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Inconsistency and contradiction: Lessons in improvisation in the work of Helen Mayer Harrison and Newton Harrison

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We have come to believe that inconsistency and contradiction are generated by the processes of cognition, thinking and doing, and have the important role to play of stimulating and evoking creativity and improvisation, which are inherent in the processes of the mind that have led us to do this work.¹

Introduction

The aim of this essay is to draw out the learning from the authors' analysis of the practice of Helen Mayer Harrison and Newton Harrison, collectively known as "the Harrisons". The Harrisons are widely acknowledged as eminent ecological artists whose work addresses watersheds, forestry, forms of farming, urban development, sea level rise and climate change over a career spanning five decades and encompassing projects on several continents.² Artists, particularly those who are willing to speak to their practice in reflective and reflexive ways, provide lessons for other practitioners and perhaps for other disciplines, but they do not provide models exactly. The Harrisons are particularly interested in the possibility of their methods being taken up by other practitioners and disciplines. They call this 'conversational drift'. Dialogue and discourse will recur through this essay, but it is worth noting that 'drift' is often used as a translation of the Situationists' word 'dérive', an unplanned or improvised exploration of the city.³ It is in this sense that the Harrisons understand the process of lessons being learnt and the potential for lessons to be relevant in other contexts.

Inconsistency and contradiction would normally be seen as problematic, frequently encountered in challenging environmental issues within discussions of sustainability, interdisciplinarity and specifically in relation to policy and decision-making. However, the Harrisons view inconsistency and contradiction as key to creativity and improvisation, which in turn, they argue, are at the heart of both culture and ecology. The authors have a particular interest in improvisation as a vital aspect of creativity and will draw on the Harrisons' own works and reflections as well as both anthropological and musicological references to offer a different reading of improvisation, inconsistency and contradiction.

We argue that the Harrisons' artistic practice, encompassing its rigorous visual, textual and poetic form, offers learning that extends beyond art. It concerns a way of negotiating a new positioning for the arts in public life, of being an artist in a profoundly relational way, working on issues that challenge the way the world is thought and acted upon. The Harrisons say in their self-published text narrating the evolution of their practice, *From There to Here*,

One of the differences between our work and others was that we chose from the beginning to include the utilitarian as an important layer in our work. Let us briefly

- 1 Helen Mayer Harrison and Newton Harrison, 'Public Culture and Sustainable Practices: Peninsula Europe from an ecodiversity perspective, posing questions to Complexity Scientists,' (*Structure and Dynamics: eJournal of Anthropological and Related Sciences*: Vol. 2: No. 3, Article 3), 23
- 2 Details of all of the Harrisons' projects discussed here along with extensive documentation including most of the publications referred to are available on <http://www.theharrisonstudio.net>
- 3 The Harrisons had an institutional relation with learning as Professors (now Emeritus) of the University of California at San Diego where they taught alongside Allan Kaprow (whose work also demonstrates improvisation), and Eleanor and David Antin (who were very influential in the ethnopoetics movement) as well as many other eminent artists. Philosophers Michel De Certeau and Herbert Marcuse were also both at UCSD.

explain what such a decision meant within the field of art in the late 60's and early '70s. It may make clear how artists like ourselves became ecologists of a sort and began to work intensively with elements from the biological sciences, later with the cognitive sciences and, thereafter, with political and economic systems, that guide, and often determine, the nature of regional planning.⁴

The Harrisons deepen understanding of arts practice by challenging art to address what has traditionally been positioned outside of art. Indeed they have entered as artists into the kinds of problems that have traditionally been claimed by science. They deploy ways of thinking and acting that emerge out arts practice: improvisation, metaphor, counterpoint, scale, and dimensionality using combinations of image/icon, poetry and poetics. In working with these concepts in a different context - that of ecology - they test assumptions simultaneously in the arts and in the sciences/social sciences.

We will explore the positioning of their work in relation to the arts and the sciences/social sciences, exploring their formation of interdisciplinary through their conception of 'ennobling issues.'

We will explore the way that working with metaphors enables the Harrisons to expose inconsistencies and contradictions as they create impacts on ecological systems, focusing on the ways that the Harrisons play both verbally and visually.⁵

The Harrisons also play between ecology and art in the way that they work with boundary and pattern and we will explore their use of these in composing bioregional scale works.

Central to the Harrisons' work is the use of two or more voices or perspectives. This device opens up a space for improvisation which in turn is, for the Harrisons, both central to cultures and central to ecologies.

This will lead us to into a discussion of other aspects of the creating of space for reflection manifest in their works both in poetic and visual forms.

We will explore recent developments in their thinking focused by the concept of the *Force Majeure*, in which they argue that processes are in train rewriting/reshaping landscapes requiring us to learn improvise with ecological systems.

The Harrisons privilege indeterminacy over determinacy, open-ended questioning over problem solving (although they often highlight 'problems'), developing the space of discourse rather than processing method. In other words, ecology, as developed through their arts practice, provides a context for coming to know a world as emergent and ever changing. In human life as well as nature, this state of flux, described by the Harrisons as improvisation, stimulates processes of adaptation that are not simply contingent and situated. They open up new possibilities. They originate.

Ennobling issues: economic, ecological, cultural

Always as a matter of principle invited by governments, organisations and individuals, the Harrisons' point of entry into a project, is firmly located in problems that arise through competing interests between culture and nature. The artwork resulting from a single project has most often been exhibited in museums and galleries or arts centres, though it speaks to the wider context of societal concern with environmental change and the necessity to radically adapt to change. Describing the context of their work *A Vision for the Green Heart of Holland* (1994-95), they say,

4 Helen Mayer Harrison and Newton Harrison, *From There to Here*, (San Diego: The Harrison Studio), unpaginated

5 Grant Kester has provided an important analysis of the Harrisons' work in *Conversation Pieces: Community and Communication in Modern Art*, (Berkeley: University of California Press) and whilst we will not rehearse this, it is contributes to our reading.

The Green Heart is essentially the 900 to 1,200 square kilometer farming area and open space, dotted with many small villages and a couple of growing towns, the center around which the cities of Amsterdam, Rotterdam, Haarlem, Den Haag, Dordrecht, Utrecht, et. Al., are located. This ring of cities, a collective of about 5 ½ million people, is called the Randstad. The problem the area faced was economic. And the problem the area faced was ecological. And the problem the area faced was cultural.⁶

The Green Heart was facing pressures of urban development that would threaten its identity as one of the most important open green spaces in Europe alongside the competing identities of the cities on its peripheries. What followed was an envisioning of forms of development that worked with the metaphor of 'heart', positioning the greenspace as central to the landscape and using biodiversity corridors (imagined as arteries and veins or rays of the sun) to separate the cities of the Randstad. The metaphor reversed the priority of urban over rural and delineated new boundaries between the competing sets of interests.

