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An Ecology of Practice in the Everyday

Leaving the (social) ground of (artistic) intervention more fertile.

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We inhabit the North East of Scotland. We are surrounded by rich and visible references to Scotland's past. This heritage lives in our sense of the present. We are interested in art happening in the everyday. We make artistic interventions in specific places.

We work very slowly. We explore different possibilities before deciding to go ahead. Sometimes we decide to do nothing.

We listen.

Peter and Eliane said imagine standing beneath the classical pantheon. Imagine Flora, the earth goddess; Neptune, the god of the sea; Mercury, the messenger and Luna, the moon goddess looking down on our human world. Imagine the Siege of Troy and the Boar Hunt at Caledon. Imagine these stories of power, of fear, love, success and defeat telling us about our human place in the universe. Then imagine these images consumed by flames. Our 12th century Tower House was reduced to charred fragments. It was one of many properties in this large house.

The ceiling was 400 hundred years old, and for 380 of these years it had been owned by the same Scottish family. As a Swiss family, we bought the Tower House. Two years later we had to put our family home back together again. Now fifteen years on we want to think about how we should replace the painted ceiling. It was a significant piece of Scottish heritage.

We said that we could help.



David said imagine a particular coastal town on the most north-eastern point of the Scottish coast line. Like many others in these parts it has been dependent upon fishing as an industry. The headland is in a treacherous place if you happen to be a sailor. Generations of inhabitants have developed the means of communicating to people in ships out at sea. They have built, maintained and used lighthouses that have evolved over generations. These are now redundant, replaced by new, more accurate and versatile technology located in outer space - global positioning systems. The young people of this town are interested in new technologies, not the old ones. They are (also) interested in skateboarding and text messaging. They face a new challenge. This challenge is connected with the sea. What might this town become? They say we now need to think about this.

Can you help us? We felt that we could.

Maggie and Stephanie said imagine a group of island women. They are not young. Many are white haired. Their hands move rhythmically and at great speed constructing pattern, colour and texture with wool. Sometimes they work alone. Sometimes they gather together. Their 'maakins' is functional – gloves, scarves, pullovers, socks and jackets. It is also complex, aesthetic and highly crafted, rich in meaning and know - how.

For some of these women this work has uncomfortable associations of near slave labour. For others it is pleasure. It is the performance of an art - repetitious and inventive at the same time. The process could disappear with all the knowledge that goes with it. How could the young become interested in keeping the tradition alive? Is it important to do so?

We felt that these questions were significant to Shetland as well as other craft practices in other regions.



Chris said *imagine a landscape in which three people own the hills that surround you for 360 degrees. Imagine a village in the middle of the valley. Imagine a field on the corner of a village. You look at it everyday when you go to work – it is just across the road. What will happen to the field in the future? Nearer the city many of the fields are being covered with suburban housing. Imagine that the village was laid out by the estate as part of a programme of agricultural improvements nearly a century and three quarters ago. Now agriculture is changing. What will happen to the field? What will happen to the village?*

My neighbour Pat Dunn will retire next year. I think he is the last farmer living in the village who tenants land from the estate. His father died farming and he does not want to, so he is retiring. What happens when no-one wants to farm this hard land?



Anne said *imagine that the need for art in everyday lives has changed the way that art is made. It is a challenge. Imagine making art in a different way. Imagine learning not teaching. Imagine hearing what people might need or want from art. Imagine art forming itself from the things that you most care about, through the people that you most care about. Imagine an art that begins at home and not in the gallery.*

All these different imaginations came together in a partnership.

That partnership, On the Edge Research, has as one of its central concerns sustainability particularly with reference to the visual arts. In seeking to understand sustainability we have perhaps inevitably turned to an ecological metaphor.

A number of sources have informed our approach. Jane Jacobs, economist and author of ‘The Life and Death of Great American Cities’, ‘Cities and the Wealth of Nations’, and ‘The Nature of Economies’ offers an interpretation of how economies are shaped by the same natural laws as ecologies¹. This is particularly set out, through the mechanism of Socratic Dialogue, in ‘The Nature of Economies’. Jacobs’

¹ Jane Jacobs, *The Death and Life of Great American Cities*, New York, Vintage Books 1961; *Cities and the Wealth of Nations*, New York: Random House, 1984; *The Nature of Economies*, Modern Library, 2000.

argument is not just that the natural laws governing natural ecologies are metaphorically relevant to human economies, but that the same laws actually govern them.

