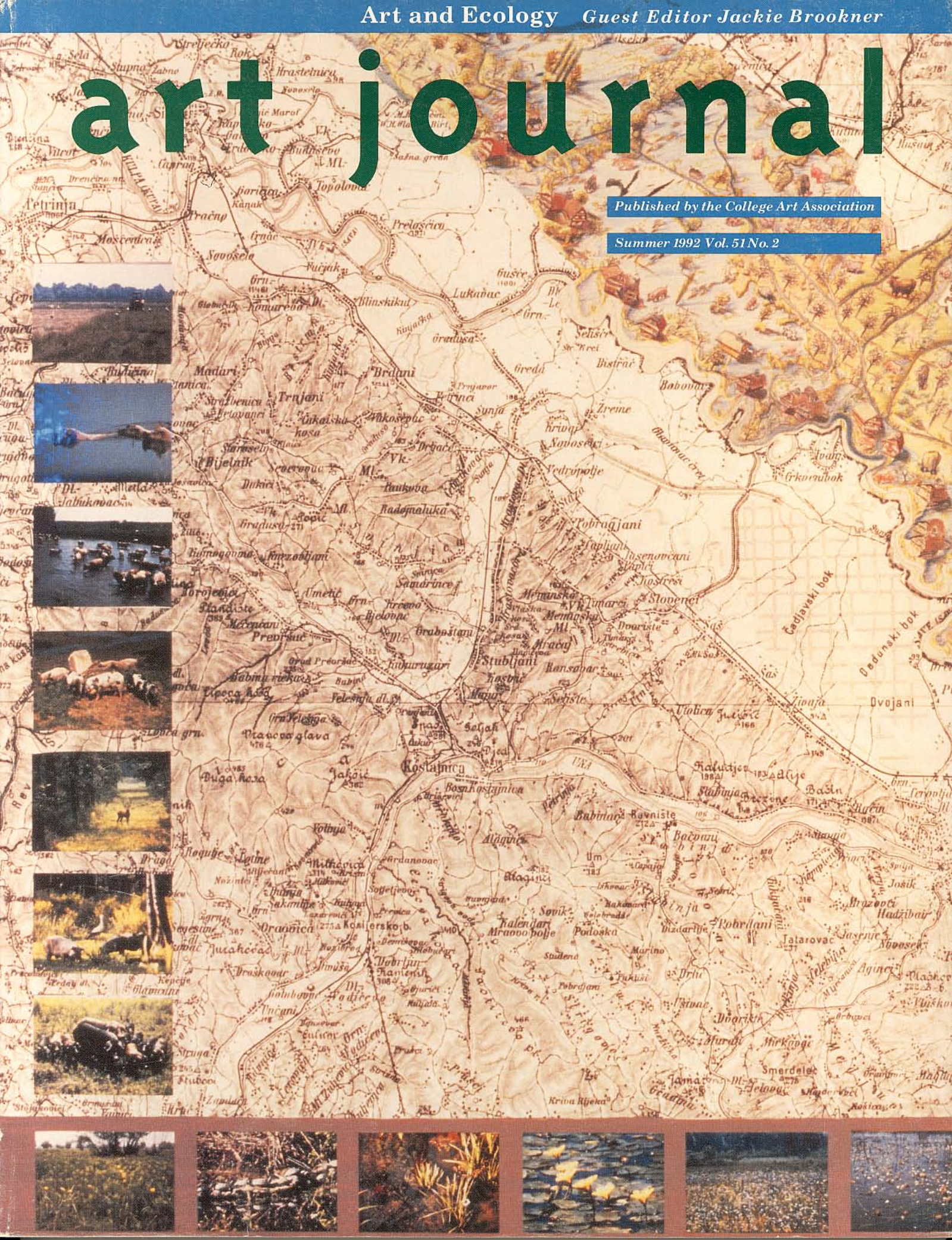


art journal

Published by the College Art Association

Summer 1992 Vol. 51 No. 2



Conversational Drift

Helen Mayer Harrison and Newton Harrison

CRAIG ADCOCK

When Helen Mayer Harrison and Newton Harrison began working as a collaborative team during the early 1970s, *ecology* was just becoming a fashionable term. Those years were also a time when the boundary conditions of art were being expanded and pushed in any number of new directions. The Harrisons' choice of ecology as a ready-made practice was both artistically *au courant* and in keeping with the motivations that had established the first Earth Day at just the moment (1970) when they were initiating their "art and ecology" career.

Newton Harrison: *Our work did share grounds with the expansionist character of late-sixties art. It was particularly related to other reductionist modes of that period. Our decision was to deal with survival and to allow all the forms we used and all the activities we pursued to spring from that single decision. Sol LeWitt, for example, made a decision to reduce things to a single line. Richard Serra reduced things to the single act of dropping or grasping or catching. Part of the discourse of that period was the idea that a single decision could generate a life's work. So we asked ourselves, What would be a nontrivial single decision?*

Helen Harrison: *Our works, however, have also always had a spontaneous or uncalculated edge.*

Craig Adcock: *You feel that your work during this period was part of the Minimalist and Conceptualist tradition?*

N. H.: *Yes, but the outcome turned out to be something other than a Minimalist or Conceptualist work of art. For instance, you could make a single decision about using some Satanist tradition and let all your work flow from that. Year one, you could do dead chickens; year ten, human hearts.*

C. A.: *In other words, ecology was nontrivial. It was an activity with serious content that went beyond the self-critical activities of modernist art? How central were discussions of ecology during those years? Do you think ecology was in fact becoming a fashionable concept during the late 1960s?*

N. H.: *At that time, ecology wasn't really fashionable. What was fashionable was using earth as a material, or using material that was alive. We make a distinction between growth material and ecology. When we made our first works, the differences between growth material and ecology had not yet been worked out. We were the first to make those kinds of distinctions.*

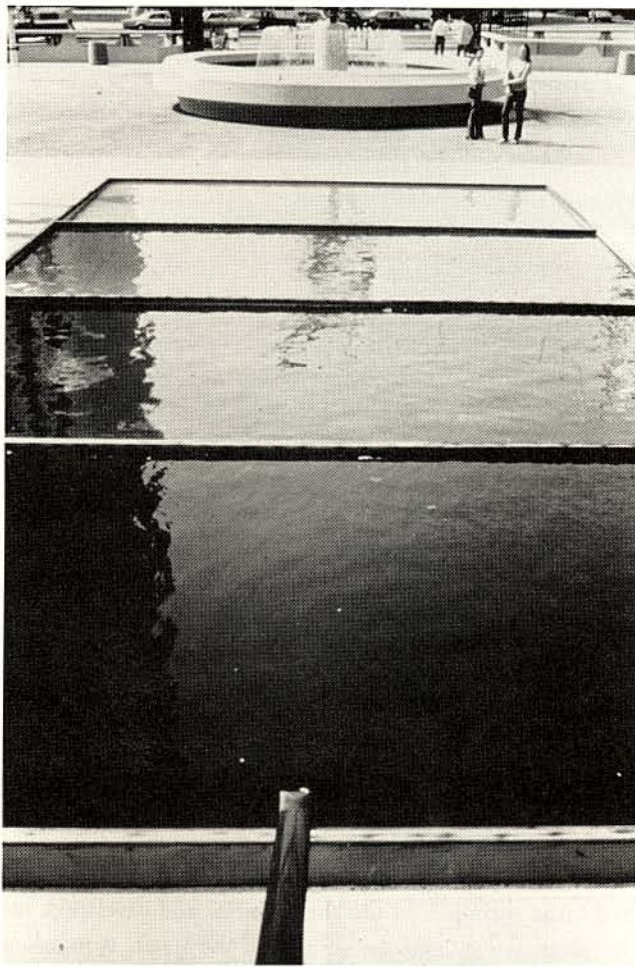


FIG. 1 Helen Mayer Harrison and Newton Harrison, *Survival Piece No. 2: Notations on the Ecosystem of the Western Salt Works (with the Inclusion of Brine Shrimp)*, 1971, metal basins, water, salt, *Dunaliella* algae, and brine shrimp. Courtesy the artists.

