spewing effluent into the Passaic river, a steel swing span bridge rotating to allow passage of barges carrying "unknown cargo," a pumping derrick located mid-river – replaced the public fountains, arched bridges, and aqueducts of ancient Rome. Smithson's travelogue introduced a shift in the aesthetic view from the road. The change originated with seeing the world as it is, rather than looking for the one that was promised.

Although his work was concurrent with a growing environmental awareness in the United States, Smithson was no environmentalist interested in "getting back to nature." "A good deal of ecology strikes me as nostalgia, as I said, for a view of the landscape that at one time existed. It's like a yearning for the unspoiled paradise garden, the Eden."⁹ An example of Smithson's non-nostalgia for nature as paradise was *Asphalt Rundown* which he executed on the outskirts of Rome a year after the *EARTH WORKS* exhibition. A truckload of hot asphalt was dumped down the slope of a flint quarry, fanning out and flowing along crevices and channels. His objective was to "root it to the contour of the

land, so that it's permanently there and subject to the weathering," adding, "I'm sort of curious to see what will happen to this."¹⁰

Smithson found aesthetic value in barren wastelands and dynamited hillsides which showed the marks of time and use. He believed that "scenic ideals...are carriers of a nostalgia for heavenly bliss and eternal calmness."¹¹ They silenced the dialectic between human action and a found nature, and ignored the real ground of a place, its specific history and singular character. The inevitability of change, often over vast, geological time scales, fascinated Smithson. Entropy was inescapable and real. It was independent of a historicity or idealization that wanted to conservatively bind place and time.

"Because of the great tendency toward idealism," Smithson would later write, we are "confused as to what to do with such places" as "slag heaps, strip mines, and polluted rivers" that don't, or won't, conform to an expected aesthetic.¹²

A 1972 exhibition at the Whitney Museum of American Art provided Smithson with a model and means to expand an aesthetic vocabulary that could face the landscapes of everyday life, the wastelands, ruins, and marginal landscapes. "Frederick Law Olmsted's New York" was held during the Centennial celebration for the national parks system. Included in the exhibition were early photographs of Central Park before Olmsted and Calvert Vaux's *Greensward Plan* was implemented. The images showed goats roaming over garbage heaps and rocky outcroppings delimited by muddy depressions; the site was "treeless and barren, it evokes the observations of 'the valley of ashes' in F. Scott

Fitzgerald's *The Great Gatsby* (1925), 'where ashes grow like wheat into ridges and hills and grotesque gardens.'"¹³

In Olmsted's transformation of the site from deforested wasteland to sylvan park, Smithson saw an example of an "earth sculpture" that emerged from a dialectic between ecological and social processes. Olmsted was greatly influenced by English landscape theorists Uvedale Price and William Gilpin, calling them "professional touchstones" and insisting that all new "pupils" arriving at his doorstep study their writings.¹⁴ Following Olmsted's injunction, Smithson discovered an aesthetic relationship between Price's early nineteenth-century description of the picturesque and his own explanation of an entropic landscape that is restructured over time:

"The side of a smooth green hill, torn by floods, may at first very properly be called deformed, and on the same principle, though not with the same impression, as a gash on a living animal. When a rawness of such a gash in the ground is softened, and in part concealed and ornamented by the effects of time, and the progress of vegetation, deformity, by this usual process, is converted into picturesqueness; and this is the case with quarries, gravel pits, etc., which at first are deformities, and which in their most picturesque state, are often considered as such by a leveling improver."¹⁵

Olmsted had used the potential of the picturesque to dialectically hold together the contradictions of natural processes and transform "deformities" into socially relevant places. The picturesque was synonymous with time: the time it takes for a tree to grow or

a rock to weather, the time it takes for a walk around the lake. “The picturesque, far from being an inner movement of the mind, is based on real land,” Smithson claimed.¹⁶ And the picturesque qualities of Olmsted’s park sprang from such “real” particulars – outsized boulders of glacial-scoured schist, an undulating topography of stone and earth, swampy marshland – as well as from the unfolding view from the road or path, and the physical groundedness of experience. The landscapes of everyday life, a contemporaneousness that didn’t attempt to erase or deny a past (or a future), and an inquiry into process and place that “related to chance and change in the material order of nature” formed the basis of Smithson’s aesthetic of the entropic landscape.¹⁷

Systems aesthetics

During the late 1960’s and early 1970s, a number of artists began building aesthetic relationships with new technologies and science.¹⁸ Art practices expanded into fields of geology, biology and ecology, as well as cognitive science and information theories. The sciences informing human/nature interactions and perceptions were used to frame many art practices. A primary theorist in this regard was artist and art critic Jack Burnham. He proposed a new definition for an aesthetics that could describe art works that were out of the frame, out of the gallery, and often not even objects. His essay, “Systems Esthetics,” was first published in the September 1968 issue of *Artforum*.

