



MILK.

Cambridge Sustainability
Residency





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Cuthbert in 2012

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what sustainability is, and for whom?



MILK.




The Sustainability Residency started as a playful experiment, dreamed up by two alumni of the Cambridge School of Art, Marina Velez and Russell Cuthbert, back in 2012. As artists preoccupied with the idea of sustainability, we wanted to re-frame, re-connect and re-think with dialectics of liberation present in art movements in the 60s and 80s, and artists such as Joseph Beuys and Gustav Metzger.

Driven by the idea that cross-disciplinary work is pivotal in order to create a society in which people and technology co-exist sustainably, the artists' residency has been from its beginnings a multidisciplinary project. We wanted to bring together artists, scientists, biologists, engineers and other experts working in the field of sustainability and to provide a space for reflection, debate and experimentation that is open ended, inspirational and experimental. We believe that experimentation has its own value, which usually acts as an antidote to discipline narcissism, and affects sensitivity and perception in powerful ways.

The residency aspires to act as a lab for what Beuys called 'social sculpture', by encouraging the participants to critically engage with ideas of sustainability and visions towards an ecologically viable and humane society. Critical to the residency and its projects are the collaboration between institutions and artists, where the former provide the infrastructure and support needed for the project and the latter bring a fresh, creative, non-linear and unconstrained approach. The structure, length, theme and scope of the residency varies each year as new artists join in and influence and shape the project. The residency will continue working with people, growing, questioning and will be present in the world in a diversity of ways that may include symposiums, exchanges, exhibitions, publications and academic research. This research has to be inclusive because, as Shelley Sacks says on the Social Sculpture Research Unit website: "there is only one field of transformation, and no-one is outside".

MILK. is the first in a series of publications to be generated by the residency, capturing both the independent and collaborative research of the participating artists. It comprises a compilation of images and text which, in their different ways, give an insight into the dialogue, inspirations, ideas and energy arising from the first two residencies.

I hope that you enjoy reading it! 

Marina Velez

Co-founder of the Cambridge Sustainability Residency





Negotiating a Negotiation

By Vanessa Saraceno

“Working in a residency with artists I never met before, I had the opportunity to test the theoretical concerns that are nurturing my research in a completely foreign terrain.”



What does it mean to build an exhibition with people you have never met before? What does it mean to curate the work of artists whose practices you don't know, and whose real ideas and intentions you may barely trace along the lines of an artistic statement?

Undeniably, the first word that comes to mind when reflecting upon curatorial practice is 'selection'. As Dorothea Von Hantelmann wrote in her 2011 essay *The Curatorial Paradigm*, “What is it that lies at the core of curator's practice? It is the act of selection. [...] Curators produce, communicate, and organise knowledge. But all this takes the starting point in decisions for specific artistic practices or positions”.¹ Then, a question legitimately arises: is it possible to still curate, even when, as in Cambridge, you don't select either the artists to work with, nor the artworks to include in the final project?

Cambridge Sustainability Residency 2014 was an extremely fruitful opportunity to reflect upon my own practice as an emerging independent curator whose research is focused on the emergence of ecological issues in social-engaged art practices. Working in a residency, with artists I had never met before, gave me the opportunity to test the theoretical concerns that are nurturing my research in a completely foreign terrain. Seventeen artists, coming from all over the world and working across disciplines and media, confronted their diverse takes on the contested concept of sustainability, and produced works that aimed to embody the conversations and experiences that occurred in the studio throughout the two weeks of the residency.

Everything was quite experimental, arising from conversations that ranged from the analysis of the scientific paradigm that separates nature from culture, to the investigation of the role of culture for the amelioration of our relationship with the environment and among ourselves. We attended a seminar by the Global Sustainability Institute, and visited the Botanical Gardens and the Sainsbury Institute; but we also confronted our concerns upon the matter with founders of local charities whose work promotes an ecological approach to food production.

When the deadline for the presentation of the works was approaching, we started reflecting upon how to translate the urgency and complexities of

1. Von Hantelmann, D., (2011), *The Exhibitionist*, Issue n.4, MIT Press, Cambridge: p. 8.



discourses around sustainability into the visual realm. The approaches to the matter and proposed solutions were very different among us, with some of the artists eager to explore the socio-political impact of the work and the role of art in the community, while others were more interested in embodying sustainability in the intimacy of a personal investigation of familiar contexts and histories. The only incontestable thing was that, whenever we tried to define sustainability, we were negotiating not only its meanings, but also the actual possibility of embodying these meanings in the physical gestures that inhabit our every day life.

The ambivalence of sustainability is of epistemological nature, concerning the possibilities of its definition and representation. As such, art and culture have undeniably the tools to tackle it, more so than other disciplines. However, as T.J. Demos noticed in his 2009 essay *The Politics of Sustainability*, what makes exhibitions committed with sustainability “fundamentally contradictory”² is their use of sustainability as a means of display of the current ecological imbalance, without reflecting on the impact of their own production, and

2. Demos, T.J., (2009), *The Politics of Sustainability*. Art and Ecology, in *Radical Nature. Art and Architecture for a Changing Planet 1969-2009*, Barbican Art Gallery, London: p.19.



so without reflecting on the logic of that global economy that has created the current ecological imbalance. The exhibition then becomes a place ‘to show’ an issue, rather than ‘to tell’, ‘to investigate’ or ‘to interpret’ its impact on everyday life.

In order to avoid this spectacularisation of the matter, the curatorial practice that I have designed, while observing and questioning the process of making within the studio, aimed to give touchable form to the richness of our dialogue, and to bring to the fore the creative potential of sustainability. As suggested by the title, *Quid Pro Quo*:

Negotiating Futures, the exhibition we held at Changing Spaces Gallery in Cambridge was intended as an invitation to cross the borders, to negotiate meanings and experiences regarding the status of life today.

The curatorial strategy aimed to mirror this intention, expanding the time and space of the project beyond the gallery’s walls. By turning the process of making into bartering, the whole city of Cambridge has been asked to take part in the project by exchanging pieces of art with everyday objects or organic materials. The idea was that the materials, objects and experiences offered by the

1. What do you feel sustainability is?

Maintaining something when it's loss would be a loss to the community while giving something from this

2. Give me three examples of things you do in your daily life which are sustainable.

a. Taking public transport

b. Eating food from local farms

c. Using herbal remedies

3. What knowledge or tradition has been passed on to you from a previous generation? What knowledge or tradition should you pass on to the next generation?
Herbal remedies, which I would pass on to the next generation

1. What do you feel sustainability is?

Doing things that benefit us in the present and for future generations

2. Give me three examples of things you do in your daily life which are sustainable.

a. Recycling

b. Saving water

c. Using local produce

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community would be used by the artists to make the works for the exhibition, and given back to the viewer after the visit as a result of an exchange.

Some of the residents, like Sabine Bolk and Sally Stenton, realised works that were temporary and vulnerable, and whose meanings were not in what they represented, but how they were experienced and ‘personalised’ by the viewer. Hiroki Yamamoto addressed the process of negotiation as a utopian invitation to birds to invade the anthropocentric space of the gallery and express their opinions on sustainability, a call whose fatalistic purity took the form of a child’s handwriting on a wall.

However, not all the artists agreed with the above proposed strategy and, again, we started re-negotiating our negotiation. Some of the residents explicitly questioned the role of the curator, in front of an open and democratic process as the residency was. Of course, today’s curators are not the institutional guardians of museums’ collections as they used to be until fifty years ago, as curatorial practice has developed rapidly and radically in the last fifty years, following the fundamental changes that occurred in society. Nevertheless, although having been at the core of the curatorial discourse of the last fifty years, what the role of the curator is in the democratic process of conceiving, making and delivering contemporary art practices still remains a valuable question.

In my practice, I have always tried to address the complexities of our time through an open and collaborative approach, as I have always been convinced that “a curator is meant to negotiate everything, by his or her way of negotiating”³. Questioning the authorial paradigm that used to inform curatorial practice until fifty years ago, and rethinking curation as “a contextual, strategic, self-critical and above all ad hoc activity”⁴, my work aimed to inspire new possibilities of coexistence between people and nature in this new historical context.

Following the assumption that no established paradigm nor methodology may help interpret nor *curate* the contradictions of a sustainable approach to contemporary art production, Cambridge Residence Sustainability 2014 was a terrific context to test the actual possibility of inhabiting sustainability as a cultural force, and as a means of enhancement of contemporary curatorial practice. 

3. Medina, C., (2011) Raising Frankenstein, in Raising Frankenstein: Curatorial Education and its Discontent, ed. by Scott, K., Koenig Books, London: p. 31

4. Ibidem, p. 32.

Seeing and Drawing on the Earth

Ruskin's Cambridge Legacy



“To be taught to read - what is the use of that, if you know not whether what you read is false or true ? To be taught to write or to speak--but what is the use of speaking, if you have nothing to say ? To be taught to think--nay, what is the use of being able to think, if you have nothing to think of ? But to be taught to see is to gain word and thought at once, and both true.”

John Ruskin, Inaugural Address, Cambridge School of Art October 29th, 1858

As John Ruskin said when he opened Cambridge School of Art in 1858, it is the function of an art school to teach students to see, and to draw what they see. Sight is the fundamental sense with which we understand the world around us. The art student learns to think and to express themselves through drawing, and as Ruskin points out, what matters most is the content of those thoughts and visual expressions. The artist must have something to say, and needs the ability to evaluate ‘truth’ in all that they see and read.

The Sustainability Residency in Cambridge demonstrates that many artists working today focus their practice on questioning the ‘truth’ and the direction in which our society is moving. Organised by recent graduates and supported in whatever ways possible by Cambridge School of Art - now part of Anglia Ruskin University - the residency seeks to apply Ruskin’s principles in a world which has changed in so many ways over the last 150 years. Some things have remained constant, however. The art school continues to teach students to see, and to draw what they see – “to gain thought and word at once”. The school has long been renowned for its education of illustrators, from Ronald Searle, the inspired creator of *St Trinian’s*, who was a student in the 1930s, to Peter Fluck and Roger Law, the designers of *Spitting Image*, who studied here in the late 50s. These illustrators are artists who critique the world around them, and constantly question received wisdom. The school has always encouraged innovative thinkers to bring their challenging vision to the attention of the public – from Gustave Metzger, the creator of auto-destructive art, to Syd Barrett, the poetic inspiration behind the early work of Pink Floyd, who played their first gig in the studios of Cambridge School of Art’s Ruskin Building.

Over the last ten years, a steady flow of contemporary artists graduating from the Masters courses in Fine Art and Printmaking has created a network of local practitioners, significantly enriching the visual culture of Cambridge. In addition to developing the Sustainability Residency, graduates have worked at Kettle’s Yard and at the Wysing Arts Centre; they have created Art Language Location (ALL), an annual festival in Cambridge celebrating another aspect

of art which Ruskin would have approved of – the relationship between word and image; and they also contributed to the success of Visualise, a major public arts project in Cambridge in 2011-12, which challenged the very nature of the term ‘public arts’ and culminated in a major exhibition in the Ruskin Gallery on the campus, ‘Poetry, Language, Code’, which explored the origins of computer arts.


Another aspect of life which - sadly - has changed little since Ruskin’s day is the serious impact of human activity on the quality of our natural environment. This was itself another significant concern of Ruskin’s. He was a great lover of nature, a watercolourist who specialised in detailed studies of natural forms, and a formidable political critic of the effects of the industrial revolution on the natural world. Typical of his view of the effects of industry on the landscape he so loved is this angry outburst about the expansion of the railways in the Peak District :

“You cared neither for Gods nor grass, but for cash (which you did not know the way to get); you thought you could get it by what the Times calls “Railroad Enterprise.” You Enterprised a Railroad through the valley — you blasted its rocks away, heaped thousands of tons of shale into its lovely stream. The valley is gone, and the gods with it; and now, every fool in Buxton can be at Bakewell in half-an-hour, and every fool in Bakewell at Buxton; which you think a lucrative process of exchange — you Fools Everywhere.” Fors Clavigera, letter v (1 May 1871).

Ruskin has been described as a proto-environmentalist, and his influence on the next generation of anti-industrialist Victorian thinkers, such as William Morris, was profound. Morris fused Ruskin’s love of nature with his own socialist beliefs to form the Arts and Crafts movement, and described the crisis facing the environment in late Victorian

England in the starkest possible terms. In 1894, in ‘How I became a socialist’, Morris exclaimed, “Was it all to end in a counting house on top of a cinder heap ?” This question resonates still more loudly from within the fast expanding global market of the 21st century.

At Anglia Ruskin University, the application of current empirical research and theoretical thought to environmental issues is particularly nurtured within the Global Sustainability Institute (GSI), a research centre which in recent years, led by Dr Aled Jones, has published significant studies on particular problems affecting the Earth’s resources. This Sustainability Residency grew out of links between the GSI and Cambridge School of Art, where some of Dr Sergio Fava’s research has explored the role of the arts in developing public understanding of environmental issues, forming a natural bridge between these two areas of enquiry.

Over the last two years, the Sustainability Residency has become both a source of much new thinking about how the visual arts can engage with environmental issues, and a model of how to stimulate debate by bringing like-minded artists together to develop a joint exhibition. The residency also connects with an award created for Cambridge School of Art students who explore themes of sustainability in their work. This volume marks a further stage in the development and dissemination of this project. Here, the striking artistic products of this short period of intense visual activity are not only presented, but also turned back into thought and word. John Ruskin would surely have approved. 

Chris Owen

Head of Cambridge School of Art
Anglia Ruskin University

The Great Inertial Change of the 21st Century

By Sergio Fava



Inertia is the tendency for objects to remain in the state they are in. If something is still, it resists being moved. Equally, if something is in motion, it resists being slowed down or stopped. Momentum is therefore a manifestation of inertia, as resistance to state change.

As our everyday experience tells us, larger things have more inertia. It is more difficult to change their state. This is true of physical objects, and also of personal volition, social practices, and cultural or political institutions. Be it a lorry in motion, a route travelled to work for decades, a border between countries, or industrial regulations, changing a well-established state requires additional time and/or energy. If a process accelerates, gathers momentum, it becomes harder to resist or stop.