The Harrisons further articulate their understanding of problems, here reframed using the word "issues,"

First, ennobling issues need to be taken up directly. By "ennobling" we mean envisioned actions that most people would accept as *prima facie* good to do, whether or not they believed they *could* be done. Second, we think that new language is needed that makes clear the juxtaposition of culture and ecology in a way that can be easily understood in the context of everyday discourse.⁷

The Harrisons recognise the interconnectedness of the economic with the ecological and with the cultural, not as fragmented challenges for disciplines, but rather as an issue for everyone. The words "most people" and "everyday" are important because they position the "issue" or "problem" as a shared one, shared both by multiple disciplines and also by everyone participating in thinking critically in everyday experience. "Ennobling" is used to ask not for a unifying solution, but rather for shared recognition. The Harrisons are not seeking to remove friction between competing interests, or resolve inconsistency and contradiction. Instead, they are seeking to arrive at a shared sense of the common good, harnessing inconsistency and contradiction as a generative force. This is the heart of their wider argument for trans- or post-disciplinarity.

Ultimately, the speciality they have is not to have one. Basically, they see their process not as inter-disciplinary but as post-disciplinary. They reason that any new work may require an investigation of a new discipline or a deepening of an understanding they have of an existing discipline. Therefore, disciplines themselves are simply seen as aids in addressing the subject matter they work with.⁸

A shared sense of common good brings fragmented and specific issues of the economic, ecological and cultural into direct relation with each other, without losing their particularity. In this way, the Harrisons neither seek reductionism nor holism, but instead construct the enabling conditions of discourse – they talk about homeostatis and stability domains.⁹ In

6 Helen Mayer Harrison and Newton Harrison, *From There to Here*, (San Diego: The Harrison Studio), unpaginated

7 Helen Mayer Harrison and Newton Harrison, 'Public Culture and Sustainable Practices: Peninsula Europe from an ecodiversity perspective, posing questions to Complexity Scientists,' (*Structure and Dynamics: eJournal of Anthropological and Related Sciences*: Vol. 2: No. 3, Article 3), 1-2

8 Jane Ingram Allen, 'A Marriage Made on Earth: Helen Mayer Harrison and Newton Harrison,' (*Public Art Review*: 38), 30

9 For a reading of the problem of holism in relation to systems and complexity see Sacha Kagan, *Art and Sustainability: Connecting Patterns for a Culture of Complexity*, (Bielefeld: transcript Verlag), 136 ff

addressing ecology, the Harrisons offer a way of thinking that extends beyond a narrow understanding of both ecology and art as expert disciplines and autonomous knowledge domains. Discourse is also a form of learning that in their case leads to new forms of action.

What does art bring to this discourse?

Art gives form to the different media involved in each work: text/image, writing/spoken word and to the different thematics: art/science, the real and the possible. Art becomes a way of seeing in the real locations and real problems. Art juxtaposes the real and the particular in one place with another, enabling the complexity of the ecological in one place to inform others.

Art is resonant in the Harrisons' use of metaphor. They identify metaphors that are at work within the context of a project, evaluating each for its potential to generate cultural narratives - stories that reveal the existing relationship between a landscape and people. The Harrisons draw on (and contributed to) Lakoff and Johnson's work on metaphor.¹⁰ *Metaphors We Live By* argues that we use tangible metaphors to structure our thinking about intangible things. In other words, humans think metaphorically rather than just use metaphorical language. Metaphors are constrained and motivated by structures of embodied experience. These common cognitive experiences form the basis of our abstract conceptualisations. Thus meaning, concepts and reasoning start with the body. The Harrisons use this understanding of metaphor, not as rhetorical flourish, but as a structuring aspect of thought, seeking ways to play with, or 'flip', dysfunctional metaphors to create more critically meanings, new cultural narratives to inform action.

In thinking about a town affected by flooding, the Harrisons ask whether assuming that 'controlling the river' is a useful metaphorical organiser.

In this case, the dysfunctional metaphor lies in the observation that if flood control is the engineering processes that generate dykes and channelization to save the city, then "flood control is the destruction of the well-being of rivers. (i.e. the well-being of the river is traded off for that of the city.)"¹¹

They juxtapose this with a re-reading of the context from the perspective of the ecological system, and ask what it might mean to love and care for the river? The organising idea becomes the opposite of controlling. In this new reading, the spreading of the water rather than its containment, is privileged. This in turn requires a new design approach with financial consequences. The importance of selecting appropriate metaphors is at the heart of the Harrisons' argument. They align metaphor with value that in turn guides action. This reading of metaphor as a generative force, is close to Donald Schön's exploration of metaphor in social contexts as a catalyst to the reframing of problems.¹² Metaphors may serve ecosystem interests and produce narratives of eco-cultural well-being, which in turn drive design,

The outcome takes the city being away from the flood plain and gives that flood plain back to the river in a new locale. The fresh waters and restored riverine ecosystems give benefits not only back to the city, but to an ecology that is newly restored. These benefits go far beyond the benefits of dykes and channels. This is all done by the visualization processes embedded in what we mean by "flipping the

10 George Lakoff and Mark Johnson *Metaphors We Live By*, (Chicago: University of Chicago Press)

11 Helen Mayer Harrison and Newton Harrison, 'Public Culture and Sustainable Practices: Peninsula Europe from an ecodiversity perspective, posing questions to Complexity Scientists,' (*Structure and Dynamics: eJournal of Anthropological and Related Sciences*: Vol. 2: No. 3, Article 3), 3

12 Donald Schön, 'Generative Metaphor: A Perspective on Problem-Setting in Social Policy', in A. Ortony (ed.), *Metaphor and Thought*, (Cambridge: Cambridge University Press),

metaphor.”¹³

The Harrisons use 'flipping' very literally (and humorously), in visual work, most obviously in the central images for *A Vision for the Green Heart of Holland*, where they juxtaposed an existing masterplan to develop housing in the green heart with a plan which proposed new settlement within the existing urban form. They created this juxtaposition by drawing the whole country in reverse and placing this to the left of a second plan of their proposed new settlement in the conventional orientation. These two images are presented symmetrically either side of a doorway, in exactly the same way that a more classical interior mural might work symmetrically using the door as a central axis. The paired images speak to alternative narratives, but they operate in the space within a tradition of interior decoration and perhaps even evoke political mural painting. The left hand master plan shows the heart split in three directions where the Harrisons' proposal to the right gives identity to the green heart as a whole by establishing boundary conditions around it as corridors of biodiversity. The whole proposal provokes the need to rethink the master plan and to redirect funding to areas of development that consider the ecological implications of development alongside the cultural, economic and social.



