Thinking with the Harrisons.

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2024

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SEE TERMS OF USE IN BOX ABOVE

Thinking with the Harrisons: re-imagining the arts in the global environment crises

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Seeking a different place for the arts in survival Introduction

Helen Mayer (1929-2018) and Newton Harrison (1932-2022), known as 'the Harrisons', have pioneered over 50 years a practice that couples art with ecology. They are known for works situated within specific ecosystems in California and in Europe predominantly, but also in other parts of the US and in Asia. To this end they have worked with environmental scientists, planners and government bodies, as well as NGOs and arts institutions at all scales. The Harrisons' approach is question-led and attends to the metaphors that organize thinking by channeling them in imaginative ways, a 'seeing-as'. The works bring together visual art, poetry and performance in a unique configuration. They offer an approach to how arts practices may be reimagined in the face of multiple environmental crises.

Their practice has been guided by the principle of only making work that in some sense serves the well-being of the web of life. Although there are others who are also exemplary in this field, in particular including Mierle Laderman Ukeles, Agnes Denes, and Alan Sonfist, the Harrisons open up their creative process both within the work and in critical writings in ways that offer an unusual level of transparency. It is this transparency of process that has the potential of deep learning for other practitioners. Their work has anticipated and addressed global environmental crises, including global warming, sea level rise and the loss of biodiversity. We are currently faced with the world they prophesied and now need to understand how to form a culture of interdependence between the human and other life forms. What kind of art practice serves this context?

We are setting out to 'think with' the Harrisons, to work with their practice to gain insight into what thinking ecologically might involve for practitioners in the arts. Our focus is on the poetics of this work, the dynamics of their practice, because it is through paying attention to the ways in which the work is formed that we can learn from it in order to address our contemporary challenges.

Our approach is 'practice-led' and we bring two different sets of interests. This approach is concerned with how 'the work works', what questions it seeks to address, the poetics used to 'make visible' what would otherwise go unnoticed in experience, the inner life of things that is beyond appearances. One of us has spent 30 years engaged in developing research through artistic practice particularly in relation to the question of the changing place of the artist in public life. The other has spent a similar period of time as a producer of public art with an increasing interest in the contribution of artists to environmental research. These two perspectives in their synergies and collisions offer a rich and nuanced exploration of the work and its function in building a world. One of us, as a Board member of an arts organization located in a town in the North East of Scotland impacted by flooding was instrumental in inviting the Harrisons to help the community to come to terms with extreme flooding as an experience of climate change. This resulted in Newton Harrison's

work *On The Deep Wealth of this Nation, Scotland* (2018)¹. The other had been producer for the Harrisons' *Greenhouse Britain: Losing Ground, Gaining Wisdom* (2005-7) that investigated the patterns and implications of sea level rise on the island of Britain and worked as Associate Producer for *On the Deep Wealth*. For us thinking with and working with are synonymous, encompassing critical reflection and practice, not simply absorbing the Harrisons as an influence, but rather constantly negotiating that influence.

Conversation is one of the keys to the Harrisons' practice – they talk about the conversation of place, and in their works they re-present conversations with inhabitants, policymakers and scientists. If conversation is one key to their practice, situatedness is another. Situatedness is both place and time, but more than that, it is 'being in a process', an on-goingness of life itself that directly contradicts human exceptionalism.

Our interest is therefore in how not only to 'think with' but also to 'work with' if this is understood to be a question of what it means to be an artist, curator or producer at this time and living with these crises. As a result, this text includes moments of reflection with Newton Harrison, conversations during the development of the text, as well as our ongoing discussion and analysis of the Harrisons' work. The aim is to reveal what this practice can offer in the context of the existential challenge not just to our ways of living but to our imaginations.

Extinction driven by anthropogenic climate change constitutes an existential crisis that known research approaches can only partially address. Artists are being called to join research communities often led by the sciences and social sciences in the face of the environmental crisis. Multiple articulations of this challenge come from within the arts, and from practices and disciplines collaborating with the arts. These pose a question: what sorts of arts practices face the challenges of this time? The environmental crisis already constitutes "an unbearable intrusion on someone's beliefs, values and interests" (Latour 2020, p. 13). How might arts practices be reimagined in the face of multiple environmental crises? How might we imagine ourselves in the world outside of human exceptionalism and progress, cultural narratives that have dominated the Western world for over 500 years since the Renaissance and the particular dynamics, for example, of the harnessing of knowledge through technology and associated economics that is key to modernity? What alternative ways of knowing counter the authority of technoscience to shape the earth as an object for our human convenience?

Bruno Latour, an anthropologist and philosopher of science, argues that it is no longer appropriate for scientists to limit the role of artists to "popularization and decoration" (Latour 2020, 18) saying,

...all the resources of science, humanities and the arts have to be mobilized once again to shift attention from the *human* to the *terrestrial* condition. (Latour 2021 n.p.)

Latour suggests what is needed are new forms of representation. Latour is not talking about representation as a genre of art but as a process that makes visible those aspects of life that may otherwise be invisible to us or go unnoticed, a function that the sciences also undertake in society. He might be reiterating the point that Paul Klee made over 100 years ago.

Art does not reproduce the visible. It makes visible. (Klee 2013, 7)

Latour seeks in the arts the emotional resources that could metabolize the terrifying news we now face daily, to support adaptation to a rapidly changing set of circumstances.

¹ Helen Mayer Harrison died during the development of the work in March 2018.

Gert Biesta, an educational philosopher, looks to the intersection of art and education to ask us how we teach and learn to be "in the world without occupying the centre of the world". (Biesta 2017, 3). Biesta starts from the assumption that both art and education are suffering from being expected to be useful. Tacking closely to Hannah Arendt's essay *The Crisis in Education* (Arendt 2006), he proposes that the usual defense for art, in terms of its capacity to engender expressiveness, is only part of the function of art. It should not be separated away from the role of art and education in bringing us into dialogue with the world in which we find ourselves, avoiding the dangers of becoming trapped in self-centered forms of awareness.

Amitav Ghosh questions the capacity of the dominant modern form of the novel to speak to our current circumstances, arguing that its concerns with the quotidian and the plausible make it totally unsuited to tackling the strangeness and the extremes of the multiple environmental crises. He calls this the great derangement.

When future generations look back upon the Great Derangement, they will certainly blame the leaders and politicians of this time for their failure to address the climate crisis. But they may well hold artists and writers to be equally culpable—for the imagining of possibilities is not, after all, the job of politicians and bureaucrats. (Ghosh 2016, 135)

We might question Ghosh's assumption that politicians are not responsible for imagining possibilities, but he clearly makes the case that the existing forms of the arts might not be suitable for the circumstances in which we find ourselves. He might agree with Latour that "decoration and popularization" are no longer sufficient.

Isabelle Stengers, another philosopher of science, suggests we need "...a new general understanding of what the Earth demands from us" (Stengers 2020, 232). She emphasizes the imaginative, generative aspects of the arts that like the sciences, embrace uncertainty but in ways that are future oriented.