Systems aesthetics evaluated art works on their engagement with process, interaction, attention to feedback and information networks, and capacity to circumvent the formal autonomy of the object. The specific function of these new art practices, Burnham

declared, was to “*show that art does not reside in material entities, but in relations between people and between people and the components of their environment.*” Using the perspective of systems, he established a framework for a “critical vocabulary” around contemporary art practices that were “unobjects”: things without spatial or temporal boundaries, such as environments, ephemeral and recursive events and elements. “We are now in transition from an *object-oriented* to a *systems-oriented* culture,” wrote Burnham. “Here change emanates, not from *things*, but from *the way things are done.*”¹⁹

Burnham illustrated his theory with examples of art that reacts to its environment, such as *Rain Tree* (early 1960s) by Hans Haacke, an observation of a tree dripping patterns of water and outlining the “invisible components of systems” at the edges of its canopy;²⁰ and Robert Morris’ *Earth Project* (1968), a proposal for a sculptural manipulation of a landfill in Evanston, Illinois which required the artist to work closely with information from others outside the art world, such as surveyors, engineers, and geologists.²¹

Incorporating ecological precepts such as networks and feedback into aesthetic evaluations detoured an expectation of form as a closure or the beginning of a history. Interaction and the duration and transience of time entered into the lexicon of artists who worked with systems. The introduction of ecological functioning into the aesthetic discourse opened up space for networks and the interdependency of ecosystems to inform art practices. Burnham’s aesthetic impulse was a form of inquiry into what wasn’t present, into the conditions that led to an emergent event, and into the information required in order to negotiate a situation.

Artist Newton Harrison began working with systems in 1969 as a painter experimenting with light as sculptural matter that would hang in space, off the canvas and wall. Invited to participate in Los Angeles County Museum of Art's "Art and Technology" program, he engaged scientists at Pasadena's Jet Propulsion Laboratory in a serious exchange on displays of ionized gas, or plasma, which emits light when under pressure and exposed to the potential difference between two electrodes. His *Encapsulated Aurora* (1970) was programmed to admit pre-determined amounts of gases into plexiglass tubes, creating luminous, living fields of color and light that responded to the presence of viewers.²² The interaction of natural elements and processes (gases, pressure) with the constructed environment (of tubes and darkened room) was the art; the scientific research charged and directed the aesthetic form.

After the technology-intensive plasma works, Harrison entered what he calls a "counter-argument with myself," and his succeeding works were decidedly low-tech.

Coincidentally taking the premise of *Earthworks*, the "eco-disaster" science fiction book that Smithson carried on his walk through Passaic, Harrison made earth, in his own backyard and with his wife Helen Mayer Harrison.

Making Earth (1970) emerged as Harrison began thinking of survival as the subject matter of art, and decided to begin the exploration with his immediate environment. Kitchen waste was layered with sand, sewage sludge, manure, sawdust and clay, and turned each day for one half hour. "In an alchemical fashion we mix sterile and separately

hostile elements, where the mixture combines with time and our touch, becoming literally a living element, a medium for growth,” they wrote in a 1972 letter to Jack Burnham.²³ Earth wasn’t the medium for another message, but was the thing-in-itself. The action of turning earth deepened the Harrisons’ comprehension of an expanded palette of material.

Making Earth was also a critique of the literal death of the earth as an eroded, contaminated, leached of nutrients and increasingly stressed organism. Art as a “product” or object had become increasingly irrelevant to the Harrisons. As ecological concerns rose for “maintaining the biological livability of the earth, producing more accurate models of social interaction” and “establishing priorities for the usage and conservation of natural resources,” Burnham asserted that the interest in formal art objects would give way to art with an aesthetic base in systems thinking.²⁴