[Image 1 Caption: *A Vision for the Green Heart of Holland*, Installation at Gouda, 1984]

Central to the aesthetic of the Harrisons' work is their use of dialogue to draw difference, contradiction and conflict into a shared space. Friction is dynamic and leads to movement. They argue that the most significant challenge is fragmentation, which is fundamentally different from conflict or contradiction. In fact fragmentation might be seen as one (bureaucratic) means of managing contradiction and conflict. By presenting the ecological and the cultural in the same space as the economic, it is possible to come to grips with the conflicts and contradictions, and create new insight. Space is opened up, not to achieve a resolution but for improvisation in the sense of allowing interplay between different values and different autonomies. Improvisation in art as well as improvisation in life, informs the shaping and quality of the space of conflict and contradiction. Their observation resonates with that of Gary Peters drawing on Theodor Adorno's critique of popular forms of

¹³ Helen Mayer Harrison and Newton Harrison, 'Public Culture and Sustainable Practices: Peninsula Europe from an ecodiversity perspective, posing questions to Complexity Scientists,' (*Structure and Dynamics: eJournal of Anthropological and Related Sciences*: Vol. 2: No. 3, Article 3), 3

improvisation. Peters arrives at a different construct,

A successful work.... is not one which resolves objectives in a spurious harmony, but one which expresses the idea of harmony negatively by embodying the contradictions, pure and uncompromised, in its inner structure.¹⁴

The Harrisons reflect on the final artwork for *A Vision for the Green Heart of Holland* in which they further demonstrate this idea of an encounter between contradictory forces co-habiting the same space as follows,

Both the Green Heart and the Randstad are expressed imagistically and poetically in one place, a reciprocating figure-ground relationship, a yin-yang totality. In contradistinction to normal mapping operations, the biodiversity argument and the cultural and economic arguments are wedded to structure here. We have been told specifically that the principles of this argument have been accepted and are in the plan. That is to say, the region is now being planned as a whole rather than in fragments.¹⁵

The composition of the artwork expresses the potential for the composition of urban planning on the ground. The artwork is able to demonstrate in hand drawn maps, photographs and poetic texts, a larger figure-ground relationship written across the landscape of a region. In this case the urban form ceases to be the single focus. The new composition brings urban form into a visible relationship with ecological form and cultural narrative.

This is expressed elsewhere in poetic form in for example another of the Harrisons' works, *The Serpentine Lattice* (1993),

Then
the gross national ecosystem
could take its place
privileged appropriately
as the field within which
the political systems
social systems
and
business systems
that comprise
our eco-cultural entity
can exist.¹⁶

The Field of Play: Boundaries and Patterns

If metaphor is one space for improvisation, the field of play is another. The Harrisons have argued that composition, whether at a regional scale or at the scale of a painting, is the same exercise. Their work demonstrates particular relations between ecological understandings of boundary or frame and producing a field of play. Pattern (not in a decorative sense) determines the significant elements on the field, and the use of specific visual techniques of composition reveal the new reading. Starting with the boundary,

For the painter, the field of play becomes a canvas, the physical boundaries are the edge of a canvas, the conceptual boundary conditions have to do with depth perception and field perception and of course, then, formal relationships and

14 Gary Peters, *Philosophy of Improvisation*, (Chicago and London: University of Chicago Press), 77

15 Helen Mayer Harrison and Newton Harrison, *From There to Here*, (San Diego: The Harrison Studio), unpaginated

16 Helen Mayer Harrison and Newton Harrison, *Serpentine Lattice*, (Portland, OR: Trustees of the Reed Institute and the Douglas F. Cooley Memorial Art Gallery at Reed College), 8

whatever narratives the artist wishes to convey, or in some cases, reduce. This works out sculpturally in room-sized installations, and so on. We define a field of play in much the same way, except that the scale-shift is profound; measured in orders of magnitude.¹⁷

This is the field of play that is constituted, but this is being formed not merely by the geophysical conditions, but also by the 'conceptual boundary conditions', perceptually defined by the artist in the same way as the painter in the quote above. The Harrisons compose using economic, ecological and cultural elements driven by primary questions: "How big is here?" and "How long is now?"¹⁸

Before we turn to improvisation, it is important to understand the Harrisons' understanding of frame or boundary because it has different implications for different disciplines, even setting aside the assumption that an artists' frame has anything to do with a watershed boundary.

The boundary conditions that the Harrisons highlight are manifest physically, and the intention is to reinforce the point made above which is that the "gross national ecosystem" is the underpinning of political, social and business systems.

But boundary conditions are for the Harrisons a temporary and shifting means of analysis. They evoke a field of play in which an actual and a potential cultural narrative interact with each other in both texts and images.

The Harrisons recognise both the value and the limits of attention to boundary conditions.

Nature, the life web in its entirety, appeared interactive, interdependent, mutually evolving and, therefore, in various degrees indeterminate and frameable only in a narrow way. As a result, any central images that appeared seemed to exist only for a moment and thereafter fade back into a pattern of moments grouped within moments.¹⁹

Pattern is perhaps more important, in both art and ecology, than boundary in its own right. The purpose of establishing a boundary is to discern pattern within it. This pattern focuses attention on particular aspects of the field of play, in turn leading to further investigation of the detail of the pattern.

As we have seen in the earlier discussion of *A Vision for the Green Heart of Holland*, pattern can be at scale, defining the relation of the rural and the urban. Pattern can also be at a more modest scale as we will see when we turn to another work, *Atempause Für Den Save Fluss* (1989-90) below, where every stream feeding into the river becomes a specific point of engagement with the whole.

Ecological pattern is manifest in artistic composition. In the construction of images they describe the process as follows,

17 Helen Mayer Harrison and Newton Harrison, 'Public Culture and Sustainable Practices: Peninsula Europe from an ecodiversity perspective, posing questions to Complexity Scientists,' (*Structure and Dynamics: eJournal of Anthropological and Related Sciences*: Vol. 2: No. 3, Article 3), 4

18 In *From There to Here* (2001) this is expressed as follows:

"But nonetheless this work [The Serpentine Lattice] represents a basic strategy wherein the artistic, ecological, and ethical agenda is set by asking four questions. 1 Where is here? 2 How big is here? 3 What's happening here? 4 What do we see as needed in this here as we experience it?"

