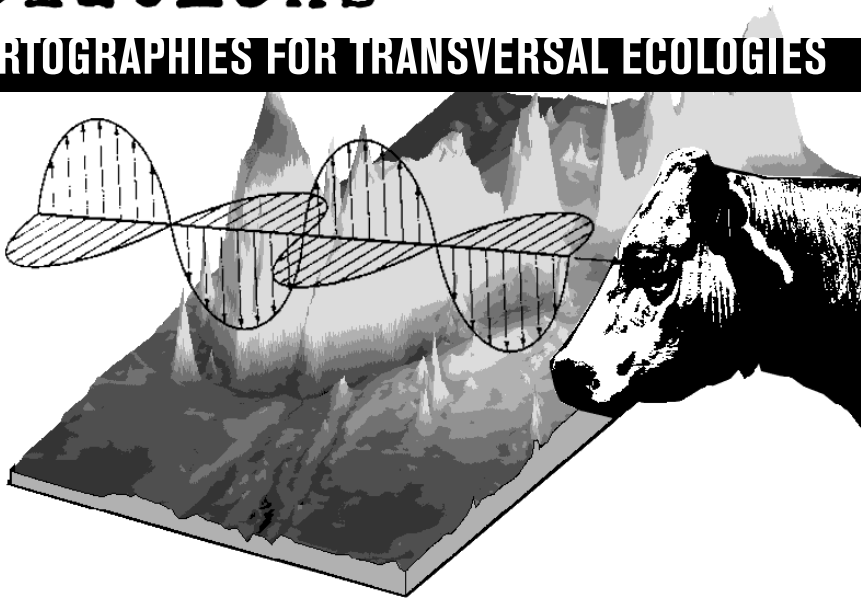
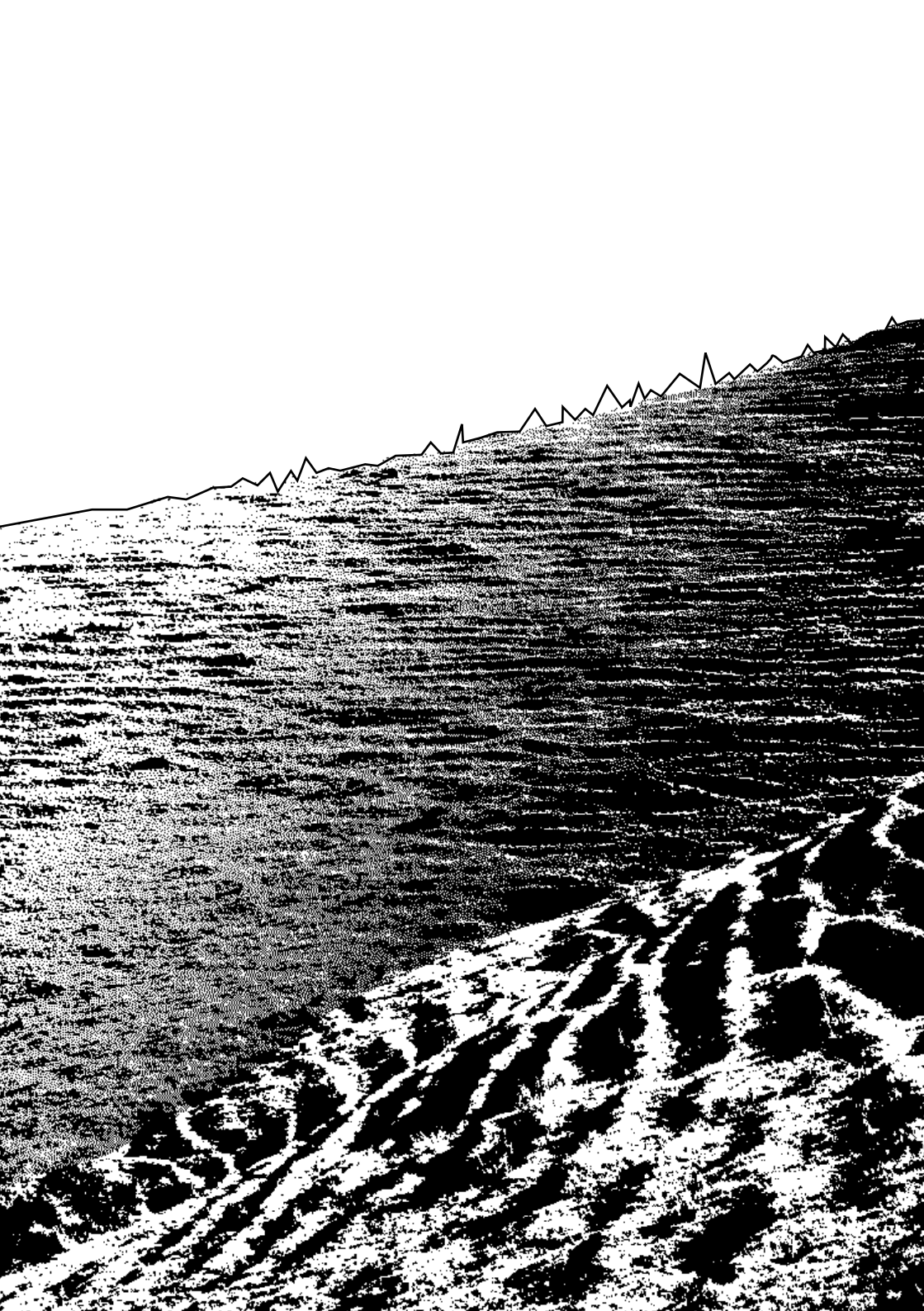