Her argument is based on observation, and is deceptively simple. In this she follows Adam Smith, and her work also sits in the great enlightenment tradition of common sense philosophy based on observation.

Jacobs maps four interrelated concepts – ‘energy’, ‘development’, ‘expansion’ and ‘evading collapse’.

These concepts are used to unpack the dynamics of both ecology and economics. Through this process Jacobs demonstrates that both fields are governed by the same ‘natural laws’.

We want to use these concepts to reflect on the key characteristics of the programme that we have been involved with as a group for some 5 years now.

We are interested in reflecting on the **function** of the research programme, and the practices of artists that are at the heart of the programme. We hope that by using Jacobs as a lens or trajectory we can highlight some characteristics of the research programme that we believe contribute to sustaining it.

We are not proposing to interpret the practice of individual artists through this lens, but we believe that the programme of research, involving groups of people with different experiences and expertise working together to make art in communities in the North East of Scotland is usefully investigated through this lens.

We believe that by understanding the ‘ecology’ of this practice we hope to be able to operate as a group more effectively, to sustain it, and that the ecology of this practice becomes part of the inquiry.

More specifically we are at the end of the first cycle and we are trying not only to understand what we have achieved from multiple perspectives, but also to move on to another cycle.

Conducting Energy - development and expansion

Jacobs uses **energy** as a key concept that underlies the whole argument – whether in ecologies or in economies. In fact her argument is that ecologies and economies are **conduits** through which energy is passed.

“Contrast that (the loss or refraction of energy within a desert) with the energy flow through a well-developed forest ecosystem. In the forest, energy flow is anything but swift and simple, because of the diverse and roundabout ways that the system’s web of teeming, interdependent organisms uses energy. Once sunlight is captured in the conduit, it is not only converted, but repeatedly reconverted, combined and recombined, cycled and recycled, as energy / matter is passed around from organism to organism. Energy flow through an intricate conduit is dilatory and digressive.”²

One might re-imagine a conduit in a less linear way as multiple interconnected circuits or as a web³. The idea of a web recurs as a significant characteristic in other parts of the discussion, and conversely linearity and simplification recur and are weaknesses.

This chapter tests the idea that an art project is a conduit, in Jacobs’ usage, through which energy passes.

⁴Jacobs describes development and expansion as the fundamental changes that take place in the conduit. *Development is qualitative change and expansion is quantitative change.*

“Let’s define development as significant qualitative change, usually building up incrementally. But even single instances of qualitative change can be significant.”⁵

² p46, *The Nature of Economies*, Jane Jacobs, Modern Library, 2000

³ The construct or metaphor of web has been explored by theorists such as Fritjof Capra in ‘The Web of Life: A New Scientific Understanding of Living Systems’ Doubleday, New York, 1996 and ‘Hidden Connections: A Science for Sustainable Living’ Doubleday, New York, 2002.

⁴ This is the first chapter in a proposed book. The second chapter will deal with human agency in more detail.

⁵ p15, *The Nature of Economies*, Jane Jacobs, Modern Library, 2000

She goes on to describe the process of differentiation emerging from generality as the fundamental principle in development.

This takes the form of a cycle. Each differentiation in turn can generate a generality from which new differentiations can take place.

Jacobs highlights the fact that this takes place at different levels – it is fractal in character. So in our own case we can read the emergence of differentiation from generality at three levels. The On The Edge Research programme started with a single issue, a concern with the problematic of contemporary visual arts in remote rural areas. Across a four year programme multiple interrelated issues unfolded from this problematic. Equally at project level, we might also see each project as in itself moving from generality to differentiation as it responds to its own particular cultural context. We encounter different manifestations of a shared phenomenon across five projects. And finally we might read the development of practice led research within the visual arts in the same way. In this case the generality is the introduction of formal research into an area (art practice) that had previously not been the subject of academic inquiry except indirectly through art theory or history. By establishing research through practice as a new generality, On the Edge becomes a specific case among others.