C. A.: *You would argue then that there are important differences between your pieces and the earthworks of such artists as Michael Heizer and Robert Smithson?*

N. H.: *Yes. They used earth as material; we feel that our works were among the first to deal with ecology in the full sense of the term. The key test for ecological art is the concept of the niche.¹*

The Harrisons are among the earliest and the best-known ecological artists. One of their first joint projects consisted of shallow ponds containing algae and brine shrimp. The piece was included in the "Art and Technology" exhibition at the Los Angeles County Museum of Art in 1971. *Survival Piece No. 2: Notations on the Ecosystems of the Western Salt Works (with the Inclusion of Brine Shrimp)* addressed questions of how living organisms react to specific environments (fig. 1). Designed with the help of Dr. Richard

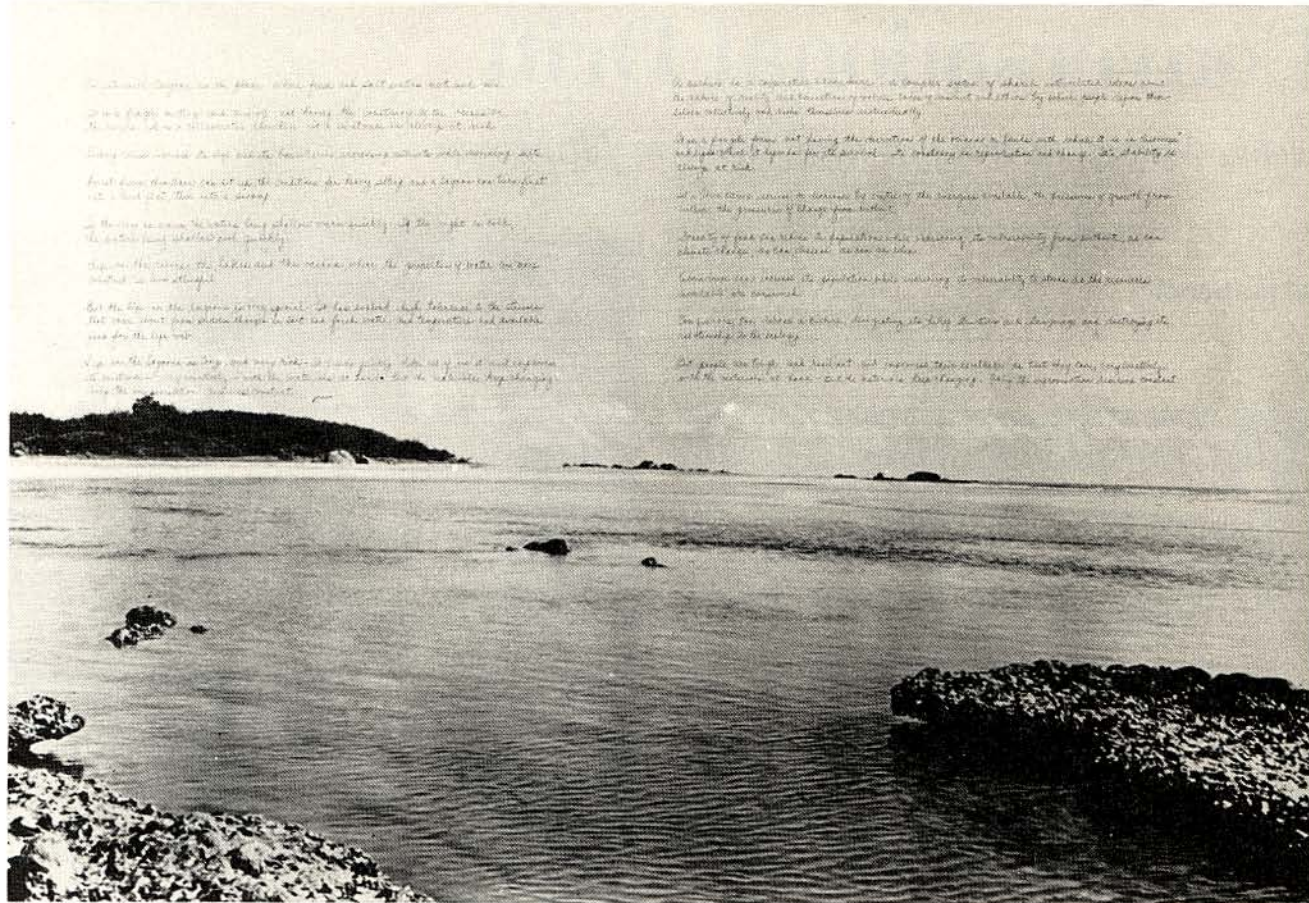


FIG. 2 Helen Mayer Harrison and Newton Harrison, *Sketch in Metaphor for the First Lagoon*, 1980, maps, photographs, and pencil on canvas, 50 × 73 inches. Courtesy Ronald Feldman Fine Arts, New York.

Eppley of the Scripps Institute of Oceanography, the sculptural system involved the interaction of *Dunaliella* algae and tiny brine shrimp.² As the shrimp grew and developed, ate the algae and altered the salinity of the water, the shallow basins gradually changed colors.

N. H.: *During the months we worked on the project for the "Art and Technology" exhibition, we mapped out the basic terrain of the kind of work we still believe in. At that time, we were especially interested in primitivity and strength in ecosystems.*

C. A.: *The kinds of organisms that you were using as food for the brine shrimp—single-celled plants—are very fundamental to the entire global ecosystem.*

N. H.: *Yes, that's true, and this particular algae is among the toughest in the world. It can take heat and cold. It can survive in very salty water. The saltier the water, the redder it gets.*

H. H.: *It changes color by producing carotene in response to the salinity of the water.*

N. H.: *The brine-shrimp piece was a loaded piece.*

H. H.: *It took us several years to do another work that lived up to it in both simplicity and beauty.*

C. A.: *When you did the piece, were you thinking of broader issues of salinization—the ways in which irrigation, for example, can cause salt to accumulate in some soils to such levels*

that continued irrigation becomes counterproductive?

N. H.: *No, not at that time. We were just dealing with the fact that life is tough. We were dealing with the miracle of it all. Those ponds, if scaled up to an acre, would have produced twenty thousand pounds of salt per year. With just a small quantity of plant food you could produce huge amounts of other material.*

C. A.: *The brine-shrimp work was important, then, in terms of the insights it gave you into basic patterns of nature, into basic ecological interdependencies?*

N. H.: *Yes, it was. Those kinds of understandings can cause a revolution in values. Your values can change in the face of that kind of information. One of the problems that we all confront today, in terms of our education, is that our values are not changing fast enough in the face of new information.³*

Throughout the 1970s and 1980s, and into the 1990s, the Harrisons have continued to produce works of art that engage real-world ecological situations. Because ecosystems are among the most complex interactive networks of any kind, their work necessarily hinges on difficult issues. The more biologists study the relationships that exist among organisms, the more apparent is that complexity, both to biologists and to the rest of us. The ecological art of the Harrisons comes face

to face with perplexing questions: What effects will deforestation have upon tropical ecosystems? How devastating is an oil spill? What are the driving dynamics of global warming? Will the depletion of the ozone layer create holes in the atmosphere over the poles and wreak havoc with marine food chains in the Antarctic and Arctic oceans? Does continuing development and exploitation of the environment threaten to interrupt the inorganic-organic cycles that characterize the biosphere?

Writing in 1953, one of the fathers of modern ecology, Eugene Odum, argued that such fundamental components of the biosphere as the nitrogen cycle and the phosphorus cycle were essentially beyond the power of humans to affect: "Fortunately, the more perfect cycles have so many compensating mechanisms that man has not yet done too much to modify them. Disturbance or manipulation of a cycle involving a vital element, however, could conceivably be much more dangerous than the disturbance of the less perfect cycles, because if such a cycle were disturbed beyond its compensatory powers, the whole thing might go completely to pieces."⁴ Already, only some four decades after Odum wrote these words, the possibility of an ecological disaster of massive proportions occurring seems all too great.