This time, however, something of unprecedented proportions has started moving. Slowly (but now noticeably), the largest human inertias are starting to shift. We have hunted, gathered, extracted, accumulated, stored and defended, to the point where our growing ability to perform these activities has, to some extent, defined the species. Since before we became *sapiens sapiens* (the presumption patent in this designation is another defining characteristic, by the way) we have claimed and conquered, and called ‘ours’ or ‘mine’ that which was never so. In our supposed sapience, accumulation contributed to the success of the species. This process gained momentum for millions of years, continuously reinforced by the generous bounty of the Earth, eventually leading to an explosion of population. We are now a very large object, if you will. The inertias of this ‘success’ have seemed, until now, too large to change. Despite the inertias apparently crystallised by our success, we are still adaptable; and learning is *the* key to our adaptability.

For the first time in human history, we are realising that our success is so unbalanced that it can bring about our demise; recognising that *more of everything is a fatal path*. We now know that it is not sustainable. And yet, however fundamental this realisation may be, it is very little in itself. It is the *action* brought about by this realisation that is the great inertial change. Action towards balanced success is the historically significant event. Whether or not this change will become unstoppable remains an open question, but it is gathering pace at an exponential rate. The cost of renewable energy keeps dropping; the percentage of energy from renewables continues its global rise; the use of fuelwood – essential to the lives of millions of families worldwide – is becoming both more energy-efficient and less hazardous. The world’s largest

economic blocks are now passing environmental laws unthinkable only ten years ago, and some are effectively reducing their CO₂e output.

To be clear, we are still moving in the direction of global disaster. We should make no mistake about this. But the path is now shifting. As we know from how inertia works, the more it shifts, the easier it is to add impetus to the new direction, and the harder it becomes to resist. The Anthropocene is already a mass extinction event. Even this is not a matter of ‘all or nothing’: it is significant that terms such as *afforestation* are entering mainstream language.

The arts are at the forefront of this cultural shift. Many have pined for the social transformational power that the arts showed in the sixties and seventies. Some have suggested such power was illusory, or that it is now forever lost. What has been lost, in reality, is the illusion of the inevitability of social change. Innocence, not transformational power, has been lost. Artists are now more aware of their social and cultural role, more aware of being embedded in the economic and political fabric. As a

result, artistic practices now often employ greater precision in analysis and intervention. They scan and study frictions in discourses, structural gaps that generate spaces of possibilities, semantic ambiguities that invite engaged creativity. Their embeddedness thus becomes part of their transformational power. This has resulted in new forms of engagement with audiences; new techniques of re-appropriation of concepts, debates and spaces; new (sometimes virtual) spaces to interact with audiences; and even new audiences. Not all is new in these approaches, but they are becoming widespread, even systematic. This is apparent across artistic disciplines and geographical regions. The proliferation of site-specific and site-responsive interventions, audience collaborations, institutional critique – or, more generally speaking, context-dependent practices – is an indication of how systematic it has become. It is also part of a common international language in the arts.

Around the world, art initiatives are putting this into practice. In its two editions, the Cambridge Sustainability Residence (CSRes) has brought together artists from all over the world¹, to share knowledge, ideas, concerns and approaches, and to engage in collaborative creative practice. These collaborations are made easier by the common international language of context-dependent artistic methods. Artists spend time together in Cambridge to work with each other and with local communities, institutions and businesses. CSRes has become a yearly event in which artistic endeavour not only acknowledges but mobilises the social spaces, processes and groups around it. The momentum in approaches such as this is discernible in the residency’s continued appeal to artists, and in the success of its exhibitions. Above all, its momentum is patent in the depth and breadth of engagement with partners in Cambridge, driven by shared objectives. It is clear how the time is ripe for initiatives that have sustainability at their core. In two years only, CSRes has found great energy, goodwill and resources in Cambridge and beyond. Alongside the hard work of those who volunteer

1. Including Italy, Brazil, Japan, Spain, Singapore, United States, Portugal, Holland and Sweden.

“To be clear, we are still moving in the direction of global disaster. We should make no mistake about this. But the path is now shifting.” result, artistic practices now often employ greater precision in analysis and intervention. They scan and study frictions in discourses, structural gaps that generate spaces of possibilities, semantic ambiguities that invite engaged creativity. Their embeddedness thus becomes part of their transformational power. This has resulted in new forms of engagement with audiences; new techniques of re-appropriation of concepts, debates and spaces; new (sometimes virtual) spaces to interact








their time and expertise, the success of the residency is made possible by the global inertial shift that we are witnessing. People are ready to contribute, and the more they do so, the more momentum grows. Social change towards sustainable futures has not yet attained critical mass, but it is more than embryonic.

In the 2014 edition of CSRes, artists knocked on doors around Cambridge to invite local people to collaborate. Their participation included discussing ideas and possibilities, the donation of objects and materials they no longer needed, and even hosting some of the living non-humans that formed part of the exhibition. Local fauna was invited to the exhibition space, and the exhibition partially moved outdoors in dialogue with the non-human communities to whom Cambridge also belongs. Local ecosystems, as communities of beings, are far older in the region than the humans who now dominate it. Going beyond the anthropocentric view of art and place, we are reminded that humanity occupies a rather small space in the larger scheme of things, despite our illusions of sapient grandeur. Visitors to the exhibition were invited to adopt non-sentient living matter that can live for several human generations, and to become contractually bound to its well-being.

This othering of the human, through conceptual and physical displacement, served as a way to highlight the dependent and relative nature of human existence, the necessity of a balanced existence. In this way, the 2014 residency made humans the temporary object of observation by the wider ecosystem, just one episode in the much longer history of the banks of the Cam. Audiences were reminded that we are nature's plaything, an experiment in what is possible. The natural experiment we are might fail, and be discarded. This decentering of the human is not to deny its agency. The 2014 exhibition also foregrounded human agency and power, and the change that individuals can bring about. The life of a world expert in soil erosion, now a fellow of the *Global Sustainability Institute* (GSI), was mapped in a visualisation of how personal path and world-changing action are one and the same thing. The inspiring path represented in the visualisation also paid tribute, indirectly, to the fundamental role the GSI has had in making the residency a success. Its scientific expertise, its generosity, and the ideas and time of its members have been invaluable to CSRes. The institutional nexus constituted by the GSI and the Cambridge School of Art (CSA) has been instrumental in making CSRes possible. CSA's community of practice, the cutting-edge arts research that it fosters, and its multipurpose spaces and resources, have provided an intellectual home and working space to the artists visiting from around the world. Designers, curators, artists, photographers, performers, scientists and writers have come together to bring, share, create and take back ways of making sustainability's momentum stronger and stronger. This informal international network now continues to work together, and grow. Inertia is now a force working to our advantage. It is only if we support the momentum of sustainable practices, including the inspiring and transformational power of the arts, that we can make it a permanent shift, and be an active part of one of the greatest moments in human history. 

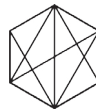
Page 18-19 Artwork Marika Troili

Page 20 Sabine Bolk working on her piece



Layers of Proximity

By Sally Stenton



At the start of the 2013 residency, numerous artistic enquiries were sparked off by conversations with people from the Global Sustainability Institute and one piece came to focus on the process of dialogue itself. The work was a collaboration with Davide Natalini; a Ph.D. student working on the prediction of human and political behaviours in response to threatened and actual climate change. At the time of our initial conversation Davide was building a 3D computer model about social influence on people's transport choices. In this model, physical proximity is represented in a virtual form on the computer screen – a series of lines forming a virtual, moving cube within which people are located as coloured dots.

I was interested in what would happen if I lifted the 3D image from the screen and placed it in the 'real' world and Davide had an eagerness to understand how art could contribute in some way to his endeavors. At the outset I wondered if his interest was simply in art as a way of making the discoveries of research more visible or accessible, but what emerged was a sense that something was lost or overlooked in the virtual mapping and modeling of behaviours, causing the cycle of connection between people and government policy to be severed.

Davide saw the potential for a dynamic process of feedback and renewal and had a hunch that art was somehow relevant to this aspiration. Our collaboration operated within the freedom of such openness, resisting the

temptation to replace old models with new ones and, in as much as we were able to pinpoint anything, it was the idea of a largely untapped wisdom bubbling beneath the surface that resonated for us both. We talked about the diversions and anxieties that normally prevent people from connecting on this deeper, intuitive level where the delicate ecological balance of life and death is implicitly understood.

We were both keen for the final piece to be interactive, to enable people to engage and take something from the work that would have some kind of energy that passed from person to person. Numerous ideas emerged and then fell away as they failed to pass the test of clarity or practicality and the final piece did not encompass anything that people could physically hold and take, but neither did it allow a passive glance. Surprisingly, the video installation referenced the beginning of a process rather than the end. It arose from the idea of delving beneath the myriad of superficial sound bites and assumptions to find that shared insight that language and culture often conspire to conceal.

The computer model and the behaviour it describes project onto one another, both interrupted and held by a layer of net, creating a space between, where they mix invisibly. The artwork plays with a simultaneous distance and overlap of understanding, blurring the division between perspectives. Digital representations of analogue activity confuse the virtual and material, forcing them to inhabit the same

physical space. Dialogue is implicit, but made explicit by the inclusion of a transcript of a conversation between us which references this very tension in the interplay of art and social science.

Our dialogue was not purely verbal, but was enabled by the visual elements that we were both working with. For Davide it was the 3D model which then became part of the artwork. Through this Davide gave me an insight into his research and he in turn had a glimpse of how artists work:

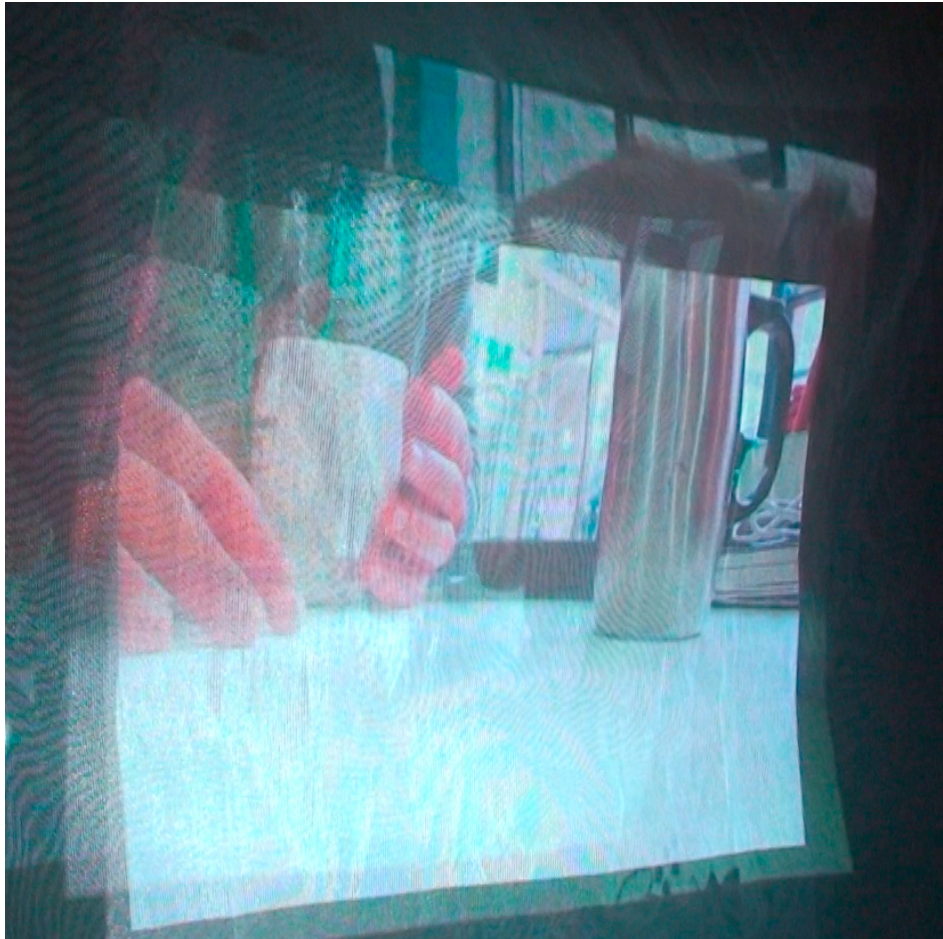
“it was like going backstage at a gig and seeing how a singer gets ready to perform. Actually I did more than that, for once I was part of it. I could give my contribution to the final performance.”

For me that process of exchange and negotiation, the building, decline and letting go of ideas was an integral part of the artwork. It was apparent when we met that we would be able to work together in this way. As Davide says

“The secret to our collaboration was without any doubt our openness to each other’s ideas and perspectives and I believe that that did the trick.”

To find such a connection is rare, but following on from this work I have since explored other mechanisms for connecting with non-artists through my research. The deep engagement that has resulted has shifted my practice from thinking about an interactive final piece to an interactive enquiry. I am happy with the uncertainty that this leaves about locating the artwork; it lurks somewhere between those visible elements.

“It was the idea of a largely untapped wisdom bubbling beneath the surface that resonated for us both.”



*“The computer model and the
behaviour it describes project onto
one another, both interrupted and
held by a layer of net, creating
a space between, where they mix
invisibly.”*

The following is an extract of the conversation displayed alongside the installation ‘Proximity’ (2013) by Sally Stenton (**S.S.**) in collaboration with Davide Natalini. (**D.N.**)

-

S.S. What does it mean for you when I use your model of transport choices as a projection in this way?

D.N. By combining the model with images of individual actions the piece reflects the cooperation and collaboration between the individual and the global levels of action needed to address such a big challenge as climate change is.

S.S. Yes, and for me it is also about how we communicate ideas, especially communication between people from different disciplines. Digital technology is so much a part of that nowadays and we are both using this, but in very different ways.

D.N. This is well represented by the use of the fabric. There is the space between which is more or less like the net or web. Do we need to explain more about the piece so that people get it?

S.S. I don’t think we should say too much. People will take different things from it.

D.N. So we should leave something to the imagination?

S.S. Yes, I think so. 



Bombs and Biographies

By Marina Velez



During the past two residencies I have investigated the cognitive and experiential processes between people and the land and how they affect perception, behaviour and value. For the first residency exhibition in 2013, I produced, in collaboration with Cuthbert, the piece 'Kissing Gate', which was installed in the middle of the gallery and people had to negotiate it to access the other half of the gallery space. A kissing gate can be seen as an obstacle as well as a passage that guarantees access of people to the countryside in small numbers. Ultimately, they define the space in between Here and There, critically addressing the division and access management of what is called 'nature'. Visitors responded to it in many ways, but mainly they enjoyed the momentary interruption of the space (p.26-27). The object was displaced and presented in an art gallery space, which resulted in its rural purpose and value being isolated and questioned. Kissing gates are also an intrinsically British object and most foreign visitors did not know what its original function was, and yet they had to interact with it in order to access the other part of the gallery, and this inevitably provoked even in the most unaware of visitors some reflection (conscious or otherwise) about the space around them.