In the *Mongohela Conference Papers* (2003) it is expressed slightly differently:

"This way of working in any place begins with three questions: How big is here? How can what's happening here be understood and engaged? What patterns are forming or reforming? And how can we, and those with us, add to the well being of the now of this place? And the question, "How big is here?" must also include, "How long is our Now?" Now may also be understood as an instant, but the instant may be 250 years long."

19 Helen Mayer Harrison and Newton Harrison, *From There to Here*, (San Diego: The Harrison Studio), unpaginated

From a mapping perspective in the Peninsula Europe work, we reduce the roads, privilege the rivers, and intensify the mountains. The mountains then emerge as the principal physical pattern, within the overall field of peninsula of Europe, a boundary of which as all can see, is clearly defined for the most part by water.²⁰

But in these works the Harrisons, in addition to using emphasis of the geophysical over the human-made, also brings the historical into relation with the contemporary. Traditional practices are positioned as relevant to contemporary issues and future modes of living, not in nostalgic tropes but as demonstrably effective forms which can contribute to new improvisations.

The Harrisons characterise improvisation as circumstances that are contained but nonetheless indeterminate, seeking equilibrium in conditions of constant change.

How might one understand more deeply, the particular qualities of art at play and the significance for learning in ecology? Michel De Certeau, noted French philosopher of the everyday, writing the introduction to the Harrisons' seminal work *The Lagoon Cycle* (1974-84) says, "Art is what attention makes with nature."²¹ A question arises about how our attention, as listeners and readers, is drawn through their work. It becomes immediately evident that it is as important to experience the gaps between the words as the words themselves, between the images, as the images themselves. As we see in quotes and images, these are carefully paced spatially in relation to the voices of the interlocutors. The experience is more like encountering a musical score or a poem than reading a novel. All three – poem, score and novel - involve a narrative that unfolds sequentially through time, but poetry and music bear a different relationship to time than the novel. Claude Levi-Strauss, the structuralist anthropologist, observed that it is impossible to understand myth as a continuous sequence of events, even if we read the text or hear the stories in narrative form. Like a musical score, the meaning of a myth is conveyed by bundles of events that appear at different moments in the story. To grasp their meaning, it becomes important to recognise the re-occurrence of certain themes, to connect what is being conveyed now with what was stated earlier and to remain conscious of the whole. Just as in music, what is occurring in myth is a continuous restructuring of the work in the mind of the reader/listener. It is crucial in this process to keep in mind the origin of a theme or idea, so that each variation is associated, but palpably different from its origin.²²

Such aesthetic principles underpin the Harrisons' work, within each work and across some 50 years of production. The re-occurrence through repetition of familiar but not identical themes, of parallelism, of pace and of interval, restructure the work and its issues in the mind of the reader/listener. The reader, in turn, needs to pay attention, keeping in mind the whole, the origin of an idea or theme, noticing the difference between a first appearance and a later development. *The Lagoon Cycle* is the Harrisons' first work in which their personal collaboration is represented as the dialogue at the heart of the work, laying down the foundations for subsequent projects all of which yield forms of this kind. This first work is epic in scale and intent.

Two voices as Improvisation

We hold that every place is telling the story of its own becoming, which is another way of saying that it is continually creating its own history and we join that conversation of place.²³

20 Helen Mayer Harrison and Newton Harrison, 'Public Culture and Sustainable Practices: Peninsula Europe from an ecodiversity perspective, posing questions to Complexity Scientists,' (*Structure and Dynamics: eJournal of Anthropological and Related Sciences*: Vol. 2: No. 3, Article 3), 4-5

21 Michel De Certeau, 'Pay Attention: To Make Art,' in Helen Mayer Harrison and Newton Harrison, *The Lagoon Cycle*, (New York: Cornell University Press), 17

22 Claude Levi-Strauss, *Myth and Meaning*, (London: Routledge)

23 Helen Mayer Harrison and Newton Harrison, 'Knotted ropes, rings, lattices and lace: Retrofitting

The Harrisons hold that boundaries are only temporary methods for defining a field of play to imagine something differently. The contingent, unfixed and emergent nature of creativity is (further) aesthetically developed in the Harrisons' work through the mechanism of dialogue. Dialogue is constructed through the use of juxtapositions, between voices and in and between images. In the texts these take the form of "I said...", "you said...", "he said...", "she said...". This construction can be found iterated in all the works starting with *The Lagoon Cycle* (1974-84).

The Lagoon Cycle is perhaps the metawork in the Harrisons' oeuvre. It is self-initiated rather than invited. It starts with questions of survival first raised in *The Survival Pieces* (1970-72), a sequence of works focused by different aspects of urban farming (a hog pasture in a museum, catfish in an arts centre, an orchard outside a museum, etc), but explores them at a completely different scale. It also re-presents a trajectory of evolution of understanding, grounded in the specifics of a species of crab in lagoons in Sri Lanka, expanding to consider the potential for reshaping the Salton Sea, and eventually rejecting geo-engineering scale solutions for a different understanding of the requirements for survival.

The two central voices in this work, the Lagoon Maker and the Witness, are in dialogue, take different positions, the one apparently creative and the other, critical and reflective. This difference in role is established in the First Lagoon.