H. H.: *Actually, we had already disagreed with the Odums by the mid-1970s.*

C. A.: *The Odums? You mean Eugene Odum and his brother Howard?*

N. H.: *Yes. We were doing works about global warming in the mid-1970s with our Sacramento Meditations. We also disagreed with John Isaacs, the head of Scripps Institute of Oceanography, who told us: "You're not going to hurt—you can't hurt—the ocean." And we thought that was completely*

*wrong. He couldn't believe that a couple of artists were arguing with him. After all, he had just given us a Scripps Sea Grant, an award normally given only to marine biologists. But we did disagree with him. We argued then that human beings should begin planning for the future in hundred-year terms.*⁵

By engaging issues of deep concern, the Harrisons produce art with commensurately deep implications, and although most of their projects, such as *The Lagoon Cycle* (figs. 2 and 3) or *Breathing Space for the Sava River* (figs. 7 and 8), involve fairly localized ecosystems, their works index problems that have planetary significance.⁶

N. H.: *You might want to clarify the term localized ecosystem.*

C. A.: *Okay. I mean systems like brine-shrimp or catfish farms, estuaries, or rivers—ecosystems that operate on a less-than-global scale. I realize that in many of your works, a localized ecosystem can be quite large—say a twenty-thousand-square-kilometer drainage basin—as it is in *Breathing Space for the Sava River*. Despite their being "localized" in this sense, I do think your works address issues that can be taken as metaphors for larger environmental concerns—problems with worldwide or continental scale.*

H. H.: *Actually, the Lagoon Cycle ends with a long reflection on the greenhouse effect.*

N. H.: *We don't take on a project now that doesn't reverberate at least on continental levels. Our Great Lakes Proposal, for example, suggests that the North American continent should balkanize into bioregional entities with supernational powers.*

C. A.: *The entity would be the drainage basin of the Great Lakes?*

N. H.: *Yes, that kind of system would be a perfect example.*

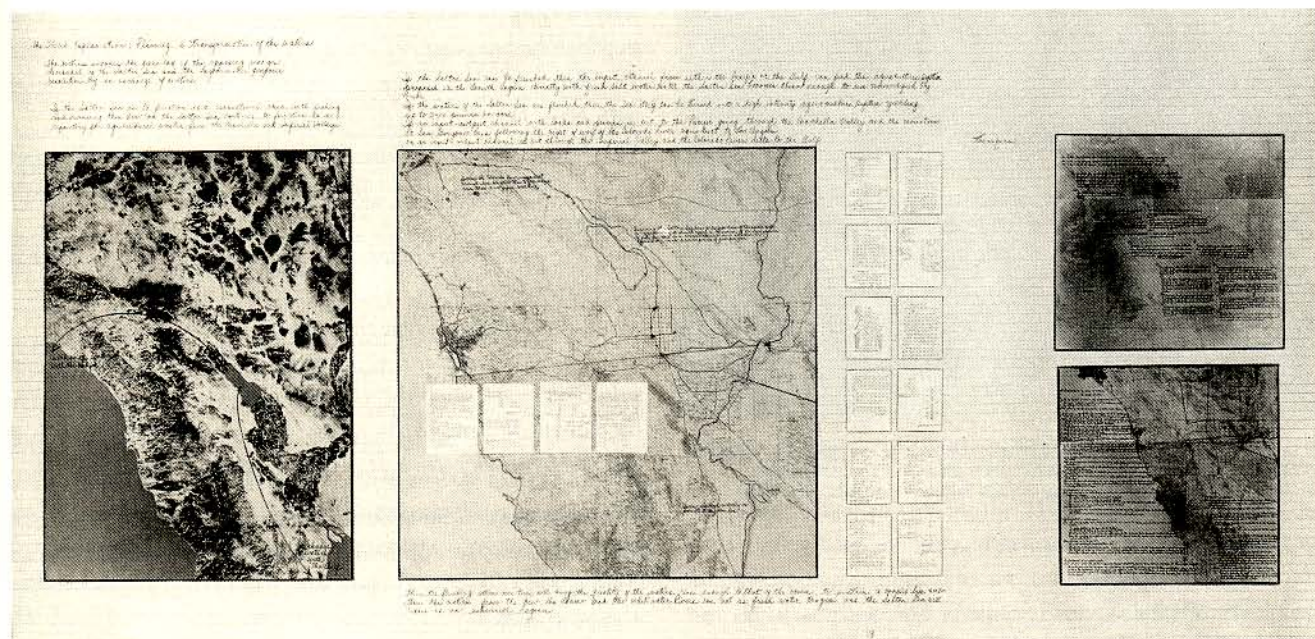


FIG. 3 Helen Mayer Harrison and Newton Harrison, *The Fifth Lagoon, Second Version, Third Explanation: Planning a Transformation of the Waters*, 1978, photographs, oil, graphite, printed maps, and ink on canvas, 36 x 75 inches. Courtesy Ronald Feldman Fine Arts, New York.

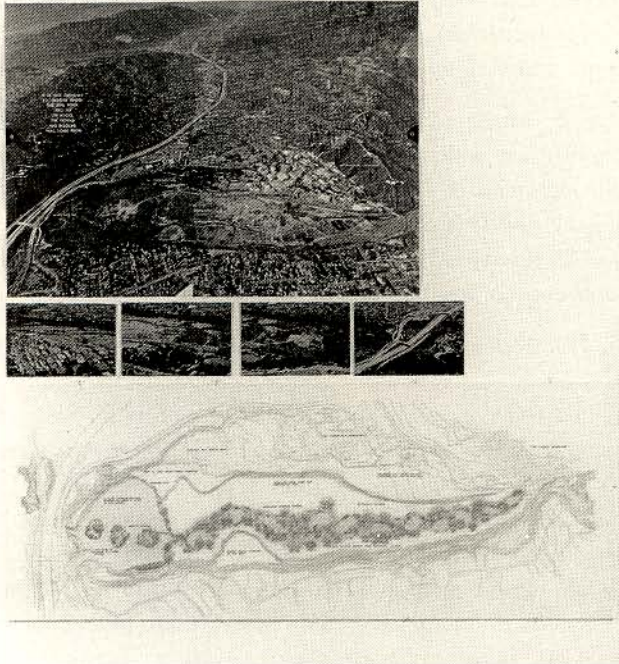


FIG. 4 Helen Mayer Harrison and Newton Harrison, *Pasadena—Devil's Gate: A Refugia for Pasadena*, 1985, 6 panels, photo collage, drawing, and texts: top panel, 44½ × 55 inches; bottom panel, 36¼ × 93 inches; 4 photographs, 11 × 16½ inches each. Courtesy Ronald Feldman Fine Arts, New York.

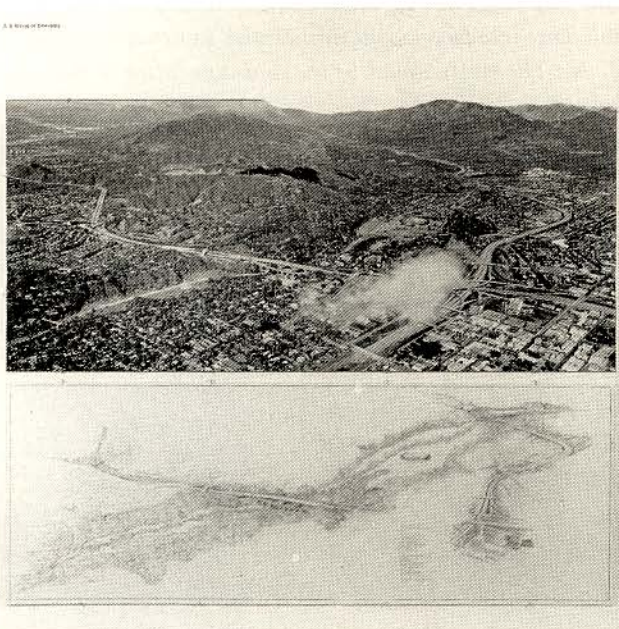


FIG. 5 Helen Mayer Harrison and Newton Harrison, *Pasadena—From the Air: A String of Emeralds*, 1985, 2 panels: photograph, 40½ × 91½ inches; drawing, 33 × 91 inches. Courtesy Ronald Feldman Fine Arts, New York.

Above all, such bioregional entities would be able to control their own taxes, their own industries and inputs into the environment.

C. A.: It would be interesting to draw political boundaries along ecological lines, rather than following those drawn by historical accident. Such boundaries would certainly make more sense at this point in time.

H. H.: Bioregionalists have been suggesting something like this for well over a decade.

N. H.: We first took up this issue of the Great Lakes in 1976 in a very Swiftian way. In 1986, ten years later, we were contacted and asked if we were still interested in the Great Lakes, and we're now being asked by various environmental groups to rework the proposal. As far as we're concerned, our projects are never really over; we continue to rethink our ideas.

C. A.: You keep working on many of your pieces over long periods—something that is particularly true of the Lagoon Cycle. Do you continue to introduce new ideas and new ecological information into the work?

N. H.: Yes. We have an agreement with Metromedia, Inc., the company that owns the piece, that any time it's shown, we can work on it again.⁷

In the exhibition catalogue for *The Lagoon Cycle*, a complex work consisting of numerous images, texts, performances, and books produced between 1972 and 1983, the Harrisons adopt voices of two mythical alter egos, the Lagoonmaker (Newton) and the Witness (Helen).