We can then begin to recognise the other characteristics of the way that energy behaves that Jacobs highlights i.e. in terms of development, expansion and evading collapse.



Edge FM, Fraserburgh, 2001-4, artist Paul Carter

David asked the researchers to help figure out how to engage young people in the museum. It was possibly one of the most important museums in Europe in lighthouse technologies. David was interested in young people. He was interested in how they used technology to communicate in new ways. This town was where the modern lighthouse had been developed, and where the first radio broadcasts had been tested. Its history was unique. It was part of the heritage of the town. It was the heritage of the young people who lived in the town. There was a clear connection between the invention of the lighthouse to communicate to ships at sea and the invention of the mobile phone that young people used extensively. Both were means of communicating via technology.

David invited people in the town to meet the researchers - teachers, community leaders, young business people. After some time they were joined by an artist. This artist invited a group of skateboarders to come to the museum. About twenty came. They knew each other. The young people laughed when the artist showed them his recent sculpture. It assumed the presence of extra terrestrial life. The sculpture was made from this and that, from what was around him. It looked like things that the young people themselves could have made.

The artist suggested that they should build a radio station that the young people could use. He came each Saturday and worked with the group of skateboarders. They worked from one of the lighthouse keeper's cottages in part of the museum. They made up rules. They made a banner and a logo. They made a name – Edge FM. They applied for a licence to broadcast. They took digital recorders into the town and asked about Fraserburgh as home. They asked “What would you

change in Fraserburgh?" "Do you like Fraserburgh?" "What would make Fraserburgh better?" Over a weekend in August Edge FM broadcast the different perspectives that had been collected.

"It's like some parts a toon's really minky an that's what abdy look at but they hanna looked at the good bits"

The question of engaging young people in a museum of lighthouses became a projection by them of the future of their town. The artist and the project provided them with a new space.

Inthrow, Lumsden, 2001-4, artist Gavin Renwick

The questions Chris was asking about the field had been prompted by working with Gavin Renwick, an artist and architect. We worked with Chris to develop a brief – to explore the ideas, the depth and shape of the questions. We all then approached Gavin to work on the project. For him it was an opportunity to explore themes he had been developing in the Northwest Territories of Canada in his own home country.

Gavin worked with various groups – of elders in the village, of architecture students and graduates, of young people in the village, and with other artists. He developed a number of threads in the work all around the idea of home and hearth.

Gavin Renwick said –My practice is about continuity - you can only go forward if you know where you come from.

Ian Hunter said – This project is about revealing change.

Pat Dunn said - If they dinnae know about things, there's nothing to be said.

Willie Petrie quoted Robert Burns:

*"I'm truly sorry man's dominion,
Has broken nature's social union,"⁶*

A discussion about the future of a field became a way of each contributor positioning themselves.



Good research certainly, and good art practice also perhaps, develops by responding to curiosity, a hunch that says "Why, I wonder, does this work and not that?" or "What happens if...? By responding to the hunch, a new level of thinking unfolds that itself needs to be addressed by action or through new questions.

Our starting question with On the Edge was "How do you develop visual arts practice of quality in remote and rural areas ie in contexts in which there is little conventional infrastructure?" We asked this question as artists, administrators and inhabitants of remote rural places, not as sociologists - as makers and dwellers within the situation, not as observers outside the situation.

The first type of change that takes place in the conduit is **co-development**.

The description of the process of differentiation emerging from generality can be read as linear, but Jacobs

⁶ *To a Mouse, On Turning Up Her In Her Nest With The Plough*, Robert Burns, 1785

describes the process within an expanded field and highlights the importance of co-developments. “I mean that development cannot be usefully thought of as a ‘line,’ or even as a collection of open-ended lines. It operates as a web of interdependent co-developments. No co-development web, no development.”⁷

Interestingly this argument is further enriched and supported by another writer concerned to explore the way in which ecology enlightens our understanding of culture.

In an interview with Wallace Heim, the quantum physicist and activist, Dr Vandana Shiva, leading opponent of genetic modification and the patenting of seeds, stresses the importance of biological and cultural diversity working together.

