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INTERVIEWEE: **THE HARRISONS**

INTERVIEWER: **SNÆBJÖRNSDÓTTIR/WILSON**

Bryndis Snæbjörnsdóttir and Mark Wilson conduct their collaborative practice from bases in the north of England and Reykjavík, Iceland. With a strong research grounding, their socially engaged projects explore contemporary relationships between human and non-human animals in the contexts of history, culture and the environment. In this exclusive interview, they discuss urgent issues of ecocriticism and the arts with leading pioneer of eco-art Newton Harrison speaking on behalf of the partnership.

Text and Questions by Snæbjörnsdóttir /Wilson

It is no exaggeration to say that we have been aware of and followers of the work of Newton and Helen Mayer Harrison, both independently and in our own collaborative partnership for decades. Their focus and fortitude, dedication and tenacity are exemplary in respect of the ambition towards which artists can mobilise their endeavour and of their expectations regarding its production and the potentials of its effect.

For 50 years they first pioneered and subsequently have spearheaded environmental arts practice on an international level, using research, fieldwork, models, maps, action, and intervention to bring clarity, purpose and practicality to issues that in the '70s meant little to most, but now, (in no small way due to their own efforts) have dreadful and compelling traction in the imaginations of millions, (if not billions) of people all too conscious of and sometimes themselves hard hit by changing climatic conditions.

In their thinking and in their work, where ecologies are so central, Newton and Helen take a long-term and global view – but they have a keen eye for how responses to local situations can be used as spurs to action by powerful governmental and non-governmental institutions and how these examples may serve as models for new behaviours in respect of the environment at large.

Theirs is a special blend of ingenuity and positive pragmatism. As this interview demonstrates, a robust, infectious and utterly compelling consistency fuels their practice and we feel proud and privileged to have been able to discuss with them their work in this context.

The questions we formulated were a response to points in a chapter Helen and Newton sent us from their latest book (*The Time of the Force Majeure: After 45 Years Counterforce is on the Horizon*, Prestel.)

Capitalism values and rewards the exploitation of living systems through the unchecked growth of resource extraction, market production, and consumption, with concomitant concentrations of capital (Yes it is certainly true that nature can vigorously grow while not charging a profit). Democracy privileges people's freedom to do whatever they choose (within a context of legal permissions that favor capitalism). Majority rule permits a citizenry who are not eco-literate to vote against environmental well-being.

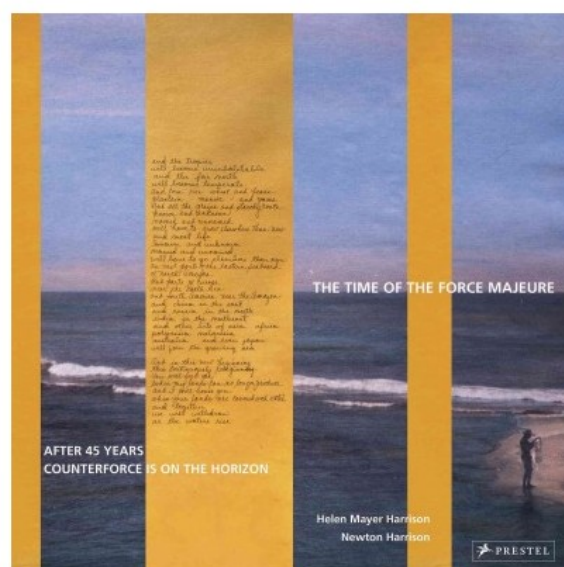
(The Harrisons, *The Time of the Force Majeure: After 45 Years Counterforce is on the Horizon*)

FORCE MAJEURE and the ANTHROPOCENE:

*We see no alternative, whether forced or voluntary
for civil societies but to recreate themselves
and most of their social organizations
to compensate for the stresses
that they have forced on natural systems*

*We see no alternative, then yield to nature's agency
accepting a new form of global governance that reflects
surrendering the idea that humankind is a special case
understanding that we are simply
even humbly, a species among species*

(The Harrisons, *The Time of the Force Majeure: After 45 Years Counterforce is on the Horizon*)



Snæbjörnsdóttir /Wilson: Newton, would you please give us an introduction to the concept of *Force Majeure*?

Newton Harrison: So, *Force Majeure* – well here we are – it's like 10 years ago. We are finishing a thing called *Greenhouse Britain* (2007-9). We are even winning a prize for educating the British public while at the same time democratising global warming information. We've done this by making a 24-foot model of the British Isles and projecting onto it rising waters, so everybody who has a house within 3 meters of the ocean can make a plan. They can see what will happen to them and they have an idea of how much time for ocean rise.

So we are feeling pretty good about this – except we pose a question to ourselves.

We ask 'Supposing every single person on the Isle of Britain 'got it' and immediately re-elected their parliament to put a stop to war and to put all the money aside to [facilitate] the upward movement of people and ...would that be enough? No. Why not?

While we were making this plan and [evolving] these works and [projections] and for 5 minutes, making heroes of ourselves in Britain, we noted that the developers were madly buying land with the intention of profiteering on ocean rise, as they normally do. Well then we posed a question – how come nature can grow plentifully and not charge a profit and how come we [continue] to grow in this 'creaky' manner while we massively charge a profit and in so doing, devalue all ecosystems: so there we were, in an end game/fail situation. So then we asked, what are we facing here? Well the tsunami had come and it became quite clear we were [generating] a giant force of our own invention and that by simply continuing our everyday processes of being, we were increasing the application of this force on a daily basis. So – then we said, well what about Marxist Socialism? We all love Marx and Socialism, particularly if we drop the class-struggle factor. Well now, that [too] was insufficient. Upon examination, all 'isms' are

revealed as insufficient, because all begin with human-centred stock – taking from nature, to help people. Then social justice takes over with much of our public monies and what does social justice do? It spends the majority of its money helping people. So with this in mind, how do you think about this? How do you [frame] a thought that will get this said? We copped a legal term – re-formed a legal term a *force majeure* – 'God-driven' to *Force Majeure* – 'people driven'. So that's how the *Force Majeure* concept came about.

Then in all the later work – if you look at *Greenhouse Britain*, or if you look at *Peninsula Europe, (Part II)* where the drought's going to cover Europe and you have to deal with a million square kilometers and so on, you see that we are inventing forms at the scale of the issue. It is possible for a trillion dollars to reform a million square kilometers of Europe in such a way that waters would stay on the ground and a new kind of farming would happen and biodiversity would happen within it and civil society could continue and even be modified by what happens. However, even this it's insufficient. So what is sufficient? Well, if we go back to what we call the life-web (we keep saying nature' but all our radical friends keep saying 'nature's not possible, stop using that word') so we really mean the 'life-web'.

S/W: ...when you say 'nature's not possible', is that because by implication the term separates humans from nature?

N.H.: That is one of a number of reasons, but if you look at the little poem at the very end of the chapter I sent you – it says *we are a species humbly among millions of species*. That understanding has to let us recreate our governance in terms of a new kind of niche-system and what does that mean? Well supposing we are an exotic? Not supposing – we are *behaving* like an exotic, that invades any system it wants, takes what it needs and then comes back and takes the rest and returns nothing. Well, that's beyond greed – that's insanity.