The Lagoonmaker: *Let your research concentrate on control, then, if it is successful, your yield will increase tenfold. Let your research concentrate on efficiency, then, if it is successful, a market will emerge.*

The Witness: *Where is he speaking from?*

And the Lagoonmaker responds: *A space of his own devising in which he has plenty of company. But what is he behaving?*

The Witness: *He is a beacon signaling to all who will create with him. Do you wish to create with him?*

The Lagoonmaker: *I have listened to his conversation and do not wish a sojourn in his categories. His direction lacks empathy.*

The Witness: *I have listened to his inventing. His moment is too narrow to play in.*

The Lagoonmaker: *Then choose another conversation.*

The Witness: *An estuarial lagoon is the place where fresh and salt waters meet and mix. It is a fragile meeting and mixing, not having the constancy of the oceans or the rivers. It is a collaborative adventure. Its existence is always at risk.⁸*

This passage can be taken as a metaphorical description of the "collaborative adventure" taking place between human civilization and nature: Here, too, the system's "existence is always at risk."

The fact that ecological questions are extremely difficult to answer even from scientific perspectives makes the

perimeters of the Harrisons' artistic domain difficult to map. What does it mean to be an ecological artist? What is the basis for their aesthetic? Do we judge their art to be more or less good insofar as it suggests doing the "right" thing ecologically? Is their purpose to identify the consequences of economic development and resource exploitation? Do they mean to isolate the environmental implications of certain human actions and then to identify "artful" solutions to the problems caused by those actions?

N. H.: *The Harrisons would answer all the above questions, "Probably yes," and we would feel free to begin in the absence of certainty. Every model of an ecosystem functions as a kind of distancing agent. Now, that model may be helpful, it may be a lens that lets you see; but the idea that you need total information in order to act with safety is ridiculous.*

H. H.: *The fact is that you can never obtain total information. There are many languages of nature that we do not understand and don't even know exist. These languages are part of complex ecological interactions, and we may never understand them.*

N. H.: *Information greed can subvert action, and to withhold action until evidence is incontrovertible leads to outcomes like the thinning of the ozone layer. By refusing to disadvantage industry, we disadvantage ourselves profoundly in the long term.*

H. H.: *In most cases, you can trust your instincts. If a river or a lake smells bad and looks bad, something is probably wrong.⁹*

The art that the Harrisons produce falls into recognizable categories: they create installations consisting of plans, maps, diagrams, drawings, photographs, and descriptions.¹⁰ These secondary documents are mounted, framed, and hung in commercial gallery spaces, much like other works of art.

N. H.: *In the context of the art world, our works do, in fact, behave like works of art. When they're exhibited in City Hall, however, they read as inspired proposals in poetic form, and the art aspect is not discussed.*

H. H.: *One associated facet of our work that your analysis tends to overlook is the way it tells stories. You're largely blind to that part of the work. Now, our culture has turned into an accounting culture and has put aside the power of the bard to transform beliefs. Our work indexes both the bardic and the visual traditions of Western culture.*

N. H.: *When we get up and tell stories to the Croatian Water Department, the storytelling is what causes the conversational drift. After we've told our stories, those government officials see our images differently. The conversation drifts and the idea of purifying the whole river system seems more real and less difficult.*

H. H.: *The conversation really is drifting into new directions. The World Bank is now supporting the purification of the Sava River in Croatia and Serbia.*

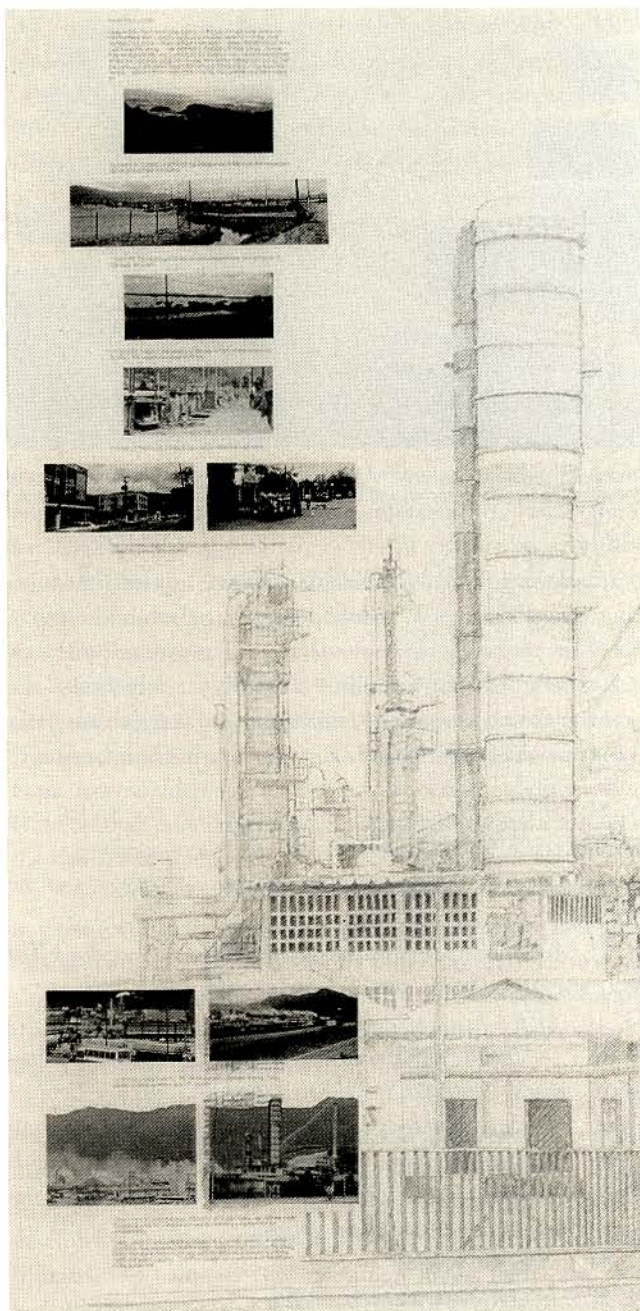


FIG. 6 Helen Mayer Harrison and Newton Harrison, *Brazil—Breathing Cubatao*, 1987, photo collage, pencil, and text on paper, 62½ × 31 inches. Courtesy Ronald Feldman Fine Arts, New York.

C. A.: *You would say then that your work consists mainly of storytelling rather than of plans, maps, diagrams, drawings, photographs, and descriptions, as I've said here?*

H. H.: *It consists of storytelling expressed through those means. We resist either/or thinking.¹¹*

The issues raised by the Harrisons' work involve the distinctions between art and artfulness, between technique and technology, between art and science, between one branch of science and another. Every scientific discipline (including ecology) has an aesthetic component.¹² This commonplace observation is just another way of saying that any



FIG. 7 Helen Mayer Harrison and Newton Harrison, *Sava River Project, Yugoslavia, 1988–91*, installation view, Ronald Feldman Fine Arts, New York, 1991; mounted maps, photographs, and drawings. Courtesy Ronald Feldman Fine Arts, New York.

particular solution to a problem is more or less well-thought-out and well-designed. Indeed, design, in the broad sense of the term, is at the crux of the Harrisons' practice. By choosing aspects of the discipline of ecology ready-made, the problem then becomes one of bringing to people's awareness things normally overlooked. But is ready-made science art?

N. H.: *Hilton Kramer got so annoyed with the Salton Sea Project (fifth in the Lagoon Cycle) that he thought—*

H. H.: *He said, all we did was science, and where was the passion?*

N. H.: *And then he suggested that not only would we do well to leave the arts, but we would do well to leave New York.*

H. H.: *Alfred Frankenstein—*

N. H.: *—had the same response to the Sacramento Meditations, which dealt with irrigated farming in the Central Valley, as Kramer did to the Salton Sea piece. It didn't occur to either of those critics that there was something the matter with their own concept formation. We did a piece that we showed the next year that began with [the phrase]:*

H. H.: *"Somebody said"—*

N. H.: *—"our work was too scientific"—*

H. H.: *—"and where was the passion?" Well, we said, if somebody built a pond in your backyard and dumped all their wastes into it, wouldn't you get mad?*

N. H.: *And if you got mad—*

H. H.: *—wouldn't you try to do something about it? And after all, what is a proposal but a story about what you intend to do? And so on. Finally, we said [Kramer] was objecting to Duchamp's Bottlerack fifty years too late.¹³*

The Harrisons approach ecology in a Duchampian manner. In this regard, their work fits within a long artistic tradition of radicality.