I said
Fetch us some crabs and some bottom mud
And some mangrove seeds and whatever

I thought
I can grow a crab
I can make a lagoon to
grow it in
I can be a lagoon maker

*Finally he said
why don't you go to Sri Lanka and see what is happening
spend time with people who are working to save
traditional ways and people who are working for
change visit the lagoons the tanks the paddies
and the temples and listen to what people say*

*And I thought
I will go to Sri Lanka
And behave as a witness²⁴*

Each position is laid beside the other in the text. Each develops autonomously. Nonetheless the one influences the other. At times the two positions move further apart and at others, seem to converge, to collaborate. As the narrative unfolds, the Lagoon Maker becomes creatively bolder, and the Witness correspondingly more sharply critical. The Lagoon Maker develops an artificial habitat to farm the crab as an experiment in creating a new metaphor for a lagoon. The Witness describes the resulting artificial tanks as 'breaking the integrity of a real system', as an '*arrogant*' metaphor (Witness) versus a 'useful' one (Lagoon Maker), as an '*improbable*' metaphor (Witness) versus a 'playful' one (Lagoon Maker), as a '*dangerous*' metaphor (Witness) versus a 'valuable' one (Lagoon

biodiversity into the cultural landscape,' in *Biodiversity: A Challenge for Development Research and Policy*, (Berlin Heidelberg New York: Springer-Verlag), 14

24 Helen Mayer Harrison and Newton Harrison, *The Lagoon Cycle*, (Ithaca, New York: Cornell University Press), 31

Maker).²⁵

Dialogue in the Harrisons' work has become both a formal device by which to represent the work and a reality of the way that they operate in the field. Places tell their own stories and thereby create their own histories. The Harrisons imagine creativity as a joining with the past – as joining a conversation that has a history. This is not a modernist aesthetic of innovation for its own sake, but a form of creativity that is unfixed, contingent upon and responsive to what has already occurred. The artists become participants in forms of creativity that already exist in the world outside of their control. Each is present in relation to the other, constructed as a relationship that is conflicted but also generative of a complex understanding of their subject. The dynamic is constantly shifting, open to change. In other words, it embodies improvisation.

We have argued that the Harrisons' work demonstrates improvisation in several ways – with metaphor, with the field of play and with the constructed dialogue at the heart of their practice. Improvisation commonly means to 'make do with the materials to hand' (*Oxford Dictionary*) or 'act on the spur of the moment' (*Collins Dictionary*). The Latin root of improvisation, "improvisus," consists of two components: "im," as "not," and "provisus," which stems from "providere"—to "foresee," "to provide" - in other words to improvise is *not* to foresee and *not* to reach beyond what is readily available. Improvisation in these senses may at first appear to be problematic constructs through which to create systemic change, or to propose futures, an aim that underpins the Harrisons' life work.

Hallam and Ingold, social anthropologists, define improvisation in relation innovation, that which is so often seen to be required for proposing futures. 'There is no script for social and cultural life. People have to work it out as they go along. In a word, they have to improvise'.²⁶ In their reading, the unforeseen is a condition of life, drawing our imagination to judge the situation at hand. In this way, they argue, we create continuity. Improvisation is different from innovation. Innovation is only apparent when we look back and recognize a point of change.²⁷

Gary Peters, musician and philosopher, shares this understanding of improvisation's generative potential. Like Ingold and Hallam, Peters' sense of improvisation is conceived in relation to time. Rejecting the more familiar understandings that privilege the contingency of a moment, Peters questions a closed conception of a past in which the past simply repeats itself in the present. Instead he locates the past as a point of origin, a point from which to reopen and re-imagine the past in the present. The improviser undertakes this re-opening and re-imagining as an individual in order not to be trapped by the habits and expectations of his/her surroundings.²⁸

This way of understanding improvisation is evident in the Harrisons' works. In *The Lagoon Cycle* the form of an ancient fishing practice in Sri Lanka is rethought in their present and future through its experimental cultivation in a new context in California. This experimentation, through its narrative in the form of a poetic, visual text, opens up the whole ecosystem of California in their imagination. It happens through incremental cycles of development driven by human curiosity and growing ambition. The artificial tanks required for the fish farm (the Second Lagoon) become a metaphor not just for the original lagoon and its economy and ecology in Sri Lanka (the First Lagoon), but for the much larger and more complex systems of interdependencies between the crab, *Scylla serrata*,

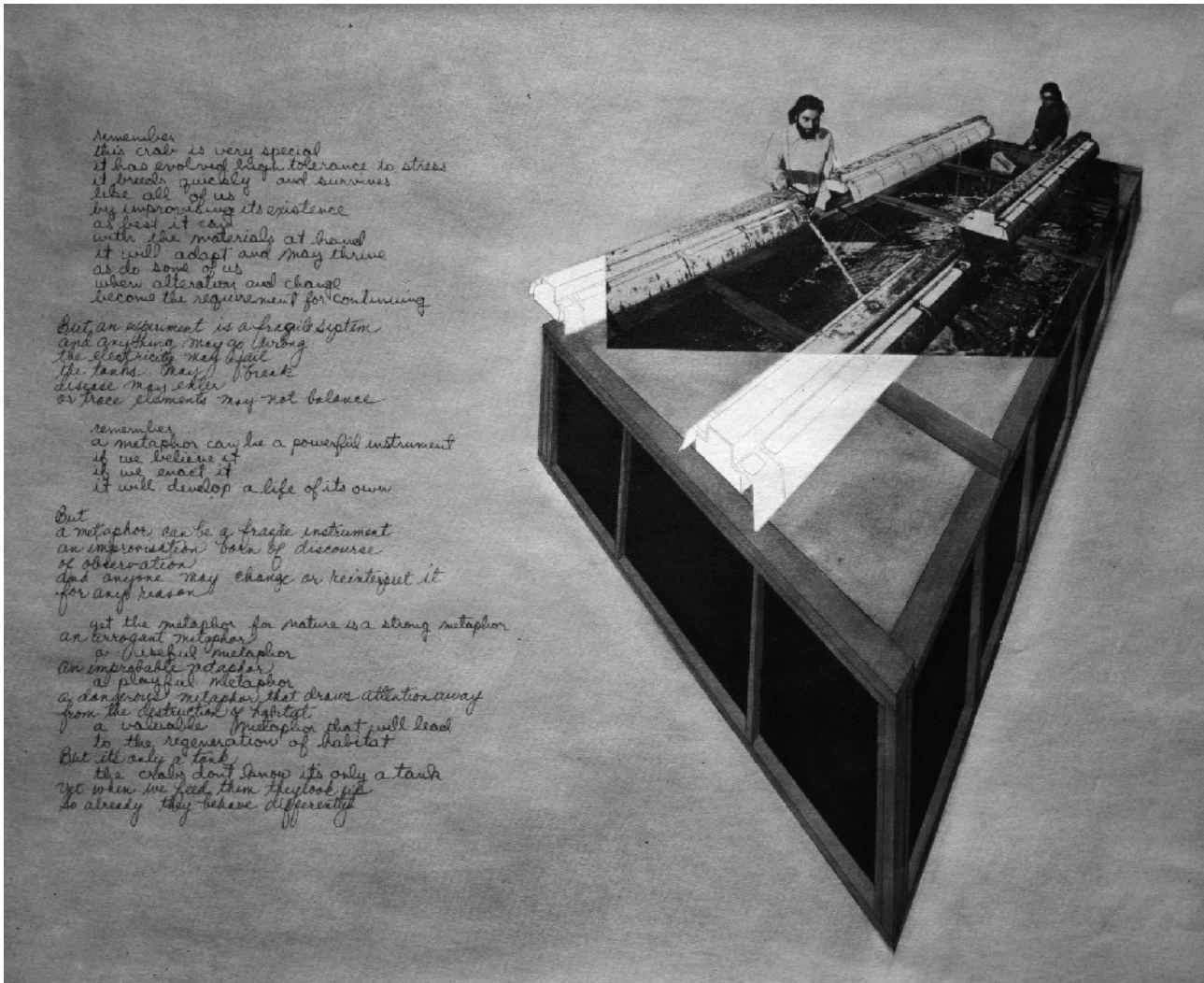
25 Helen Mayer Harrison and Newton Harrison, *The Lagoon Cycle*, (Ithaca, New York: Cornell University Press), 44-45