Helen & Newton Harrison

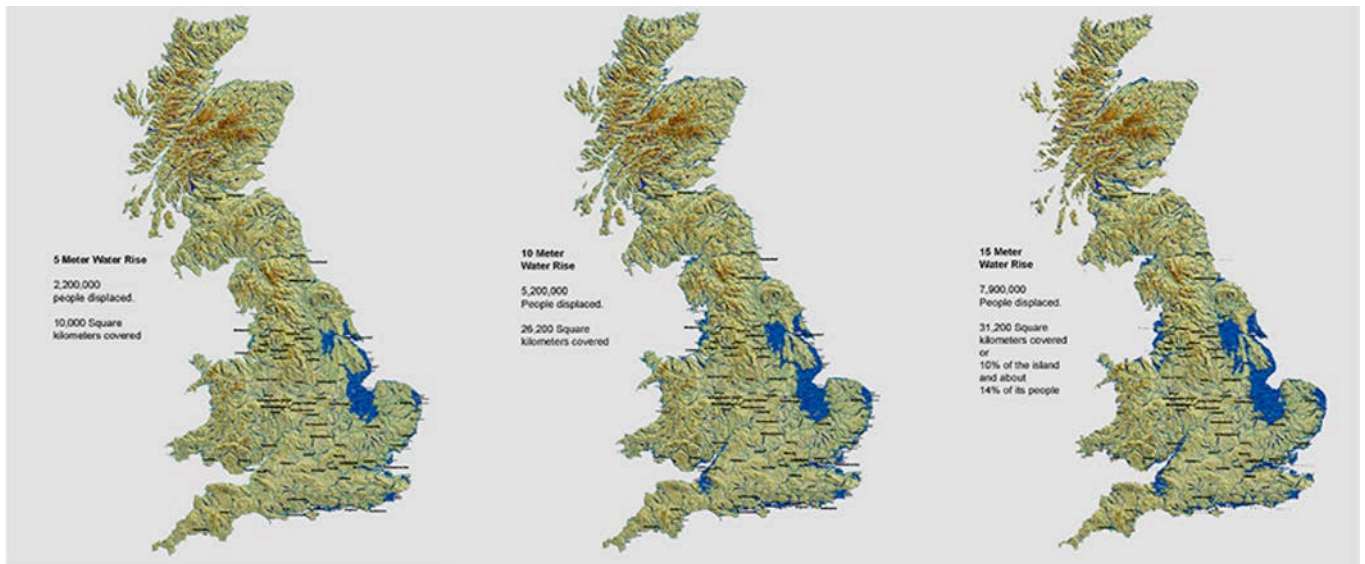
Greenhouse Britain, installation shot, Ronald Feldman Fine Arts, 2009

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S/W: ...ultimately self-destructive too

N.H.: Yes, self-cancelling. But then we have to go back to 'nature' – by which I mean in the 3 billion years of its becoming, the thing we now know as the 'life-web' or the web of life – I don't know if you've read Capra's work, the *Web of Life*? (Capra, F. 1996) – you probably have, but it is a kind of nice book. So how does nature do this [grow without charging profit]? Well nature has free energy and although there are others, the two principle sources are the sun and then the energy that all other systems spit out as they process energy from the sun – *nature works by exchange. It grows by*

exchange. So we have to reinvent a whole form of governance based upon free energy and exchange. You see – in the life-web, nothing exploits anything. The only things that [eco] systems do, is that they are opportunistic. What they do is they take energies that are around them. The prairie in the United States has a boundary. When it hits the Rockies, the mountains, that prairie doesn't think it over [and then] jump over the Rockies, impact with California on the other side, jump over the ocean, hit Spain take over Spain and [so] profit from 'prairieness'... Nature has what they call, I am sure you know, the ecotone which,



Helen & Newton Harrison

Greenhouse Britain, global warming triptych, 2005
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invented over these billions of years, is a self-limiting process.

S/W: So this is the liminal zone between biomes...?

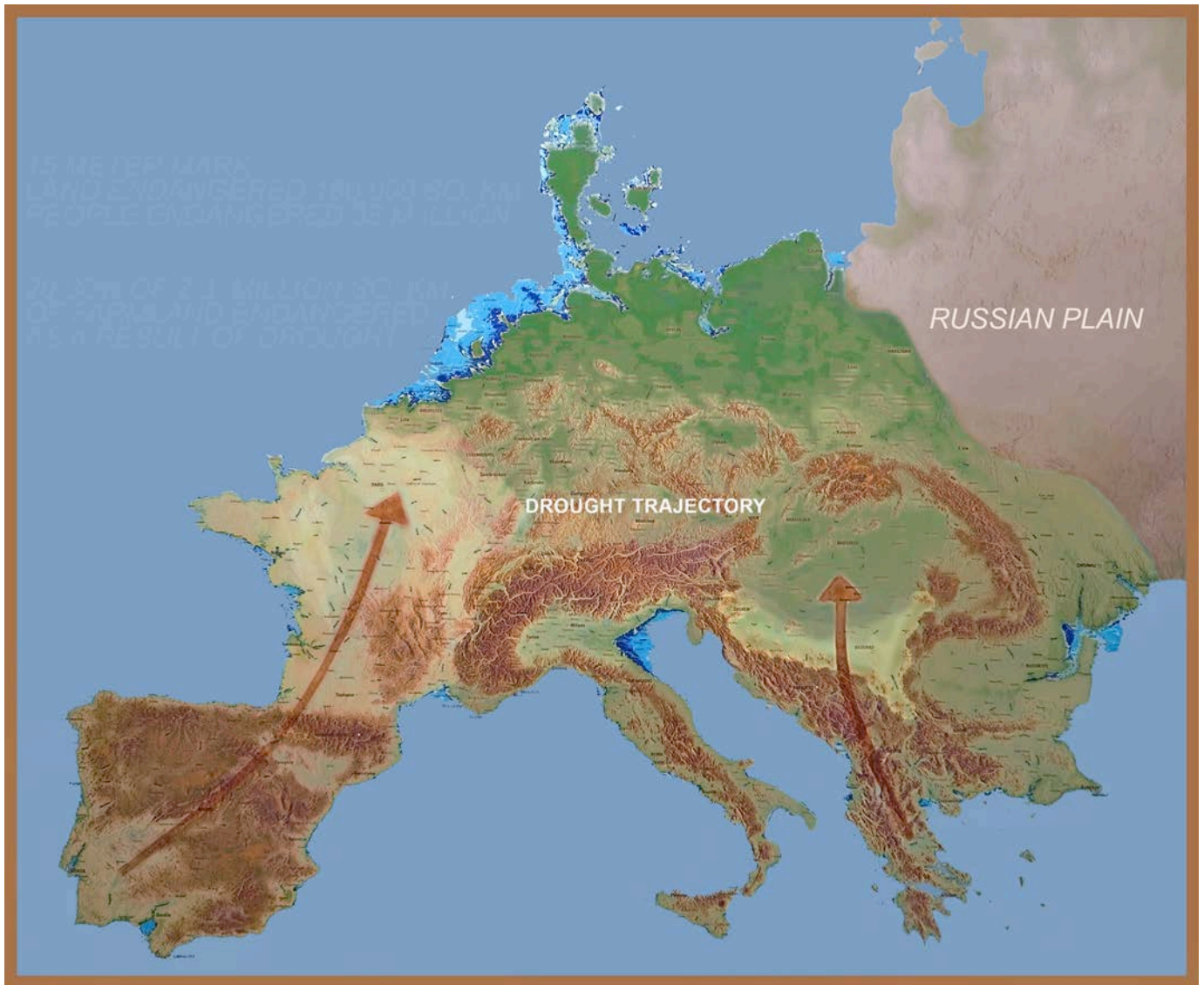
N.H.: Yes exactly, where they occur at a boundary and energies and/or an ecotone happens which mixes the species of both nearby biomes and biomes add some more to it, but still they can't cross over very easily into each other.

S/W: Coming back to the Force Majeure specifically, we wanted to ask you about what you see as the relationship between Force Majeure and the Anthropocene? As far as we understood it you were talking about the Anthropocene as being somehow a trace or something that happens 'after the event', whereas Force Majeure is something with which it is possible to work and for things to happen as consequence of that process.