The starting point for the 2014 residency piece was a series of talks with soil erosion expert Bob Evans. Bob is a visiting and honorary fellow at the Global Sustainability Institute at Anglia Ruskin University, and he is one of those scientists who prefers not to spend his time doing computer modelling but to go out, walk the fields and meet the farmers instead. Since my own recent research with farmers in Spain involved food production, water resources, cultural loss, preservation and transformation in the countryside, we had a lot to talk about!

Our talks started inevitably around the topic of soil: I told him about the work I was doing with farmers and shepherds in Spain (p.29); he told me about his discoveries related to how rain washes off fertile layers of soil and the impact of floods in the Cambridgeshire area. However, the conversation eventually moved to more personal territory as we exchanged information about our own lives. He wanted to know when I had moved to the UK and why, how life was back in Argentina, what my connection with Spain was, etc. In turn, I was fascinated by the fact that he had lived through relevant periods of recent British history and was very much aware of how the countryside and its people are affected by decisions made by political parties when they are in power. During the conversations it transpired that his parents took him and his sibling for walks in the countryside from a very early age, which acted as an obvious pedagogical instrument for the development of what Capra calls ‘ecoliteracy’.

Since I am interested in people’s behaviour, actions and choices, these conversations fed directly into my work. The starting point of my research and practice tends to bear the question: why do people do what they do? Those behaviours, actions and choices speak for the individuals’ constructed realities and ideas about the world, themselves and other people. What follows are the pressing questions of how many ‘realities’ there are out there and how can we make sure that we coordinate those realities in order to achieve some working level of social organisation and understanding between people. Or, as Shelley Sacks and associate researchers from the Social Sculpture Research Unit at Oxford Brookes University clearly put it: “How do we produce and distribute what we need in the world, without exploiting each other and destroying that which sustains us?”

The construction of such realities could be unpacked by looking at the multiplicity of ways in which we experience the environment and the Self. This compound of experiences in a particular milieu constitutes what Pierre Bourdieu calls the ‘habitus’. Bourdieu claims that through ‘habitus’ the socially constructed world appears as natural and is taken for granted (Eriksen, 2001, p.91). The ‘habitus’ can be described as being “prior to self-conscious reflection”, a sort of embodied culture,” and it sets limits to both chosen action and thought (Eriksen, 2001, p.91). In other words, actors do not act entirely out of their own impulses, but live in a context saturated by structural preconditions that inform their acts. Many are the examples of human activities which cannot be imagined as purely products of one individual and which are inherently a collective phenomena, such as religion and language. It is a bit like the chicken and egg situation: the individual is in many regards a social product, and yet only individuals can create societies.







I decided then to make work that tried to address more consciously how one's choices, thoughts, deeds and actions are shaped. The work consists of two pieces, *Biography* and *Bomb* (p.30-31).

Biography points out the stages in the life of a specific person, the early contacts, environment, encounters and other events. This work suggests that we both construct our environment and are influenced by it, but it also lays bare the fact that when looked at as a whole, one person's biography discloses a rich tapestry and shows the marks one makes in the world and on other people. The highly personal information, the anonymity of the work and some confusion about what happened when, create some tension and contradictions that feed into the universality of the topic: that we all have biographies. In *Bomb* I use seed bombs hand made with

soil, clay and seeds. Seed bombs were a brain child of the guerilla gardener movement that started in New York in the 1980s and were used by artists in America (Miller, Santa Barbara) in the 1990s. The little round balls are presented piled up on shelves in the gallery space, de-activated and inert, suggesting that the job is yet to be done.

Both *Biography* and *Bomb* complement each other and speak about the cognitive and experiential processes that are activated throughout one's life span and highlight the attachment people have with their land, their culture and one another. These works can be understood as a metaphor, both poetic and political, for connection to our environment and are a tribute to those who, like Bob, devote their lives to pursue an ideal of a better world for us all. ☯

Soil

By Bob Evans




To influence people and policy a message has to be sent out to as wide an audience as possible, and especially outside of the usual professional circles. Many years ago I investigated the use of remote sensing techniques (air photos, satellite imagery) for mapping soils. Later, I worked on soil erosion and runoff from the land and their impact. Presently much of my time is spent assessing the sources of pollution of watercourses by sediment, nitrate, phosphorus and pesticides carried from the land in runoff. This pollution causes serious problems for the water industry which has to reduce the levels of pollution so that the water coming through the tap fulfils statutory requirements and complies with the law. Such impacts need to be known and understood by the wider public.

Any way to get the message across is worth trying. Until 2013 I had only worked with journalists (print, radio, TV) and politicians but in 2013 the Global Sustainability Institute, where I'm a Visiting Fellow, collaborated over a period of a few weeks with a number of artists in residence. I found that collaboration stimulating and fruitful, and I enjoyed the exhibition that came out of it. The GSI believes strongly that artists have a role to play in disseminating information about using the world's resources more sustainably.

In 2014 I was asked again if I would talk to artists about my work. Unlike last year when I spoke very briefly to the group of artists and then spent time with individuals, this year when I turned up to tell the artists about my work, I found myself speaking to the whole group and that turned into quite a long session, and

not just about my research but how I'd got into it. The artists were very good and didn't look bored and it's stimulating to talk to an audience that appears interested and asks lots of questions. I enjoyed it, and hope the artists did too. I guess we must have had interests in common for in the show which followed the collaboration their exhibits often linked to the topics I had talked about. It's also fascinating to see how artists illustrate topics close to your heart.

Indeed, one exhibit, though about an anonymous person's storyline from being born to the present time looked remarkably like my life story. The story line didn't dwell on my research, but how my life, work and research had been an evolving process, an aspect rarely explored and not, in my experience, set out in the way it was here. Also, with a bit of luck, I hope that with one of the artists we can produce a documentary on some aspects of John Clare's work. It turned out that we were both keen on Clare. Clare was the peasant poet of the early and mid-1800s. He wrote eloquently and with feeling about the countryside around Helpston, near Stamford, its wildlife and plant life and, of particular interest to me, how the land was used and how the landscape changed with the seasons. During Clare's early life the land in Helpston parish was enclosed from the open fields, heaths and meadows used by the community and in existence for hundreds of years, their distribution being related to the underlying soils, to the cultivated fields seen today owned (or rented) and cultivated by individual farmers. Some of the heaths and woods present in Clare's time still exist as the soils are less suited to growing crops. 



*“I found that collaboration stimulating
and fruitful, and I enjoyed the exhibition
that came out of it.”*





Art and Ecology: On the Human- centered Structure in Ecological Art

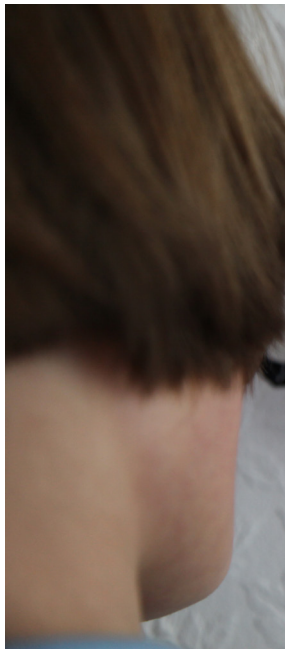
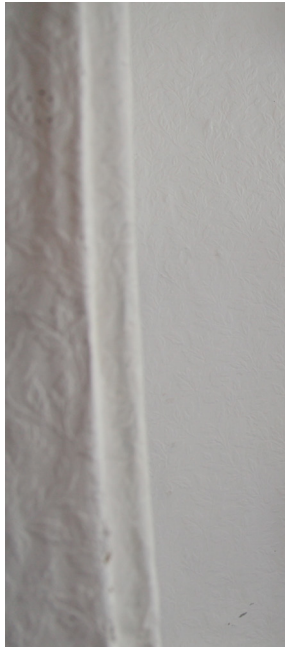
By Hiroki Yamamoto



It is clear that one of the distinctive strengths of Cambridge Sustainability Residency (CSRes) lies in its outstanding transdisciplinarity. I have learned a lot from advanced research institutes and laboratories that formed the partnership with CSRes, such as the Global Sustainability Institute (GSI), focusing on the interrelation of the political, economic, industrial and social system and the individual in relation to emerging environmental issues. What was especially inspiring for me was a field of discipline called 'Ecofeminism'. Ecofeminism, which emerged in the 1970s, describes movements and philosophies that link feminism with ecology. The young discipline seeks to connect the exploitation and domination of women with that of the environment, and in doing so maintains that there is a hidden connection between women and nature that stems from

their shared history of the oppression by a patriarchal Western society. It sharply criticizes the predominance of 'masculine' approaches, which demand prompt results and require more specialised knowledge, specifically in the scientific world and insists on the increasing importance of the inclusive, holistic and long-term perspectives concerning scientific research on sustainability. It seemed to me that the same thing could be said of art that addresses ecological problems including sustainability.

The concern with various environmental issues, such as global warming, disruption of the ecosystem and atmospheric pollution, in the field of art and culture has been growing over the past few decades. Take 'Beyond Green: Toward a Sustainable Art' exhibition, which was curated by Stephanie Smith, held at the University of Chicago






in 2006 for example. The exhibition, whose participating artists included Nils Norman and Andrea Zittel, explored the ambiguous intersection between art and ecology in a unique way. Here in another example, in their multimedia installation, Newton Harrison and Helen Mayer Harrison illustrated the future influence of global warming on the UK, excellently juxtaposing moving images, large-scale geographical maps, photographic documentations, analytical texts and audio elements. However, art critic T. J. Demos' 'The Politics of Sustainability: Art and Ecology' (2009) maintained that since creating artworks toward sustainability and environmental justice has now become a major and popular concern in the art world in the last decade,

"What I would like to say is that the ineradicable tension between art and ecology should be taken into consideration."

artistic and cultural practices that aim to tackle pressing environmental and ecological problems must go beyond the existing function of consciousness-raising that they had accomplished in the past and move toward the challenging task addressing 'the ethico-political reinvention of life in the face of climate change.' I think that his claim is significant because it has a high affinity with the comprehensive and holistic approach of Ecofeminism.

In my view, the notion of art has always been in the centre of what can be called ecological art, and therefore the other notion of ecology that composes the term often tends to be neglected. I am not insisting that art should be at the sacrifice of ecological justices. What I would like to say is that the ineradicable tension between art and ecology should be taken into consideration. The similar tension can be observed between art and politics. According to Kim Charnley, political art that French philosopher Jacques




The world began
without the human
race and it will
end without it

Claude Lévi-Strauss

Rancière advocates “must always shuttle between two poles”: One is “art that aspires to dissolve the distinction between itself and the social” and the other is “art that depends on its absolute distinction from the social” (Charnley, 2011, p.42). It is precisely in this awkward contradiction that the possibility for art to open up the political space that is highly subversive exists. As for ecological art tackling such issues as sustainability, I believe that the irreducible contradiction between art and ecology should be examined more. The decentering of art in ecological art should be done through challenging the established structure of art and cultural institutions, providing the comprehensive perspective to the system that causes environmental issues (or the one that makes it quite difficult to unsettle these issues) and recomposing our sense dominated by hegemonic ideologies. I will here give an example: ‘The Radiant’ produced by London-based artists duo The Otolith Group in 2012. The Otolith Group was founded by Anjalika Sagar and Kodwo Eshun in 2002, and has been based in the UK ever since. ‘The Radiant’ explored the aftermath of the Great East Japan earthquake. It invokes both the historical promise of nuclear energy and the future threat of radiation that converges on the illuminated cities and evacuated villages of Japan. Their intention in this piece is to see the issues over Fukushima in the more discursive context. Namely, the purpose of ‘The Radiant’ is to scrutinise the comprehensive system of capitalism and neoliberalism that caused the issue and makes it difficult to unsettle the issue.

My project in CSRes 2014, titled ‘Trying to Communicate with Birds’, attempted to challenge the human-centered structure, to be more accurate, the artist-centered notion in ecological art practices. In this project, I installed birdcages and feeders inside and outside the gallery, with messages for birds, in order to invite them to the park in front of the gallery space. My purpose was to change the dominant sense of viewers, often accepted uncritically, through the unusual experience of seeing living creatures in the art gallery. Another theme I dealt with was the reciprocity between humans and nature. We seem to tend to forget the hard fact that human and nature are inevitably in a reciprocal relation. What should be remembered is that we would be saved by nature in the same way we would save nature. It is true that it is our responsibility as ‘Homo sapiens’ to scrutinise the means of protecting our environments and to develop the discussion on sustainability. However, it should also be needed to become conscious about our vulnerability as a part of the whole system of ecology and to have the attitude of coexisting with other species.

In CSRes, various artists investigate the contestable term ‘sustainability’ from their own perspectives. Therefore in the space of plurality, where a large number of multiple opinions play out, polyphony is generated. I hope that we continue to be open to this challenge in the future. 



Sanctuary Science

By Ariana Jordao



Heisenberg sums up “...when we speak of the picture of nature in the exact science of our age, we do not mean a picture of nature so much as a picture of our relationship with nature ... science no longer confronts nature as an objective observer but sees itself as an actor in this interplay between man and nature...”

A nettle, carefully uprooted from its sidewalk emergence, hangs in the middle of the room. Roots meeting the gaze at eye level, amplified by nourishing watery containment inside a freezer bag: “cures cancer” reads the label – “or not” reads the back. Provocation, or gentle reminder? Labeling a willow tree with “takes the pain away” is no less literal than a packet of aspirin reading “botanical remedy”.

In ‘Suspended Animation’, weed plants from the neighbourhood are constrained, stressed, dying, yet a few still thriving, within beakers, measuring cups and petri dishes assembled in rigorous rows in an almost stochastic composition recalling the universal building blocks of science – identification, determination, causality. A self contained self regulating micro organism is alive in a bowl, autopoiesis

on display, a skin surfaced through growth by accretion of single cells at the meeting of oxygen rich and oxygen depleted worlds. What are we failing to perceive, or appreciate, about the value of this material? A taster of the metabolic by-product of this symbiotic community of yeasts and bacteria known as kombucha tea was passed around at the opening, a toast of communion with nature as living subject. Edible bio plastics in petri dishes holding samples of “wild essence” processed and manicured to aesthetic standards that might deem them appealing to eye and the palate announce their edibility. The agency of consumption is the most popular and actively proposed view of how we are expected to engage with sustainability - sensible and moronic in equal measures.