26 Elizabeth Hallam and Tim Ingold, *Creativity and Cultural Improvisation*, (Oxford: ASA Monographs, Berg), 1

27 Elizabeth Hallam and Tim Ingold, *Creativity and Cultural Improvisation*, (Oxford: ASA Monographs, Berg), 2

28 Gary Peters, *Philosophy of Improvisation*, (Chicago and London: University of Chicago Press), 2

and a new economy and environment to which the creature does not belong. Cultivation on a grand scale would, if implemented, would impact negatively on the water quality of the new ecosystem. Read through the lens of Peters' interpretation of improvisation, it becomes evident that the Harrisons' approach involves taking a certain freedom within constraint i.e. remembering the past and learning deeply from it but not conserving it. The past is opened up through the work of art and re-originated in ways that contain a difference, a movement from one place to another, a movement in terms of scale and a movement in terms of understanding, of learning.



[Image 2 Caption: Page from *Book of the Lagoons*, hand made limited edition book, 1984]

At the heart of *The Lagoon Cycle* is the understanding that improvisation is actually common to both nature and culture. Improvisation in nature shares the same qualities as improvisation in culture – conflict, co-existence and co-operation perhaps equate to predation, symbiosis or parasitism. Although the Harrisons work internationally, and the *Lagoon Cycle* rotates around the life of a Sri Lankan crab transported to the West Coast of the US, the value of diversity is critical. Kagan says,

From their perspective, valuing these diversities, the Harrisons take a critical stance towards globalisation insofar as it reduced diversity and thus “the possibilities to improvise”.²⁹

29 Kagan, Sacha, *Art and Sustainability: Connecting Patterns for a Culture of Complexity*, (Bielefeld: transcript Verlag), 286

The Lagoon is selected because it is a place of high diversity, resulting from the mixing of salt and fresh waters. Both nature and culture are fragile in the face of unexpected changes in boundary conditions (scale) as well as in substance – forest fires, heavy rains, shifts in temperature, famine as well as abundance. Both nature and culture strive for equilibrium by adapting. The only certainty is the ubiquity of change itself.

The centrality of the parallel improvisatory characteristics of nature and culture is articulated in two parallel passages within *The Lagoon Cycle*.

From The First Lagoon

The Lagoon at Upouveli

A culture is

And I thought

A culture is a cooperative adventure a complex system of shared interrelated beliefs about the nature of reality and causation of values codes of conduct and ethics

by which people define themselves collectively and niche

themselves individually

It is a fragile form not having the duration of oceans or lands with which it is in discourse and upon which it depends for its survival Its constancy is reproduction and change Its stability is always at risk

Its boundaries increase or decrease by virtue of the energies available the pressure of growth from within the pressures of change from without

Scarcity of food can reduce its population while increasing its vulnerability from without as can climate change as can disease as can an idea

Abundance can increase its population while increasing its vulnerability to stress as the resources available are consumed

Conquerors can debase a culture denigrating its belief structures and language while destroying its relationship to the ecology

But people are tough and resilient and improvise their existence as best they can very creatively with the materials at hand but the materials keep changing Only the improvisation remains constant.

From The Third Lagoon

The House of Crabs

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

Heavy rains increase its size and its boundaries increasing nutrients while decreasing salts

Forest fire then rain can set up the conditions for heavy silting and a lagoon can turn first into a mud flat then into a swamp

If the day is warm the waters being shallow warm quickly If the night is cold the waters being shallow cool quickly

Life in the rivers the lakes and the oceans where the properties of water are more constant is less stressful

But life in the lagoons is very special it has evolved high tolerance to the stresses that come about from sudden changes in salt and fresh water and temperature and available food for the life web

Life in the lagoons is tough and very rich it breeds quickly Life all of us it must improvise its existence very creatively with the materials at hand but materials keep changing Only the improvisation remains constant

The Witness³⁰

The Lagoon Maker³¹

Two voices

30 Helen Mayer Harrison and Newton Harrison, *The Lagoon Cycle*, (Ithaca, New York: Cornell University Press), 37

31 Helen Mayer Harrison and Newton Harrison, *The Lagoon Cycle*, (Ithaca, New York: Cornell University Press), 60

In what way does dialogue, as it appears in the Harrisons' work, create discourses as a formal discussions? In what way does dialogue enable us to reflect on and understand the terms of reference of an ecological discourse? If the Harrisons' subject is human /nature relations imagined as a system, how do they reveal the hidden order behind this system? How should we *think* ecologically?

In *Atempause Für Den Save-Flüß* dialogue in the form of different voices is used to shift between the specific and the general, the local and the wider implications, as in the following extract,

I said
it's a well known story
A river
moving from mountain sources through high valleys
then lower valleys and foothills
on to an alluvial plain

You said
without knowing its name it could be any river
anywhere on any continent
and from a certain perspective
it could even be any age³²

The Harrisons had been invited by Dr Harmut Ern, an ecologist, to support a plan for a 500 kilometre square wetland flood plain near Zagreb through which the river Sava flowed. The resulting work entitled *Atempause für den Save Flüß (Breathing Space for the Sava River)* revealed the profound value of the nature reserve in protecting one of the largest working floodplains in Europe with its ecosystem intact. Through re-focusing on the watershed, the Harrisons also revealed that interventions to address industrial pollution flowing into the Sava River would radically impact on the health of the lower Danube, which received one third of its water from the Sava, with clear benefit onwards to the Black Sea. The Yugoslav War intervened in the development of the work, but following the War, as in Holland, strategic planning was implemented on the lines that the project proposed.