To speak of art is to point out that it is not a question here of explaining a responsibility, but rather of experimenting with ways of generating effects, of activating transformations or even metamorphosis. Here it would be the art of transforming into a generative power an interdependence that can be denied, thwarted, fought against, but never eradicated. (Stengers 2020, 234)

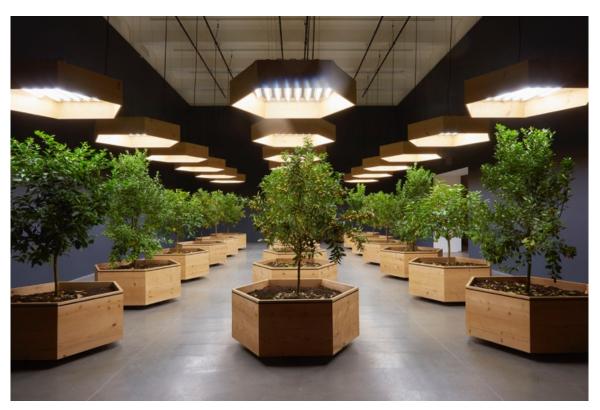
The arts are being called upon to become part of and expand other forms of inquiry, including the sciences and social sciences, and in a survey by the journal *Nature*, it was found that these kinds of collaborations are no longer marginal (Nature 2021). Artists are being asked to act as intermediaries in multidisciplinary teams facilitating dialogue and opening research up to publics. They are being asked to foster creative thinking, to create sites of encounter for imagining futures or safe spaces for dealing with difficult conversations of loss and grief, and to open up understanding to more-than-human worlds as well as embrace the complexity of social-ecological systems (Galafassi et al. 2018).

We are focusing on the early works of the Harrisons made between 1970 and 1985 because it is through these works, in particular the *Survival Pieces* made between 1971 and 1974, that a very different way of working emerges. The *Survival Pieces* precede and lead into their iconic work, *The Lagoon Cycle*, made between 1974 and 1985. The *Survival Pieces* are set up as experiments, some developed with scientists' input, and involve working with living systems. They are experiments in the artistic sense—open ended—but also in some cases they looked like, or were even in one case funded as, scientific experiments. These works demonstrate rigor in following from an initial question and they iteratively develop into an understanding of the complexity of working with

ecological systems. The Harrisons' learning about ecosystems comes from study but also from the contradictions that these early works reveal, and the contradictions inform and are reflected upon in *The Lagoon Cycle*. Dysfunctional metaphors such as 'development' and 'control', frequently used to articulate human relations with ecosystems, become a central focus of the Harrisons' key works that followed the *Survival Pieces* in the late 1980s such as *Breathing Space for the Sava River* (1989), *Serpentine Lattice* (1993), *Green Heart Vision* (1994) and *Peninsula Europe Part I* (2002). All these works specifically address the challenge to the imagination articulated by Latour, Stengers, Ghosh and Biesta. They demonstrate ways to focus attention on the terrestrial on which all life is dependent, at the same time as confronting fears and responsibilities.



Serpentine Lattice 1993



Survival Piece #5 Portable Orchard 1972-3



Vision for the Green Heart of Holland 1994-2001

Stengers 'thinking with' as a guide

Our approach to 'thinking with' the Harrisons is guided by Isabelle Stengers. Her specific articulation of 'thinking with', as demonstrated in *Thinking with Whitehead* (Stengers 2011), offers us two aspects that are of double value in the writing this book². We also draw on her text 'The Earth won't let itself be watched' in the catalogue of the *Critical Zones* exhibition in which she discusses the arts more explicitly (Stengers 2020).

Stengers' interpretation of Whitehead's speculative philosophy, a form of process philosophy, opened a path into ecology for disciplines beyond the ecological sciences (Stengers 2011, 137–41). Process philosophy is based on the premise that being is dynamic and indeterminate. It counters static, analytical ways of accounting for reality that have dominated Western philosophical thinking and approaches to science. It conceives reality as emergent and profoundly interconnected across belief, the aesthetic and the scientific.

Stengers' 'thinking with' addresses more than 'thought' and is directed at practices in the sciences with wider implications for how we imagine reality in ways that are relevant to responding to the environmental crisis. It directly parallels our concern with practices, obviously those of artists, but also of scientists, policymakers, and managers. Stengers describes Whitehead as 'a colleague' (although they never met), one with whom she seeks to share and test thinking (through the imagination) because, for her, he raises questions that make her think, questions around which it becomes possible to define and organize what matters. She does not seek to create a 'history', just as we are not seeking to create a history of the Harrisons' work. She orientates her approach to 'thinking with' in a very clear and unequivocal way, consciously avoiding drawing out models or methods from Whitehead's thinking, instead emphasizing its power to create questions and find meaning rather than generate answers.

...Another approach would have been possible: it would have started out from questions raised by this world and would have sought the way they arise in Whiteheadean terms, as opportunities for 'applications' of the conceptual scheme proposed by Whitehead. In particular, it would have been possible to give more space to contemporary questionings, that is, to 'bring Whitehead up to date', and to affirm his relevance today. One of the reasons that turned me away from this possibility is the ease with which relevance can become a model, that is, a source of answers. (Stengers 2011, 23–24)

We could have pursued an analysis of the Harrisons' work in a similar way, affirming their relevance in the present by seeing their approach as a model. In place of this Stengers' approach helps us revisit and understand the specific ways in which artists learn from other artists. Artists have complex relations with earlier artists' practices. They generally do not look at previous generations and earlier work to 'bring them up to date' in the way in which a scientist might build on the work of another scientist, nor do they tend to adopt other artists' approaches as models. Instead Stengers raises questions such as 'What does this make matter? What does it make silent?', questions that align with the way one artist might explore the work of another artist: 'How does this work speak to us? What does it make possible?'. Copying for example is one instance of artists learning from other artists and is important in this sense. An artist may wish to probe the method for

² 'Thinking with' is used as an approach by a number of interesting writers, not least Hannah Arendt and her essays *Men in Dark Times* that explore the relevance of key artists and philosophers of her time to understanding the post WWII world (Arendt 1995). A colleague, Amanda Ravetz, pointed out that this might also be parallel with Nikos Papastergiadis' conceptualisation of his work with the writings of John Berger in terms of 'imaginative collaboration' (Papastergiadis 2013).

constructing a Cubist or Pointillist painting in order to understand how and why the work was made, but not because it is a reliable method for replicating an artwork. Instead, they use the experience of another artist's work as a means to step out from, to create a transition into a new original work (Peters 2009, 37). Copying in, for instance, the Renaissance was understood to be the seat of innovation, precisely because it lent itself to the project of generating endless fresh possibilities by fully understanding what had gone before (Coessens, Crispin, and Douglas 2009, 53).

Bifurcation of nature, a leap of imagination, and situated knowledge

As artists, producers and researchers we follow Stengers by undertaking a deep reading of the Harrisons' work through the key questions which she uses to interrogate Whitehead. In the process we encounter shared preoccupations with Stengers. Of primary importance is the search (with Stengers, the Harrisons and Whitehead) for a different way of imagining 'nature' (or the web of life) that resists the alienation of human beings from the world. Situated knowledge, as being in and part of process, constitutes a break with analytical traditions in the sciences and philosophy. It provokes a certain kind of daring. Stengers, drawing on Whitehead, calls this 'a leap of imagination', a leap out of static ways of knowing and towards ways that take into account our experience of the world through intuition, the sensory and perception alongside critical thinking. 'Leap' is also foundational as a concept in the arts. It evokes the possibility that the artist or creative individual can bring something 'new' into the world whether by synthesis, abduction or other means, a process that can appear discontinuous and sudden, and is potentially disruptive.