“When I was in a tribal area in central India, one of the tribals mentioned casually that seed can’t ever be privately owned, it belongs to a whole community and they reaffirm that every year with Akti. ... Each dona is different, and they are all put together and mixed and exchanged. The mixing is both the sharing and also a reminder that isolated rice which is not being exchanged will have disease. It will be prone to pest attacks, it will lose resilience. ... But it’s renewal comes out of exchange,”⁸

It is interesting to note that the exchange is of the seed, not of the bread (the product). It seems to us that this is critical. The conventional model within the arts involves only sharing at the stage of completed product.

The Maakin project, 2001-4, Shetland, artist Susan Benn and its legacy 2004-present, Bill Bankes-Jones

*“Tête à Tête is an opera company dedicated to innovative small-scale work of the highest possible quality. For over a year we have been investigating how we might collaborate with spinners and knitters in Shetland to create a major new project. We have met over 100 knitters and spinners as well as many leading members of the Shetland arts scene. Recognising these craftspeople as fellow artists of the highest standing, we would like to develop a new piece together, incorporating knitting and spinning alongside singing and playing, involving Shetlanders as professional performers, and their craft as inspiration, enlisting the help of the local community to shape and develop work of international standard...”*⁹

Bill heard about the Maakin Lab and was intrigued. He worked with the On the Edge team to investigate the idea of involving the knitters in a new production of the Odyssey developed and rehearsed in Shetland as an international touring opera.



We would highlight the approach taken by On The Edge as specifically fostering the exchange from the outset of the project.

On The Edge has published the completed projects in books. This is a mechanism for disseminating

⁷ p19, *The Nature of Economics*, Jane Jacobs, Modern Library, 2000

⁸ *Begin with the small*, Vandana Shiva argues for diversity, in discussion with Wallace Heim, The Ashden Directory, www.ashdendirectory.org.uk

⁹ *A Shetland Odyssey*: Proposal Document, Bill Bankes Jones, 2005

learning, perhaps more than a mechanism of exchange as in the seed ritual articulated by Vandana Shiva. We would argue that the books are perhaps a contribution to the development of new generalities. Books in general, and the On The Edge books in particular, help to frame new questions in the minds of readers. The mental skills of analysis, synthesis and evaluation enable readers to comprehend our developments in relation to their contexts. Perhaps it is in the process of seeing 'here' juxtaposed with 'there' that new generalities are developed. Interestingly, Jacobs addresses the process by which generality produces differentiation, but does not address how differentiation produces generality.

Where in a more conventional visual art or research practice, a programme of projects might be framed at the outset and set off independently, in On The Edge the researchers consciously established a process that brought the key individuals together on a regular basis and introduced new individuals at strategic points. This programme significantly contributes to the web that is co-development.

Having created space for development, OTE also provided a threefold structure of supports for this development. Retrospectively we can see that this threefold structure supported the web of development rather than its linearity. It encouraged a process of co-development.

A. The core research was structured around a 'spine' of Workshops. These both provided a space for exchange and also a space for shared issues to be developed. This went beyond project management.

B. Gatherings were convened to bring together a range of specific expertise to support the development of individual projects. For example the response to the loss of 16th century heritage in the form a painted ceiling was informed by bringing together historians, contemporary curators, artists of different kinds, patrons, administrators, local council officers and researchers into a discussion in which each individual was invited to comment on the challenge at hand from their particular perspective.

C. Interim meetings were held at key stages during the projects to enable reflection and to explore avenues forward, ensuring that opportunism was weeded out and quality was assured. These were also playful opportunities to bounce ideas around.

Celestial Ceiling, 2001- present, artists Robert Orchardson and John McGeogh



We asked the historian. He responded by describing how the original ceiling had come about.

We asked the contemporary art curator. She contrasted the artist in the 16th century carrying out the desires of the patron with the expectations of autonomy and freedom that artists look for now. She suggested names of artists of quality who make paintings.

We asked a painter of heraldry who has painted many ceilings of historical importance. He responded, 'You might consider something like this. It is quite similar to what was there.'

We asked a contemporary artist and he responded 'Think about how the original was made. Think about what new materials are available to artists. Think about how we can now throw light as a medium, not trap light in pigment. They are now ways that were not possible in the 16th century'.