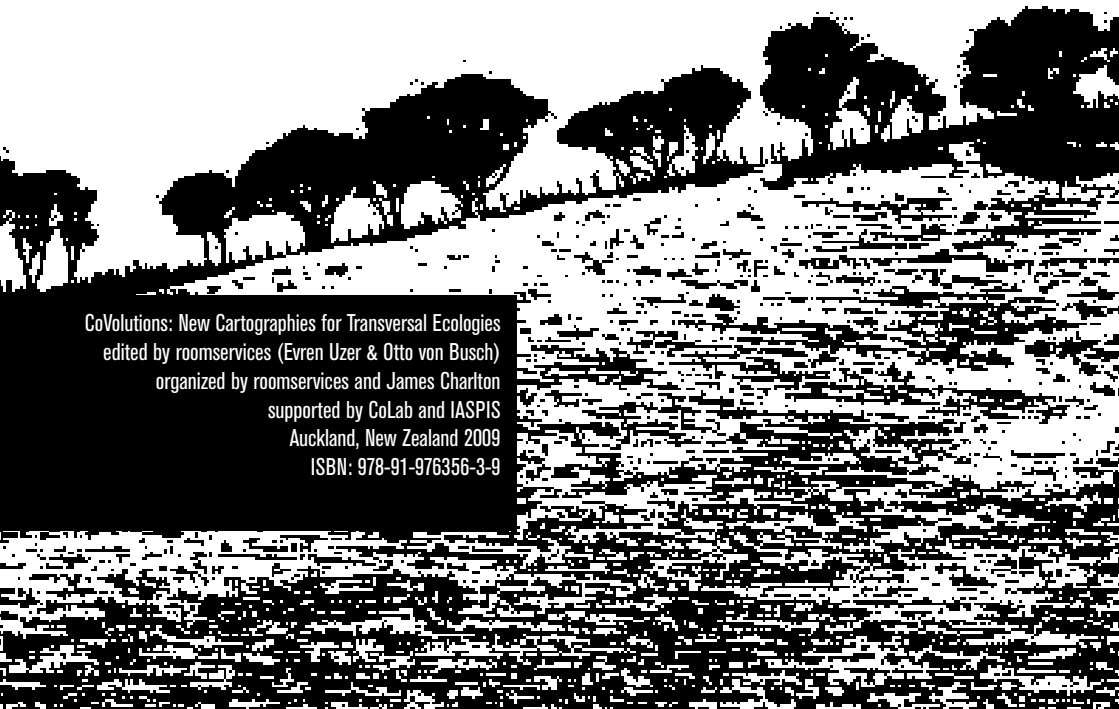
coVolutions