In Stengers' reading of Whitehead the search for a different way of imagining nature centered on what Whitehead described as the "bifurcation of nature", a way of thinking that divides the world into two. The one focuses on fundamental constituents that are known to science but are not available to human perception such as explaining the radiant energy of a fire in terms of agitated molecules of oxygen and carbon. The other focuses on the world available to perception (i.e. the fire as red and hot) and to experience (i.e. providing warmth and cooking). While both bear some truth, they create a paradox, one succinctly outlined in Latour's introduction to Stengers' book.

...if nature is bifurcated, no living organism would be possible, since being an organism means being the sort whose primary and secondary qualities – if they did exist – are endlessly blurred. Since we are organisms surrounded by many other organisms, nature has not bifurcated. (Latour in Stengers 2011, xiii)

The splitting of these worlds through mental constructs has resulted in us humans distancing ourselves imaginatively from those processes on which life itself depends. This bifurcation has given rise to highly successful forms of technoscience, but it has also brought about human alienation from the conditions on which our lives depend. As we all know this alienation has now reached the point of an existential crisis requiring radical new imaginaries. Stengers suggests that overcoming this paradox by refusing to imagine nature as divided (bifurcated) in this way constitutes an enormous challenge to our habits of thought.

To think with Whitehead is [also] to affirm that the success of a philosophical proposition is not to resist objections but to give rise to what he himself calls 'a leap of the imagination'... and the point is to experiment with the effects of that leap: what it does to thought, what it obliges one to do, what it renders important, and what is makes silent. (Stengers 2011, 22)

The particular 'leap of imagination' made by the Harrisons takes forms as a "...progression from an initial decision, made in '69-'70, to do no work that did not in some way look at ecosystemic well-

being" (H. M. Harrison and Harrison 2001 n.p.). Having made the commitment to only undertake work that addressed environmental well-being, they realized they knew very little about ecology. Each work in their fifty-year evolving practice is an experiment in the effects of this leap, of what it means to create a way of working within art and ecology that centers the well-being of ecosystems. What it does to thought is to imagine a world 'in the making', where we (are obliged to) imagine ourselves as part of this mobility.

The Harrisons further reflect on this issue in saying

NH: We see modernism as beginning with the Renaissance. We see modernism as the successive division into smaller and smaller categories, of all human knowledge. The operant being that the establishment of micro categorization permits a clear perception of individual phenomenon and therefore, deeper understanding.

HH: We feel that we know more about something out of the context in which that something occurs leads to less and less understanding of the something since everything exists in context. I consider this one of the great problems of our culture...we have so much information and yet so little understanding. Indeed, modernism reflects the conditions that separate people from the ground they stand on. It is a power and control centred belief-system in immediate need of revision, particularly of its guiding metaphors. (Auping 1982, 102–3)

Stengers articulates the fragmentation that the Harrisons highlight by pointing to ways in which we have become accustomed to separating the 'why?' from the 'how?', a trajectory in the sciences in which fundamental questions such as 'What has happened to us?' are not allowed. Instead 'how' questions dominate in an un-interrupted path of technological development and innovation which, according to Stengers, makes those who ask 'Why?' appear to be on the side of 'inertia' because they are against 'progress' (Stengers 2011, 13).The questioning of progress within her construction is far from being a passive process. She traces the separation to Galileo.

This was the sense in which Galileo proposed to distinguish between what he had succeeded in demonstrating, "how" bodies fall, and the question of "why" they fall in that way, a question which, as he remarked, there was "no great use" in asking: this is the domain of the imagination and of undecidable fiction. (Stengers 2011, 13)

This aspect of separation in which certain lines of questioning become excluded, parallels the bifurcation of nature previously discussed. Both are forms of fragmentation which are difficult to counter without a reconceptualization of the human in the web of life. The Harrisons use the questions 'How big is here?' and 'How long is now?' to establish this situatedness in their bioregional or watershed works (from around 1976). By connecting these two questions the Harrisons keep time and space together, a way of understanding the earth as living and changing, in process. Their art practice questions anthropocentrism in which Western art since the Renaissance has had a specific historical role in its overarching concern with humanness, another manifestation of the depth of the problem throughout Western culture and society. Stengers highlights a key aspect of Whitehead's philosophy that correlates with this.

His proposition does not address itself to knowledge in the sense that it could be detached from the situations in which it is operative. It does not constitute a vision of the world or a 'new paradigm' – indeed, this is probably the worst confusion that can occur with regard to it". (Stengers 2011, 13)

The way Stengers constructs this, situatedness excludes the possibility of models (or a paradigm) because these are forms that impose ways of knowing. Instead, we need to make ourselves available to perception in order to experience the world to make sense of it, to make meaning. 'Thinking with' implies working with, co-producing, taking risks while being accountable, and 'daring to imagine' (Stengers 2020).

Inventing a field

One of Stengers' key questions is 'How does it [the problem] invent in a field?' (Stengers 2011, 17). This understanding of problem is particular because it addresses the messiness of experience and assumes that invention, often in the form of storytelling, is required to understand how real problems emerge in contexts and experience. In making their commitment to the web of life, the Harrisons identify problems in this way. They say for instance, "Every place is the story of its own becoming" (H. M. Harrison and Harrison 2003 n.p.). In the work *Meditation on the Great Lakes of North America* (1977) they highlight the multiple ways that the lakes are divided and question the fragmentation that results. This work starts with the perspectives of people in Chicago in conflict with the people in Milwaukee, the fishermen and farmers in conflict with various industries over pollution. It goes on to draw out the consequences of fragmentation for survival and asks what it would mean to put the "dictates of the ecology" before the "dictates of culture" (H. M. Harrison and Harrison 1979, 9).

The problem itself reveals the disciplines required for resolution as well as determining how deeply the people involved must engage these disciplines. (H. M. Harrison and Harrison 2018, 6)

This particular quote focuses on disciplines, but in their work it holds a relevance well beyond discipline-specific ways of knowing and working. They have frequently had to justify their work as art (an issue we will come back to) but in recognising what creating a 'field' means for Stengers, it becomes apparent that they all, the Harrisons and Stengers, share an understanding of 'problem' as emergent and situated. The Harrisons talk about the way the arts can be 'framed' in different ways.

...by the early seventies, the ideas and beliefs driving modernism, the typical "framing for expression", "framing for representation", "framing as evidence", "framing for production" so much a part of the arts, commerce, and the sciences, in fact so much a part of everyday life, ceased making sense for us. (H. M. Harrison and Harrison 2001 n.p.)

The Harrisons resistance to the forms of framing used by institutions, both those in education and in the art world, enables them to open up new forms of situated practice. They talk specifically about 'a field of play' in terms of art practice, an invented space (as in a painting) to focus on relations between elements where 'element' could mean a spatial relation in a work of art or elements of a watershed (H. M. Harrison and Harrison 2007). This correlates with the process in ecological sciences of defining a boundary. However, the Harrisons resist any understanding of a field and boundary as anything other than a temporary human device (H. M. Harrison and Harrison 2001 n.p.).