While we all enjoy the fruits of exploitative behaviour, multinational






profiteers such as gene patent-holders have a special place in the echelons of normalising greed. Science is a form of knowledge production as much as a politics of power. Public regard for science will deepen as understanding for its sound methodologies grows in tandem with problematising expertise - experts in general are employed to protect the status quo, requiring accountability by people enabled to combat science with science, wit and art.

This residency harboured a collective intention to ask questions about the social ecology of sustainability, the study of inter relationships and the understanding of how 'art' might be as vital to our existence as 'science'. If postmodernist sciences like quantum physics are proposing an idea of science that would liberate humans from the tyranny of 'absolute truth' and 'objective reality', what follows from the art movement inspired by science could well be a scientific movement inspired by art.

Throughout this residency the affirmation and celebration of the kind of creative

thinking that solves problems and overcomes fence-building discourses emerged playful interactive artwork, visual poems investigating leitmotifs for what interdisciplinary thinking looks like, what an alchemical marriage of the nature of creativity and the source of enquiry might feel like. Hybridising stacks of thought with conscious associations through living-art-objects coming into conversation with the viewer in the space was an attempt at installation in the negative; what you see is just one side of the picture. This looking is not passive, these ubiquitous plants and specialist objects, this everyday act of drinking are changed by this moment of rupture, this cessation of flow that allows something different to take place. Something that might speak to that sense of personal responsibility and desire for action that is transversal to scientists, artists and all citizens alike.

'Suspended Animation' was a collaborative work by Ariana Jordao and Susie Olczak created during the 2014 residency. 

Future-Forward Model for Social Practice

By Christine Mackey



It is in the context of art making as an open system for collaborative practice that I propose the Future-Forward model. This model for practice is re-drawn and sourced from the main constituents of an open system and its parallel contingent, the diagram, theoretically outlined through General Systems Theory and Cybernetics.

Through these ‘theories’, or rather, approaches, the author envisions a model of practice as an open or network system of and between various disciplines.¹ Generated from these theories are a number of key concepts (constraint, variable, feedback and coupling, amongst others) that are used to create a new understanding and reading of the complexity of systems. This approach leads to Guattari’s meta-modelling system, the diagram, repositioned as a creative assemblage.² For example, Deleuze and Guattari employ a diverse range of creative terms to denote the expansive scope of the diagram, such as multiplicity and abstract machine.

Remarkably, corresponding terms in science include the ‘phase space’ and the ‘manifold’, which, simply put, represent the measure of a system not in terms of scale (or intellectual rigour) but in relation to the degrees of freedom in which a system can change, behave, learn or adapt.

According to Deleuze and Guattari the process of diagramming formulates the diagram as a transversal network that embodies the semiotic, the material and the social. Contrary to scientific conventional modelling, here dot, line, vector, shape and field are merged with force, parameter, variable, feedback and phase space in order to devise a meta-modelling system. Such an assemblage of diverse worlds challenges scientific modelling insofar as the scientific modelling we know represents the preservation of an idea confined to a specialist community.³

1. The key theorists include: Ludwig von Bertalanffy, Norbert Wiener, W. Ross Ashby, Gregory Bateson, Ilya Prigogine, Howard T. Odum and his brother Eugene P. Odum, Manuel DeLanda, Gilles Deleuze, Félix Guattari, with supporting material from Humberto R. Maturana, and Francisco J. Varela.

2. The material assemblage consists of ecological, organic and technological systems redrawn diagrammatically from Deleuze and Guattari. The diagram is an abstract machine, which operates from “Matter-Function”. Deleuze, G., & Guattari, F. (2003). *Mille Plateaux*, Volume 2 of *Capitalisme et Schizophrénie* [A Thousand Plateaus: Capitalism & Schizophrenia, (10th ed.)]. Translated from French with foreword by Brian Massumi. Minneapolis & London: University of Minnesota Press. p. 141.

3. Guattari redefines diagrammatic as the term “pragmatic cartography.” Guattari, F. (1995). *Chaosmose* [Chaosmosis: An Ethico-Aesthetic Paradigm]. Indianapolis: Indiana University Press. p. 60. In *Mille Plateaux*, Volume 2 of *Capitalisme et Schizophrénie*, diagrammatics is defined as a process of deterritorialization. In the context of the diagram, I take this to mean that the diagram can be used as a tool to question cultural power systems, embedded in language and visual sign systems, which exert a controlling influence on how the world of objects are produced, controlled, manipulated and read.

Janell Watson, writing about Guattari's diagram, argues that the main difference between a model and a diagram is that the model is only successful if it has a universal usefulness, whereas the diagram can break from functionality by appropriating, transforming and forging new diagrammatic associations.

In practical terms, diagrams are⁴ variable systems formalised in a number of visual structures such as a plan, sketch, map, graph, table, outline or drawing.

These diagrammatical structures may include:

- Communication diagrams, which represent possible interactions between objects and messages.
 - Sequence drawings, which usually show the order of interaction.
- Schematic diagrams, which are a way to represent elements of a system using abstract graphic symbols.
- System context diagrams, which are used to display the interaction between a site and relevant objects of influence under investigation.
- Data flow diagrams, which can be employed to show the movement and transformation of information in terms of how data is processed and stored.⁵

By contrast, the diagram or, to be more precise, the process of diagramming in Deleuze and Guattari's work, uses the emergent rhizomatic model, as a strategy to assemble a diverse range of concepts brought together from different systems. These diagrammatic forms are an assemblage of linear concepts that can emerge from any point, as opposed to conventionally used arborescent lines which are binary in nature and limited by verticality.⁶ It is quite evident that the latter offer choices limited in scope, and it is precisely this very offer of limited choices that Deleuze and Guattari claim is the functional domain of science.⁷ Similarly, Ludwig von Bertalanffy and Ross Ashby's diagrammatic system also contrast with the classical Cartesian model (defined as a close system of parts) insofar as it refers to behaviours between different systems as complex wholes.

The implication of rhizomatic or diagrammatic models is that the ontological positioning for systems is characterised by having self-organised agents with corresponding behaviours not only between similar systems but also between different systems. Furthermore, the diagrammatic system can break with semiotic conventions, which Deleuze and Guattari argue have become homogenized units.

To that extent, Deleuze and Guattari overturn the universality of ideal types by separating the icon from the diagram and, as a result, a multitude of possible meanings embedded in a word, phrase, image or event is liberated.⁸ In this sense, diagrams have the capacity to generate ideas with no particular

4. Watson, J. (2009). *Guattari's Diagrammatic Thought: Writing between Lacan and Deleuze*. London: Continuum. Pp. 8-10.

5. Jooshin, S., & Lemon, O. (Eds.), (2001). *Diagrams*: Stanford Encyclopedia of Philosophy. Retrieved 5th June, 2010, from <http://plato.stanford.edu/entries/diagrams/>

6. Deleuze, G., & Guattari, F. (2003). *Mille Plateaux*, Volume 2 of *Capitalisme et Schizophrénie* [A Thousand Plateaus: Capitalism & Schizophrenia, (10th ed.)]. Translated from French with foreword by Brian Massumi. Minneapolis & London: University of Minnesota Press. p. 505.

7. Deleuze, G., & Guattari, F. (1994). *Qu'est-ce que la Philosophie?* [What is Philosophy?]. Translated from French by Graham Burchell, Hugh Tomlinson. London, New York: Verso. p.15.

8. Genosko, G. (2002). Félix Guattari: An Aberrant Introduction. London, New York: Continuum. pp. 178-179.

need to signify meaning and can operate at the intersections of philosophical, scientific and creative methodologies. This can result in the opening of a new framework for creative practice.⁹

In my art practice, I draw from the conceptual materiality of the diagram to generate the following theorems: Variable, Constraint, Coupling, Concept Field and Feedback.

These theorems do not stand for an exact methodology, but rather inhabit the sphere of creative exercise used by artists. These theorems may facilitate a platform to develop a discursive exchange between the action of drawing and its potential as a social communicative tool and research device.

Embedded within these theorems is the idea that all living processes are cognitive. This implies that the theorems cannot be fixed representations of unrelated forms, but rather organic networks that become activated through their very relatedness. Departing from this point, and stretching the idea via poetic license, we could creatively explore how coupling, autonomy and organisation may establish biological unity of living matter as a relation based on feedback. It could be suggested that this concept can be extrapolated and applied to a network of social, creative and material interactions. Furthermore, this could potentially reveal new associations in thinking about the interdependence between organism and place as biological entities.

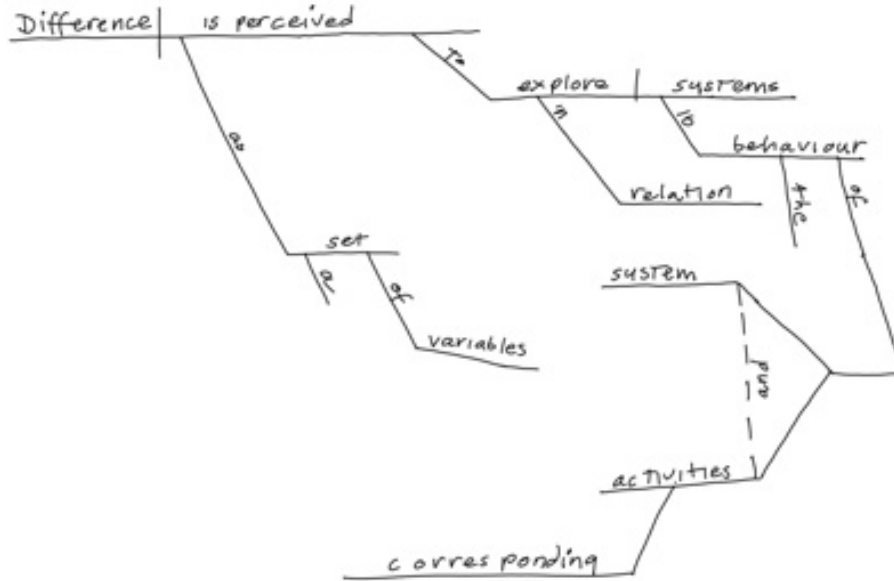
Mediated through the diagram as a creative tool for the potential of agency¹⁰ in the world, it could be suggested that knowledge cannot simply be built from a specific hypothesis that models some aspect of the real world as a measurable quantity or statement. Knowledge, cybernetician Norbert Wiener argues, is found in asking questions where possible answers are traced in other and similar universes.¹¹

9. The art historian W.J.T. Mitchell first used the word diagrammatology based on the idea that our access to literary (and other) forms takes place by means of sensible and spatial constructs. Mitchell proposes that we need to challenge the normalization of existing methodologies that fail to consider new visual forms; and one such form is the diagram. Mitchell suggests the possibility of a new 'diagrammatology' theory that would expand on the intellectual and creative variables that fall between drawing and writing, because the diagram he argues does not seem to fit under existing constructs. Mitchell, W.J.T. (1981). Diagrammatology, *Critical Inquiry*, Vol. 7, No. 3. (Spring, 1981), pp. 622-633.

10. Latour, B. (2007). *Reassembling the Social: An Introduction to Actor-Network-Theory*. Oxford, Oxford University Press. pp. 54-55.

11. Wiener, N. (1961). *Cybernetics: or Control and Communications in the Animal and the Machine*. Cambridge, Massachusetts: The MIT Press. p. 11.

Theorem 1. VARIABLE



Difference can be perceived as a set of variables with which to explore systems, not in terms of defining what such systems are per se, but rather what they are in relation to the behaviours that differentiate systems from each other. Variables are relevant to understanding the systems' unique properties and corresponding activities.

The variables of a system, or, as described by Bertalanffy, the forces in a system (e.g. speed, position, light, temperature, ideas etc.) describe not only the physical relation between organic systems, but also support the possibility of a theoretical convergence between all kinds of material, social and knowledge based systems.

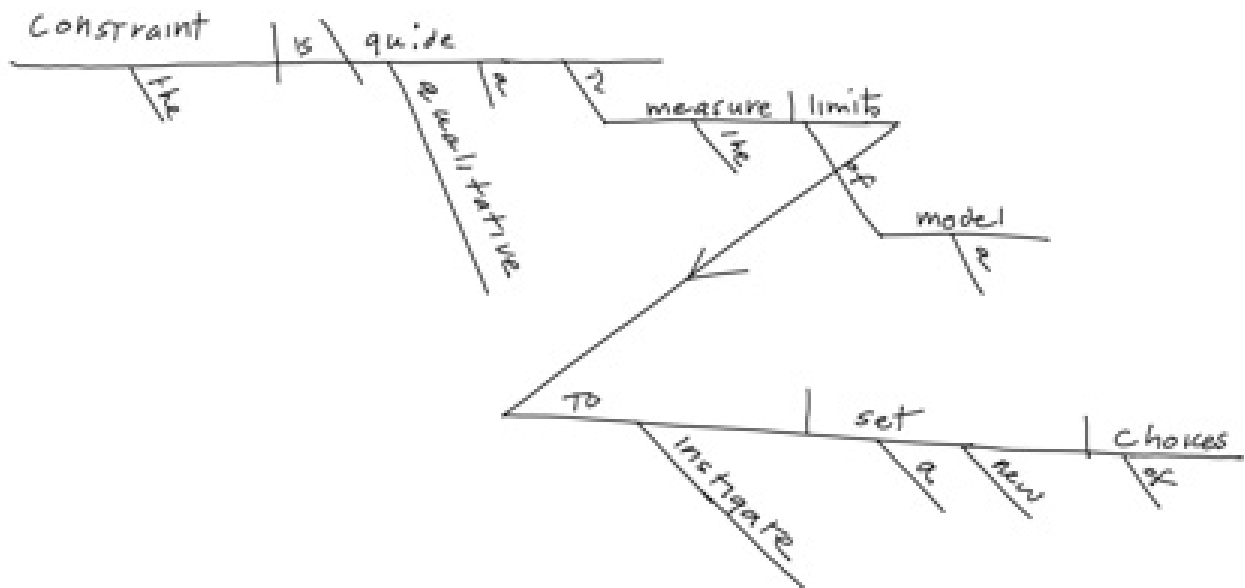
In the context of creative practice, variables can include the artist's intention, the artist in conversation and even the artist situated in a new physical and social environment with other participants. These variables can be composed of other sub-variables, such as existence, identity, behaviour, composition, infrastructure, microcosm, etc. These subvariables are relevant insofar as they tend to occupy the 'space' between agent and agency, and between people and their everyday experience of reality, usually defined as lay-practices.