H. H. and N. H.: *We'd like to add something at this point: In the final analysis, Duchampian considerations fall into the background because they are simply not sufficiently powerful*

carriers of the values needed to address what is now happening.¹⁴

Making ecologically sound aesthetic choices is a problem with considerable complexity, and choosing good ecology ready-made is no less problematical. Can "no more deforestation," for example, serve as a criterion for making aesthetic judgments in an ecologically based artistic practice?¹⁵ Is nature something that is simply there for the use of humankind? Or does it have "rights" that supersede the desires of any given human group or, for that matter, the human species as a whole?¹⁶ In order to have an aesthetic goal in terms of ecology, one necessarily needs to have a view of what kind of environment one wants. The world can be densely populated or thinly populated; it can have a diversity of wild species or a severely limited number of wild species.¹⁷ Such choices are, apparently, within the discretion of human beings, although the hubris of humans in trying to control nature is often striking.¹⁸ And irrespective of our power to control nature, are we wise enough to do so well?

H. H.: *Can I read you one of the nine texts from our Sacramento Meditations? We spent the year 1976 working out these notions for ourselves.*

C. A.: *Please. I'd enjoy hearing it.*

H. H.: *This is the section entitled "On Revaluing Paradigms": "If cultural altruism (trading off the interest of the individual for the survival of society) is functional communal interest in terms of human survival, and if biological altruism (trading off the interest of the individual for the survival of the gene pool) is functional communal interest in terms of species survival, and if congruence with the laws of conservation of energy is functional communal interest in terms of species survival, then in the interest of species survival resources would be held in trust as communal and used in congruence with the laws of conservation of energy.*

"Therefore, new paradigms will be needed which will lead to new legal and social codes that will permit land and

water to be passed on to succeeding generations intact, non-renewable resources husbanded, and renewable resources not depleted.

"For if the paradigms that inform the present use and energy practices of our culture (exploit / consume / transform into goods / transform into profit) as typified by our use of the Sacramento—San Joaquin watershed do not undergo modifications slowly (through civil means) or more rapidly (through revolutionary means), then they will surely undergo modification through massive biological revolt as ecosystems simplify in response to increasing stress and become minimally productive."¹⁹

Passionate opinions are involved in the questions that surround environmental issues.²⁰ Is the Harrisons' art up to dealing with such controversies? In 1978 Kristine Stiles argued that their "conventional production of art objects vitiates the vitality of their real-time, socio-political, ecological subject matter and neutralizes and confuses its content." She maintained that "art which deals with ecology and nature directly cannot afford to hide in the cloistered setting of museum-gallery art contexts."²¹

N. H.: *The Harrisons would counterargue that the museum is a safe place for a town meeting—*

H. H.: *—a safe and neutral place—*

N. H.: *—and that their works in Baltimore, Pasadena, Berlin, and Yugoslavia became forums for storytelling. In those places, the museum setting enabled their projects to move toward realization.*

C. A.: *Do you think it's more effective to begin the conversation in a museum setting? More effective, say, than had you been invited to those places as ecological experts?*

N. H.: *Sure. In the museum, the officials see a new map, a new territory, and they learn a new language. They are not paying our salaries.*

C. A.: *So you can actually be more effective by taking this kind of end-run approach?*

N. H.: *We can circumvent a great deal of bureaucracy.*

H. H.: *What results from our exhibitions is also important. The conversation can either go into the newspapers, as it did with our Baltimore project—that piece was discussed in around twelve or fourteen newspaper articles—or it can go, as it did in Pasadena, directly into City Hall. After being shown at the California Institute of Technology, the show was mounted in the city-government building.²²*

The work of the Harrisons is sometimes practical, sometimes Utopian, and sometimes ironic. Always, it is a plea for change. It beseeches the human species to come to use natural resources in intelligent ways, to begin to encounter the planet Earth in artful ways.²³ The viability of taking such an approach is, of course, the essential problem. How can we do so? Are we, in fact, intelligent enough to manage planet Earth? Is it, or is it not, an illusion to think that technology

can solve the problems that human beings face? One compelling reason to believe that technology cannot solve all our problems is that technological fixes operate in terms of solutions that involve further exploitation of limited resources. Because such resources are limited, the Harrisons are probably correct in their belief that our time of reprieve is coming to an end.

The great strength of the Harrisons' work is not so much a matter of the solutions it provides to given problems—although many of their proposals do function as solutions—but rather the way it reveals the complexity and difficulty of the ecological issues it addresses. Through their dialogue with one another, and through their further discussions with various audiences—in both the art world and the real world—they often manage, as they say, to "change the conversation."²⁴ What makes their approach art, rather than, say, ecological engineering, is that it carries an absurdist twist that brings home the difficulty of finding ecologically sound solutions to given problems. Their works are site-specific (sight specific) and force us to look at where we are vis-à-vis the rest of the biosphere. They reveal that any given site is the locus of both natural processes and human politics. By operating in the domain of art, the Harrisons can, perhaps, more readily teach us about the ecological dimensions of the human condition than they could were they working in the domain of science.

The works of the Harrisons function as signposts, as markers, within the realm of real-world economics and politics, and although their success or failure as artists is to some degree determined by the pitfalls of artistic achievement, they rise above such concerns by dealing with bigger issues. The Harrisons are measured within the narrow confines of the art world, and their work functions in terms of the conventions of the galleries and museums; but it also functions in the broader terms of ecological and scientific relevance. Their strategy of choosing a complex (and beautiful) biological discipline assures that their art will have interesting and illuminating content. Observers can follow their cues and look in directions that might otherwise have remained obscure. In this way, the Harrisons' excursus on a Southeast Asian crab or their meditation on the interactions of native American mangroves and invasive Australian pine trees are intrinsically aesthetic—in several aspects of the term. Their projects resonate with both the beauty of science and the beauty of nature.

Arguably, these two categories of beauty are closely related. Without the growth of scientific knowledge that has characterized the past few centuries, the beauty of nature would be less apparent. Our ability to appreciate the intricacy and pattern of ecological interactions presupposes an understanding of the ways of nature. As our scientific knowledge grows, the world becomes more beautiful; as our scientific knowledge further illuminates the workings of ecological systems, those systems become all the more wondrous. Be-



FIG. 8 Helen Mayer Harrison and Newton Harrison, *Sava River Project*, Yugoslavia, 1988–91, one of 12 photo collages with texts, maps, and mixed media. Courtesy Ronald Feldman Fine Arts, New York.

cause ecology as a discipline emerged only after high levels of biological sophistication and theoretical understanding of natural processes had been achieved, it is predicated on an aesthetic of the kind the physicist Werner Heisenberg had in mind when he said: "Beauty is the proper conformity of the parts to one another and to the whole."²⁵

The Harrisons themselves locate their work within the conventions of both art and science. Using artistic approaches and techniques, they radicalize their subject. Their work stretches not only the methodology but also the content of art. Since both the approach and the content are stretched, the demands placed on the viewer are commensurately more stringent. The Duchampian stance adopted by the Harrisons makes sense from within such a context of incomprehensibility and, despite the fact that few of their projects have been built thus far, their work is much more than unrealizable metaphor in the face of urgent need. Solutions to problems can be matters of art.

H. H.: *Our Breathing Space for the Sava River is relevant here. Let's read part of that text.*

N. H.: *"Standing here seeing waters come from the factory, whitened by chalk, burdened by nitrates and phosphates and heavy metals, mixing with sewage from the town before flowing through the nature reserve into the Sava. I said: Despite*

their burden the waters look beautiful."

H. H.: *"You said: From one perspective or another, anything can look beautiful."*²⁶

In many ways, the world itself, nature itself, is becoming a huge archival system, a kind of museum. Nature reserves are like vitrines housing relics of past ecosystems. The world's population will probably double by the year 2025, and if modern science continues to extend human life expectancy to around 115 years, the number most physiologists believe to be immediately accessible, then people living now may survive to see the population double not just once but twice. What kind of world will this dense mat of humanity inhabit? Can technology produce a place for such large numbers of people? Will everyone have a car? Will there be billions of parking spaces?

Ecodisasters seldom follow the exact lines predicted, but the scenarios do allow us to plan ahead, at least in part. They give prognosticators a way of previewing possible events. Through scenarios, thinkers can "sketch a paradigm (an explicitly structured set of assumptions, definitions, typologies, conjectures, analyses, and questions) and then construct a number of explicitly alternative futures which might come into being under the stated conditions."²⁷ The Harrisons operate in terms of scenarios.