We asked the artist who trains other artists and he said, 'It must be a genuine response - to what was there and to what we believe now.' He suggested young artists whom he had taught.

We asked the architect and he said, 'I will keep an open mind but keep me informed. Work with me and work with my clients. They are the new patrons. They must always be informed and they must be allowed to inform what happens.'

The second type of change that takes place in the conduit is **expansion**.

“Development and expansion are tightly interlocked. They make each other possible.”¹⁰

Jacobs observes that expansion does not simply overwrite itself. Both in ecologies and in economies expansion is a fundamental principle within an understanding that everything is in a state of dynamic stability, constantly evading collapse. The process of differentiation also means that in both ecologies and economies new spaces are constantly being opened up.

Energy enters the conduit and the conduit uses and reuses the energy, multiplying its effects. This argument is at the heart of Jacobs' interpretation of the economic dynamic of cities in particular. She argues that the more complex and sophisticated the web of co-development, the more expansion results.

Jacobs argues that all conduits, ecologies or economies, depend on an initial gift of energy, and also require infusions of energy. In ecological terms the initial gift and the regular infusions come from the sun. In economic terms these come from the natural resources in the locality of settlements – in fact this is reversed – human settlements form where there are natural resources – animal, vegetable or mineral certainly, but also geographical – the mouths of rivers, fords, etc.

Whilst On The Edge benefited from the infusion of energy in the form of funding from the Arts and Humanities Research Council, and used that to lever other funding, it also, and probably more significantly benefited from the input of energy from the individuals who became partners in the project.

We started this chapter by highlighting the imaginative challenges offered by the key partners: Peter and Eliane, David, Stephanie and Maggie, and Chris, as well as Anne.

Celestial Ceiling...

Peter and Eliane, who were trying to imagine a painted ceiling for their private house, approached the manager of another large country house, a few miles along the coast. This House also happened to be the outstation of the National Galleries of Scotland. Peter and Eliane asked, How shall we replace the loss of the painted ceiling?

Charles said, 'This is a good question.'

Charles was happy to advise on matters of heritage. Normally he was the manager of a visitor attraction. He resisted that function. He made the connection with the researchers within the Art School whom he had worked with before. The project bridged public and private spaces because Charles knew about heritage, not because he was a manager.



These were rich and fruitful contributions and were the energy for the conduit. But in reality the research did not come across these accidentally. The individuals emerged through ad hoc projects undertaken over

¹⁰ p45, *The Nature of Economies*, Jane Jacobs, Modern Library, 2000

a period between Gray's School of Art and cultural organisations in the North East of Scotland.

As the research programme began to frame the fundamental questions (the generality), so it also challenged its partners to bring forward ideas for projects. In challenging and supporting the partners, the research team in retrospect sought out the **deep desires** of each of the partners. It is clear that the initial process of challenging and supporting the partners to bring forward ideas, enabled the partners to articulate the most significant challenges that they were facing at the level of organisations while drawing on each *as individuals* to identify how these challenges might be explored.

The partners were severally responsible for developing culture in different communities but also acknowledged a very individual vision of what that entailed. Each project partner saw their relationship with local communities as a specific unresolved challenge. This was neither a criteria for their selection, nor a pre-planned focus for projects. Rather it emerged from each project partner when challenged and supported to propose a project to the OTE research team.

This in itself is of interest. It firmly located the projects in a series of personal interests, desires and experiences through which individuals articulated themselves, while simultaneously acknowledging employment either within institutional structures such as a university, professional arts and heritage organisation, local government or for themselves as individual artists and community members. What was important here was not the job description, but the individual who enacted that role and their connectedness to networks of other individuals.

So we have identified the input of energy in the form of financial support and of human energy, and we have highlighted that the human energy had a specific, professional and personal characteristics.

We also need to acknowledge that energy eventually dissipates. This is known in the arts as much as in ecologies and economies.

“Eventually, a system discharges all the energy it receives. Energy / matter can be converted from various forms to various other forms, but it can neither be created nor destroyed. To be sure, it can be stored for short or long periods, as in corpses before they decay, timber, books, buildings, fossil fuels, even limestone. Ultimately, a system's discharged energy is lost to it by radiating outward.”¹¹

Finally, Jacobs unpacks the ways that ecologies and economies **evade collapse**.