N.H.: That's a very good interpretation – in fact, what you just said, is actually part 2. Part 1 is that the [term] Anthropocene has about it an inevitability. '*...Nature has cycles – it gets warmer and then it gets colder and this is just an extreme form of it...*' '*...well no, it's not. We*

have tossed into the eco-system thousands of chemicals that no one knows how to deal with. We have messed with systems in too many ways'. They say '*...well, this has happened before...*' It has not. Therefore, we should reject the terms that suggest that that is true. As we say in the book, nature, or what I call the life-web will have to regenerate. It might take 50 million years and from nature's perspective, it might have another four or five goes at it before it is too late. You see, what I think is necessary for all of us to do in our future education is to be conceptual time-travellers and to do this with ease. So for instance, I can imagine in my own mind – a 50 million years reconstruction by the life-web and end up with something better than you and me – maybe – or have to do it over again – if I am looking at a 3 billion-year life cycle and a 50 million-year interruption. Once we look at it that way, you can say well, there are some choices [and decisions] to be made here. We need to get outside of the comfort zone that the Anthropocene offers.

In general terms, the Anthropocene is a way of describing the life webs response to what is happening to the energies available and the dramatic changes in the climate, but it does not account for the weakening of the life-web [caused] by our processes of extraction.



Helen & Newton Harrison

'The trajectory of Drought', from the installation *Peninsula Europe*, 2006

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The Anthropocene makes a holistic claim but tends to act on single cause-and-effect phenomena such as the CO2 effect. We think the *Force Majeure* is simply a more accurate way of describing what's happening.

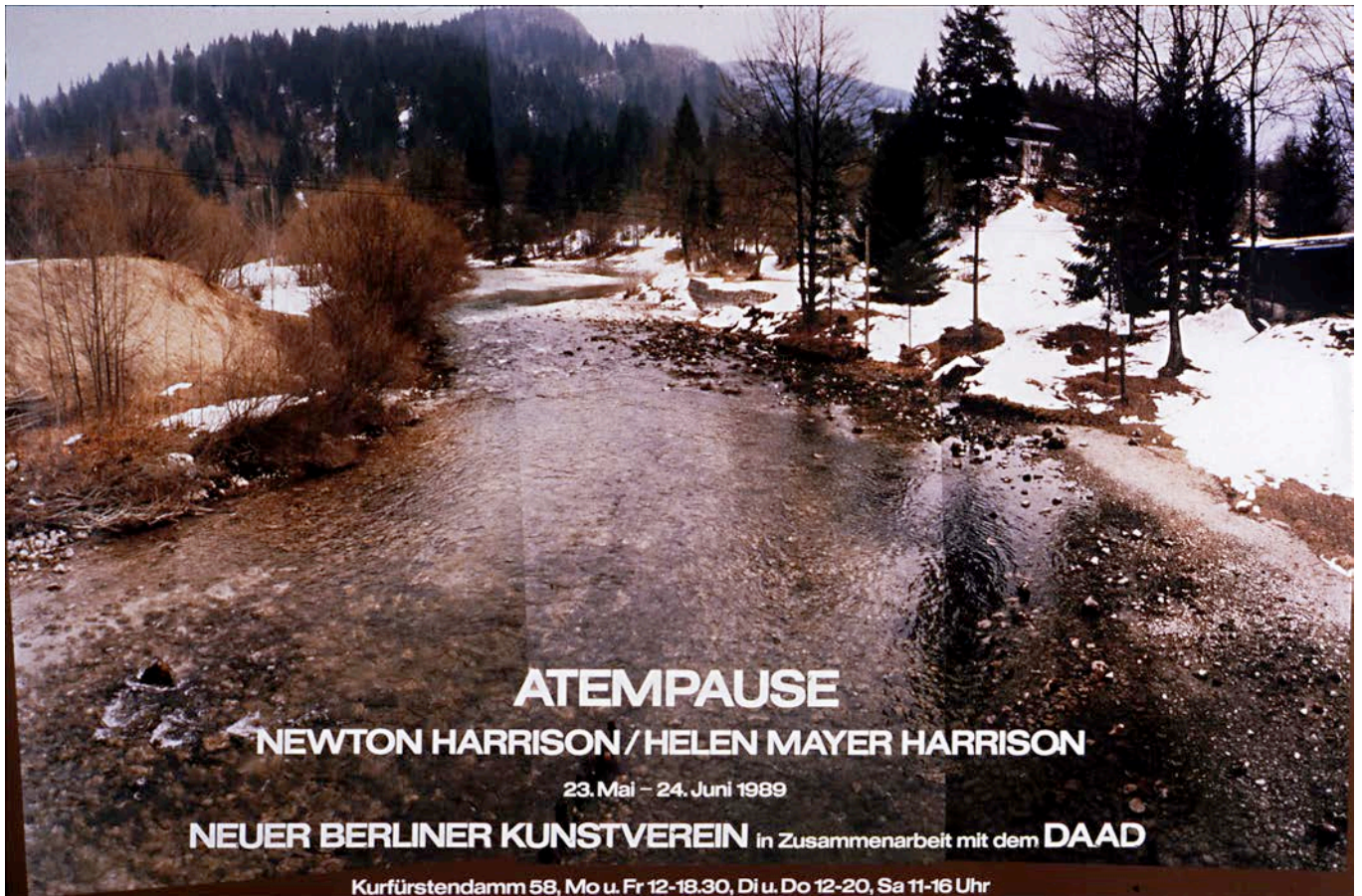
S/W.: Except that the Anthropocene could also be seen as a conceptual instrument, like an alarm – an instrument to alert people to the threat, so that they will pay attention?

N.H.: Certainly – it does that. I don't say it is a useless thing – but the *Force Majeure* is a more accurate way to look at things, and therefore a

more useful term overall. The *Force Majeure* doesn't let anybody off the hook – the *Force Majeure* does not permit 'business as usual'. Anthropocene type thinkers say '...well, it is going to be ok if we stop the carbon...' Tell me – how are we going to de-acidify the ocean?' to ask a trivial question so to speak. The Anthropocene can't stand up to that kind of questioning. *Force Majeure* can.

ANTHROPOCENTRISM:

S/W.: So thanks – that's a great introduction to the *Force Majeure* and indeed, the



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'Breathing for the Save River, The Sava River through Ljubljana, 1989

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concept of ecotones. Bearing in mind the implicit ecological bent of your approach, this begs the questions, how important is it or how strong is the imperative in your work to give emphasis to human impact in order to attract maximum attention? And at some point, must that transmute into the imperative for us to acknowledge and embrace a networked, ecological awareness indicative instead of human componenty? How is that balance established and tipped accordingly over time, in such a way that the doubters (the essentially anthropocentric) are not left behind?