We have noted the Harrisons own resistance to framing, as well as the situatedness of their approach. Their conception of the way their works 'work' in the world is another interesting difference. The Harrisons understand that a conversation begins in a particular place around a set of issues. They talk about 'joining a conversation of place' (H. M. Harrison et al. 1989; H. M. Harrison and Harrison 1993; 2001). It slowly gathers momentum as other voices and perspectives join and wrestle with the issues to hand, human and non-human. Through conversation that gathers its own

momentum as it draws participants, the artwork becomes public and sometimes the conversation takes on a life of its own. The Harrisons use the concept of 'conversational drift'.

"Much argumentation is in dialectical terms, the idea that there are holes, and one finds a resolution between two forces of opposition. Conversational drift lets you be free of that if you choose. You don't have to think polarity. There are many forces and voices operating in the conversation; you can play with them all. (Kester 2004, 64–65)

This understanding of conversation embraces contradiction as generative. Stengers makes a similar observation. Circumstances are different every time with stakes that are always different. She therefore does not look to Whitehead for ultimate explanations but for "telling our story in another way, in a way that situates us otherwise – not as defined by the past but as able, perhaps to inherit from it in another way" (Stengers 2011, 14).

The Harrisons ask us to pay attention to the 'cost of belief' that refers to ways of living that are damaging to ecosystems.

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For instance
...

If
the flow of waters has been made to behave like rain to irrigate millions of acres of arid land then
the state of the land has been changed to give advantage to that which would not normally grow and disadvantage to that which did

Pay attention to the cost of belief
(H. M. Harrison and Harrison 1985, 84)
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They are critical of the ways we develop knowledge about natural systems, 'how we know' as much as 'what we know' about them and how we apply knowledge and practice. Storytelling for Stengers and the Harrisons is open and plural, supporting the process of experimentation through multiple viewpoints. Why the insistence on experimentation that is always situated? At the heart of this is the search for a different, less destructive way of perceiving and relating to the web of life.

We recognize the Harrisons' mode of inquiry with Stengers' construct of 'adventure', one in which, "...none of the words that serve as our reference points should emerge unscathed but from which none will be disqualified or denounced as a vector of illusion. All are a part of the problem, whether they refer to the whys of human experience or to the hows of 'objective reality'" (Stengers 2011, 15). It means avoiding the tendency of rationalizing what is contradictory, living with inconsistency and daring to trust in a solution that is yet to be created. For the Harrisons, the problem with framing is its effect in creating arbitrary limits to what might be otherwise possible.

The "why is this art?" question often came up. One of the tenets of conceptual art, which strongly influenced our conceptual art-making, was to make a single decision and follow it relentlessly to its unknown, unknowable outcomes. The outcomes were simply the result of continuous creativity, investigation and enactment, referenced always to that initial single decision. (H. M. Harrison and Harrison 2001 n.p.)

Their works are adventures in which the commitment to the well-being of the web of life acts as a compass through which to navigate and resist ready-made models of arts, ecology, practice and research. We will demonstrate this through the initial adventures or experiments that the Harrisons undertook in the *Survival Pieces* of the early 1970s. As noted, they undertook these experiments in order to work out what it might mean to do no work that did not look to the wellbeing of the web of life. The experiments are focused by questions of survival. They reveal contradictions and question values. They have origins in the Harrisons experience in education and in activism.

Section Two

The Harrisons' Survival Pieces

The Harrisons' leap of imagination, their 'single decision' to prioritise the wellbeing of the web of life, posed the question of what sort of art would be capable of addressing such an existential question. They turned to the ecology and set out to teach themselves, using the exhibition opportunities of the *Survival Pieces* and a '1:1 scale' to test their understanding of specific ecosystem dynamics. The art evolved in relation to their understanding of the lifeweb. They focused on a direct and bold question, 'How do we feed ourselves?' (interview with Newton Harrison). This arose from not knowing how food came to be in supermarkets, and then recognizing that supermarkets, whilst performing an important function of marketplaces, trading food, had come to intervene in the "magical interface" between us and our food and material resources (Burnham 1974, 166).

They experimented first with making soil, and then pastures, aquaculture systems, orchards and farms. They have proved to be exemplary in dragging the arts out of an increasingly self-referential institutional system (Burnham 2015). What and how can we learn from their approach?

Inventing a field: Portable Fish Farm: Survival Piece #III

Portable Fish Farm – Survival Piece #III³ highlights how Stengers' construction of 'thinking with' helps us to understand specific works and their role in the evolution of the practice. This work also brings into focus some of the Harrisons' earlier experiences in revealing contradictions that arose from bringing together the practices of art and ecology and prioritising survival. Portable Fish Farm was part of the exhibition 11 Los Angeles Artists (Hayward Gallery, London, 1971 and touring). This work modelled the food chain through six 'pastures' (tanks) housing different stages: fingerlings, fully grown catfish, mating, and scavengers (shrimp, oyster, lobster) that clean up the detritus. The installation included both the cooking equipment for feasts, and technical drawings making the system clear, all conceived as part of the artwork. The technical drawings deliberately conveyed a DIY aesthetic with the intention of democratising 'back-yard' farming by familiarising the audience with a system they could imagine repeating. According to the Harrisons, the intention was to produce the conditions under which the catfish would mate and thrive. In this way Portable Fish Farm would also generate sufficient surplus for human consumption in a series of 'feast' events for the gallery audience.

Stengers asks us to consider 'what does this work make matter?' As noted above it makes the question of how we feed ourselves matter. It makes matter practices and associated ways of knowing that contribute to survival, in this case those of catfish farmers, that undoubtedly contribute to survival but take an industrialized form that the Harrisons are trying to question. It makes survival a matter for the arts.

The Harrisons' first step involved thorough and time-intensive research. Newton Harrison learned from catfish farmers in Brawley, a remote part of California, to understand farming catfish, including growing, mating and reproducing, as well as how to kill and efficiently skin them. As he describes it, he needed to pass 'tests' at every stage in this community before graduating to the next level of knowledge (H. M. Harrison and Harrison 2016, 29). Previously his skills had been in modelling with clay, field painting, and plasma technology. Helen's understanding of the importance of experience in learning and involvement in the West Coast Feminist Art Movement in the early 1970s has a

³ Hereafter *Portable Fish Farm*.

manifestation in the feasts she created. These functioned as opportunities to open up the conversation within an audience who would bring a plurality of perspectives.