By regarding variables as creative tools that can activate different kinds of events or responses, they automatically highlight the fact that communication between people (participants, artists) is not pre-determined. It could be argued that if communicative action is a coordination of behaviours between people, it will in turn become a subjective meeting and mixing of realities. This approach transcends the need for specialisation of skills and aesthetic knowledge simply because the process has more to do with an opening up of space for creative inquiry (and how the work is manifested) than with an actual outcome.

Equally, this approach transcends the idea of an objective determination in

the shape of a finished artwork. Instead¹², this process is led by a practice of lay-knowledge and discourses of reality produced by ordinary people in their everyday life, including the artist.

Theorem 2. CONSTRAINT



Constraint can be described as a qualitative guide to measure the limits of a model and to instigate a set of new choices. The constraint is an entropic term which, in my practice, is remodelled as a permeable border between people and their environment, and between people and the artist.

Both Gilles Deleuze and Ilya Prigogine re-imagine the constraint as a point of singularities (the former) and as bifurcations (the latter), which suggests that all systems can envision a change in direction, position and pattern. Just as a plant can grow out from different points, so too can concepts develop in unexpected ways in response to different materials.

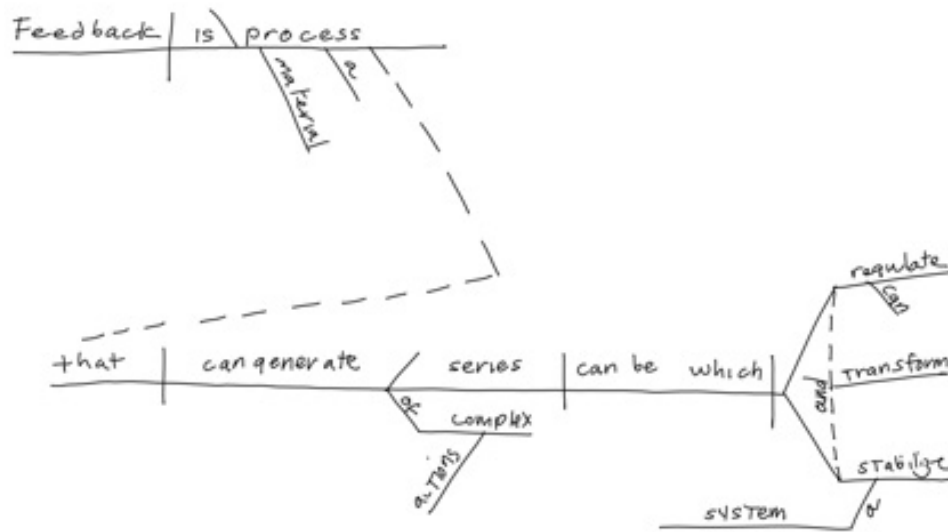
Similarly, conversation used as a network model between different people can trigger different kinds of responses that generate new phenomena, experienced as an evolving history of interactions.

To conceive a project as a temporal coupling of entropic events can mean that there is a continuous stream of information fed back and forth that impacts on the very nature of the project. If all actions are considered durational events, it could be said that all projects in principle would remain open and responsive to change. It can be suggested that constraint does not imply reaching for an equilibrium of parts and processes, but that it rather is a way of attaining a consensus agreement, whether this is manifested between the concept and the idea, the artist and the community, or the artist and the individual work.

12. In the 1960's Roy Ascott established an experimental "Ground Course" at Ealing Art College, Ascott that integrated a holistic methodology in creative practice informed by science, technology and communication theory premised on Cybernetic methodologies. The premise of this art course was contingent on the active participation and co-operation between students and teachers as a transformative process of exchange, social responsibility and active spectatorship. It had less to do with the over-specialization of creative skills and focused more on how artists could integrate their practice within a social system. Ascott, R. (2007). *Telematic Embrace: Visionary Theories of Art, Technology, and Consciousness* (2nd ed.). Edited with an essay by Shanken, A. E. Berkeley, Los Angeles, London: University of California Press. pp. 108-157.

In this context, the constraint can be a positive guide to recognise when a project reaches a critical point, so as to allow new concepts, agreements, relationships or things to emerge, adapt and change.

Theorem 3. FEEDBACK



Feedback is a process that can generate a series of complex actions, which can regulate, transform and stabilise a system. In this process, behaviour is generally regarded as a complex variable contingent and it functions as both a concept and a strategy. It is also central in understanding the complexity of systems that, although they may be composed of many parts that are in constant interaction and autonomously controlled, they are still open to influence.

In the context of this research, instigating feedback as a primary method automatically establishes a communicative framework recursively adapting and responding to ideas between people, places and things. It is, after all, through the process of feedback that new communicative patterns can be developed between the community and the artist.

In artistic practice, feedback can be imagined as a circular loop, mediated by a set of tasks that function as a reciprocal system and that are integrated in a network.

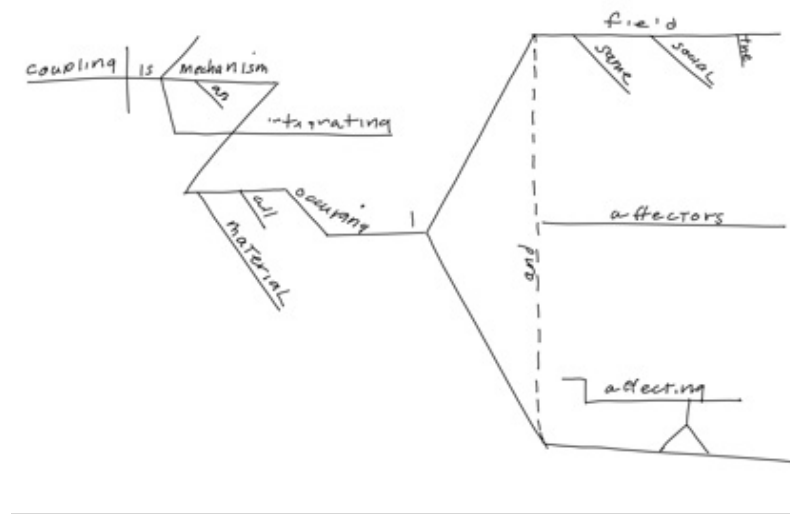
Addressing the mechanics of feedback, Manuel DeLanda states that for feedback to be effective it must flow uni-directionally between all parts of a system that run from a local to a global scale¹³. On the other hand, Ross Ashby suggests that¹⁴ time should be coupled with feedback as a way of learning

13. DeLanda, M. (2009). *A New Philosophy of Society: Assemblage Theory and Social Complexity* (4th ed.). London, New York: Continuum. p. 126. The assemblages in constant variation, are themselves constantly subject to transformation.

14. For example; Ashby developed a host of diagrams such as: Diagram of Immediate Effects, Causal Diagram, Diagram of Ultimate Effects amongst others to visualize the complexity of his theories, suggesting that his diagrams were the states or resolutions of our symbolic world, which could be simply expressed using pen and paper. Ashby, W. R. (1956). *An Introduction to Cybernetics*. London: Chapman & Hall Ltd. p. 258. Bertalanffy suggests that systems can be visualized, as 'block and flow diagrams', if the system in question is complex and unknown, rather than relying on mathematical equations, which tend to homogenize systems. Bertalanffy, V. L. (1971). *General Systems Theory: Foundations, Development, Applications* (2nd ed.). New York, London: Allen Lane, The Penguin Press. p.255.

how a system responds by readjusting the variables, such as time, space and material. Ashby also includes in his equation the participants' response to the variables that the artist employs, be they material or conceptual.

Theorem 4. COUPLING



It can be suggested that coupling is an integrative mechanism used to perceive all material entities occupying the same social field, each affecting the other, with no privilege leveled at one system over another. Seen in this light, coupling presents a remarkable opportunity for artists to work with diverse systems, perhaps manifested as collective practice, embodied in a diverse set of audiences in a diversity of contexts. Since coupling works as an enactive tool in which control (by an individual or a state) is decentralised, then the outcome of a project cannot be determined a priori.

In artistic practice coupling can be used as a way of handing over the control to the participants, who in turn process information in conversation with the artist. Because the entire project is contingent on participatory feedback, it strongly evokes the idea of structural coupling. For Maturana and Varela¹⁵ structural coupling suggests a new way of thinking about how knowledge is generated, because it puts emphasis on en-active communication between people rather than the traditional knowledge based on information processed as data.

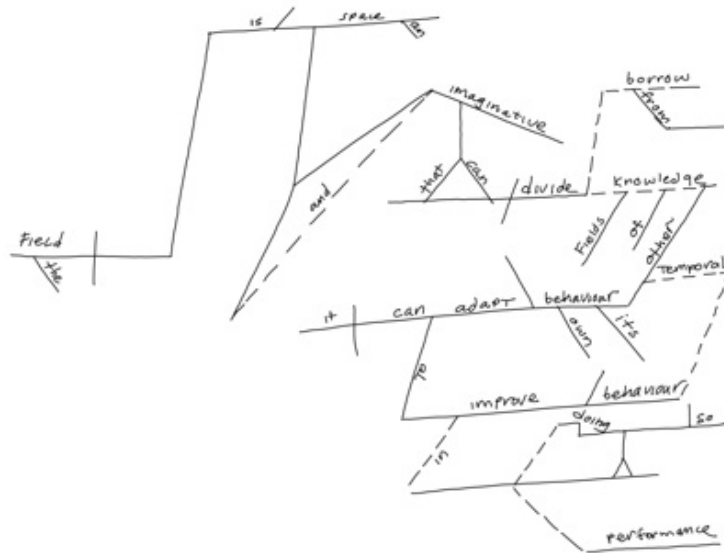
Theorem 5. CONCEPT FIELD

Concept field is an imaginative and temporal space. It can divide, generate and borrow from diverse fields of knowledge and in doing so it can adapt its own behaviour to improve performance.

In artistic practice, with all its multi-dimensionality and manifoldness¹⁶, the concept field takes the form of the modelling plane, in which the behaviour

15. Maturana, R. H., & Varela, J. F. (1980). *Autopoiesis and Cognition: The Realization of the Living*. Dordrecht, Holland, Boston, U.S.A, London: D. Reidel Publishing Company.

16. DeLanda argues that 'multiplicity' is synonymous with the 'diagram', the 'manifold', and 'phase space', and that these visual and conceptual spaces, presents sets of possibilities, for re-visioning the same subject matter, but guised under different terms and theories. DeLanda, M. (2009). *Intensive Science and Virtual Philosophy* (6th ed.). London, New York: Continuum. p.202.




of a system is regarded as a set of attractors and repellers. These attractions and repulsions can be said to generate creative interruptions, which in turn provoke new behaviours and generate new properties within the system where they operate. Or, in other words, new knowledges.

If we agree on the idea that knowledge cannot be limited to a simple representational statement of reality, but that it needs to be regarded as a cognitive systemic process that is en-active between living systems; then the emergent properties of a creative system could represent the best way to challenge and expand the limits of knowledge.

This en-action, encompassing various tools or variables that the artist and participants work with, is a form of relatedness. Such en-action can be imagined as an emergent world in which relations between people are paramount and are practiced in the context of an open system: an imaginative structure that is unbounded and limitless in terms of exploring complex ideas. Surprisingly, all of this can be expressed, suggested and explored through diagrammatic forms in art practice.

To imagine a set of concepts, ideas or material agencies in terms of positions, velocities and trajectories, suggests new ways of creatively exploring systemic structures. This is what Bruno Latour argues for when he proposes to rethink objects or things and to regard them as ‘matters of concern’ or ‘issues’ instead. These matters of concern, he argues, are not to be considered as isolated objects or systems but rather systems that are related to one another, albeit maintaining their own autonomy.¹⁷

Ultimately, Future Forward is an attempt to embrace the above described ideas in a gesture that encompasses participation, interaction and creativity, in an organic and less predictable manner, and it hopes to cultivate new ways of thinking and relating to each other. 

17. Nature Space Society was a three-part event held at the Tate Modern in 2004 in conjunction with the artist Olafur Eliasson's installation 'The Weather Project'. Manuel DeLanda, Katherine Hayles and Bruno Latour gave a series of lectures thematically structured around the disputed relationships between culture and nature. 'Matters of Concern' voiced by Latour during his keynote lecture refers to a shift from the "object" of "fact" (assertion) to "things - issues, gatherings and assemblies" of concerns, that could challenge political and social rhetoric and the inherent mastery of the "object". Nature Space Society. (2004). Retrieved 10th March, 2009, from <http://channel.tate.org.uk/media/27686262001>

Have You Seen The Pink Whale?

By Yunrubin (Joanne Pang and Jonas Rubin)

“Are You Married?” - No, but I’ve been on Hrisey”



The relationship between man and his environment is a contingent one, spreading over centuries across cultures and land, forging magnitudes of hope, danger and awareness.

In the case of Coverage, a series of photographs taken during an artist-in-residency on Hrisey, an island 66° north, the correspondence between man and nature heightens. New states of dependence, proximity and vulnerability were revealed and contested. The photographs capture the effects of a historical season that echoes the vast and expansive affair between man and nature.









In winter 2012, the heaviest snowfall in 25 years was recorded. It came silent in the night. The skies opened up, pouring over a quilt of white matter, caressing everything that parallels — roofs, roads, houses, vehicles, trees, boats — nothing was spared. On an island shaped like a teardrop, with a population of only 120 people, the white wash engulfed like an overwhelming bleach. It demonstrated a power of nature, brutal and very gentle at the same time.

Navigation systems and methods of transportation were the first to surface for reconfiguration and attention. There became no roads. The snow equalised everything. There were no directions; one could walk regardless of established systems. Lateral distances and proximity contracted and expanded.


The distance between man and nature tightens in a small community. Under changing circumstances, people's dependence and communication becomes essential. Daily routines changed overnight. A once short trip to the grocery became a prolonged physical and mental journey.





The signs of civilisation and supporting structures almost disappeared and diffused with the surroundings. Organic and man-made forms merged into one in the face of nature's power, revealing a threatening yet poetic transience of life.

“Are you married?” — “No but I’ve been on Hrisey” is an old saying of the island, referring to the hard but happy life that took place on Hrisey. However, things have changed. For instance, the fishing industry of today is managed by a few professionals. It is no longer attractive to the young Icelandic people. They move out from small communities to Reykjavik for studies and jobs with better pay and status. Manual work is carried out by Eastern European workers on temporary contracts.