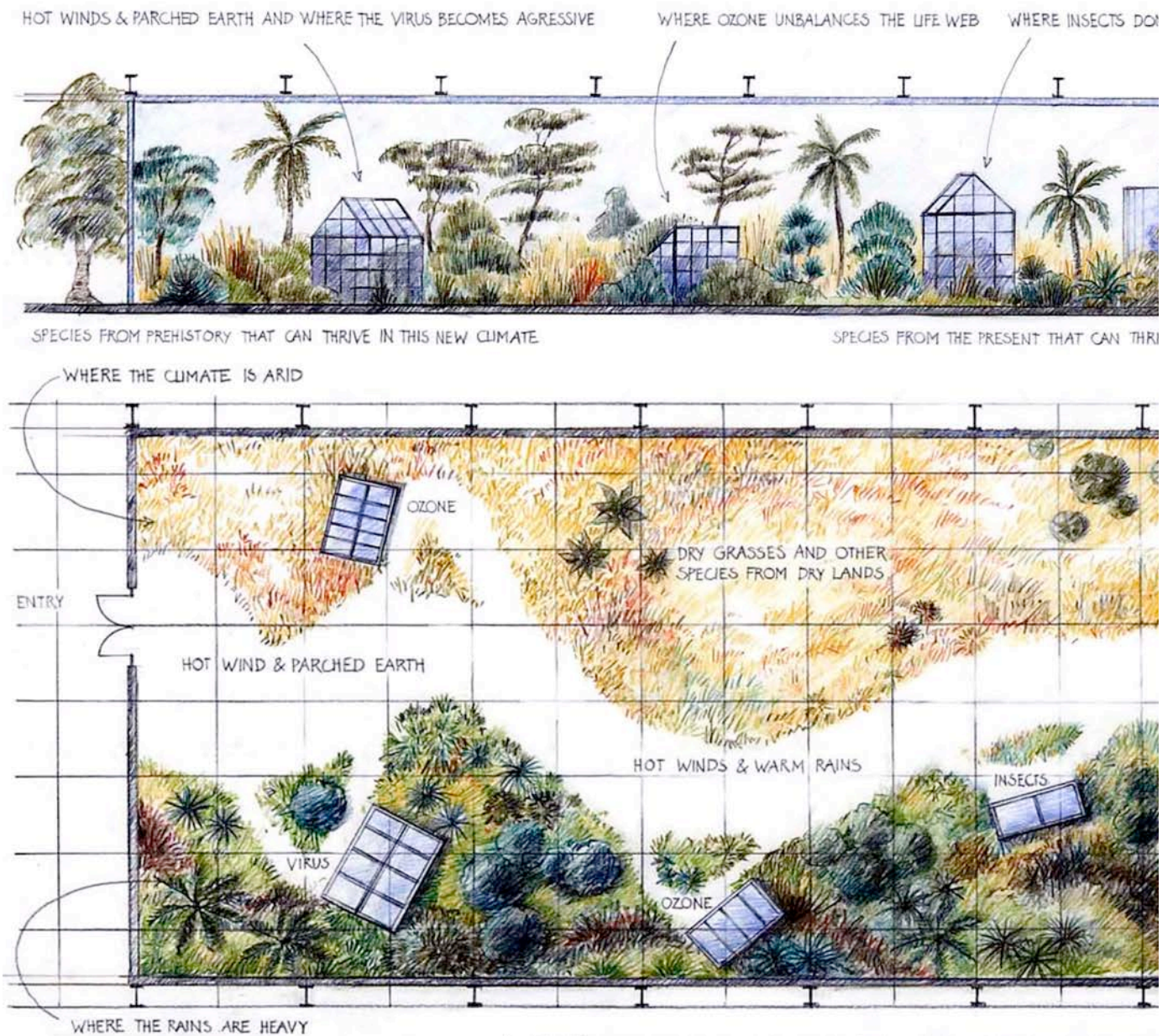
N.H.: I don't know. However, everyday I work in that direction. One way to look at all this is from a biological standpoint. The human race with its ability to invade and consume or transform all systems in the life-web that it wishes to, particularly for-profit, behaves like a

global exotic. At the end of our book, we suggest that a new form of governance needs to form that treats the human race as a biome with the work of governance itself being that of an ecotone.

S/W.: In this paradigm, is the human biome configured as being distinct from nature and its laws – if so, isn't this a repetition of the say, Cartesian distinctions that got us into trouble in the first place?

N.H.: No, not at all. It says 'lets find a niche among all others so we may all continue together' – a biome doesn't assume separation.

S/W.: I see, so what you are saying is that we construct our own borders and limitations within this system?



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The Garden of Hot Winds and Warm Rains, drawing, 1996
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N.H.: Yeah – I see the work of governance as being enacting of the processes that are embedded in ecotones so in the end – you know, I tease you, I say well if you give me a billion dollars I might be able to get something done. Well, the truth is, that's how I would spend a billion dollars – if I could put together a team I would begin constructing the building blocks for a different form of governance that treated the class struggle as a triviality in the face of evolution.

S/W.: Right – given the circumstances, that makes sense.

N.H.: Well if you are interested and you can pull together a bunch of money, I think you are from a country that can actually think this through. In America, when I bring this up, people look a little confused. Whereas I think it's as obvious as hell.

But I would like to answer this also, [in relation to] the *Sava River* work in Croatia.

(*Breathing Space for the Sava River*, 1989). You probably won't know this, but people said – 'where are the people in this Sava River work?' While we felt we were giving the River a voice. Why do we have to have a bunch of people in it? 'You can't leave people out...' 'Oh yes I can – see, there are no people in it'.

S/W: Who was it that asked that question '...where are the people?'

N.H.: Ok the piece actually was put into the Croatian water department plan and so one of the administrators there said '...but you have no people there, but I recognize every place you have been because I've been there'. So I said 'why do we have to have a person there?' He said '...you have to pay attention to people.' So I said '...no, I don't'.

The fact that it won an international prize and was translated into several languages was a big deal for a while...

MODELS for the FUTURE:

S/W: One of the crucial dynamics of your practice has been to propose models for repair – by focusing in detail on the development of models and their specific relation to place, a sense of urgency is implied which is in itself arresting and commanding of attention. 'The Garden of Hot Winds and Warm Rains' (1994-5) for instance, appears as a proposal – was it ever realized in actuality? If so, it would be interesting to hear your reasons for representing this and so much of your work in proposal form as opposed to the documentation of work on site?

N.H.: What we wish to make evident is that the artist acting as creative generalist and totally unfearful of criticism, can take on these issues and truly they are not difficult. Even though actualization may look impossible or improbable in the now.

Our work has often been so many years ahead of its time that [at first], literally nobody

would help us produce it or grant us monies to produce it. Although sufficient monies were available to think it and propose it, so we did the best we could with the resources available. No, the *Garden* was not constructed. However now 20 years later funds for 3 future garden ensembles on 2 continents at three very different altitudes are being initiated and in part, funded. I infer from your question that you may be thinking in 'art time' or 'museum time', which is always a few months to a year. We, on the other hand, doubted very much that the *Future Garden* would be made, but also believed we had a viable model and simply had to be patient as well as had to continue living.

ABSURDITY:

S/W: Some things you propose are realizable and manageable as systemic models – others are speculative and in the scope of their ambition probably unrealizable – but there is an audacity implicit here – it's hard to call it absurd because of the plausibility afforded by the consistency in applied logic. What is interesting is that you are using the sciences to inform yourselves in respect of your own research, which then takes a lateral approach in focusing on linkage and bridging the ecological gaps and needs we find in our environment. Nevertheless, I'm still tempted to ask what part does play have in the construction and presentation of your work?

NH.: For me, this is the fun of it, the high excitement of it, the ability to play with improvisation and indeterminacy. [And] let me tell you something about play. I am watching a pride of lions with their little cubs, all stuffed with food sitting in the sun in Africa. Ok? So I'm watching them and the two cubs are playing with each other and they are whacking each other around and one cub – the mother twitches her tail for some reason – one cub takes a look at that tail and you can see a light flashing in that little cub's head. The cub runs over to the tail, opens it's mouth and chomps

down and bites the hell out of mum's tail. Mum leaps up and turns around to swat the cub – our cub has by this time figured out that mum's going to swat her (or him) so he watches for the swat and whichever way it is going he chooses the other direction and you can actually see him laughing. Or you could see the lion cub's amusement. Wherever I went I would see play, absurdity, and risk-taking, as part of everyday life. Now we take a look at what we want – we want sustainability. Sustainability is absurd – what you really need is continuity. One thing changes into another, you help it and are helped by it and you're part of that exchange...

AUDIENCE:

S/W: In what contexts do you believe your work to resonate most effectively – say, in terms of actual effect or its potential for effecting change... in human behaviour? I suppose we're asking here, who is your optimum audience?

N.H.: Hmm... I like audiences. I tend to joust with them. Mostly people will ask me, 'well, why aren't you doing "X", like fixing India'. The truth is nobody *asked* me. The other thing I say is, 'why aren't you fixing India? You thought of it...' You want to get together and we'll both fix India? And then there is deep silence. You see, because people like us – and also you probably experience this as well – are often are challenged to do something more than we can, as a form generated to defeat.

Let me say this - I have only once in my life addressed an audience or thought of 'art and audience'. I don't think of it. What we do is, we make a work. As that art goes out into the world it is a random moving force. Many of our earlier works are now being done by others...

S/W: This is your 'conversational drift...'