Portable Fish Farm (along with the other Survival Pieces) set out to explore the question of how to sustain human life by producing abundance from an ecological system. This entailed individuals seeing themselves in relation to their environments and understanding the meaning and function of a 'good' environment from the perspective of health and well-being. It included aesthetics that for the Harrisons (as well as Stengers and others) constitute an integral part of 'survival' and also a 'way of knowing'. The Harrisons addressed the issue of survival by attempting to model self-sustaining systems by means of successful reproduction and recycling of waste in a series of energy rich feedback loops. As the Art and Technology Correspondent for Studio International at the time Jonathan Benthall⁴ pointed out, the system at work in *Portable Fish Farm* was highly dependent upon sources of energy based in fossil fuels, and therefore neither a self-sustaining system nor one that could be construed as ecological (Benthall 1971, 230). Stengers asks "..how is the contrast between success and defeat defined...?" (Stengers 2011, 19). In her context Stengers is exploring Whitehead's idea of 'adventure' in which any intervention or experiment is constructed. A measure of success is the relevance of the questions to which such an adventure gives rise. This is particularly relevant to the Harrisons' Survival Pieces, which encounter multiple criteria of judgement as art, as ecology and even as experimental science. The success of a particular work was not the primary issue for the Harrisons themselves. What mattered was their desire to learn what was entailed in their commitment to environmental well-being, to achieve some new understanding through experience, imagination, knowledge and artistic skill in relation to the questions that each work posed.

Stengers explores how a problem invents a field in which the problem finds its solution (Stengers 2011, 17). The challenge of how we feed ourselves in the Harrisons' construction is an example of generating a wicked problem intentionally i.e. a problem which is difficult to define and has no single solution. The generation of 'problem' in this sense is a creative activity. Problems of this nature generate 'a field' in Stengers' terms, a context in which to understand the interdependencies and imagine different relations which could provide an answer.

⁴ Benthall was also Controller at the Institute for Contemporary Art, London. He had programmed 'Ecology: The Shaping Enquiry', a course of lectures including Raymond Williams, Mary Douglas and Barry Commoner, over the winter of 1970/71 (Benthall 1972)





Notation on the ecosystem of the Western Saltworks with the inclusion of brine Shrimp Survival Piece $\#\ 2\ 1971$







Portable Fish Farm Survival Piece # 3 Hayward Gallery 1971

Three important precursors

To understand the approach taken by the Harrisons in *Portable Fish Farm* and the other *Survival Pieces* we need to understand three key moments before the *Survival Pieces* in which the idea of survival becomes clarified and perhaps some of the modalities of working with the issue through art are prefigured more or less successfully.

These moments in themselves might be considered incidental but come together in making clear what survival means and how it comes to be key to understanding the development of the Harrisons' approach. Stengers' question of what matters, what is left aside and what new insight obliges us to do helps us to see these incidents as both particular and formative. They include Helen's reading of Rachel Carson's *Silent Spring* (Carson 1962); their first collaborative essay "Dropouts and a 'Design for Living'", published in a collection of essays that focused on possible remedies to poverty and education in the US (H. M. Harrison and Harrison 1965); and thirdly a collaborative artwork, *An Ecological Nerve Centre* (1970-71), exhibited in the exhibition *Furs and Feathers*⁵.

We are highlighting these because they already begin to address the challenge of finding and testing an appropriate relationship between art and ecology. All three events should also be read in the context of social and political turmoil of the Cold War and the Vietnam War and their impact not least in connecting emergent environmental concerns with education and societal values, prompting a number of artists to rethink the place and form of their practices in public life (David and Eleanor Antin, Agnes Denes, Hans Haacke, Allan Kaprow, Mierle Laderman Ukeles, Robert Smithson among others (cf. Matilsky 1992; Spaid 2002; Kester 2004).

Survival

Carson's *Silent Spring* (1962) opens up the sensual, human dimension of survival, and in so doing creates the possibility of dealing with scientific material in ways that were not restricted to ecological scientists. Everyone can relate to the issues and participate in a dialogue that positions survival as a matter of shared concern. The Harrisons have always acknowledged the pivotal role of this text in their decision to focus on the environment, helping them to conceptualise 'survival' in this early work as a thread that reorders values in ways that make concrete their commitment to attend to the well-being of the web of life. Carson exposed the devastating effects of the pesticide DDT. It was not only carcinogenic, but also depleted the earth's biodiversity at a terrifying rate despite being presented as a miraculous solution for disease control and food protection. But more importantly for our concerns,

Carson's "subversive and transformative" prose instructs readers to regard themselves less as DDT-armed pest-combatants than as affected and affecting cohabitants of overlapping human and nonhuman milieus. (Chisholm 2011 n.p.)

Helen had read Carson's book in the year of its publication while also acting as the first New York coordinator for the *Women's Strike for Peace* (Jones 2018). She had also given birth to their fourth child, Joy Eden Harrison. Their involvement in the strike was particularly driven by the discovery of Strontium 90 in breast milk (interview with Newton Harrison).

Silent Spring itself emerged in the context of growing environmental politics in the US variously focused by the adverse effects of chemicals on human health and the environment. Artists were responding to such events by making work that was radical and political in nature. For example,

⁵ Museum of Contemporary Craft, New York, January-March 1971.

students of the Visual Arts Department at UC San Diego had in 1970 worked with Newton Harrison to make *Body Bags*, also known as *Meat Piece*⁶. Where *Meat Piece* is unequivocally activist in character and the Harrisons were active participants in protest movements, the trajectory their work in the *Survival Pieces* was not activist. The raising of open-ended questions on which the audience or viewer needs to reflect and think through for themselves, is fundamental to the Harrisons inquiryled approach does not sit well with activism.

Portable Fish Farm and the Survival Pieces are not exactly 'gallery art' as conventionally understood at the time⁷. They are experiments with the issue of survival as a complex subject that carries conflicting values and a diversity of meanings. The catalogue of the exhibition which included the first of the Survival Pieces⁸ includes an essay by David Antin which specifically names 'survival' as an issue for art.⁹ The exhibition is entitled Earth, Air, Fire, Water: Elements of Art which, not particularly obliquely, references the Aristotelean understanding of the elements¹⁰. Antin reframes 'elements' shifting the term away from a 'mystical' reading to the question of survival, just as the ecological needs to be moved from 'the other' to the immediate and present. To quote Antin's essay in catalogue

But it is not impossible to imagine the elements in terms of survival. What are the elements of survival?

Light

Air

Water

Food

Heat

Shelter

Transport

Rest (Antin 1971, 20)

This foregrounding of practical elements of survival clearly resonates with the Harrisons' developing experiments. In another essay Antin had written a few months earlier he said

The idea of an ecological art is the idea of an art that articulates dependencies, its own condition for existence or those of the world. (Antin 1970, 90)

Antin uses the term 'dependence' and we might think that this has evolved into what is now more frequently interdependence as used by Stengers, Haraway, Latour and others. In fact, Stengers illuminates this

Nor should the intertwining interdependencies be confused with a network of interlinking dependences. It is easy to understand why, without water or light, a plant dies. This fits the

⁶ This was a performance installation of body bags containing military uniforms and offal as a critical response to the Vietnam War installed on Revelle Plaza on UCSD campus (Cassidy Rogers 2016, 82, 138–41).

⁷ The other works in 11 Los Angeles Artists were consisted of paintings and installations. According to the catalogue essay the closest work to *Portable Fish Farm* was by Bruce Nauman. *Earth, Air, Fire, Water: Elements of Art,* the Boston Museum of Fine Art exhibition earlier in 1971 in which the first Survival Piece was shown along with a Plasma work, had more diverse installations, including some involving living elements.

⁸ Survival Piece #1: The Hog Pasture was originally entitled Air, Earth, Water Interface.

⁹ David Antin, along with Newton Harrison was founding member of the Visual Arts Department at UCSD and instrumental in the ethnopoetics movement. David and Eleanor Antin were close friends with Helen and Newton Harrison.