Her premise is that everything exists in the condition of dynamic stability, and that everything in the end collapses, although in effect the energy dissipated at collapse will re-enter another ecology or economy at some later point. We might suppose that archaeological artefacts are the dissipated energy of earlier civilisations that have re-entered the economy as a result of being recognised as more than merely rocks.

Returning to the point, in effect Jacobs argues that all ecologies and all economies are constantly evading collapse and that the tactics by which they do this simply sit alongside the tactics of development and expansion within a portfolio that is constantly in action. One might criticise the terminology of evading collapse because it suggests that the evasion is only taking place at critical moments of imminent collapse. One has to bear in mind that Jacobs' assumption is that everything is constantly threatened by collapse.

Jacobs asserts that there are only four tactics for evading collapse: positive-feedback loops, negative-feedback loops, bifurcations, and emergency adaptations.

Positive-feedback and negative-feedback loops are fundamental to ecologies and economies equally. The loops are interactions between different forms of energy, matter and process. These loops are also the means by which development processes interact with each other at the level of ecosystems and economies. They are where the processes of expansion are controlled to attain inherent limits and to not exceed them, and where organisms do not simply overwrite each other within ecosystems. In all cases the feedback loops are multiple, complex and interrelated and take place within the conduit we discussed earlier.

“...beneficent loops operate to achieve stability up to their limit; from that point on, they act to maintain

¹¹ p46, *ibid*

stability, but they're still as necessary as before. The system must still continue to be dynamic or it will deteriorate. A vicious circle's limit is not an achieved dynamic equilibrium but collapse. It dead-ends"¹²

One can immediately see that these feedback loops are dynamic and interact with each other. Jacobs highlights examples where feedback controls can become vicious circles, and of course feedback controls do not make for perpetual motion. It is therefore the case that when the feedback loops start to generate instability, instead of stability, other means to evade collapse are required. These are bifurcations and emergency adaptations.

Bifurcations are forks where a new development is established, often as a result of opportunity. Jacobs makes the point that bifurcations share many characteristics of development, but involve a change in direction. Jacobs' examples of bifurcations are indicative – the development of air-breathing vertebrates from an ancestry of marine vertebrates; the development of aqueducts to address the water needs of cities; or the development of elevators to make skyscrapers functional. In both the latter cases we know that the required technology was available prior to its application to provision of water to cities or provision of transport within vertical buildings.

The bifurcation occurred at the point of opportunity / necessity. In retrospect we can see an emerging instability in the development process (lack of fresh water threatening the health and economy of the city) and the bifurcation results in collapse being evaded. This does not change the fundamental state of dynamic stability. It does not create a stable system. New instabilities are inherent within the bifurcation.

The projection of a 16th century ceiling and its exploration through digital tools posed a new set of questions. How could we achieve elegance in the interactivity between the projection and its user? What are the criteria of elegance? What technologies already exist e.g. within computer gaming? This work is being taken forward within a new partnership.

Maakin Lab, Shetland (2001-4)

Susan Benn, the artist, said: If we could bring all the representatives of the food chain of the knitting industry on Shetland together, then we would have a chance of moving forward, of having the right support for the energy of the sharing of experience to move forward. Without this representation, our effort would be limited. She understood that a single individual cannot arrive at a new space of thinking and valuing on their own. They need others to get there. They need others to take ideas forward into the real world. We worked together to try to make this map into a rich and full experience. For some, the makers, it was so.

'For me the beauty of the Lab was the creation of a space in life and work for new growth..'
Norma Anderson, textile designer

The funders did not attend. They could not see why their presence was needed.

The educators returned to teaching and felt that they had gained little in terms of how to teach. That revealed itself late on in the process as their 'deep desire' for getting involved.

The Lab fed into the development of an opera, linking the skills and passion of traditional knitters with the interests and imagination of an opera producer, composer and librettist.

Further work in a different direction is in development with Susan Benn in a national scheme to pilot training for artists and others to work collaboratively.

Finally **emergency adaptations**, which is not a catchall for anything else, is rather a description of those means of evading collapse such as the body responding to infection by creating a fever, or the government responding to war by imposing rationing. These are temporary means of evading collapse when it is expected that normality will recur, and is therefore different from bifurcations.