N.H.: Yes. But once, Helen and I broke this rule. We were in Holland. A guy from the Water

Department came up to me and says 'you know we have this little problem – maybe you could do something about it. There is a place – about a 200sq km area of the Krimpenerwaard section of the Green Heart projecting out from the edge of Rotterdam and all these dairy farmers there they are demanding that we keep the water table low so they can get the best peat fertilizer for their cows grasses and we are sinking there more than a metre every hundred years. Now can you do a work of art for 12 people in our Water Department? [It's] political but cannot look political – because if your work looks political they will throw it out. And can this work of art convince these 12 people to set about convincing 300 farmers to go 'bye-bye' and then the land will stop sinking'. Well now, that's a really interesting thing for someone to ask us to do. So we said YES. We invented a new Dutch landscape by telling them to stop pumping water – if you stop pumping, the water-level will rise, the peat would stay level and not sink and you will end up with a 30-40 square kilometres lake, then this place would become more productive than it is now and we showed how that would happen. Five years later we get a letter from them telling us that it worked.

So you don't have to make things – you know there is such a temptation in our field to make things – but what you have to do, is to make things happen

The only artefact we made was a glass column – in it was water and above the water, we had a patch of peat and it showed what happened if you let the water rise. And a few years later it is still there and the peat has not sunk. Of course not – it can't sink. So that would be addressing an audience.

S/W: ...and having discernible effect too...

N.H.: The best audience we addressed was the Dutch Parliament. We were interviewed by parliamentarians and they said 'well, *what makes you think you can save the Green Heart of Holland.*' Well we said look – you just gave us ten books and each of these was some



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Green Heart of Holland, Full installation shot, Jerusalem Chapel in Gouda, 1994
© Harrison

expert's attempt to save this 8000 square kilometres of Green Heart and you failed in all cases and each one of these books must have cost you at least a few hundred thousand euros [or the equivalent – they weren't using the euro at the time] – and they said 'You will?' And we said 'yes, we will'. They said 'will you sign a contract?' and we agreed. And the contract was this: if you like what we're doing we will continue and if we like what we do we'll continue and if you don't like what we are doing and we don't like what you are doing we will leave – and that is our contract.

The issue here is to take all compulsion out of agreements – we will not compel you - you will not compel us.

S/W: Right – it's the basis of shared interests.

N.H.: Yes.

ETHICS:

S/W: Can you explain your approach to the ethics of '...human collaboration with nature...' which I'm quoting from p.499 in the book, and the decision-making, which must be attendant on the human 'editing' and management of eco-systems? This question is made of course in the light of extirpation measures regarding, for instance, some 'introduced' species within specific

environments, a consciousness regarding endangered species and possible extinctions and ultimately, the degree to which human need is seen as underpinning or being a critical factor in such interventions and adjustments. In short we can't help but make decisions which favour one species or one part of an ecosystem at the expense of another – but almost invariably, for reasons we discuss elsewhere here, we tend to underestimate the consequences of our actions in this respect because we are simply not capable of predicting those consequences as they play out in their networked intricacies...

N.H.: Ok the first understanding is very simple. For growing stuff and making decisions about what to plan, there is something called the 'feedback mechanism'. If you make a mistake that which you grow drops dead. So you don't want that to happen. What I find is that applies in all cases and forever. With every intervention, you cannot have the power of universal knowing. The only thing you can have is trust in your own ethical sense. You enter with no desire to hurt. The first few steps in – you enter there the best you can and the only thing that preserves you from doing damage is feedback. You have to be very fleet of foot when you do that because the minute there's a hint of negative feedback you have to change course. So that leaves you improvising along with everything else and therefore you have 'niched' into the life process of your improvisation – anything other than that, then you're trying to do what the insurance companies do – to predict and gain some certainty. I am no good at that.

S/W: No – historically, human beings don't have a good record in that respect.

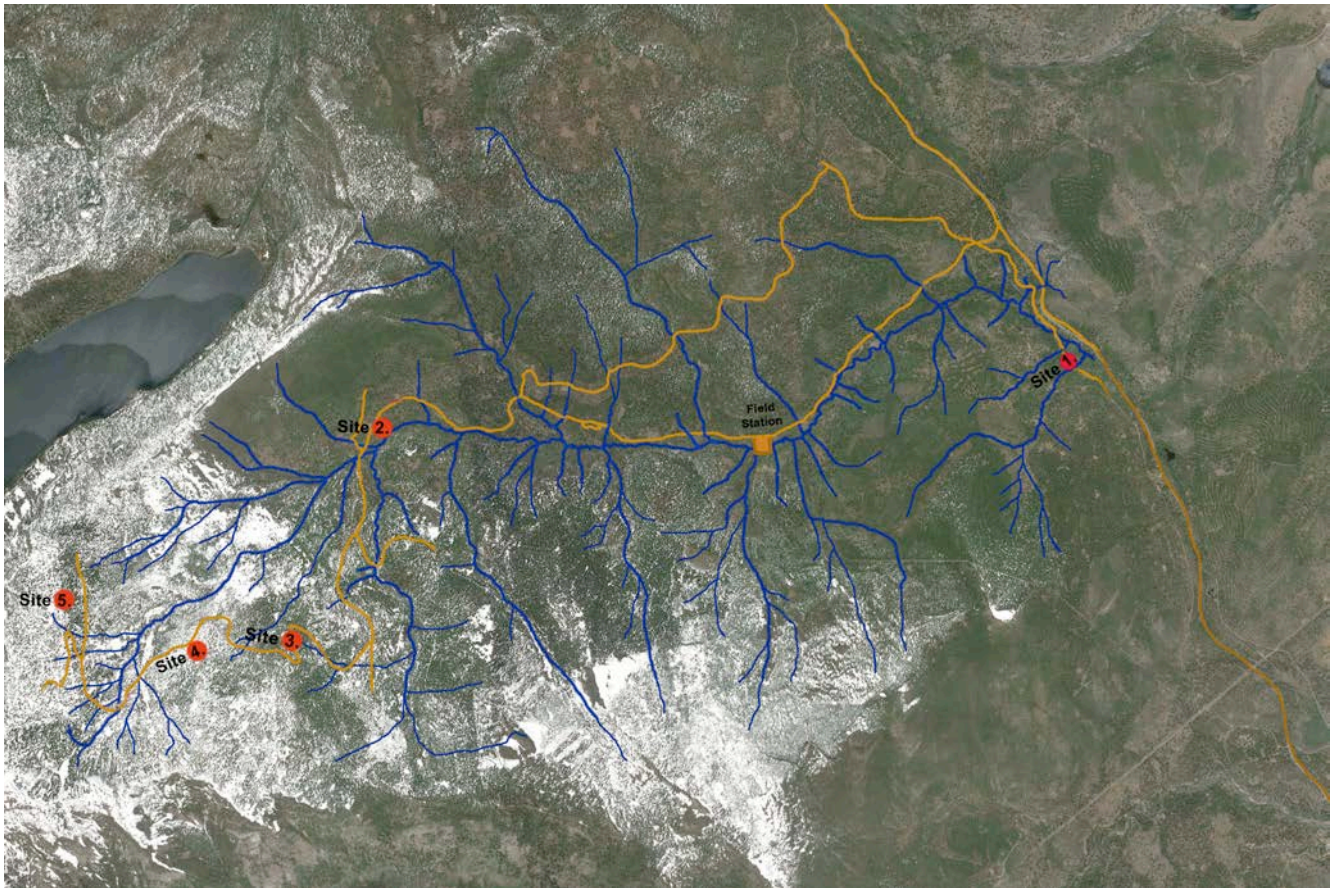
N.H.: Does that give the answer? I think it does.

CHOICES:

S/W: For clarification, could you tell us a little more about the decision-making in testing – "the resilience ensemble" – in Sagehen? Which species did you select and why?