 $^{^{10}}$ Aether is added in the Greek period, translated into Spirit in later times.

definition of 'dependence'. But interdependence implies a way of being sensitive that is a form of venture. (Stengers 2020, 231)

Dependency is directly related to survival. Stengers is concerned, as are we, with 'inextricability', the intertwining of interdependence which makes the fragmenting methods of technoscience so problematic. Art has the capacity to reveal both dependency and the conditions of survival as well as the intertwining of living things. Survival and interdependency are questions of education as the Harrisons demonstrate and to which we now turn.

The questions emerge out of experience

The second key moment in the evolution of their approach was the Harrisons first collaborative essay entitled *Dropouts and a 'Design for Living'*¹¹. It reflects Helen's particular expertise and interest in public education and also built on Newton's experiences of teaching experimental painting to children at housing settlement projects and neighbourhood centres (N. Harrison 1996)¹². The essay addresses the circumstances of young people whom the system of conventional education has failed and asks us to consider 'survival' in a much richer way, beyond mere physical survival. It opens the question of 'what matters' in such a way that the young people are invited to become participants and to recognise their own agency. In this way the Harrisons shift the challenge from "...learning trade skills and the mechanics of getting a job...", survival as a minimum achievement, to survival as engaging with the key questions that start with the self and our fears, and from there move out to the wider world. This idea that survival, value, and meaning are deeply connected underpins the *Survival Pieces* and also changes our understanding of success and defeat.¹³

To this end the Harrisons propose an educational programme structured around a series of questions that range from the personal and practical to the existential. They begin with 'What are you most afraid of?" and move to "Why is everything as it is? ...How would like the world to be? What do you have to do with the world? What does the world have to do with you?" (H. M. Harrison and Harrison 1965, 176). There is a common thread of a question-led approach which is shared with Stengers and has its roots in experience-based education and philosophy (Dewey 2011; Whitehead 2010).

The Harrisons talk about disadvantage through the metaphor of nutrition. The individual is undernourished culturally and socially. "Art, literature, drama, and the play of ideas have neither part nor function, have been neither seen nor heard, ...discussed not questioned" (H. M. Harrison and Harrison 1965, 174). Even at this stage the Harrisons saw everyday matters and planetary issues as part of a continuous inquiry. They set out to stimulate aesthetic sensations alongside thought processes by means of lectures, trips and discussion groups. The point was to explore how values control human actions, where limits are self-imposed and where they are culturally imposed, where assumptions could be challenged, and new opportunities opened up. This prefigures the approach to survival which becomes central in the *Survival Pieces* in being led by questions, critical and value-driven.

¹¹ Dropout came to have a different connotation as a result of Timothy Leary's call, first made in 1967, to 'Turn on, tune in, drop out. I mean drop out of high school, drop out of college, drop out of graduate school.' The term dropout in the Harrisons' essay refers to young people who would now be described in terms of 'not in education, employment or training'.

¹² We distinguish between Helen as an educationalist and Newton as a teacher because Helen had undertaken educational research as well as teaching.

¹³ It is important to acknowledge that whilst education was understood to be an unqualified good at the time, the formal education system has been captured by the neoliberal state and financialised so that it is now a 'debt trap' (Graeber 2014).

While their chapter is a contribution to research in education, it reveals characteristics and priorities that become increasingly evident in the Harrisons' approach to making work, in particular the importance of discourse in exploring beliefs and values as a social experience. This short essay addressing 'dropouts' could be read as an allegory for human relations with the environment.

A first aesthetics and poetics of artistic research

A third influential moment in the Harrisons' development is their joint work *An Ecological Nerve Centre* in *Furs and Feathers* (1971). Historically this work significantly prefigures an approach in which existing research is gathered and presented in such a way that also invites participation. The context was an exhibition that largely presented playfully intriguing artefacts. The curator wanted the exhibition to acknowledge and go beyond the luxury and sensuous beauty of the materials and to highlight the ecological and conservational crisis of the world (Smith 1971).

The Harrisons' were invited to address this aspect and their work comprised a large-scale world map (14ftx14ft), a rolodex, and an audio track, all documenting endangered and extinct species. The World Wildlife Fund acting as a partner provided some information, extensively supplemented by Helen and students under her supervision from the Visual Arts Department at UCSD (Cassidy Rogers 2016, 147–49). This is the first appearance of large-scale mapping as a representational device in their work, one that they have since exploited in a range of ways. It engaged partnerships that mattered to the political status of the work and its public significance.

The work is concerned with survival, though not named a *Survival Piece*. It also does not address how we feed ourselves. It provokes existential questions - if the trajectory of threat and disappearance in animal species is allowed to continue, human beings themselves become a threatened species. It also has an educational dimension. What is left out in this case is the entangled relations on which each of these species is dependent. In some respects this work is a manifestation of the bifurcation problem previously discussed. Species are isolated from other organisms and environments on which their life is dependent (and also at risk from). *Shrimp Farm* and *Portable Fish Farm* which are exhibited later in the same year both go some way towards addressing this complexity. From this point on an artistic practice started to emerge, one that was inquiry-led, driven by carefully framed questions, shared with a public in ways that invited feedback and engagement. The *Survival Pieces* are all at 1:1 scale focused on actual lifeweb interactions (fish, shrimp, algae, lobsters, crabs, ducks, snails) and it is not until 1973 and really not until 1976 that they revisit works using 'mapping' scales¹⁵.

Contradictions revealed by 'the leap'

These three earlier experiences help us to understand more deeply the question of survival in different specific experiences. We now turn back to *Portable Fish Farm* and address three contradictions which for the Harrisons are generative. At the outset we said that the *Survival Pieces* were useful to consider because of they were one of the ways the Harrisons taught themselves ecological thinking. The contradictions that we will now focus on are generated by the experiments and the underlying questions. They arise from aspects that are normally 'silent' i.e. that the arts would not normally consider important. The Harrisons encountering of contradictions in systems of

¹⁴ Notations of the Ecosystem of the Western Salt Works with the Inclusion of Brine Shrimp: Survival Piece #II (Hereafter Shrimp Farm)

¹⁵ In 1973 the Harrisons developed the work *San Diego as the Center of A World* which considered the implications of two possible futures, one of global warming and the other of global cooling, drawing on literature of the time. This is the first work to use the particular form of cartography, the Azimuthal Equidistant projection, which is a repeating figure in their works, often called by them 'big circle maps'. They return to world scale maps in 1976 in a work entitled *The Law of the Sea* for the Venice Biennale and in 1980 with *Seventh Lagoon*.

value mirrors Stengers' and Whitehead's focus on the epistemological bifurcation into knowledge and explanation versus experience and meaning.

The contradictions raised by *Portable Fish Farm* were not lost on reviewers either. Aside from the requirement for fossil-fuelled infrastructure to provide energy for this experiment, Benthall highlighted the privileged audience for the feasts (Benthall 1971, 230)¹⁶. In fact, Benthall's whole review is an articulation of the challenges and contradictions and the way the work provokes us to consider these is also why it is important.