Helen and Newton Harrison continued their questioning into how bad earth is made good in a later work at Artpark in Lewiston, New York. With their son Joshua, they proposed to regenerate the earth in a forty-acre site on the Artpark grounds. *Spoils Pile Reclamation Project* (1977-78) was anticipated as a three-year work. It began with the dumping of three thousand truck loads of soil and organic matter on the sterile ground; over the coming years, the site would be reclaimed, using natural (and entropic) processes of decay, decomposition and growth. The Harrison’s concern was the earth’s potential to support life. They were constructing the foundation for a succession ecology to take hold, although they understood that in its early stages, the landscape would look “ratty” as Newton Harrison has put it. The question was how “ratty” could be reframed as an aesthetic choice. Planting began with a few native trees and seeds collected by local

Girl and Boy Scouts. Work on the project was stopped after the second year, when Artpark enforced their “rule” that there would be no permanent constructions.

The Harrisons method of reclamation at Artpark approaches the meaning of “reclamation” as a “calling or bringing back from wrong-doing.”²⁵ Land reclamation was reframed as a *caring for* or *tending to*. It was an ethical act to aid in the repair of earth that had been used as a quarry, a railroad bed and a dump site for construction debris; it was a site “embedded...with twentieth century debris” that may have “had esthetic potential” but was also biologically diminished earth.²⁶ Ethics in art, suggests critic Charles Green, is “a way of making others present.”²⁷ For the Harrisons, attending to “others” began with advantaging that which had been disadvantaged, and speaking up for what is necessarily silent. “We did not consider it either interesting or valuable to use earth to make forms on unusual sites,” Helen commented.²⁸ The aesthetics were embedded in the well-being of the work.

Disused Land

Robert Morris’s *Untitled, Johnson Pit #30* (1979) is a large-scale reclamation of an abandoned gravel pit in southern King County, Washington. Morris re-formed the amorphous pit into concentric terraces that ascended from a deep center up to a sloping surface, the form following the angle of repose of soil and rock. Trees that hadn’t been removed during the years of gravel operations were either cut back or taken out. As seen in the starkness of early black and white photographs, the work could have readily been an illustration for Dante’s *Inferno* – fifteen tar-covered stumps limning the newly scraped

gravel and earth terraces, bulldozer tracks still visible in the foreground, the distant view disappearing in thick fog – but then, pastoral beauty wasn't part of the artist's intent.

“Morris wants...masses that appear on the verge of ‘sliding out into space,’” and not the comforts of an inviting landscape, suggests philosopher Karsten Harries.²⁹

Untitled was one of two earth works built as part of the *Earthworks: Land Reclamation as Sculpture* (1977-81) project sponsored by the King County Arts Commission. Noting that there were over one hundred publicly-owned mining sites located within the county and “many more” privately-owned “scars that dot the landscape,”³⁰ the Arts Commission negotiated a partnership of sorts between the National Endowment for the Arts, the U.S. Department of the Interior, and the Bureau of Mines to underwrite Morris' art work, the first specifically built as a landscape reclamation.³¹ The energy crisis of the early 1970s in combination with a growing environmental awareness helped push the passage of the Federal Surface Mining Control and Reclamation Act of 1977. This opened more possibilities for federal funding of post-mining sites, and the King County Earthworks project was one of the first agencies in the U.S. to receive funding for a land reclamation by art. The purpose of the overall project was to reinvent these wastelands by giving them a new use as art works.

One early precedent for the King County art and land reclamation projects was the post-mining proposals of Robert Smithson. In the years before his unexpected death in 1973, Smithson focused on proposals for “recycling disused land masses,” most specifically mining sites, as art projects.³² He sent specific proposals to the Hanna Coal Company

(*Lake Edge Crescents*, Egypt Valley, Ohio, 1972); Kennebeck Copper Corporation (*Bingham Copper Mining Pit, Utah, Reclamation Project*, Bingham, Utah, 1973),³³ Minerals Engineering Company (*Tailing Pond, First Stage*, Creede, Colorado, 1973); and visited or contacted dozens of other potential reclamation sites.³⁴ Smithson was drawn to ruinous landscapes that showed processes of entropy. He imagined that art could be the mediator between the science of ecology and the economy of industry and that miners and ecologists could approach their work in a way similar to Olmsted's – inventing ways to simultaneously create an aesthetically worthwhile place and still use the land to support human needs.³⁵ “The world needs coal and highways,” Smithson said, it just doesn't need “the results of strip mining or highway trusts.”³⁶ A mining ethics based on aesthetics would pay attention to the forms of the process as they were generated, rather than wait for the artist to bestow aesthetic value after the fact. He understood the potentially symbiotic relationship between ethics and aesthetics; the aesthetic power of a place is linked to an ethical mindfulness.