Ulrich Bischoff, in a short text for the exhibition catalogue, highlights the specific ways that the visual methods of the Harrisons mark the space of exchange to bring about a change of perspective. He picks up on the title of the work and explores the way that the Harrisons use visual breathing space within the work to open up difference and highlight inconsistencies and contradictions.

Between inhalation and exhalation, between the cuts in photography rearranged to make up an intact world, there is a break, a pause which renders routine viewing difficult and, for a moment, interrupts continuity. Like a tilting floe it prompts us to jump off and change position - the breathing space as a moment for an invitation to change: shifting position.³³

32 Helen Mayer Harrison and Newton Harrison, *Atempause Für Den Save Flüß*, (Ljubljana: Neuer Berliner Kunstverein, Moderna Galerija), unpaginated

33 Ulrich Bischoff, 'Shifting Metaphors, The Creative Technique of Helen Mayer and Newton Harrison,' in *Atempause Für Den Save Flüß*, Ljubljana: Neuer Berliner Kunstverein, Moderna Galerija,



[Image 3 Caption: detail from *Atempause für den Save Flöss*, collage, 1989, Pollutants from the fertilizer factory modified by untreated sewage flow through the nature reserve]

Bischoff's language reinforces the embodiedness of the Harrisons' poetics, placing the breathing of the text in direct relation with the cuts in the photo-montage. As the Harrisons explain, speaking of their practice more generally,

The formal discipline was to condense, yet keep clear this much information and to imbue it with our thoughts and our feelings in about a 20 minute read. The idea was to present a vision that would explode in the mind of the interested person. The aesthetic discipline was to find the linguistic means to do it. The work is a chant and was made to be read aloud.³⁴

An invitation to support a wetland nature reserve becomes the opportunity to 'see' the small wetland region 'as' crucially connected to a whole system at a vastly bigger scale, a floodplain the ecology of which is still intact. By mediating in the apparent givens of a particular context, effectively inhabiting the break or pause that Bischoff articulates, the Harrisons establish a set of principles and analytical approaches that shift the scale and parameters of what had been imagined before their intervention. These processes resonate simultaneously within and beyond the specificity of the place, as well as beyond their individual artistic vision. The new narrative leads to intended and sometimes unintended consequences. In the Sava River project, one of their key collaborators was able to successfully transpose these principles to a sister river, the Drava, when the cultural circumstances mitigated against further development in the original project. This replicability was not achieved by reducing the number of variables - following scientific

³⁴ Helen Mayer Harrison and Newton Harrison, *From There to Here*, (San Diego: The Harrison Studio), unpaginated

method - but rather by copying, mimicking the analytical processes, including dialogue, of the host project. The replicated project was not claimed as art, but rather as conversational drift. The artists were not upset that their intellectual property or moral rights had been abused. If the art is utilitarian then it is essentially not marked by uniqueness, but rather precisely by the possibility of being reused in another context. The Harrisons tell stories of appropriation into science, public policy and master-planning with pride.

The *Breathing Space* of the title indicates an interval between players, between perspectives, between different positions and different interests. The space between allows for a break to continue differently. Any new trajectory is transitory and mutable. In fact, it is nature herself that teaches us to think within this discourse, to see human intervention in context, to trace the implications of intervention, if we notice. In the introduction to *The Lagoon Cycle* Michel De Certeau said,

Simply paying attention guarantees the transformation from a nature supposedly asleep to the work that displays nature's strange vitality. Art is what attention makes with nature.³⁵

He goes on to explore the profoundly dialectical nature of the Harrisons' form of attention between land and sea, between what exists and what is possible, between observing and invention, between seeing and creating. There is no way to stop the dynamic of these relations whether they blend or conflict. This, De Certeau argues, confers on metaphor its true meaning –from the Greek *metaphéreïn* - to designate transition or transport from one place/state to another. The First Lagoon in Sri Lanka represents a real place and set of real ecological relationships (centred on the crab, *Scylla serrata*). From the First Lagoon we are transported through six more lagoons of increasing scales and ecological complexity, provoking new questions along the way. The one set of dynamic relations becomes a way of seeing others in different contexts.

Competing forces – water's tendency to flow, earth's tendency to prevent flow, man's tendency to intervene in and interrupt both water and earth, the importance of giving attention to these autonomies in relation to one another, understanding their transitory nature and their potential for changes of direction, frame discourse as dialogue between conflicting forces. This is eloquently revealed as improvisatory, in the *Sixth Lagoon On Metaphor and Discourse*.

Pay attention to the flow of waters and
the mixing of the earths

*Attend to the integrity of the discourse
between earth and water the watershed
Is an outcome*

Pay attention to the discourse between
earth water and men interruption
is an outcome

*Pay attention to the meaning of the nature
of such discourse and the nature of the
meaning of interruption After all
a discourse is a fragile transitory form
an improvisation of sorts*

And anyone may divert a discourse of any

35 Michel De Certeau, 'Pay Attention: To Make Art,' in Helen Mayer Harrison and Newton Harrison, *The Lagoon Cycle*, (New York: Cornell University Press), 17

kind into another direction if they do not
value its present state

*Pay attention to changes of state*³⁶

This passage bears a remarkable resonance with the experience of the cellist and improviser, Rohan de Saram, De Saram straddles classical traditions in Western and Sri Lankan music, including improvisation. Reflecting on improvisation, De Saram says,

Life is a continual interaction between what one person would like and what is imposed on them from the outside. So one can feel that one is being used to do something, your life is being lived rather than that you are living it. That aspect comes across very forcibly in improvisation because one's sense of direction is often being turned towards other channels and one is forced to think along different lines. You may, to a certain extent, guide it – but only to a certain extent.³⁷

Where the Harrisons focus on improvisation in nature and in human culture, De Saram is focusing on improvisation in musical performance. Both evoke the unpredictability of an improvisation, its indeterminacy, the importance of attention without the expectation of control.

In this way *The Lagoon Cycle*, is one example among many within the Harrisons' oeuvre that embraces both an understanding of the likely impact of climate change and the central importance of social and environmental justice. The Harrisons imply that climate change has already been beyond effective human mitigation in 1984. This realisation is evoked in the very last lines, juxtaposed with a map showing sea level rise based on all the ice melting,

*will you feed me when my lands
can no longer produce
and will I house you
when your lands are covered with water?
so that together
we will withdraw
as the waters rise?*³⁸

The Form Determinant and the Force Majeure

The Harrisons don't seek to resolve or flatten inconsistency and contradiction. Rather they articulate conflicts into visual and poetic form as a means to engage people with the realities of their own places. They demonstrate that it is precisely in framing and representing the conflicts between the economic, environmental and cultural needs and desires that new stories can emerge. They align human and ecological improvisation.