Success in this case might look close to solving a problem, such as a practical solution to the problem of an increasingly polluted sea in which few fish could survive. Failure in these works, in fact, poses a much larger, more interesting question: What does the work make matter? Benthall points to the important shift it creates in art i.e. that art, quoting Newton, had become "...sterile. It is a closed system; it is stiflingly cross-referential, and its yield per quantum of effort expended, is pitifully low." (ibid). If success is to be measured by the questions that such effort poses, then *Portable Fish Farm* goes further than pointing out the sterility of contemporary art. It exposes a paradox in human-environment relations in which human dependence upon human-made environments has determined a course of civilisation that has interrupted and profoundly reconfigured our connections with the natural world, creating a trap that we are struggling to escape from.

The contradictions that are particularly generative are concerned with cultural values. Catfish farming in the US was becoming an important source of food production, but in the UK, unbeknown to the Harrisons, a species of catfish is kept as pets. Newton Harrison had developed the skills to care for and kill catfish in humane ways in Brawley. When the drawings for *Portable Fish Farm* were published, an outcry ensued that involved protests from the Royal Society for the Prevention of Cruelty to Animals (RSPCA) among others through public media. They had planned to use electrocution, as the most humane method of killing the fish. The work brought into collision the cultures of catfish as food in one culture and a pet in another. Animals that humans eat could be slaughtered inhumanely as long as the killing was out of sight highlights another dimension of contradiction. Humans could also be inhumane to each other - as Newton Harrison pointed out on British Television in response to the furore, the Vietnam War offered plenty of examples. Benthall in his review recognises these aspects in his probing of the ecological dimensions of the work both in terms of its dependence on wider systems, and in connecting the ethical into the ecological, the issue of electrocution and the question of who gets to eat the feast.

Another dimension of this contradiction was the gap the values the artists bring to the work and the way in which the work was perceived, the value placed on the work by an audience. The Harrisons' embedded discourse into the form of the work, driven by the fundamental question underpinning the *Survival Pieces*: How do we feed ourselves? They engaged the public through opportunities to experience and share the work in the form of ritual feasts that "...would be a meeting ground for civil discourse over the 'industry standard' and pragmatics of transforming the food system in order to live more harmoniously and sustainably with the earth" (Cassidy Rogers 2016, 234). This aim was somewhat hijacked by events in *Portable Fish Farm*, in particular the public outrage that submerged the artists' intention, predominantly the assumption that the Harrisons were pursuing cruelty towards living creatures for aesthetic pleasure. The work was thought to be transformative by some and intentionally shocking by others. It has entered into the history of 'shock' art (Walker 1999, 52–57). The contradiction is clear in a letter to the Harrisons where Norbert Lynton, art critic and historian, grasped the artists' intention, commenting on the feasts,

Douglas and Fremantle Sample Chapter

It seemed to me to be exactly the rounding out with life, event, ritual, service, receiving, the exhibit requires. The atmosphere was not party-ish but happily peaceful... (Cassidy Rogers 2016, 232)

In contrast with Lynton, the Sonnabend Gallery in New York, which represented artists such as Robert Morris, Bernd and Hilla Becher and Gilbert & George and in 1972 hosted Acconci's notorious *Seedbed*¹⁷, opened discussion with the Harrisons to follow through with a new work. The Harrisons turned down this opportunity because the gallerists appeared to assume that their next work would continue to be shock art. Instead, they pursued their original aim of connecting food systems to earth systems. Their commitment to address the wellbeing of the lifeweb through art over-rode the opportunity to be represented by one of the pre-eminent New York galleries. This is an example of where the commitment to the environment over serving the institutions of art acts as a compass within the practice.

The final key contradiction was between what constitutes success and failure in art and success and failure in ecology and the emergent practice the Harrisons were developing. As noted earlier, Stengers asks us to pay attention to what changes the criteria in defining the success and defeat in an open-ended experimental adventure. The catfish did not mate and reproduce as hoped "...so in the strict ecological sense *Portable Fish Farm* did not succeed." (H. M. Harrison and Harrison 2016, 32). Nonetheless the feasts of fish soup took place in the Hayward Gallery and other venues. The Harrisons trained museum staff, including lead curators, to care for the fish farm as well as to cook and serve the soup. The piece was redesigned for each venue. The exhibition toured to Brussels with attention to the cultures of both French and Flemish parts, and to Berlin. In each case local fish and local recipes were used. Utensils were scaled up to develop a sense of ritual and tableau, qualities that Newton had identified in the original fish farm at Brawley, where he had trained. The work continues to have an afterlife: in 2014 the story became a well-reviewed opera *Catfish Conundrum* produced by Tête-a-Tête Opera company London¹⁸. The failure in ecological terms led to its own developments, in particular *Crab Farm Survival Piece #VII*, to which we will return in the discussion of *The Lagoon Cycle* in Chapter 2.

The *Survival Pieces #I-VII* emerge at an extraordinary period of open-ended and radical questioning of art in society. For example, Hans Haacke (b. 1936) had already produced several works which involved physical and biological interactions, works that exist in 'real time' and contributed to redefining a work of art as a system (Burnham 1974, 27–38). Nonetheless critics found it challenging to accept the Harrisons' work as art, being asked to rethink success and defeat. Some such as Jack Burnham, artist and critic, were also making their own leaps. Burnham addressed Newton Harrison's two works¹⁹ as examples of systems art which he defined as existing in "...an unalterable reciprocity with nature" (Burnham 2015, 184–92). Describing *Shrimp Farm* as a work which is structured to complete a natural growth pattern, he comments many would dismiss it as simply "ecological experimentation" (Burnham 2015, 192).

A review of the Harrisons' 1978 exhibition at the Ronald Feldman Gallery (Perrone 1978 n.p.) exactly reflects the perspective that Burnham anticipated. Reviewing a group of works made between 1976-78 Perrone suggested,

¹⁷ https://www.metmuseum.org/art/collection/search/266876

¹⁸ https://www.tete-a-tete.org.uk/event/catfish-conundrum/

¹⁹ Plasma Chambers (1969–1971) and Survival Piece #2 Notations of the Ecosystem of the Western Saltworks with the Inclusion of Brine Shrimp were included in the Los Angeles County Museum's exhibition of their Art & Technology Programme in 1971.

Their show attempted to fuse what may be considered as art with what is not art. And without a tinge of irony or humor. As it turns out, the art part is absolutely dispensable, while the rest is of considerable interest. (Perrone 1978 n.p.)

Almost a decade later in a third review in ArtForum, this time of the exhibition *Nobody Told Us To Stop Thinking* (Grey Art Gallery, New York 1987), the critic Patricia Phillips appears to be more accepting and begins to grapple with the form of the practice as a new form of art.

Without addressing the question of the difference between art and life, they find their work in the areas that have often been picked over or abandoned by traditional disciplines. Each project contains a dense, dialectical narrative that frames the issue, illuminates their unique version of collective invention, and confirms their desire to make an art of consequence. (Phillips 1987 n.p.)