Broken Circle/Spiral Hill is Smithson's only land reclamation proposal to be realized. *Broken Circle* is a 140' diameter circle of flat planes and narrow spits of water and white sand, each half a mirrored or doubled reverse image of the other. It is located in an active sand quarry located a short distance from the town of Emmen in the Netherlands. The companion to *Broken Circle* is *Spiral Hill*, a spiraling “spoils mound” of excavated material that provided access to views across the quarry landscape. *Broken Circle* was originally part of a temporary exhibition for Sonsbeek '71, an international art exhibition, but its popularity with the public and proximity to town encouraged the city to maintain it

as a permanent part of a park. “The best sites for ‘earth art’ are sites that have been disrupted by industry, reckless urbanization or nature’s own devastation,” Smithson wrote, adding that other landscapes like the Dutch quarry can be “cultivated or recycled as art.”³⁷

Morris gave the keynote address to the 1979 symposium for *Earthworks: Land Reclamation as Sculpture*. His discussion wove through the motives and aesthetics of earthworks, especially as seen as public art. He was uneasy about use and function becoming part of the definition of successful art in the public realm. His recently completed work for the King County Arts Commission was a permanent, publicly owned, publicly accessible, and publicly used art work. However, he noted, public art is often “entertainment rated G” art – sweet, whimsical, and used by “middle-brow policies of bringing the mediocre to the many.”³⁸ His address attempted to set out the critical terms for earthworks that may be public, but aren’t mediocre.

Morris traced two primary aesthetic elements of earthworks: the formal elements, such as space, scale, and the time as needed to apprehend a work; and “transformational” elements that included weather and other phenomena, viewing the work from inside the work, time as experience and narrative, and other site factors that couldn’t be “whited out” by the gallery walls. Adding to Smithson’s desire to find a mining ethic based on aesthetics, Morris says there are “moral questions” as well as aesthetic issues that emerge from these formal and transformational elements. What does it mean if the artist removes or covers up the scars and wounds of the earth? Is art then wiping away “technological guilt” and thereby

“socially redeeming those who wasted the landscape in the first place”? Are artists in danger of becoming the construction crew for industrial waste cleanup? What happens if scarred or poisoned landscapes are re-considered to be “more like long awaited aesthetic possibilities”? These questions that Morris raised weren’t rhetorical. In the foreword to the symposium catalog, Yankee Johnson, the then-executive director of the Arts Commission, laid out two successes for the project: “On the one hand the commission would enlist artist to prepare proposals for earthworks that would introduce the work of contemporary artists to the Northwest. On the other hand earthworks would be employed as a vehicle in land reclamation and might, in fact, offer cost-effective alternatives to more traditional modes of reclamation.”³⁹ Morris’ response was simple: “it would seem that artists participating in art as land reclamation will be forced to make moral as well as aesthetic choices.”⁴⁰

Works like Morris’ *Untitled* (1979) or Smithson’s *Broken Circle* were reclamation projects that didn’t repair or “save” the land, but reclaimed it in the name of art. Both artists were interested in how art could re-value “disused land masses” through interventions that significantly emphasized the visual and the re-entry of devastated landscapes back into an everyday environment. “Our ecological awareness indicates that industrial production can no longer remain blind to the visual landscape,” said Smithson.⁴¹

In contrast, the Harrisons’ later work in post-mining landscapes, while not blind to the visual composition of a site, has focused on taking up ecological well-being as subject

matter for art. Their concern lies more with “the survival of natural systems than with the survival of art.”⁴² One of the Harrisons’ first large-scale proposals for a mining site was the Tagebau Witznitz, a ten square kilometer brown coal open pit mine south of Leipzig in the former East Germany. The proposal suggested relatively modest changes to the engineer’s plans: leave half of the mine as previously designed, but on the other half, “fold” the topography to maximize edge conditions and so increase bio-diversity, and add different soils to allow an array of succession ecologies to develop. The artists imagined the educational and scientific advantages, as variations in topography and soils would create conditions for “varied comparative biotope studies on the same site.”⁴³