N.H.: We are entering our 2nd season in Sagehen. We will find out by species count what our survival rates are, then we will know how far we have gotten in determining the biotic content of a resilience ensemble. 11 species were selected from the Sagehen watershed. They were selected, not because they were endangered or to protect them – so much other work around sets out to protect the status quo – rather, they were selected for their potential to continue living at various altitudes as the temperatures rises as much as 5 degrees centigrade. That is to say, we are working with the idea of metaphorically driven design. The metaphor driving this design is *Every place is the story of its own becoming*. So we assume in our Sagehen watershed that the narrative or stories in its past will reveal how it will survive when temperatures rise. Perhaps in the Pliocene, similar species survived when temperatures were higher. With this thought in mind, we begin to propagate as best we could, to assist the migration of species simultaneously through time and through space. In so doing we pose the question, '...can we invent the framework for a replacement ecosystem to move into the space left by a retreating ecosystem (brought about) as a consequence of environmental stress?'

The interesting thing about this for me, is that so much of the (conservation) research is about helping things continue *in their present state* – they're worrying about how species are dying off and how they can help and they're worried about saving the weak – whereas what this approach does, it says, [ok] temperatures are going to rise by that much – who can live in it? And can we help species migrate through time and space? What are we doing? Again we're treating the whole situation as plastic



Helen & Newton Harrison

Sagehen, Mapping the experimental sites at the University of California's Berkeley Sagehen Creek Field Station, 2011
© Harrison

and shapeable for the future, as opposed to something present that you respond to.

POETICS:

S/W: The poetic stanza form seems to us a really effective disruption of the more academic or even corporate prose-style-with-image form. The effect is like introducing a drumbeat into a conversation – a concentrated ‘taking stock’ of the issues in hand. But at the same time, it demands a ‘weighing-differently’ of the words you use. It would be great to hear a little on how you see the use of this device and your estimation of its effects.

N.H.: Long ago, as early as 1974, we introduced this new form for a number of reasons. Firstly, for those you already discussed – the second is more practical.

Poetics permit the easier use of

metaphor and the poetics we use also are a linguistic strategy to compress information and make it available easily. The principle we try to work with, we call *prima facie* – that which appears true on the face of it. If we are able to do this we don't have to waste endless time and words defending an idea.

As a young painter, as a young sculptor, I guess it was 65 years ago in the Academies, we all talked about plasticity, you know what I mean? Well, back in 1974 we thought, supposing we applied that to language? So we decided to use linguistics from the perspective of its plastic properties. And that meant we didn't have to follow any rules, except what was emergent before us in the linguistic terrain. So now if you have our book, when you read it, you will see we go from stories to anecdotes, to serious proposals, which start as a suggestion and end as a poem. So we easily move from one to another to another, as the situation appears to require it. There is no

guarantee we are right, but I think we are more right than wrong.

If you look at almost all language forms, [there are rules] let's say it's a proposal – there's the way to make a proposal, things you got to check up or otherwise the scientists won't approve of this or that – we ignore all that.

S/W: yeah I suppose when you move into that mode it also privileges the relationship between things rather than just the things...

N.H.: Exactly

S/W: ...and I guess Ann Douglas and Chris Fremantle reference it in a way when they talk about that shift – towards the relational.

N.H.: We have done a hell of a lot of work together in this way since 1970. That is 46 years – this is the first discussion of our poetics made in 46 years. The poetics embarrass people a little – or they are unfamiliar...You pop it into a map and then you write a little story for the map, then there is a picture of us after the map. The real issue is, how to say there's a likelihood of war between China and India because of the way the Chinese are treating the waters up there, particularly at the head waters of the seven great rivers that nourish much of Asia. To get this said historically, would take a book. When it's put it in the poetic form, it takes forty-four lines. To get it [actually] spoken, takes up a minute and a half. We have a set of rules for ourselves. We found out that if you have two and a half minutes of writing with an image, people often read for 30 seconds and leave. If you have 50 - 90 seconds of reading and you invested the viewer in the first 20 seconds they'd spend the next minute reading. So, there is a rough and ready theory of communication embedded in it – which starts with, 'how far can you get someone to stand in front of your work and think...?' It's about a minute and a half, two minutes at best...

That's another answer to your question

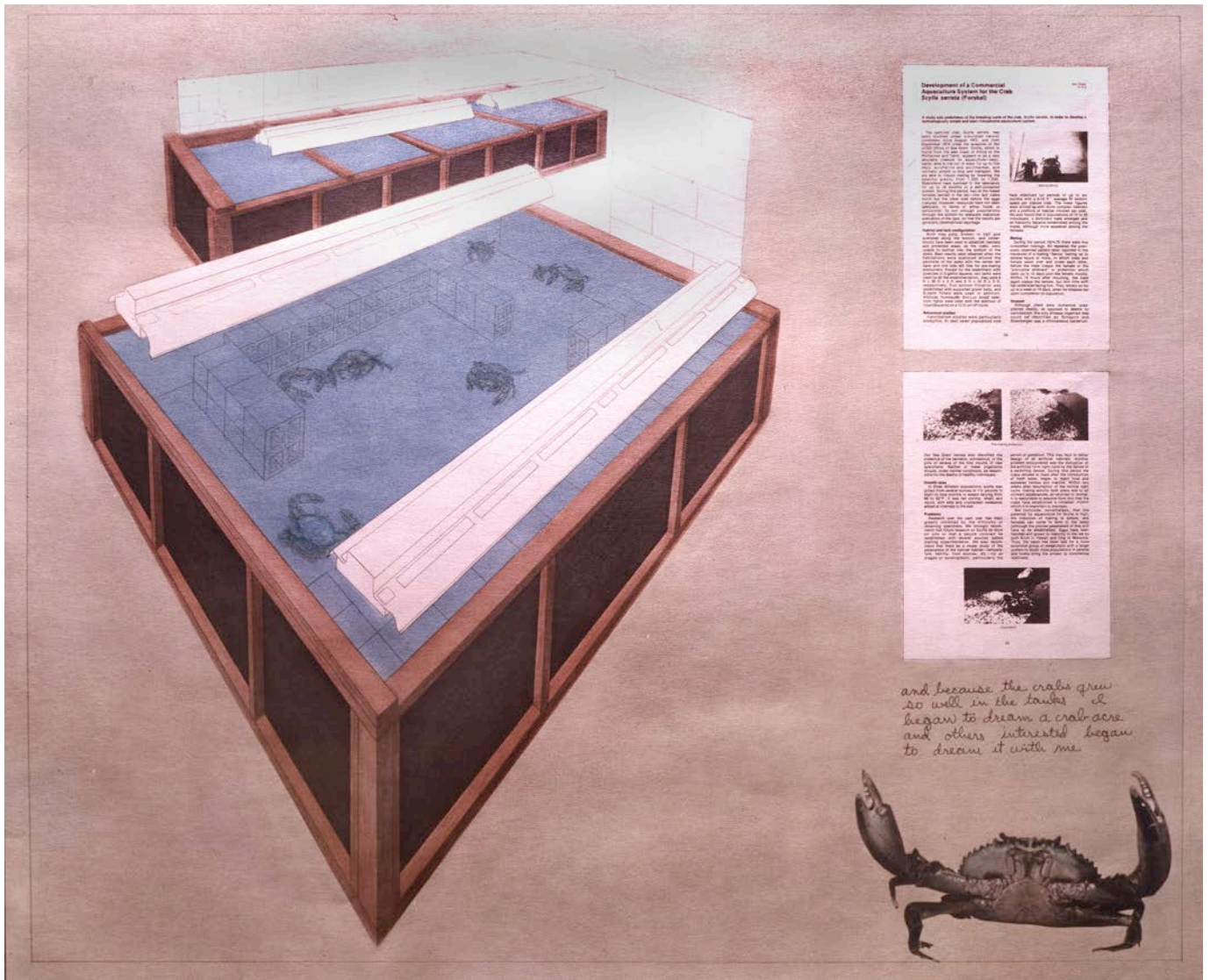
about the audience, I think – but 'audience' de-personalizes people. The way we work is such that you can actually touch the map as you read – we could take fingerprints...