H. H.: *Perhaps we could read another section from our proposal for the Sava River at this juncture?*

N. H.: *"The shape of catastrophe takes on the quality of opportunity when all the drainage ditches are expanded to end in reedbed and swamp, purifying the waters and making new habitat before these waters return to the Sava."*

H. H.: *"The shape of catastrophe takes on the quality of opportunity when the waters from the atomic-power plant are kept warm in holding ponds to be transferred to ponds for raising warm-water fish before returning to the Sava."*

N. H.: *"And the oxbows are preserved as additional sanctuaries and mini-basins to capture floodflow are constructed and forest areas are preserved and expanded and polluted waters decontaminated at their sources."*

H. H.: *"Then the shape of opportunity, emerging from the sum over its histories, becomes the new history of the Sava River floodplain, the second largest alluvial wetland remaining on the continent of Europe."²⁸*

The high probability that humans will have a large-scale impact on massive dynamic systems such as the ozone layer, the carbon cycle, or the phosphorus cycle is very worrisome, mainly because humans are not in a position fully to comprehend the processes they may be setting in motion. If, for example, it turns out that large numbers of species are extinguished as a result of our use of air conditioning and hair-spray propellants, then we become ecologically ludicrous, but only in our own eyes. Given the absurdities encountered within the operation of worldwide economic systems and the frightening ability of nature to repay us for our misdeeds, it behooves us to proceed carefully.

H. H. and N. H.: *We agree.*

In just such terms of uncertainty, the art of Helen and Newton Harrison reminds us that our primary challenge as a species may boil down to making aesthetic choices. For the first time in the history of the planet, nature can actually be controlled by a single species. Humans can now effect global changes in the quality of existence not just for ourselves but for all living things. We control massive, albeit directionless, capabilities, and while the notion of progress may be one we do not want to abandon too quickly, just where are we progressing to? Can the species as a whole articulate a single coherent goal, or is "progress" simply an agglomeration of short-sighted ambitions for achieving short-term success at the individual and small-group level?

By doing art with ecological content, the Harrisons imply that the human species should treat the planet as a sculpture.²⁹ Such an idea strikes many people as absurd, but humans are clearly modifying the ecosystem and changing the fragile biosphere of the planet. The Earth will become, and is already very largely, an artificial construct. Architects speak of the "built environment" as if the cityscape of modern enterprise were somehow distinguishable from the land-

scape. There are virtually no untouched natural places remaining on the Earth. There is everywhere the presence of humankind.

The vast majority of all species that have ever lived are now extinct, and the extinction of the human species would go unnoticed by any agency other than the human species itself.³⁰ Do we care? And if so, to what end do we care? Does the planet need its present wealth of species? Arguably, such a goal has a very high positive aesthetic content and would give credence to our own desire for survival. Can such matters provide us with grounds for making aesthetic ecological choices? Do we believe that the human species should survive? Why? Can the presently ongoing mass extinction be averted? Norman Myers has described the alarming scale of the problem: "Almost certainly we are losing one species per day right now. By the end of the century we shall be fortunate if we do not lose one million of earth's 5–10 million species. By the middle of the next century, we may even say goodbye to at least one-third and conceivably one-half of the planetary spectrum of species."³¹ Myers argues that there may be more at stake than matters of aesthetics or ethics. Not only do we want to exist with other living creatures around us, we may not be capable of living without them. We may perish from the Earth without the wealth of resources provided us by other living creatures.

Can we learn to deal with nature artfully and with a sense of style that includes all the species and all the intricacies of the planet itself? It is perhaps essential for us to realize, in the context of the present discussion, that the human species has almost certainly never approached the environment in benign ways at any time during its evolutionary past.³²

N. H.: *We take issue with this statement about humans having never approached the environment benignly.*

C. A.: *You think that humans have lived in balance with nature in the past?*

H. H.: *You should look at our piece entitled Meditation on the Gabrielino, Whose Name for Themselves Is No Longer Remembered. We spent a good part of 1975 thinking about them, and they certainly influenced our Sacramento Meditations and many of our other California works.*

C. A.: *These are the Indians who lived in the Los Angeles Basin before the arrival of Europeans?*

H. H.: *Yes. They practiced a form of slash-and-burn agriculture that controlled both chaparral and forest growth. They fought wars with singing.³³*

Part of the indifference humans have shown to their environment has to do with the way the species has developed through time. Like all species, *Homo sapiens* (a misnomer if there ever was one) is geared toward survival. It has been designed through gradual evolutionary processes to exploit those aspects of its environment that allow it to reproduce successfully. Food, shelter, protection from predators—

Tibet is the High Ground

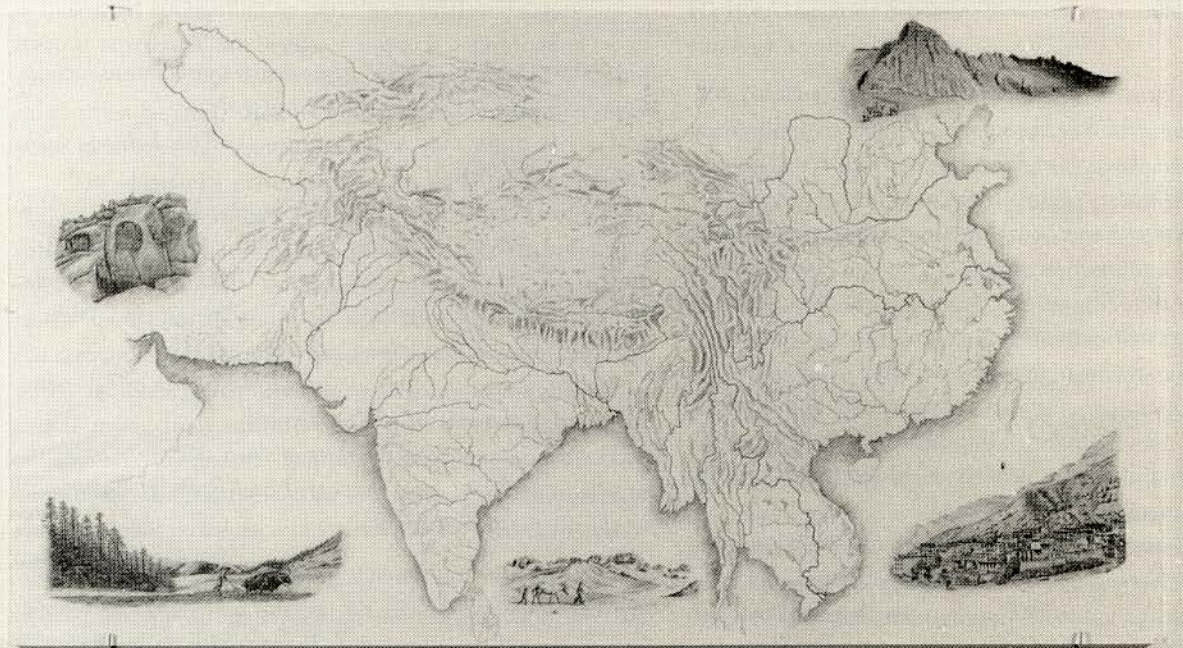


FIG. 9 Helen Mayer Harrison and Newton Harrison, *Tibet—Tibet Is the High Ground*, 1991, maps, photo collages, texts, and drawings, 2 panels: top, 69 x 75 inches; bottom, 41 x 75 inches. Courtesy Ronald Feldman Fine Arts, New York.

these are the things that our ancestors from earliest times have had to struggle for. Whether or not it was good for the food animals we ate to be eaten never entered the equation, just as such questions never enter the equations of any other species. Human beings are the only species that has ever lived with the ability to ask whether or not our practices have good or ill effects for the entire planet.³⁴ We are the only species that has ever produced art and the only species capable of dealing with our natural environment with anything approaching artfulness. Limited as our control may at present be, it portends a time when we will either deal with the environment artfully or die. Speaking of our contemporary ecological plight, Newton Harrison points out that "we've been very alienated from our resources, but our time of grace is over. The idea that technology is able to buy us out of our problems is an illusion. We are going to have to make vast changes in our consciousness and behavioral patterns, because if we don't, we won't be here."³⁵