The area around the Tagebau Witznitz is dotted with mining pits; as the Harrisons’ stay in Germany continued, they saw how each local mine became the entry point into a larger field that lies outside (or underneath) vision. This observation became the concept for an expanded proposal: taking the extent of the earth that had been turned, or would be turned, the Harrisons proposed *A Brown Coal Park for Sudraum Leipzig* (1995-96). The park would outline a three hundred square kilometer “shape of brown coal” stretching south from Leipzig, and incorporate farms, towns, industry, and the inevitable lakes that will form as the pit mines gradually fill with groundwater and runoff. “How big is here” is a recurring refrain in the Harrisons’ work. If the work is ecological in nature, and implicitly accepts the interconnectivity of each point in the system, how are boundaries of concern drawn? Although the Harrisons have expanded their thinking in original and inventive directions, it’s easy to imagine that Smithson would recognize his definitions of

a site with “open limits,” “outer coordinates” and “indeterminate certainty” in the Harrisons’ expansion of the shape of brown coal.

“...the frightening problems are the ones that really need investigation.”⁴⁴

Since 1996 when *The Brown Coal Park* was published, the Harrisons’ work has steadily turned to focus on global climate change. Their first work on the greenhouse effect, *San Diego at the Center of the World*, was completed in 1974, but until recently there has been little outside interest and few invitations to take up the subject matter. They are currently in Great Britain working on Greenhouse Britain, an exhibition that redraws the map of England in the face of rising waters, and imagines new settlements in higher ground.

Environmentalist Bill McKibben recently wrote a short essay titled “Imagine That: What the Warming World Needs Now is Art, Sweet Art.”⁴⁵ He proposes that art is the register that allows a thing to be embodied and to seep into the structure of culture. “Art,” he writes, “is one of the ways we digest what is happening to us, make the sense out of it that proceeds into action.” Art turns the conceptual into material phenomena or emotional measure. The power of art in this regard is the intensity of its attention, and its ability to focus on the things that are otherwise too big to grasp, like the systems of the greenhouse effect (or perhaps the ubiquitousness of post-industrial sites), that are “happening everywhere at once...(threatening) to become backdrop, context, instead of event.” This

intensity of attention is not something available only to artists – everyone attends to some thing. The question is what, and whether and how it matters. The work of artists like the Harrisons suggests that one of the most important ethical acts today may be the expansion of aesthetics to include such subject matter as entropic processes and global climate change. “An aesthetic exists always in interaction with, and in commentary on, a larger social context,” says Helen Harrison. “Since everything depends on everything else, you cannot separate aesthetic values from a larger context.”⁴⁶

ENDNOTES

¹ Moira Roth, “An Interview with Robert Smithson (1973),” in *Robert Smithson*, exhibition catalog, organized Eugenie Tsai with Cornelia Butler (Los Angeles: Museum of Contemporary Art, Los Angeles, 2004), 93-4.

² Invited artists included Carl Andre, Herbert Bayer, Walter DeMaria, Michael Heizer, Stephen Kaltenbach, Sol Le Witt, Robert Morris, Claes Oldenburg, Dennis Oppenheim, and Robert Smithson.

³ Robert Morris, “Anti Form,” in *Continuous Project Altered Daily: The Writings of Robert Morris* (Cambridge, Mass: The MIT Press, 1993), 46.

⁴ Robert Smithson, “Earth,” (Symposium at White Museum, Cornell University), in *Robert Smithson: The Collected Writings*, ed. Jack Flam (Berkeley: University of California Press, 1996), 178.

⁵ *Ibid.*, 187.

⁶ Brian Aldiss, *Earthworks* (New York: Signet, 1967), 23.

⁷ Robert Smithson, “A Tour of the Monuments of Passaic, New Jersey,” *Robert Smithson: The Collected Writings*, 69.

⁸ *Ibid.*, 72.

⁹ Roth, “An Interview with Robert Smithson,” 94.

¹⁰ Eva Schmidt, ed. “Four Conversations Between Dennis Wheeler and Robert Smithson,” *Robert Smithson: The Collected Writings*, 225.

¹¹ Robert Smithson, “Cultural Confinement,” *Robert Smithson: The Collected Writings*, 155.

¹² Ibid., 155.

¹³ Robert Smithson, “Frederick Law Olmsted and the Dialectical Landscape,” *Robert Smithson: The Collected Writings*, 158.

¹⁴ Ibid., 159.

¹⁵ Ibid., 159. A “leveling improver” was someone who “improved” a landscape by regarding a site.

¹⁶ Ibid., 160.

¹⁷ Ibid., 159.