TEACHING:

S/W: Teaching has been part of our respective professional lives as artists. I know you have also both been involved in teaching. Reading your text here *Reflecting on the Laws of the Conservation of Energy and Exploitation in Ecosystems* we cannot help but think of this in relation to the roles of art in its societal context and how we as artist/teachers identify and draw on meaningful resources for the implementation of our thoughts. Do you consider that there is now an imperative for artist/teachers in contemporary society to push an ethical/environmental agenda?

N.H.: I rebel against legislating any single thing for all people. That said, for us personally, there has been the imperative you mention in our work and in our teaching for over 40 years. We further think [though] that if this imperative does not infect *all* disciplines in time to affect a serious majority, there is no way at all for society to continue, especially in the face of the emerging sixth extinction.

When you asked this, I guess I subconsciously rebelled against the question. It was too narrow. Because this thing that we call the ecological imperative, really needs to show up relentlessly in *all* disciplines. I noticed when we talk about economics – it's very hard to get anybody in economics to think about the ecological imperative except in fiscal terms. The point is that it cannot be taken on systemically like in a textbook where you check off the answers. The problem itself is plastic. It keeps changing and re-shaping itself mostly to our disadvantage, so I think the address educationally, in all disciplines has to be equally plastic. That means that all of us have to be as inventive as we can in our teaching. I am perfectly comfortable to walk into your



Helen & Newton Harrison

Sea Grant, the Second Lagoon from the Book of the Lagoons, 1981 (Scylla serrata project – Uppuveli in Sri Lanka)

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classroom and not know what you are talking about, but be convinced that you're right on the money. See what I'm saying? I might not understand the books you are talking about. I might not understand your reference structure. But I sure would pick up on the urgency of the moment.

UNCERTAINTY:

S/W: As humans, our capacities to predict accurately the nuanced nature of biological change, deviation and concomitant networked effects are always compromised by events, migrations and relational effects beyond what it is possible to calculate. In the

construction of your proposals and in the modeling you undertake, we wonder, to what extent are you conscious of, or do you allow for error – to put it another way, to what extent is uncertainty in these respects potentially undermining of your art initiatives and for the benefit of the practice, how are such potential imponderables managed?

N.H.: I believe that systems survival depends on shifting from the 20th Century science model of cause and effect into a much more chaotic much more indeterminate complex systems way of thinking. How about considering uncertainty as a friend, one to collaborate with. Especially one that should not be managed.

Does one manage one's, friends?

S/W: Absolutely, but the work should be persuasive in some way and there's a gap in there, in that whilst we may want to escape the 20th century science model of cause-and-effect, our audience is not necessarily prepared to acknowledge, let alone embrace complexity and indeterminacy – in that sense perhaps there is something to be managed...?

N.H.: Indeterminacy is at work in virtually all interaction from the subatomic to a human love relationship. Therefore at any moment for any reason, the unexpected may happen. I don't expect to learn much from the expected. I think the last thing that might be transformative would be anything that has formulaic properties. I suspect however that somewhere in the great cascade of the unexpected that is upon us, [and] often only partially visible, responses will become [first] apparent – then imperative.

The other option I think would be if somebody offered several billion dollars to the Force Majeure Center. Let us not forget the absurd of one generation becoming the norm of another.

So, how do you manage people who disagree with you? Or [people] who don't know what you're talking about? It's important that you keep going. The answer for us is, *keep making transformative models*. That way – you know this – much of our discourse is between Helen and me. Why? [Because] that eliminates the problem of telling anybody what to do – we tell *each other* what to do. It goes in cycles – we bawl each other out (or Helen bawls me out, more likely) but the thing is that when you try to bring people along, maybe *you* can for a bit – but the minute it is systematized, it stops being what it was. What you really want to hear is an improvisational resolution to issues – a solution you put on the table again and again and again without telling anybody what to do. We say what we think needs doing but we do our best to take compulsion out of it. If you

attempt to 'compel' people – well, compel away... You will not be successful – People will find so many ways to defeat you.

S/W: It's a great answer and ultimately it may be about semantics because yes, it will be about unlocking something – unlocking a different way of seeing something – and as you say you have to be persistent.

N.H.: And can you live with it? I need another 5 or 6 years to bring forth the right thing, to be comfortable. You are looking at the end game of our career

S/W: Lets hope not.

FALLIBILITY and PERSPECTIVE:

S/W: We wondered, does the modelling you do, or in your presentations do you ever touch on possible projections of fluctuation in human behaviour? You may consider that this question is pushing too literal an approach, but looking back over human history on earth and with our exponential impact on the world – is it enough to give nature agency in order to "restore resilience to the global metabolism"? It is hard to imagine ensuring that newly found and/or imposed values are not, over time themselves corrupted, subverted or generally depleted? What could or would be needed to prevent man from unhitching and so once more abusing that relationship?

N.H.: Yes, you may be depending too much on the work of the mind and the work of the intelligence. Let me pose a counter question to you: Our crab, *Scylla serrata* produced an egg mass of several million eggs which clung to her underside as she swam the Lagoons at Uppuveli in Sri Lanka she avoided the Japanese fishing boats and in so doing some 30 or 40 of the fertilized eggs went through 12 molts to become actual juveniles. Several million eggs were released and later consumed by micro-organisms, mostly phytoplankton in this

Lagoon at Uppuveli. Do you think our mother crab understood that the release of her eggs for other species to eat was a loving act taking the form of nursing the hungry in the system to which she had niched and lived and will mate again? You may be thinking too much, or I too little. Some things defy answers.

UTOPIA:

S/W: The sense is that technology has provided us with an overview – and (almost too late) we are now able to see the damage we've done and that we continue to wreak. This overview also provides us with capacities to imagine technological and ecological management strategies towards environmental and behavioural reparation. At the *Art + Environment* conference in Nevada, 2014, you were quick to dismiss the idea, from another Panel member, that the project you'd presented (which related to the distribution of water and its relation to human populations) was in any way a 'utopian' project. Importantly, your work is, first and fundamentally, an 'art response' – how do we increase the gravity of art, its reception and effect so that the particular intelligence it offers impacts most profoundly?

N.H.: Our own strategy has been as follows: work endlessly, put new information on the table, again and again, live long, be persistent, improve your models, put them on the table again and again, live longer and continue... In the book, see *Peninsula Europe*, (the model for transforming over 1 million square kilometres of terrain) and let us know what you think. We think that operating at this scale is one of the few ways of beginning to mediate the emerging sixth extinction. Imagine 10% of the art community putting 50 years of their working life into this kind of activity. There would then be enough on the table, for the world of culture to join the survival conversation that will increase in volume as our chances for continuing decrease.

S/W: ...and the utopian charge? We thought that was an important moment...