The good old days when the island oozed life are a thing of the past. It remains an open question how time has romanticised the past and what lurks ahead for Hrisey. As the snow presses its weight on the island, the very notion of past, present and future continue to surface. 

Yunrubin is a collaborative duo from Singapore and Denmark, currently based in Amsterdam. They were the first artists who engaged with the residency at a distance. This work was exhibited in the School of Art during the residency in 2014.





Breakage and Repair

Cardigan Print

By Bridget Harvey



‘Bodies come and go; the clothes which have received those bodies survive’
(Stallybrass, 1993).

This print plays with the thingness¹ of the textile object; we see a cardigan which is not a cardigan, we see its qualities and some of its life, but what we see is no longer wearable, has had life stilled into an image. Inking and printing this cardigan, displaying its material existence by crushing and rendering on old cloth its knit, stitches and entanglements, stretch and stretched out pockets and missing buttons, snags and holes, effort and engineering of production, shows it as both broken and fixed.

If, as Foster says, “identity is not the same as identification, and the apparent simplicities of the first should not be substituted for the actual complications of the second” (Foster, 1996, p.174), the ethnographic nature of it identifies as a print of a cardigan but not as a cardigan in and of itself. I ask if Perry is right to say “wear, damage, dirt, repair, corrosion and decay are a large part of the language of authenticity” (Perry, 2011, p.177) as it does not have the authentic traits of the cardigan? It cannot be worn, the button is not a raised, separate item of different material and it cannot be undone, it has no inside, offers no coverage, warmth, protection or style. The print simultaneously takes and gives properties, colour and material to these melded textile objects.

It converses with us as a wearable but is unwearable.

Continuing the feminist ontology of using “craft (with all its intermingled associations of the ‘nicely made’, the functional, the proper and appropriate, the domestic and utilitarian, the low, the decorative...)” (Harper, 2004, pp. 22–25); occupying a liminal space between fine art, craft, design and making; referencing lowly textile materials and mundane clothing, the print support is an old ripped bedsheet. This disrupts the traditions of print materials, but as we “give things that look old the benefit of the doubt” (Perry, 2011, p.177) the patina of the fabric assumes both a narrative and relic-ish nature.

Clothing is worn in different ways by different people, so it would be oppositional to fix the cardigan as a print block. Of the three prints in this series, the paper print captures traces of ink seeping through the initial fabric print (from experience I was aware that this might happen); the second fabric print exhausts² the last of the ink in the block (cardigan). The act of free collographing bends the process of print-making, this block only becomes concrete as a printed image. This method conserves the wearability of the

1. ‘The thingly character of the thing does not consist in its being a represented object, nor can it be defined in any way in terms of the objectness, the over-againstness, of the object.’ (Heidegger in Adamson, 2010, pp.405–406)

2. Exhaust processes are those by which as much dye pigment is removed from the dye bath as possible through use before the nearwater is discarded as effluvium


“The print simultaneously takes and gives properties, colour material to these melded textile objects.”





cardigan, rather than it becoming a rendition of itself, to create renditions. The prints mimic lost and discarded clothes - objects-of-cultural-insignificance - crushed underfoot or under car, as Harmony Hammond mimics shards of objects-of-cultural-insignificance with her false fragments³. As with Hammond's objects, "rarely exhibited, less because of their preciousness than for their ordinary, fragmentary state and their association with utility" (Auther, 2010, p.143) the cardigan is not usually seen as an art object. Material parallels are demonstrated by the stratification of process, textile use and representation, with both works capturing and setting a temporal moment. Representing the material qualities of the cardigan and stripping away its other aspects means that, as a cardigan, it fails.

"When a tool fails, its unobtrusive quality is ruined. There occurs a jarring of reference, so that the tool becomes visible as what it is: the contexture of reference, and thus the referential totality undergoes a distinctive disturbance which forces us to pause" (Harman, 2002, p.45). But "repair can dissuade us from thinking about prevention" (Spelman, 2002, p.126), so the question I must ask myself as maker whether this print reads as intended – as a hack⁴ of use-value in order to display material properties and subordinate predicted life-cycle (buy, wear, discard) with simultaneous acts of metaphorical, environmental and actual preservation - when we know that repair is ongoing, not static?

So, on one hand inking a cardigan and printing from it is a brutal, ruinous process, on the other it preserves and heightens detail. This work deliberately breaks the being-ness of the cardigan in order to take a (potential) step towards sustainability-as-flourishing⁵, enacted by an initial reparative action through printmaking to acknowledge the value inherent in the cardigan as materials-with-form. 

3. 'A group of mock clay fragments or shards ... impressed [with] traces of basket and textile weaves, and a group of encaustic paintings with abstracted patterns of the structure of woven cloth incised into their surfaces' (Auther, 2010, p.143)

<http://www.harmonyhammond.com/othersculptures.swf>

4. "Hacking is a response to the intense occlusion and uncommunicative nature of the things with which we are now surrounded" "hacking ... is still necessarily post production, with users working against the intention of the original author" (Maxwell in Floirat et al., 2012, p.23)

5. sustainability-as-flourishing is defined as "the possibility that humans and other life will flourish on the Earth forever" (Ehrenfeld and Hoffman, 2013, p.17)

Auther, E., 2010. *String Felt Thread: The Hierarchy of Art and Craft in American Art*. University of Minnesota Press, Minneapolis.

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Perry, G., 2011. *The Tomb of the Unknown Craftsman*. The British Museum Press, London.

Spelman, E., 2002. *Repair: The impulse to restore in a fragile world*. Beacon Press, Boston.

Stallybrass, P., 1993. *Worn Worlds: Clothes, Mourning and the Life of Things*, in: Hemmings, J. (ed.), 2012. *The Textile Reader*. Berg, Oxford.



Procession

By Sabine Bolk



Unexpected connections and outcomes arose for my practice during the Cambridge Sustainability Residency. I had not anticipated knocking on people's doors and inviting them to contribute the materials that I would use to make my small 'carpets' for the exhibition. It enabled exchanges with people who would not otherwise have been part of the project. This process of negotiation visualised by Vanessa Saraceno became integral to my work and also resulted in me receiving materials that I have not previously used, including spaghetti and green tea that I happily incorporated into my carpets.

I was inspired by the Corpus Christi procession, held in Cambridge from 1352 to 1535. A parade through the streets from Corpus Christi College to Magdalene Bridge. Rituals, like Corpus Christi, have different meanings for different people. In their construction of images of the world and in their incitement to action, processions can bear messages that are contradictory, volatile, and determined by context. I already knew of Corpus Christi processions taking place elsewhere and the practice of creating temporary carpets made from grains of rice in the path of the procession.

I made my little carpets in different parts of the gallery. I based the patterns on symbols used on packaging to indicate re-use, recycle and reduce and positioned them in relation to other works in the space. The response was overwhelming with many questions during the opening night. The reaction when someone stepped on or disturbed one of the carpets reverberated around the gallery. The temporary state of the work was to my surprise the aspect that really made everyone think. Of course this is an important part of my work, but for me there are more layers than this.

The next morning I remade the carpet and we reviewed the exhibition. We had a silent critique during which people made an interesting connection between sustainability and my rice carpets. There was a sense that you had to be careful where you stand in the space and that you were constantly aware of the vulnerability of the work, placing your feet with care. It made people think about nature and the environment, about vulnerability and impermanence.

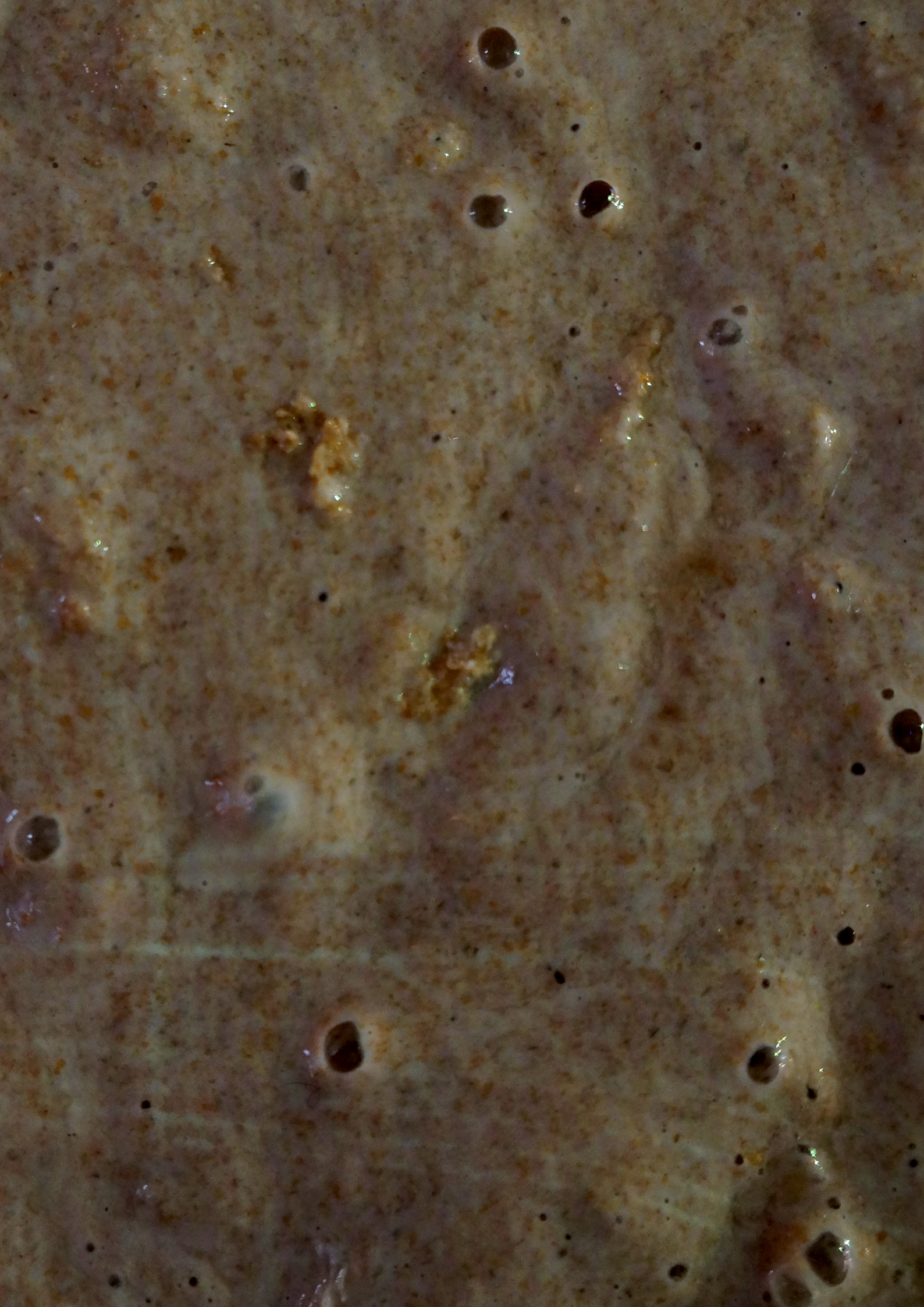




*“The temporary state of the work was
to my surprise the aspect that made
everyone think.”*







Deep Time

Walking Between The Second and The Million

By Pia Alejandra Galvez, Emma James, Valerie Furnham and
Barbara Boiocchi



Exploration

Our site-specific collaborative project would not have popped up without the debates and bonds created through the residency talks and exchanges, or without the understanding of it as an immersive opportunity to cooperate with like-minded artists with different backgrounds.

The collaborative experience of artists working together echoes the approach required to conduct sustainable activities. The very act of working together nurtures a mutual respect and perception of the other as equal to oneself and thus worthy of notice and consideration. It is this attitude and appreciation of our surroundings, fellow people, activities and customs, that engenders sustainable situations. By considering how we choose to live, how we choose to act and the effect it has on everything living and existing around us, it is possible to achieve balance. Unbalance is the direct result of one side becoming too dominant, and by its very nature, an unbalanced situation is an unstable one. Long-term inattention to sustainability as a life choice can tip the balance, resulting in a sense that living in a mindful sustainable manner seems to be small and insignificant and not worthy of notice. Everything that is done towards addressing this imbalance pushes the possibility of sustainability further forward.

The goal of sustainability often appears to be so large as to be unachievable and with this thought it is easy to decide it is impossible, so not worth attempting. If each of us had started out at the beginning of the residency knowing we had to achieve all we did achieve in the installation, it could have seemed daunting and unachievable for one artist working alone. Working in a collaboration made all we achieved easy and enjoyable and allowed us to each achieve more than we could have done separately, sharing information, ideas and enthusiasm in a sustainable manner and achieving a balance which would not have been possible alone.

During the Global Sustainability Institute (GSI) talk it was mentioned that the three pillars of sustainable development reflecting the 80's vision under the umbrella of 'Our Common Future' (Brundtland et al., 1987), are being updated. Economic growth, social inclusion and environmental balance are not enough in our times; the call nowadays is for the inclusion of culture as the fourth pillar of sustainability. 'The Limits to Growth' model is also being



updated, which means, at least, a reconsideration of global freshwater use and points to a need for a land system to be implemented (Meadows et al., 1972).

Another important inspiration was the CamBake project. The Cambridge Community Bakery's aim is to provide sourdough bread with locally-sourced flour. Their bread is leavened using naturally occurring yeasts within the flour.

A valuable discussion with researchers from the GSI revealed personal battles in people's minds about who sustainability is for. Is it about making the Earth sustainable in its own right and keeping the conditions for diverse life or is sustainability for our own personal survival as humans? They are interconnected. We rely on the ecosystem the planet has to offer, which is only possible with the fine balance of species in an environmental equilibrium. The conclusion of this debate, though, was that we are knowledgeable about this cause and effect. We know what we are doing to our own species and to the planet and because of this knowledge we have a choice. As Robin McKie writes in his review of 'The Sixth Extinction: An Unnatural History' by Elizabeth Kolbert; "the crucial point about the current extinction is that the agent involved is not an inanimate object or a geological force but a living creature, *Homo sapiens*."

In poetical terms, it could be said that art belongs to culture in as much as culture belongs to human beings. Expanding this poetic licence, it could be said that there is also a 'bread culture', which has the double meaning of being both a staple food for many civilizations as well as a reference to yeast.