¹⁸ Examples include the 1967-71 “Art and Technology” Program at the Los Angeles County Museum of Art, the 1969 “Earth Art” exhibition at Cornell University, the work being done by Kepes at MIT, and Burnham’s 1970 “Software” exhibition at the Jewish Museum in New York City.

¹⁹ Jack Burnham, “Systems Esthetics,” *Great Western Salt Works: Essays on the Meaning of Post-Formalist Art* (New York: George Braziller, 1974), 16. Italics in the originals.

²⁰ Ibid., 22.

²¹ Ibid., 19-20.

²² Maurice Tuchman, *A Report on the Art and Technology Program of the Los Angeles County Museum of Art, 1967-71* (Los Angeles: Los Angeles County Museum of Art, 1971), 118-126. Harrison’s work was exhibited in Osaka at the 1970 Expo, and again at the 1971 opening at LACMA. Morris and Smithson were also invited to participate in the Art and Technology program, although neither could establish a mutually satisfactory relationship with a sponsoring group.

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- ²³ Jack Burnham, "Contemporary Ritual: A Search for Meaning in Post-Historical Terms," *Great Western Salt Works*, 164. All works after 1971 are the works of both Newton Harrison and Helen Mayer Harrison.
- ²⁴ Burnham, "Systems Esthetics," 15-16.
- ²⁵ Oxford English Dictionary, 2nd edition, 1989. <http://0-dictionary.oed.com.janus.uoregon.edu/> (accessed 1 July 2007).
- ²⁶ Sharon Edelman, ed., introduction to *Artpark 1977: The Program in Visual Arts* (New York: Artpark, 1977), 2.
- ²⁷ Charles Green, *The Third Hand: Collaboration in Art from Conceptualism to Postmodernism* (Minneapolis: University of Minnesota, 2001), 98.
- ²⁸ Michael Auping, *Common Ground: Five Artists in the Florida Landscape* (Sarasota, Florida: The John and Mable Ringling Museum of Art, 1982), 99.
- ²⁹ Karsten Harries, "Building and the Terror of Time," in *Perspecta 19*, ed. Brian Healy (Cambridge, Mass: The MIT Press, 1993), 68.
- ³⁰ Jerry Allen, introduction to *Earthworks: Land Reclamation as Sculpture* (Seattle: Seattle Art Museum, 1979), 5.
- ³¹ Robert Morris, "Notes on Art as/and Land Reclamation," *Continuous Project Altered Daily*, 232 n. 26. The Bureau of Mines gave \$39,000 for Morris' work in King County.
- ³² Roth, "An Interview with Robert Smithson," 86.
- ³³ Kennecott Copper Mine, the world's largest copper mine, was declared a National Historic Landmark in 1978.

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- ³⁴ Suzaan Boettger, *Earthworks: Art and the Landscape of the Sixties* (Berkeley: University of California Press, 2002), 232. In the few years before his death in 1973, Smithson had sent out fifty proposals to mining industries.
- ³⁵ Smithson, "Frederick Law Olmsted and the Dialectical Landscape," 166.
- ³⁶ Robert Smithson, "Untitled (1971)," in *Robert Smithson: The Collected Writings*, 376.
- ³⁷ Smithson, "Frederick Law Olmsted and the Dialectical Landscape," 165
- ³⁸ Robert Morris, "Robert Morris Keynote Address," in *Earthworks: Land Reclamation as Sculpture*, p. 11.
- ³⁹ Yankee Johnson, foreword to *Earthworks: Land Reclamation as Sculpture*, 7.
- ⁴⁰ Robert Morris, "Robert Morris Keynote Address," 16.
- ⁴¹ Robert Smithson, "Proposal (1972)," in *Robert Smithson: The Collected Writings*, 379.
- ⁴² Green, *The Third Eye*, 103.
- ⁴³ Helen Mayer Harrison and Newton Harrison, *A Brown Coal Park for Sudraum Leipzig* (unpublished exhibition catalog, 1996)
- ⁴⁴ Schmidt, "Four Conversations Between Dennis Wheeler and Robert Smithson," 231.
- ⁴⁵ Bill McKibben, "Imagine That: What the Warming World Needs Now is Art, Sweet Art," *Grist Environmental News and Commentary*, 21 April 2005.
<http://www.grist.org/comments/soapbox/2005/04/21/mckibben-imagine/>
- ⁴⁶ Auping, *Common Ground*, 99.