¹² p101, ibid

Human Agency

Jane Jacob's view of economies as a natural phenomenon, governed by the same natural laws as ecosystems, is developed from the observation of patterns. As theorist Jacob's positioning is essentially that of looking at her subject from a 'bird's eye' perspective. She is external to the subject of inquiry.

Jacobs does not focus on human agency within the argument. Whilst her argument is not determinist in character – the end result of developmental processes is not predetermined – it is not always easy to see where human intervention plays a role.¹³

Human aesthetics do enter into Jacob's argument as one of a number of evolved traits which function to maintain the environment. Jacobs balances the evolutionary function of 'survival of the fittest' with 'maintenance of the habitat'. All organisms, except perhaps humans, both act to survive, but also exhibit behaviour that preserves their habitats. Jacobs' uses the example of all sorts of cats who spend considerable amounts of time lounging around in the sun rather than killing continuously beyond their hunger.

Jacobs identifies in particular the human aesthetic instinct as a form of play that contributes to maintenance of the habitat by making it a focus of value.

We would argue that this naturalisation of human agency does not sufficiently articulate the complexity of human intervention in relation to art practices. It removes the need for us to interrogate how and why we make judgements. It subsumes the complexity of individual creativity in forming culture as a living process by flattening this complexity into the map or theory of ecological behaviour patterns.

Within art research it is possible and perhaps productive to take a different positioning in relation to human agency. The challenge of the artist researcher is to speak from within experience while at the same time positioning oneself outside it. The cultural theorist, Irit Rogoff, describes this as being simultaneously 'within' and 'without'¹⁴. There are areas of experiential knowledge that cannot be accessed from a bird's eye perspective. Where economies, as ecologies, in Jacob's terms is viewed as a set of principles extrapolated from observation, research through the practice of the arts is a process of learning through the experience of doing, of embarking on a trajectory based on intuition or hunch, and then improvising, albeit within a rigorous framework of inquiry.

In exploring the limitations of Jacob's observations on economies as governed by natural laws, we find ourselves in need to stretching and expanding (to use Jacob's term) areas of the dynamic that focus on human agency that are currently not accessible within either the notion of 'ecology' or 'economy' or their interrelationship. This perhaps explains the two voices running through this chapter – one explanatory, exploring the limits of Jacob's theory and the other lyrical, somehow representing the act of improvising and responding intuitively – of making meaning and culture, not explaining it.....

Conclusion

We think that OTE represents a new form of research practice. It is new in the sense that it goes beyond an examination of the practice of an individual (the position of the reflective practitioner), towards developing a shared inquiry across different contributors, more like interdisciplinary work. Artists, researchers, administrators and entrepreneurs have contributed their experience and expertise to a shared set of questions.

¹³ One place where it obviously does is in a short discussion on the impact of subsidy in human economies. In the discussion on feedback loops, Jacobs uses the example of fishing on the Grand Banks. She both notes that sometimes even a positive feedback loop can lead to instability – use of larger nets starts by generating larger catches, but can mask collapsing fish stocks. But subsidy masks the function of feedback loops, enabling activities which would normally self-limit, to carry on unchecked. So fishing on the Grand Banks went beyond crisis point because of subsidy. As catches dropped, the normal consequence – boats being laid up – did not take place because the government subsidised the industry. As catches continued to fall, government subsidy continued to interfere with the function of the feedback loop.

¹⁴ "Was Ist ein Künstler?" Eds. Katharyna Sykora et al. 2003

One of the qualities that sustained this has been the energy drawn from enabling individuals to speak to their deep desires. This has been framed by a perception of how to be most purposeful within an organisation – to go deeper rather than to reiterate the superficial.

The framework supported learning in the project development process, rather than just ‘doing’. Vandana Shiva makes a point that fertility is produced through the act of exchanging. The research has been undertaken in the context of complexity. Rather than isolating one activity for investigation, we have pursued a number of complimentary activities. As researchers we have learned through the activities rather than observed them.

We do not offer this as a guarantee of success in the projects, but believe that good ideas have not been consumed. Rather, the focus on learning has enabled us to work slowly and to develop our understanding of why certain processes have been effective.