We have argued that underlying the Harrisons' proposals for eco-cultural well-being are specific practices of art, including working with metaphor, working with frames or boundaries and patterns, use of both visual and poetic dialogue. We have argued that the Harrisons' nuanced understanding of improvisation is grounded in the arts, as well as understood to be fundamental to ecological systems.

But underpinning all of these lessons there is a more significant understanding. The Harrisons understand 'nature' to have 'agency' and they understand that ecologies need to be understood as a "form determinant". As such improvisation becomes a process of working within ecological systems, seeking eco-cultural well-being.

36 Helen Mayer Harrison and Newton Harrison, *The Lagoon Cycle*, (Ithaca, New York: Cornell University Press), 82

37 Rohan de Saram interviewed by Richard Scott <http://richard-scott.net/interviews/rohan-de-saram/> 8th October 1989. accessed 21.2.2014.

38 Helen Mayer Harrison and Newton Harrison, *The Lagoon Cycle*, (Ithaca, New York: Cornell University Press), 96

Recently they have also begun to make works under the title *Force Majeure*, broadly defined as extraordinary events or circumstances beyond the control of individual parties. *Force Majeure* is normally found in contracts providing a 'get-out' clause for all parties in the context of circumstances beyond anyone's control. The Harrisons have appropriated it as a means to refer to the combination of sea level rise and temperature rise resulting from human induced climate change.



[Image 4 Caption: *Greenhouse Britain: Losing Ground, Gaining Wisdom*, 2008]

An early iteration of this idea was manifest in their work *Greenhouse Britain: Losing Ground, Gaining Wisdom* (2006-09). At the core of this work is the question of how to respond to sea level rise (lose ground) and how to learn from the experience (gain in wisdom). The Harrisons frame the issue in the introductory text to the exhibition in terms of 'form determinant', which has more recently become *force majeure*.

In this context, the rising ocean becomes a form determinant. By "form determinant", we mean, the rising oceans will determine many of the new forms that

culture, industry and many other elements of civilisation will have to take.³⁹ (2008)

This is one example of needing to learn from and adapt to ecological systems. Another is the Harrisons' interest in paleobotanical research, particularly focused on the Eemian Period 130-115,000 years ago. The climatic conditions during the Eemian Period mirror likely future climatic conditions in terms of raised sea levels and higher temperatures. The Eemian Period therefore becomes a teacher and a library. This is developed in an iteration of the *Peninsula Europe* work entitled *Part IV* (2012). Each part of the sequence of *Peninsula Europe: The High Ground. Bringing forth a new state of mind*, from *Part 1* (2003) to *Part IV* (2012) develops scenarios in response to emerging understanding of environmental change. The Part 1 established the principle of focusing on the water cycle on the high ground in terms of economic, environmental and social dynamics. It summarised lessons learnt from working with different watersheds in Europe. Part II (2007) considers the impact of sea level rise and Part III (2008) added into the narrative the impact of drought. Part IV suggests experiments in adaptation by seeking ways in which to understand the future by exploring the past.

We suggest a second bold experiment be undertaken
The intention of which is to assist the migration of species
Presently so under stress from rapid temperature change
Changes in soil and earth and reduction in seed stock
We propose paleobotanical research be conducted
To create a research library peninsula wide
Particularly focused on the Eemian
Approximately 120,000 years ago when climate was very similar
To that which is predicted in the next hundred years or less⁴⁰

Assisting the migration of species in response to environmental change is framed in terms of a form of collaboration where experiments are undertaken with the species, rather than on them.

The selection of species and the depth of research into adaptation are both framed within the wider understanding of the post-disciplinary and the 'ennobling issue'. The benefits afforded by this approach are expressed in the independent evaluation of *Greenhouse Britain* undertaken by Wallace Heim, in which she says,

They [the scientists, landscape architecture academics, architects and policy-makers] all reported that the experience was illuminating, informative, challenging, imaginative, liberating. Their respect for the cross-disciplinary knowledge of the Harrisons was high, including both the science, the land-use planning and the architectural aspects, including Newton Harrison's ability to ask 'the right questions.'⁴¹

The evaluation goes on to note that participants comment on the importance of being released from the confines of their respective disciplines and work practices, into a different quality of exploration that they perceived as transformative of their way of considering climate change and possible adaptations to it. The Harrisons' articulation of post-disciplinarity, of the need to understand disciplines not as limitations (or boundaries), but as offering tools for investigation, ways to see patterns, is central to their ability to engage a wide range of disciplines.

This became possible because the 'space' created by the Harrisons in asking questions

39 Helen Mayer Harrison and Newton Harrison, *Greenhouse Britain: Losing Ground, Gaining Wisdom*, (Santa Cruz: The Harrison Studio and Associates (Britain)) 12

40 Helen Mayer Harrison and Newton Harrison, *Peninsula Europe Part IV*, unpublished

41 Wallace Heim, *Evaluation Report DEFRA Climate Challenge Fund CCF9 Project code AE017 Greenhouse Britain: Losing Ground, Gaining Wisdom*, 9

about losing ground and gaining wisdom, was highly informed, creative, and reflective, allowing a wider range of responses to the discourse of mitigation and adaptation to climate change, specifically beyond the conventional. They highlight art as enabling the conditions to imagine possible futures, to rehearse what may happen.

Conclusion: Homeostasis rather than two cultures

Our point has been to draw out the significance of the Harrisons' (aesthetic) methods in the context of an ecological discourse and the domain of science. Perhaps the one inconsistency or contradiction that the Harrisons deny is the 'two cultures' argument. They do not see science as in opposition to art. Quite the reverse. They demonstrate the potential of the artist (visual and poetic) to work with the scientific (ecological). Science of the past two centuries may have needed to reject the sensory and poetic to establish an alternative way of knowing based purely on the intellect, to find the order within apparent disorder. However, meaning in the domain of the arts is also dependent upon order. The Harrisons harness the hidden order of art, to work with the complexity of ecosystems and our human relationship within them. Their process embodies the improvisatory qualities of experience in a deep sense of improvisation, both cultural and ecological. But it is by being moved to grasp and understand, that we are exposed to new forms of learning that open up the potential for eco-cultural well-being.

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