Notes

1. Conversation with Helen and Newton Harrison, March 26, 1991. The first draft of this essay was completed in early March 1991 and sent to the Harrisons. In late March, I visited the Harrisons at their home in Del Mar, California, and we went over the essay together. At strategic points throughout the essay, I have interlarded their comments and reactions or inserted earlier texts that they indicated were relevant to our discussions. The title, *Conversational Drift*, which they suggested, is meant to reflect both the process of interchange that occurred between us and also to suggest how their ecologically oriented art functions in general: their work sets up situations both in art galleries and in the halls of government that encourage the conversation to open up, to change, and to drift toward innovative and creative solutions to real-world problems. All of the added sections are italicized.
2. Ann Trautman, "Chronology," in *The Lagoon Cycle: Helen Mayer Harrison/Newton Harrison*, exh. cat. (Ithaca, N.Y.: Herbert F. Johnson Museum of Art, Cornell University, 1985), 100.
3. Conversation with Helen and Newton Harrison, March 26, 1991.
4. Eugene P. Odum, *Fundamentals of Ecology* (Philadelphia: Saunders, 1953), 19.
5. Conversation with Helen and Newton Harrison, March 26, 1991; the Harrisons received their Sea Grant in 1974; see Newton and Helen Mayer Harrison, "Sea Grant Second Narrative and Two Precedent Works," *Studio International* 187 (May 1974): 234-37. For a good example of Howard Odum's work, see *Environment, Power, and Society* (New York: Wiley-Interscience, 1971); see also the Harrisons' text, "San Diego Is the Center of the World and Notions for Others," in *From the Lagoon Cycle: From the Meditations: Newton Harrison/Helen Mayer Harrison*, exh. cat. (San Francisco: San Francisco Art Institute, 1977), n.p. They end a series of speculations about global warming with the following suggestion: "If it cannot be determined which of these propositions is true or it cannot be determined which combination of these propositions is true or it cannot be determined which of these propositions is false, either singly or in combination, then begin both short and long range planning."
6. For these and other works, see *Lagoon Cycle*, passim; *Newton Harrison, Helen Mayer Harrison, Atempause für den Save-Fluss [Breathing Space for the Sava River]*, die Summe seiner Geschichte, Beginn einer neuen Geschichte, exh. cat. (Berlin: Neuer Berliner Kunstverein, 1989); *Arroyo Seco Release/A Serpentine for Pasadena: A Work by Helen Mayer and Newton Harrison*, exh. cat. (Pasadena: Baxter Art Gallery, California Institute of Technology, 1985); *Devil's Gate Transformation/A Refuge for Pasadena: A Work of Art by Newton and Helen Mayer Harrison*, exh. cat. (Pasadena: Pasadena Gallery of Contemporary Art, Community Action for Parks, and Art Center College of Design, 1987); *Land Marks: New Site Proposals by Twenty-two Original Pioneers of Environmental Art*, exh. cat. (Annandale-on-Hudson, N.Y.: Edith C. Blum Art Institute, Bard College Center, 1984).
7. Conversation with Helen and Newton Harrison, March 26, 1991.
8. *Lagoon Cycle*, p. 60.
9. Conversation with Helen and Newton Harrison, March 26, 1991; see also J. R. Ravetz, "Usable Knowledge, Usable Ignorance: Incomplete Science with Policy Implications," in *Sustainable Development of the Biosphere*, ed. William C. Clark and R. E. Munn (Cambridge, England: Cambridge University Press, 1986), 415-34. For discussions of questions relating to global warming and the depletion of the ozone layer, see the essays in Bert Bolin, B. R. Döös, Jill Jäger, and Richard A. Warrick, eds., *The Greenhouse Effect, Climate Change, and Ecosystems* (New York: John Wiley & Sons, 1986).
10. For an interesting discussion of the map-making aspect of the Harrisons' practice, see Michel de Certeau, "Pay Attention: To Make Art," in *Lagoon Cycle*, 17-24.
11. Conversation with Helen and Newton Harrison, March 26, 1991.
12. For discussions of the roles played by aesthetics in science, see Deane W. Curtin, ed., *The Aesthetic Dimension of Science* (New York: Philosophical Library, 1982); see also Judith Wechsler, ed., *On Aesthetics in Science* (Cambridge, Mass.: M.I.T. Press, 1978).
13. Helen and Newton Harrison, interviewed by Elise Miller, in "The Lagoon-Maker and the Witness, an Improvisation of Art and Science: The Dramatic *Lagoon Cycle* Series of San Diegians Newton and Helen Mayer Harrison," *San Diego Magazine*, October 1983, 175, 264.
14. Conversation with Helen and Newton Harrison, May 23, 1991.
15. See Norman Myers, *Conversion of Tropical Moist Forests* (Washington, D.C.: National Academy of Sciences, 1980); and idem, *The Primary Source: Tropical Forests and Our Future* (New York: Norton, 1984).
16. See Paul W. Taylor, *Respect for Nature* (Princeton, N.J.: Princeton University Press, 1986).
17. See Norman Myers, *The Sinking Arc: A New Look at the Problem of Disappearing Species* (New York: Pergamon Press, 1979); and idem, *A Wealth of Wild Species: Storehouse for Human Welfare* (Boulder, Colo.: Westview Press, 1983).
18. See John McPhee, *The Control of Nature* (New York: Farrar, Straus and Giroux, 1990).
19. Helen Harrison, reading from an unpublished manuscript, "Sacramento Meditations," March 26, 1991.
20. See Robert T. McIntosh, "The Background and Some Current Problems of Theoretical Ecology," in *Conceptual Issues in Ecology*, ed. Esa Saarinen (Dordrecht: D. Reidel, 1982), 1-61; see also John McPhee, *Encounters with the Archdruid* (New York: Farrar, Straus and Giroux, 1971); Koula Mellos, *Perspectives on Ecology* (New York: St. Martin's Press, 1988).
21. Kristine Stiles, "Helen and Newton Harrison: Questions," *Arts* 52 (February 1978): 133.
22. Conversation with Helen and Newton Harrison, March 26, 1991.
23. For philosophical discussions relevant to these issues, see Allen Carlson, "Nature and Positive Aesthetics," *Environmental Ethics* 6 (Spring 1984): 5-34; and idem, "Nature, Aesthetic Judgment, and Objectivity," *Journal of Aesthetics and Art Criticism* 40 (Fall 1981): 15-27.
24. "Changing the Conversation" was the title of a recent exhibition of the Harrisons' work at Ronald Feldman Fine Arts, New York, March 2-April 6, 1991.
25. Werner Heisenberg, quoted by Subrahmanyan Chandrasekhar, *Truth and Beauty: Aesthetics and Motivations in Science* (Chicago: University of Chicago Press, 1987), 70.
26. *Atempause für den Save-Fluss [Breathing Space for the Sava River]*, n.p. This text is in English with a German translation.
27. Daniel Bell, "Twelve Modes of Prediction: A Preliminary Sorting of Approaches in the Social Sciences," *Daedalus* 93 (1964): 866.
28. Conversation with Helen and Newton Harrison, March 26, 1991; and *Atempause für den Save-Fluss*, n.p.
29. Earthworks come to mind in this context. For discussions of some of the ecological issues raised by such works of art, see Peter Humphrey, "The Ethics of Earthworks," *Environmental Ethics* 7 (Spring 1985): 6-21; Donald Crawford, "Nature and Art: Some Dialectical Relationships," *Journal of Aesthetics and Art Criticism* 42 (Fall 1983): 49-58; Allen Carlson, "Is Environmental Art an Aesthetic Affront to Nature?" *Canadian Journal of Philosophy* 16 (1986): 635-50.
30. See Stephen K. Donovan, ed., *Mass Extinctions: Processes and Evidence* (New York: Columbia University Press, 1989); Antoni Hoffman, *Arguments on Evolution: A Paleontologist's Perspective* (New York: Oxford University Press, 1989); C. P. Larwood, ed., *Extinction and Survival in the Fossil Record* (Oxford: Clarendon Press, 1988); see also Steven M. Stanley, *Extinction* (New York: Scientific American Library, 1987).
31. Myers, *Wealth of Wild Species*, 9.
32. See the essays in B. L. Turner, ed., *The Earth as Transformed by Human Action* (Cambridge, England: Cambridge University Press, 1989); see also Andrew Goudie, *The Human Impact on the Natural Environment*, 3d ed. (Cambridge, Mass.: M.I.T. Press, 1990).
33. Conversation with Helen and Newton Harrison, March 26, 1991; see "Meditation on the Gabriellino, Whose Name for Themselves Is No Longer Remembered," in *From the Lagoon Cycle: From the Meditations*, n.p.
34. For relevant discussions, see S. L. Miller and L. E. Orgel, *The Origins of Life* (Englewood Cliffs, N.J.: Prentice-Hall, 1973); and Michael H. Carr, *The Surface of Mars* (New Haven: Yale University Press, 1981).
35. Newton Harrison, quoted by Michael Auping, "Earth Art: A Study in Ecological Politics," in *Art in the Land: A Critical Anthology of Environmental Art*, ed. Alan Sonfist (New York: Dutton, 1983), 100.