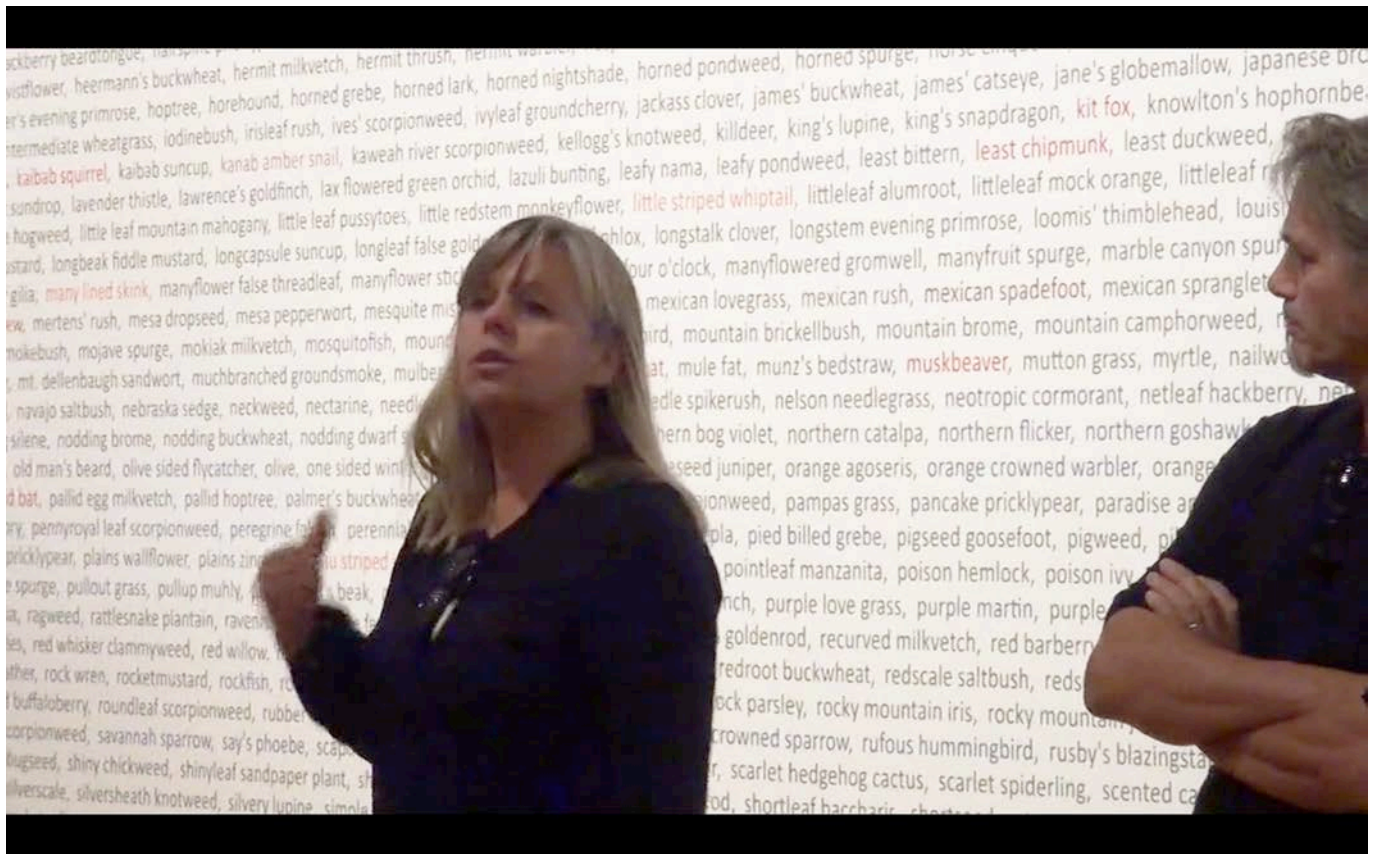
N.H.: Well we don't do utopian things. Why would we do utopian things? Utopias don't happen. That's why they are called utopias – why would we spend a year of our lives making something that won't happen?

S/W: The project you were discussing was a very ambitious one, the one about moving populations across America to where the water was.

N.H.: A lot of people got mad at me for that. A Ph.D. student wrote a whole essay in one of our classes about "Why didn't you question the Indians on this? " Now there are 55 tribes and about half a million Indians spread over a million square miles and – can you imagine my questioning half a million people in 55 tribes perhaps a million square miles? You see – that's where the defeat comes in, where you're set up – you are asked why you didn't do something nobody in the world could do? And then you are criticized for not doing it. The truth is, the whole idea that large parts of the world should go under non-production to recover is not so different than old fashioned farming where areas are allowed to go fallow. In the [history of the] human race, this is not an unprecedented idea.

CONCLUSION:

S/W: You state that you '...see no alternative, whether forced or voluntary...' With the weight of experience, the clear thinking and the endorsement of climatologists and conservationists behind you, in your opinion, what is the most persuasive and effective mechanism of delivery that evades your practice, the provision of which would tip the balance in favour of being heard by those best placed to enact a reversal of values and the implementation of an adopted – or enforced – active environmentalism across the world?



Snæbjörnsdóttir/Wilson speaking in front of their work *All the Recorded Species of the Grand Canyon*, a component of their installation *Trout Fishing in America and Other stories*, ASU Museum of Art, Tempe, Arizona (2014)

N.H.: Well, this is the most difficult thing for us to talk about because it is the newest thinking and therefore although powerful, it is unclear. And that is in this end-of-life work, (which I am very comfortable with), we have to put very early building blocks in place for a new form of governance. Anything less is insufficient. So in a rough and ready sense, the new form of governance has literally to be a niche in a giant ecological system with millions of other species and it has to help our species give an advantage to other species as they give an advantage to each other. And this form of governance has to give up the idea of charging a profit? However, in turn, we can expect almost infinite free energy – if people use their wits. In the process of doing this, our invention has to lead us, I hope and we will try, into a form of global interrelationship where exploitation is very difficult, and [actually] not profitable; where making a profit is possible by taking local advantage, but where making a lot

of profit will do the reverse of advantaging the person who attempts it. The example I made one time is about, a bear. If the bear ate *all* the salmon in the rivers it would become as big as one of the United States of America and suppose you would then have several billion pounds of bear – so what? You see, a bear gets enough fat to live through winter to come out of its cave a little hungry and to find his girlfriends and the salmon all over again and life goes on. Of particular importance are the nourishing properties of the bear faeces to the forests' well-being – a marvellous system of exchange. The urgency is to decouple greed from well-being. The governance I have in mind would not *legislate*, but would *generate* by virtue of its existence and processes, just the way nature does or rather the life-web does. But how to articulate that - how to make the building blocks is what we need the billion dollars, (give or take a couple of zeros) for – you know what I'm saying? We need or wish to

put together, a series of teams of people to take this on, so we can get ourselves past class-struggle type ideas and profit and collection-of-capital type notions – and above all, drop the whole notion that a dialectic is what's happening at all. The social justice people will now take issue with me.

Notes

* Pliocene: the epoch of geologic time, 5 million to 1.6 million years ago, during which a hominid species *Homo erectus* first appeared

Bryndís Snæbjörnsdóttir and Mark Wilson are a collaborative art partnership. Their interdisciplinary art practice is research-based and socially-engaged, exploring issues of history, culture and environment in relation to both humans and non-human species. Through their practice they set out to challenge and deconstruct notions and degrees of 'wilderness' and culture in relation to ecology. Underpinning much of what they do are issues of psychological and physical displacement or realignment in respect of land and environment and the effect of these positions on cultural perspectives. Their artworks have been exhibited throughout the UK and internationally. They are frequent speakers at international conferences on issues related to their practice. Their works have been widely discussed in texts across many disciplinary fields and regularly cited as contributive to knowledge in the expanded field of research-based art practice. They conduct their collaborative practice from bases in Iceland, the north of England and Sweden. For more information on Snæbjörnsdóttir/Wilson's practice please go to: www.snaebjornsdottirwilson.com

Bryndís Snæbjörnsdóttir (PhD) is Professor of Fine Art at the Icelandic Art Academy

Mark Wilson (PhD) is Professor in Fine Art at the University of Cumbria in the UK

In October 2016 Snæbjörnsdóttir/Wilson are 2016-18 Polar Lab Artists in Residence, at Anchorage Museum, Alaska, USA

UCSD Emeriti Professors in Visual Arts, the **Harrisons** began collaborating more than 35 years ago. They are pioneers in the formation of a genre loosely described as ecological art. Their subject matter, ranging across a large number of disciplines, always has at its core the eco-social well-being of place, context, or situation. Whether dealing with the reclamation of watersheds, reforestation, or modest projects in cities and their surrounds, whole systems thinking dominates their processes of work. They have exhibited broadly and internationally in large-scale installations using diverse media that have critical and propositional thinking in them. They use the exhibition format in several ways, often in the sense of a town meeting, always with the intention of their seeing their proposals moving off the walls, landing in planning processes, and ultimately resulting in interventions in the physical environment. An explication and examples of their work are given in the Structure and Dynamics eJournal 2(3), Public Culture and Sustainable Practices: Peninsula Europe from an ecodiversity perspective, posing questions to Complexity Scientists Helen Mayer Harrison and Newton Harrison.