Other inputs that appeared during the discussion and review with Sergio Fava were: water; involvement; audience as performer and not as an observer; giving something to people that involves time; yeast culture; duration; time as social convention versus natural time.

Our relationship with sustainability seems to be pinned on our relationship to the concept of time. What is the time frame in which we are to be sustainable? What are we trying to sustain? The world? Other species? The individual? The human race? Politics and the economy? Sustainability of all these ecologies requires an engagement on very different time scales. The GSI works on sustainability within a time frame of five years, the time in which our politics works; and their responses are in the form of data (rational response), not art (emotional response). This seemed, to a group of us, in contradiction to our experience of the landscape, a landscape that exists and develops in what is known as deep time, defined as: "The multimillion year time frame within which scientists believe the Earth has existed, and which is supported by the observation of natural, mostly geological, phenomena."

Deep time is a time frame that extends beyond human history, making it a hard concept to comprehend. Yet to understand sustainability we must understand the time frame in which the Earth operates. Can our understanding of time incorporate the magnitude of deep time? Ancient civilizations evolved around an understanding of deep time. From Stonehenge, the Inca temples, the Pyramids to a passage tomb in Newgrange, Ireland, humans have built structures that celebrate and connect with the planet's time frame. But with the development of our clock, we have structured time to a smaller scale and



we are only reminded of the change of the seasons by the change from GMT to BST. We carry about with us an instrument to measure the passing second while ignoring the millions of years before and after. So what does time really mean for us? In 'In Search of Time' John Shea says that time is the "ability to perceive the future in terms of contingencies", in terms of "if this, then that will happen". Time is about cause and effect, our ability to predict. As the knowledge of our environment increases at a fast rate, our ability to predict has taken us back to reconnect with the concept of deep time as we predict our own demise as a species, or use prediction as the ultimate sustainability tool.

During the weekend, we came across the book 'Fungal Biology in the Origin and Emergence of Life'

(Moore, 2013). Within the book was the relevant quotation: "The rhythm of life on Earth includes several strong themes contributed by kingdom Fungi. So why are fungi ignored when theorists ponder the origin of life?"

"Art belongs to culture. Culture belongs to human beings. "

The book also mentioned other ideas that widen our approach, for example, the kingdoms for the living organisms on Earth are: animals, plants, bacteria, proteins and fungi, the Earth is 4.6 billion years old, humans are 200,000 years old and fungi are 500,000,000 years old and that the yeast is an eukaryotic single-celled fungi.

The knowledge of our environment and where it comes from seems an important factor in how we reconnect with deep time. When Bob Evans came in to talk to us about his



research into soil he gave a glimpse of his vision of a Utopian farming method. He spoke of man replacing the machine and offered the idea of a form of conscription, where everyone at the age of 18 would spend one year tending the land and gathering crops. This brought forward the idea of disconnection with our environment and hence, reintroducing the cycles of the landscape, the seasons, the light, the weather, became an underlying feature our collaboration. This process seemed to align with our process of tending the yeast, involving daily feeding and keeping the right temperature.

Bob Evans mentioned that the loss of soil has a big impact on crops, and he pointed out that when the soil is washed away every time it rains, the chemicals and fertilisers are also washed away, becoming a major source of pollution. The basis of his work is observation and we

commonly use that methodology.

Yeasts are fungi that can be at the origins of life. Yeast is a living and natural product and heritage. To make sourdough bread the yeast ferments the flour. Flour comes from grain; we need a fertile soil in which to plant a cereal, along with water and sun. The sun is at the heart of our solar system, the macrocosm. The fungi, compared to the solar system, could be considered the microcosm.

Installation

There are wild yeast spores floating in the air. Or is this a myth? If it is true we can have site-specific yeast depending on where we feed it. We fed the yeast at the gallery. The centre of the site-specific installation was a fishbowl filled with that yeast. The yeast was then on a plinth, an altar and centre of our cosmos. The fishbowl was a container that reminded us of the



relationship with a pet (you have to feed the yeast) and a sphere that evoked the microcosm and macrocosm. Recorded loops of the amplified sound of the sourdough living and growing, normally inaudible, could be heard from hanging headphones around the fishbowl. The projections onto it, showing its fermentation, represented the microcosm. The macrocosm was represented by several hanging spheres orbiting around the fishbowl filled with soil containing sprouts from different cereals and yeast to enrich the soil.

To guarantee the 'audience' as performer and not observer, we first walked around the city asking people in the streets of Cambridge about their feelings and actions concerning sustainability. Thinking - learning - feeling are actions that require the investment of a different time from the one we use to produce something material. These actions come from the answer to the request 'Give me three examples of things you do in your daily life which are sustainable'. These actions create another kind of deep time, which respects the natural pace of growth that one devotes to one's own evolution: a time when the human is at the centre and pays attention to his or her feelings about contributing to the community and the surrounding environment. This action grew out of the idea that time is money that can be exchanged for things: 'Quid Pro Quo: Negotiating Futures'. Every person who answered spent time on the topic of sustainability, triggering instant responses that may be food for thought in the future. Those 20 papers with handwritten answers on one side allowed us to cover 20 jars filled with the specially prepared yeast. We handwrote on the other side of the paper the instructions for looking after the sourdough. The jars were a present only available during the inauguration. To obtain the jars, people were asked to answer the same survey and signed a certificate of commitment to look after the sourdough. Thanks to them we started a chain with 20 new surveys, that we are able to use to repeat the process in the future.

To enable the viewer to become part of the artwork was one intention, and by being involved in the experience of the installation the viewer became aware of the Sourdough Starter as a life form and a giver of life and sustenance. The acceptance of the responsibility of nurturing a jar of the Sourdough Starter and the symbolic and actual signing of the book as recognition of that commitment to another life, brought them into the circle of sustainability and engendered a respect for this life and what it freely offers.

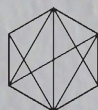
In the piece 'Deep Time' the process of nurturing the yeast made the invisible air into a living, breathing, tangible creature. The invisible became visible, altering our idea of yeast as an inanimate substance and making it into a living 'pet' that each person, when leaving the gallery, was conscripted to take care of. Time has become the common thread of our site-specific collaborative project, activating a process of awareness and care in the 'audience'.





By Mark Vennegoor

“Ironically, in the current world full of dependencies and non-transparency, sustainability has become so complex that language is getting more and more important.”



In this work, I play with the word ‘sustainability’, turning it into a combination of ‘fun’ and ‘ability’, instead of thinking of it as an ‘inability’ to guarantee the needs of the future. The element of time becomes essential to address sustainability in our everyday life, as well as to express the necessity to enjoy the time we live in. Too many different power structures are challenging

our time, compromising our ability to establish a joyful and harmonious relationship with our environment and among ourselves. One question is left: who is determining the rhythm?

The occurrence of the Funability work came out of the intense programming of the artist residency. With visits, presentations and discussions involving very different environmental stakeholders in Cambridge (among others: the Global Sustainability Institute (GSI) at Anglia Ruskin University, the Sainsbury Laboratory and community initiatives like Cambake, Cambridge Carbon Footprint and Transition Cambridge), a diverse view of sustainability was provided. This also nurtured the exploration and discussion of “sustainability” among the artists.

ABILITY



Through the above-mentioned programme it became strikingly clear to me that sustainability has a lot to do with language and culture. Organisational cultures are moulded and do determine to a large extent how sustainability is phrased and conceived in people's minds. This phrasing, image building and value definition will then determine to a large extent what we will do, and what we won't. Ironically, in the current world full of dependencies and non-transparency, sustainability has become so complex that this language has more and more significance. It seems to be the only pillar that gives us guidance to understand what we are doing. Furthermore it gives a framework to 'defend' and legitimise ourselves. As a result we trust more in language than in our common sense and feelings, as we try to sustain ourselves in this complex web.


As a consequence, people working for the same cause are having trouble understanding each other. This became evidently clear in a discussion among the artists after a presentation about sustainability presented by people researching in this field. It became apparent that some people in the audience took issue with the way that sustainability was defined. I noticed that this 'disagreement' reinforced our own (the artists') language and 'organisation culture'. Outrage easily gains predominance over curiosity and dialogue. This artist residency and others world wide, give the valuable opportunity to invest time in these connections and dialogue through creative means. To that extent sustainability is, for me, a lot about dialogue.

Following this we entered into an interesting dialogue with the Global Sustainability Institute. As a starting point for dialogue we both mind-mapped the "world of sustainability". The power of language was for me underlined by the fact that we, as artists, felt limited in making free associations

because of the confusion caused by the term 'sustainability', which was written in the centre of the sheet of paper. We felt that it was a polluted word, (mis)used in so many ways that it was confusing in itself. When we crossed out the word 'sustainability' in the mind map a big obstacle was removed. We started to associate more freely and positively and could explore what 'sustainability' really embodies and how it is interconnected in this complex web. The mind maps showed me that something fairly simple and embedded in our primitive urge, namely to take care of the environment on which we depend, has become very complex. I believe that we, in a confused state, are driven by our habits, conventions and short time dependencies, and, therefore, are not able to change radically. Time and perception of time are, therefore, interrelated with sustainability.

Looking at the changes in the environment, time becomes physical. For me, the metronome is a metaphor for this delicate balance on Earth. The metronome embodies the storage of time and energy. It continues at the same pace, but without being noticed, it stops at a certain point. I see this as one of the reasons why we are having so many problems with a sustainable life. We hardly notice the change of pace or realise that it will stop eventually. Small community projects show the amazing results that can occur with action, passion and dedication. The inspiration for my 'Funability' work came from a person who said to me, "I have one rule for myself "No Fun No Do".

This was the point when I realised that we can only be sustainable in the long run when we enjoy what we are doing, in life's broadest sense. Therefore:

Funability! 

The background of the entire page is a close-up photograph of Pirarucu fish scales and heads. The scales are light-colored with a distinct concentric ring pattern. The fish heads are dark, almost black, with a rough, textured skin. They are arranged in a way that creates a sense of depth and texture across the page.

10% Pirarucu: Amazon Meets Cambridge

By Andrea Bandoni

"...I see the Amazon Rainforest in Brazil as an immense territory to be explored by creative minds."

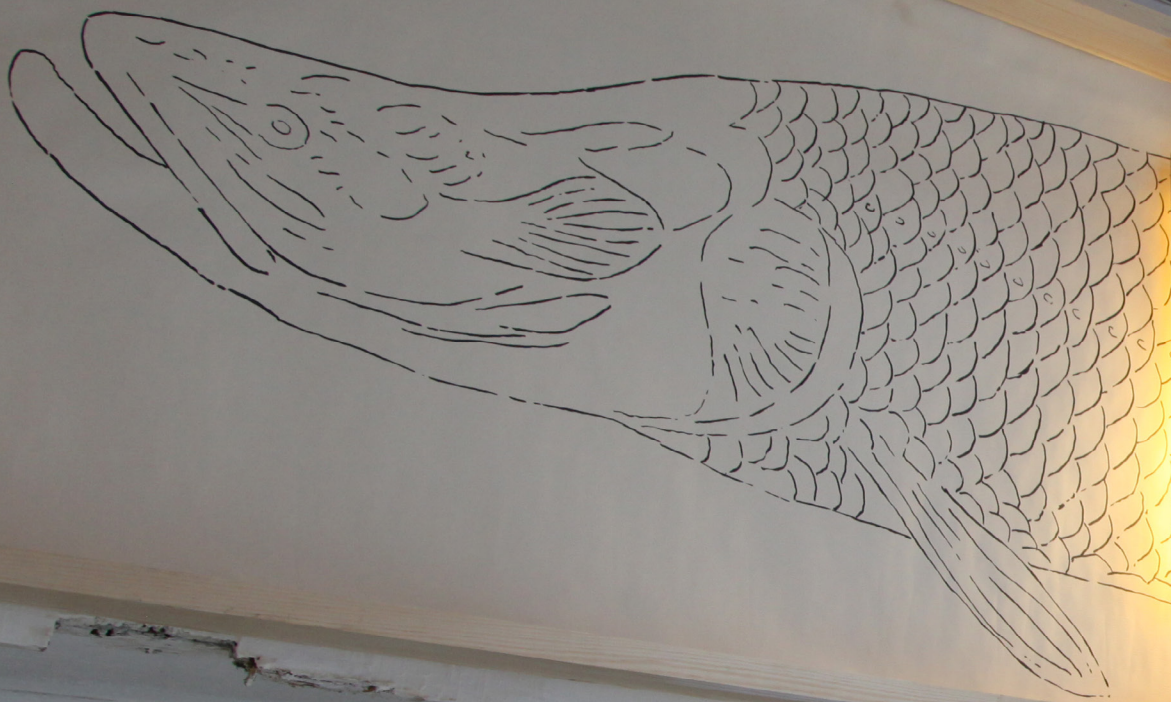


I believe that sustainability has to be handled through a multidisciplinary approach, so the artists' residency in Cambridge was an ideal opportunity to explore issues related to my own profession of a designer in collaboration with people working in other artistic disciplines.

The strong focus on nature that we experience today in the design field relates to the search for new and more sustainable references which could indicate alternatives for designers to deal with and possibly change the current manufacturing system.

Within this international design movement towards considering nature's models and materials as objects worthy of investigation, I see the Amazon Rainforest in Brazil as an immense territory to be explored by creative minds. It is known that the diversity of forms and species that exist there are not found anywhere else. Furthermore, due to its geographic isolation a local indigenous culture has developed in the area, and it still remains little known in the outside world.