CRAIG ADCOCK teaches nineteenth- and twentieth-century art history at the University of Notre Dame. He is the author of *James Turrell: The Art of Light and Space (1990)*.

engages local community residents in all stages of the art process. She begins by asking them three questions: What were our beginnings? What has created our imbalances? What can bring us back into harmony? From the answers grows the art event—a combination of sculpture and theatrical performance—in which her new friends collaborate or witness. For example, in the first piece, *Western Gateway*, created in Malibu in August 1987, an initial segment of the performance depicted humans, originally unified, splitting into male and female identities. The next part identified the malady that developed in American society when it decided that it knew the best way to live and used this overweening self-confidence to justify killing people in other countries. In the third stage of the narrative, Vijali appeared as Gaia personified to bring life back into balance by reuniting man with woman and both with the Earth (fig. 3).¹⁷

Vijali symbolizes this quest for wholeness—within the self, among people, between people and planet—with the circle or wheel, which is frequently used for her sculptures and which defines the itinerary of her global project. This shape is, of course, an ancient and universal sign of completeness; she studied its manifestation as a medicine wheel with the Seneca elder Yehwennode (Twyllah Nitsch). Her concern is not specifically to represent Native American culture, but generally to convey the idea that “we (plants, animals, people, earth and universe) are one breathing organism.” This transpersonal vision and her insistence on individual responsibility are her ways of recalling art to its lost shamanic role of nourishing and directing the community.

This sampling of artists shows how diverse methods can alert, inform, and activate the public in environmental or other political causes. Multiple tactics suit a pluralistic public. Moreover, varied approaches may be the best way to achieve ecological sanity, for, as Joseph Beuys says, “What the system fears is manifoldness of people’s intentions and inventions against the system.”¹⁸ With this in mind, artists, and the rest of us, would do well to heed the Harrisons’ advice: “The most important thing is to begin anywhere, and get cracking.”¹⁹

Notes

1. The Gaia hypothesis was formulated by the atmospheric scientist James Lovelock and the microbiologist Lynn Margulis. There are numerous publications on this topic; for an authoritative, eminently readable introduction, see James Lovelock, *The Ages of Gaia: A Biography of Our Living Earth* (New York: W. W. Norton, 1988). For a brief summary of the development of views of nature from the atomistic and mechanistic to the holistic, as well as their metaphysical implications, see J. Baird Callicott, in Callicott and Robert T. Ames, eds., “The Metaphysical Implications of Ecology,” in *Nature in Asian Traditions of Thought: Essays in Environmental Philosophy* (Albany, N.Y.: State University of New York Press, 1989), 51–64.
2. The philosopher David Ray Griffin distinguishes between deconstructive post-modernism, which is relativistic and against any world view, and constructive postmodernism, which attempts to construct a revised world view. See his “Introduction: The Reenchantment of Science” in Griffin, ed., *The Reenchantment of Science: Postmodern Proposals* (Albany, N.Y.: State University of New York Press, 1988), 16–25. I do not suggest that we adopt the specifics of Griffin’s definition of constructive postmodernism, but simply that in this general sense it is useful.
3. The need to define a new mind-set, one more consistent with the condition of the

world and our present knowledge of it, is cogently argued by Robert Ornstein and Paul Erlich; see their *New World, New Mind: Moving toward Conscious Evolution* (New York: Doubleday, 1989). For a historical model of the emergence of new paradigms, see W. Kirk MacNulty, “The Paradigm Perspective,” *Futures Research Quarterly* 5 (Fall 1989): 35–54.

4. Deborah Bright uses a political orientation to differentiate among recent works of eco-art; see “Paradise Recycled: Art, Ecology, and the End of Nature [sic],” *Afterimage* 18 (September 1990): 10–13. Suzi Gablik’s *The Reenchantment of Art* should also be consulted regarding ecoartists (New York: Thames and Hudson, 1991).
5. Dan Ferrara, “Landscapes of Consequence,” *Outside* 14 (December 1989): 87.
6. See Richard and Myriam Weisang Misrach, *Bravo 20: The Bombing of the American West*, exh. cat. (Baltimore: Johns Hopkins University Press, 1990). This proposal was the subject of a traveling exhibition, “Bravo 20: A National Park Proposal,” in 1990–91.
7. Author’s interview with Billy Curmano, February 12, 1991; Sandra Price, “The Power of the Mississippi,” *Public Art Review* 2 (Spring–Summer 1990): 14–15. Curmano takes precautions against fatigue and pollution: a crew accompanies him and he wears barrier creams or a dry suit when he swims.
8. Ned Rifkin interview with Buster Simpson in *Works: Buster Simpson*, exh. cat. (Washington, D.C.: Hirshhorn Museum and Sculpture Garden, 1989), 1; Ron Glown, “Buster Simpson: An Activist Art of Urban Ecology,” *Public Art Review* 2 (Spring–Summer 1990): 16.
9. Two other artists, included in an exhibition titled “Eco-Art: Imaging a New Paradigm,” which I curated for the San Jose State University Art Gallery in spring 1991, also fit this category. For this exhibition, Alric Middlebrook created an outdoor installation called *Urban Forest: A Demonstration Garden*. Consisting of permanently planted and temporarily boxed trees, this piece was intended to highlight the importance of trees in maintaining ecological balance. Within *Urban Forest*, Francisco Perez constructed his *Rhythms of Life*. His use of recycled and natural materials admonishes us to use Earth’s finite resources judiciously, and reminds us of the natural cycle of birth, death, and rebirth.
10. Patricia Johanson, in “From the Other Side: Public Artists on Public Art,” *Art Journal* 48 (Winter 1989): 338; idem, *Endangered Garden* (proposal), 1988, unpublished; letter from Patricia Johanson to the author, July 2, 1990.
11. Arlene Raven, “Two Lines of Sight and an Unexpected Connection: Helen Mayer Harrison and Newton Harrison,” in *Art in the Public Interest* (Ann Arbor: UMI Research Press, 1989), 90. For an article that clearly relates the Harrisons’ contribution to ecological and social concerns, see Linda McGreevy, “Improvising the Future: The Eco-Aesthetics of Newton and Helen Harrison,” *Arts* 62 (November 1987): 68–71.
12. Carin Kuoni, comp., *Energy Plan for the Western Man: Joseph Beuys in America, Writings by and Interviews with the Artist* (New York: Four Walls Eight Windows, 1990), passim.
13. Quoted in Dominique G. W. Mazeaud and Robert B. Gaylor, *Revered Earth*, exh. cat. (Santa Fe: Center for Contemporary Arts of Santa Fe, 1990), 13. Additional information on the project is from a telephone interview with the artist, February 11, 1991.
14. Information on Dominique Mazeaud is based on conversations and letters with the artist between July 1990 and February 1991 and on Mazeaud’s unpublished “Biographical Sketch.” For sample extracts from Mazeaud’s journal, see Gablik, “Art beyond the Rectangle,” *New Art Examiner* 17 (December 1989): 20f.
15. Dominique Mazeaud, “As Many Species Disappear New Artist Species Are Being Born,” in *What Have We Got to Lose: Artists and the Environmental Crisis*, ed. Rebecca Solnit (Point Reyes Station, Calif.: Gallery Route 1, 1991), 31.
16. Since Vijali closed her Santa Barbara studio in 1975 and gave up selling work in commercial art galleries, she is not widely known. Among the published commentaries on her work are Elinor Cadon, *The Once and Future Goddess: A Symbol for Our Time* (San Francisco: Harper and Row, 1989), 364–68; Gloria Feman Orenstein, *The Reflow of the Goddess* (New York: Pergamon Press, 1990), 115; and Sherry Ruth Anderson and Patricia Hopkins, *The Feminine Face of God* (New York: Bantam, 1991), 163–77. Additional information was obtained from the artist’s lectures, from conversations between August and October 1990, and from Vijali’s unpublished writings.
17. For a description of the first performance, see Barbara T. Smith, “Art and Ceremony,” *High Performance* 40 (1987): 57–59.
18. In Kuoni, *Energy Plan*, 51.
19. In Raven, “Two Lines of Sight,” 103. Since information about artists working on environmental problems and on the definition of new paradigms is sparse, I would appreciate hearing from artists who are doing this kind of work. Please contact me at the Department of Art and Design, San Jose State University, One Washington Square, San Jose, California 95192-0089.

PATRICIA B. SANDERS teaches art history and humanities at San Jose State University in California. Her book on nineteenth-century painting, *The Haggin Collection*, was published in 1991.