These critics are variously recognizing and tussling with the transformation that these works are having on the experience of art as it was understood at the time. In the Harrisons' letting themselves be guided by the wellbeing of the lifeweb, the audience can become a participant, not in a conventional sense, but by willing to be exposed to and willing to be affected by this adventure. It is in this interdependence that transformation becomes possible. Stengers describes this in terms of, "...letting themselves be touched by the reasons of others..." (Stengers 2020, 235). The Harrisons allow themselves to be guided by the reasons of the lifeweb, and the audience in turn by the Harrisons. However, Stengers cautions that this needs to be "...freed from the demands for generality and scalability that empower argumentation and confrontation..." (ibid). Ironically Stengers/Whitehead are seeking to address the bifurcation of meaning and explanation in our Western construction of nature, and the contradictions that emerge from Portable Fish Farm are precisely concerned with such issues through meaning. The conflict arises in the meanings, including those attributed to fish and explanation of the most humane way to kill the fish that still leaves the killing being done out of sight. Fragmentation is one problem, but cognitive dissonance, the willingness to leave a contradiction unexamined, is another and one that the Harrisons choose to address affectively.

Again the importance of emotion and feeling is powerfully addressed in Stenger's thinking. She proposesse that letting ourselves be touched, as a particular construction of interdependence, comes through our sense of taste as a matter of pleasure as well as discernment and also survival. "Knowing how to taste is an integral part of the adventure of life in a world that requires of us an ability to discern between what feeds us, what poisons us, and what heals us" (Stengers 2020, 235). We started by exploring the Harrisons' problematizing the question of survival through how we feed ourselves. The *Survival Pieces* included feasts which create a shared space which is not only a ritual but also materialises 'reasons' in common. Going further back we see in the 'Dropouts' essay the question of what feeds, what poisons and what heals, and the importance of discerning the differences.

Conclusion

Through exploring Stengers' articulation of 'thinking with' and in particular the 'leap of imagination', we have come to understand the significance of the Harrisons' commitment and their reordering of values. Newton Harrison describes it as following one of the tenets of conceptual art, to "...make a single decision and follow it relentlessly to its unknown, unknowable outcomes..." (H. M. Harrison and Harrison 2001 n.p.). Where the Harrisons needed to describe it as a conceptual art strategy for the art world, it in fact pointed to the existential (survival) crisis which we are now facing. The idea

of putting the wellbeing of the web of life first in decision making, in daily life, in personal choices, is a foregrounding of interdependence at multiple levels.

There are various forms of recognizing interdependence going on in our writing which are important: Firstly, Whitehead's rejection of a purely mechanistic universe and, as a mathematician, his turning towards philosophy to figure out a different relation between mathematics and experience. The second interdependence is Stengers' drawing on Whitehead because she is concerned in the present with the mechanistic effects of technoscience and the way it is dominant in shaping our environment (Stengers 2021). Helen and Newton in seeking to explore survival through art, discover that art can open up complex interdependencies. This in turn generates new ways of understanding how imagining and acting create the world in which we live.

The *Survival Pieces* establish a principle of keeping the 'how?' and 'why?' questions together in the process of venturing forth and taking risks. The question 'How do we feed ourselves?' gives voice to an issue that has been made 'silent' and invisible by industrialised processes. This 'why?' instigates the adventure and opens the issue up through the sensory, to the Harrisons first, to the curators and then to the audience, in particular through the feasts. We connected this with the idea that survival involves desire and not merely the meeting of basic needs, as is first mooted in the 'Dropouts' essay. Desire is threaded throughout the *Survival Pieces*. The initial question 'How do we feed ourselves?' drives the desire to trace human food (catfish) back to the living systems (catfish plus bottom feeders, plus nutrients, plus environment, plus curators and artists) on which it is dependent. The feasts, setting aside the criticism of who the audience was actually composed of, have the capacity to transform desire by drawing together the sensory (human smell and taste) with the living system (the fish tanks etc) for audiences to experience in a social discursive event. This not only reverses the problem of simplification and fragmentation (e.g. supermarkets), it also exposes everyone to the intrinsic vulnerability of interdependence and survival.

The Survival Pieces are important because they make visible multiple contradictions which the Harrisons demonstrably learned from. Whitehead's project of a process philosophy seeks to provide a way to think about flux and change as the constants, and the value in considering the early works of the Harrisons is their contribution to a practice which is centred on process. Grant Kester, who has positioned ecological art including the Harrisons within issues of public life, quotes them

I don't think about our art as product at all. As a guiding thought 'product' is counter-productive [G]enerally we make installations which stand for the place and as a meeting ground for discourse. (Helen and Newton Harrison quoted in Kester 2004, 64)

We are not offering the works of the Harrisons as models for an art that addresses the challenges that we set out. Rather it is about entering into a living process as a kind of venturing forth where contradictions, in this case in values and risk, inevitably emerge. As is clear from the case of *Portable Fish Farm*, these can be generative in clarifying values and choices, and in making judgements.

The Harrisons used the apparently simple question 'How do we feed ourselves?' as a way to enquire into the meaning of their decision to do no work that did not address the wellbeing of the web of life. The questions highlighted by Stengers ("...what it does to thought, what it obliges one to do, what it renders important, and what is makes silent" and "..how is the contrast between success and defeat defined for it?" (Stengers 2011, 22, 19)) have helped us understand the implications of the decision and the question guiding the *Survival Pieces*. We have suggested that there is a wider significance to this approach, that 'thinking with' might be closely aligned with the way artists work with approaches and concerns established by earlier generations and Stengers' questions appear to be key.

In a recent discussion with Newton Harrison he suggested that his interest in the work of particular artists is in their ability to ask seemingly obvious questions, that once asked become transformative. Newton said for instance that Cezanne questioned his own seeing asking 'Why don't I see vanishing points in real life?' or that Rembrandt was concerned with 'How little light can I use to show that a figure is spiritual?', referring to his painting of 'St Matthew' (1661). These are instances of artists making 'a leap of imagination' in response to a bold question. It is through the quality of the question that these artists see differently and show others what they see. Each has significantly altered the contribution that art makes to human understanding. Each question puts what went before into a new context. What is characteristic of this process is showing us what is being alive in the world, for instance Rembrandt's Matthew reveals spirituality as integral to the human (rather than additional). It reveals the paradox that very little light reveals spirituality more effectively than the traditional flooding of a painting with light.

Newton went on to describe the questions he asks of another artist's work and by implication experience itself as, 'What am I seeing and what am I not seeing? How do I show what I am seeing? What are my responsibilities toward what I am seeing?' (N. Harrison 2022). This correlates very closely with Stengers' questions. Her questions (what is made to matter, what is made silent, what does it oblige us to do) require us to constantly search for and make meaning, rather than presuming that meaning is given, as can happen in both the scientific process in some hypothesis driven forms, and in ideologies.

What are we seeing? We are seeing that the Harrisons' work is art in the sense that it shows us the world and its contradictions. It invites us to become actively involved in the process of working them through. It reveals to us how the world might be different. In that sense what we are not seeing is an art of merely decoration and popularisation.

How do we show what we are seeing? Our approach as artists, writers, producers and researchers involves us in undertaking rigorous analysis in relation to key ideas in the work of other artists such as the Harrisons. This takes the form of publication, as well as influencing the way we ourselves practice in the world.

What are our responsibilities towards what we are seeing? The perspective of the web of life obliges us to engage through dialogue, imagining creativity as a living ongoing process of exchange which ultimately serves the wellbeing of all.

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