Fire exit
Keep clear





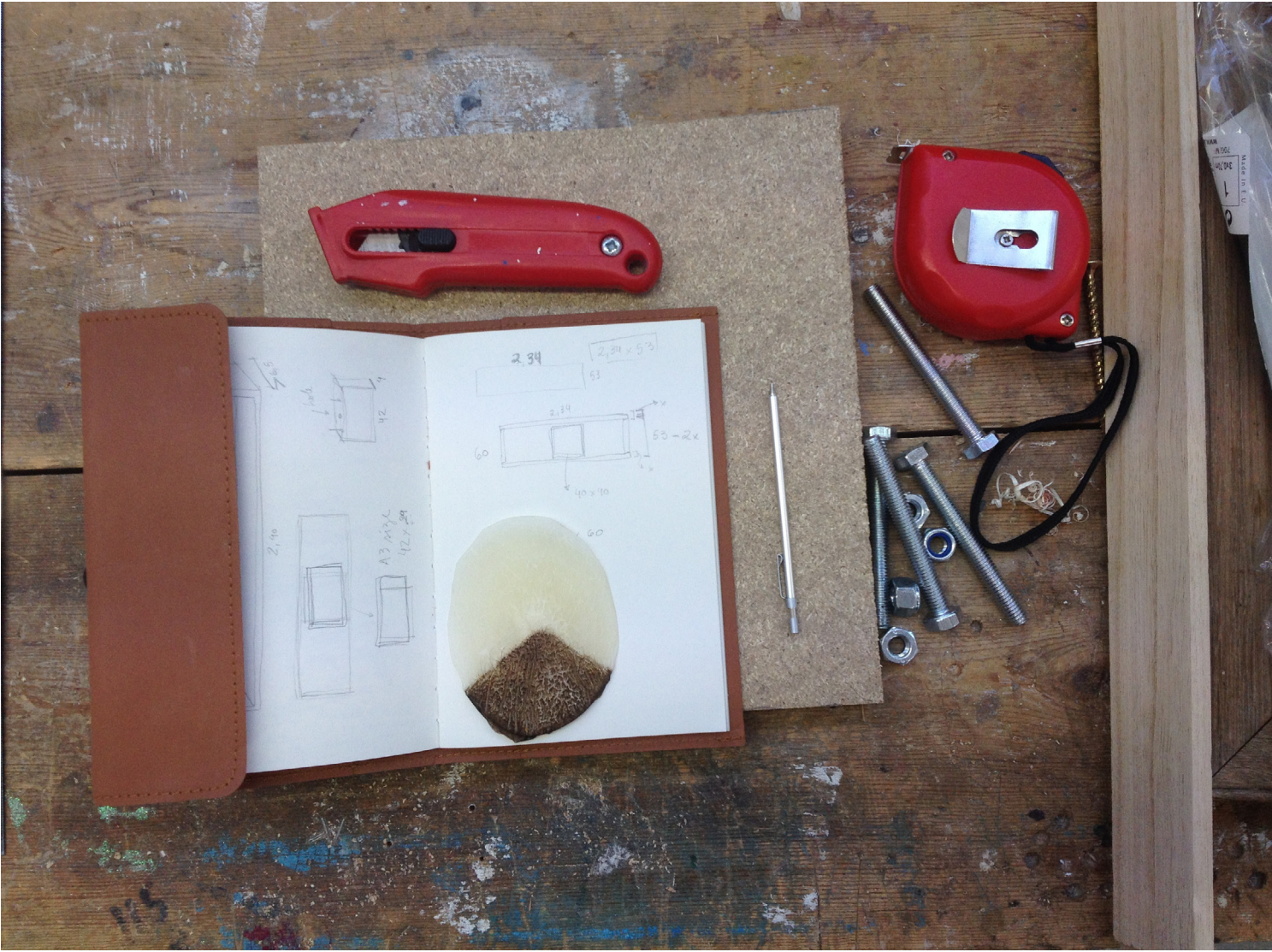
In 2012, with subsidies from the Ministry of Culture of Brazil, I started the project 'Objects of the Forest' (www.objetosdafloresta.com) - the first design expedition in the Amazon. The main goal of this project was to register and spread design objects that are representative of the material culture associated with the reality of the Brazilian Amazon Forest, in sustainable ways, and then publish the findings online for free download.

During the Amazonian expedition I learned about materials, contexts, animals and plants that seemed to have come from a different planet. I took notes, made references, deepened my research and, inevitably, had many creative insights and ideas, which could not develop further perhaps simply because there were too many!

I thought Cambridge Sustainability Residency would be the right place to discuss these ideas and produce a new outcome of my expedition in the Amazon. Two years had passed since the Amazonian project started and I felt I was ready to focus on one discovery that speaks to my heart and excites my mind: the amazing pirarucu fish.

The pirarucu is a giant fish, one of the most well-known of the Amazon, measuring on average two metres in length. Whilst the meat is widely appreciated in many culinary dishes, the dried scales of the fish are used as nail files and for ornamental purposes. Its 'tongue' and its skin can also be used. I took with me to Cambridge all the information I could, as well as actual samples of the large and tough scales of the pirarucu (one could never imagine they were parts of a fish).

The scientific spirit of Cambridge brought new lights to my project and definitely shed new light on it. Some of the activities we did during the residency had, Cambridge being Cambridge, a strong bias towards a more rational approach to nature and this only reinforced what I already suspected:




that the scientific approach is limited when it comes to actual understanding of the thing studied, if we compare it with the knowledge that arises as a product of directly experiencing the thing itself in its natural environment. My research also took inspiration from the many museums in Cambridge and its presentation of the exotic. It was funny to see things I don't consider exotic behind glass, exhibited as something removed from reality.

I arrived at the conclusion that if I were to produce a discrete piece in reference to this Amazonian fish it had to encapsulate what the fish 'is' and also what it 'means'. In the same way as the museums I visited use the natural sciences methodology, I wanted to show and explain where these beautiful fish scales came from. However, I decided to retain the surreal boldness of the Amazonian environment, which could have been lost in the process of explanation.

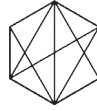
The object presented in the final exhibition consists of a life-size horizontal drawing of the pirarucu measuring about 2.4m long by 0.6m wide. The drawing, and hence the 'fish', is presented in a frame, resembling a mantelpiece trophy catch. A few of those extraordinary scales are attached to the drawing in their original positions, constituted only 10% of the total, as an allusion to what might be lost and what would remain after an animal is removed from its natural environment. I used a light source behind the scales to enhance the transparency of their natural material. The object appropriates part of the animal and brings out in a tacit way the magnificence of the Brazilian fish.

Through the Sustainability Residency's discussions, critiques and dialogue, I deepened and shifted the focus of my research, which in the previous project 'Objects of the Forest' was mainly about the discovery of new objects, understanding contexts and analysing materials. I came to realise that the expedition to the Amazon provided me with direct experience of the natural energy of living systems that have evolved over many human lifetimes, and the sense of the biological and cultural diversity of the planet.

I believe we can get closer to a sustainable approach through the expression and perception of this feeling. As John Thackara puts it: "Reconnected with the lived reality of the Earth's ecological systems, and its nonindustrial time frames, the very idea of destroying the Earth in the interests of the economy would become – literally – inconceivable." (Thackara, J. "Old Growth" at <http://www.doorsofperception.com/> 2012). 

Connecting with the Sustainability Residency

By Jane Heal




The aim of Cambridge Carbon Footprint (CCF) is to raise awareness of climate change and to help people in the Cambridge area to come together and build a low carbon future. We work with individuals, businesses, schools, churches, local government and local community groups. We arrange lectures, workshops, group meetings, trainings and other activities, most of which are delivered by volunteers. In these we explore practical ways of reducing carbon footprints, by giving people knowledge about the impact of modern lifestyles and encouragement in steps to reduce that impact by their own choices. So we were very pleased to be invited to join in with the Cambridge Sustainability Residency 2014. I came on behalf of CCF to two workshops, hosted a discussion for a group of artists on sustainable food and came also to the final exhibition.

What was it like? As a retired academic, I am used to dealing with words and arguments. And a drive for getting things under intellectual control is part of the mindset! So engaging with a group of artists from many parts of the world, with extremely various creative projects and modes of imagination, was a mind-enlarging experience.

At the first workshop, two of us from CCF sat round a table with a small group of artists, discussing the work of CCF, answering questions, thinking about sustainability. At the same time each of us had in our hands a sheet of beeswax, to coax, if we could, into something of significance. At other tables other groups, talking with representatives of other local environmental organisations, were doing the same. And what a striking variety of different and ingenious things can be done with a sheet of beeswax! That is what stays with me from that afternoon. Similarly, the other workshop brought home to me how many modes there are of being, interacting and communicating. And having begun to know a little of some of the artists and hearing them talk of their projects, the final exhibition, with its many beautiful and challenging creations, acquired a further dimension of interest. So that's what they meant when they talked of yeast and deep time. These are the floor installations constructed from local residents' contributions

And here is the fragile world of the bees again.

To change our lives we need to tap deeply into our values and motivations, to try to discover what has meaning for us and why. That's easy to say, but much less easy to do. CCF recognises this and so its meetings and workshops invite people to take time to explore why they choose their lifestyle, how it makes them feel, what it would be like, in real detail, to live differently. The work of the imagination is central to this, as it was also to what went on in the residency. Can these various kinds of imagination strengthen and enrich each other? It felt to me, from my experience of the residency, that they can. 



Gathering Shape

The Residency Evolves

By Sally Stenton



The ‘sculptors’ of the Cambridge Sustainability Residencies are artist experimenters, bringing together elements that are barely controlled: people, processes and places. We watch from within how the interplay creates a certain alchemy, knowing that the same precious outcomes can never be repeated and being clear that this is not the purpose of the research. The vessel that we create allows the elements to mix without knowing what reactions will occur. Our role is to put in place a gentle structure that facilitates movement. Sometimes we may overlook a hole in the base of the vessel or stir the mixture too vigorously. In time we become more trusting and less inclined to impose our own pre-conceptions.

The frameworks and the accidents that shape the residency are shifting year by year. In 2013, artists had only one week together and no allocated space in which to meet and work. We focused on conversations with the Global Sustainability Institute (GSI) and an exhibition was held a number of weeks later, which coincided with its annual conference. In 2014 the residency was extended to two weeks to include the exhibition time and the use of a vacant shop for the duration. The number of artists increased and the residency widened its reach to a diversity of groups and organisations including Cambridge Carbon Footprint and the Sainsbury Laboratory. 2015 is likely to see the development of opportunities for artists to participate online as new elements are created to give the residency a life beyond the time when the artists are resident in Cambridge, such as the website and this e-book. Whilst changes are in response to the previous year, the unintended consequences of any planning means that something is lost and gained at each stage. It is a search for some kind of fragile balance rather than a perfect solution.

*“It is a search
for some kind of
fragile balance
rather than a
perfect solution.”*

In 2014 artists came together with a variety of other people active in the field of sustainability through a series of workshops and visits. In the first workshop local grassroot initiatives shared their experience of activating, informing and involving people in practical ways to make a difference through simple actions and lifestyle changes. Participants were simultaneously engaged in the activity of softening and shaping coloured beeswax, which they then used as a medium for responding to what they had heard. Having explored practical solutions at a local level, the second workshop invited people to think into the future with a focus on objects that are ubiquitous in our lives now and consider what might replace them in years to come. Teams worked together as inventors using junk materials to facilitate the dialogue and visualisation. The first week of the residency also included one-to-one mentoring and






group discussions with Sergio Fava, a talk by the GSI and a workshop and tour of the Sainsbury Laboratory, followed by dialogue between artists and scientists over lunch.

The artists initiated a variety of other research activities including a mind-mapping exercise with the GSI, which probed the multiple implications of the word ‘sustainability’ and culminated in the removal of the term from the centre of the map in an attempt to reveal the essence and common ground that was driving us. In the second week, artists focused on their own research and preparation for the exhibition, interspersed with activities such as a film night and visit to a community orchard. Whilst our minds were nourished, there were some difficulties in accessing facilities for meal preparation. A makeshift kitchen was created in the space and sparked discussion about production and consumption of food, prompting ideas that look likely to inspire the organisation of the next residency.

A number of themes and artworks emerged directly from the intense and varied mix of ideas and perspectives. The participatory installation with sourdough at its heart was inspired by the involvement of local organisation Cambake in one of the workshops, and ‘Suspended Animation’ came into being in response to the visit to the Sainsbury Laboratory. Both were collaborations between artists on the residency who had never met before. Each year a new group of artists come together and partake in what Mika Hannula describes as methodological pluralism. Some artists become part of the

planning collective, engaging in the organisation of future residencies and providing the continuity from one to the next. This e-book is the first in a series of publications that will be crucial components in this process of exploration and expanded connections.

Sustaining the residency by drawing on the restricted resources that are available requires a complex web of support, mainly in kind, of individuals and organisations, who come together with a common agenda. This reciprocity is an important feature that keeps us grounded and forces us to work with certain physical limitations that can enrich our creativity. The residency’s continuation is not dependent so much on securing funds (although a modest level of financial support is vital), but requires negotiation based on giving and receiving; acts of generosity fuelled by shared concerns. It is an exercise in balance, not too much and not too little. It tips one way or the other and in so doing poses us questions about our own practice. How sustainable are the processes and materials we deploy? How do we weigh this against the impact of the work? What do we mean by ‘sustainability’? Dilemmas and disputes surface during the residencies that inspire new ways of thinking about the shape of our future collective and individual practice. 

Sally Stenton was one of the artists selected to take part in the 2013 Residency and subsequently became a co-director for 2014.

Cambridge Sustainability Residency Artists

2013

Andrea Hackl
Aurora Sciabarra
Bettina Furnee
Bridget Harvey
Christine Mackey
Gabriella Fabrowska
Ilse Schottenbach
Kristen Nuttall
Marina Velez
Olga Karyakina
Russell Cuthbert
Sally Stenton
Tim Mitchell

2014

Andrea Bandoni
Ariana Jordao
Bridget Harvey
Barbara Boiocchi
Emma James
Hiroki Yamamoto
James Murray-White
Kelly Soper
Krisztian Hofstadter
Marika Troili
Mark Vennegoor
Marina Velez
Pia Galvez
Sabine Bolk
Sally Stenton
Susie Olczak
Valerie Furnham
Vanessa Saraceno
Yunrubin (online)

Cambridge Sustainability Residency

Cambridge Sustainability Residency is an artist run project that would not be possible without the generosity of all those who have given their time, commitment and many other forms of assistance.

Chris Owen – Head of Cambridge School of Art (Adviser)

Sergio Fava – Senior Lecturer at Cambridge School of Art (Mentor)

Fernando Garcia-Dory – Artist in Residence with North West Cambridge Art Programme, University of Cambridge

Thanks to all the local people who contributed materials for the exhibition and all the presenters and facilitators from the following organisations.

Participating organisations

Cambridge School of Art, Anglia Ruskin University
The Global Sustainability Institute, Anglia Ruskin University
The Sainsbury Laboratory, University of Cambridge
Cambridge Carbon Footprint
CamBake
Trumpington Community Orchard
Trumpington Allotment Society
Trumpington Chicken Co-operative
Transition Cambridge
Changing Spaces





**CAMBRIDGE
SUSTAINABILITY
RESIDENCY**

**Cambridge
School of Art**



**Anglia Ruskin
University**

Cambridge Chelmsford Peterborough

**Global
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ability
Institute**

Anglia Ruskin
University
Institute for Sustainability

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