NEW CARTOGRAPHIES FOR TRANSVERSAL ECOLOGIES







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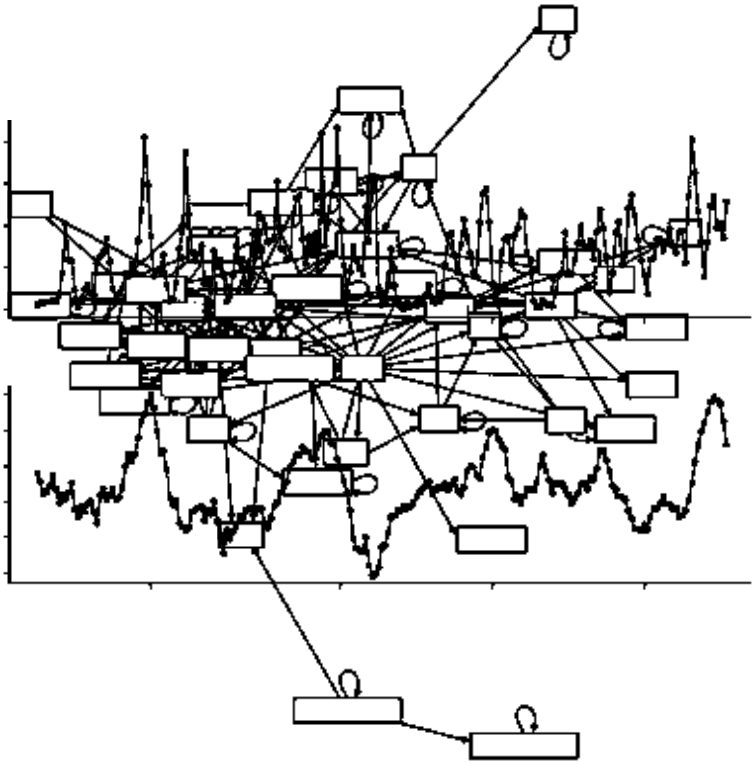
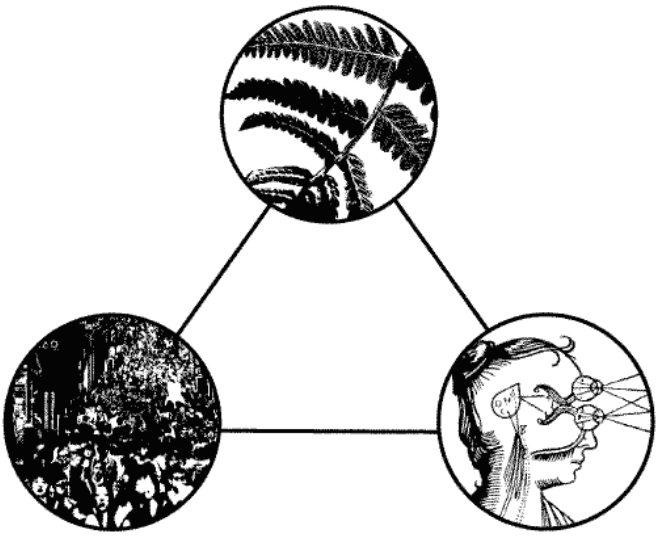


To multiple waves of migrant organisms New Zealand appeared as a virginal land of plenty. Since the split from Gondwana about a hundred million years ago, a multitude of migrating birds, insects and plants crossed the sea to arrive its shores throughout the "deep time" of evolution. As humans moved in, early Polynesians found rich sources of easy accessible proteins in the rapidly depleted herds of flightless moa-like birds. With the arrival of European settlers came not only western cultural colonization but also the implementation of eurocentric methods of specialized agriculture, transforming

the landscape into a replica of European pastures, and increasing the edible biomass of the islands.

The industrialised farming of potatoes, sheep and cows, and other introduced species, bent the equilibrium of the endemic ecosystem. It was a form of bio-colonization that originated from an understanding of nature as a mechanic source of human-centred energy production, which in a similar vein has led to today's agro-industrial modes of production, and operates far from the life-cycles of endemic ecosystems.

In recent years New Zealand has embraced a set of elaborate policies to address issues concerning ecological influences and introduced measures of biosecurity to exclude the alien and contain the indigenous. These policies widely conceptualize ecology as the natural environment, that of larger organisms such as plants and animals, but generally fail to recognize the flows of germs and non-living agents, such as norms and genes. Actors that perhaps have been the dominant European colonizers of the planet.



coVolutions

CoVolutions was a one-week cross-disciplinary "Doers and Makers workshop" designed to stimulate interactions between a diverse range of artistic practices in an effort to create new understandings and representations of ecological systems. The understanding of "ecological" here is taken from Felix Guattari's *The Three Ecologies,* which emphasizes the interactions between the environment, social networks and individual psychologies of subjectification. These three systems are closely intertwined and not separated by distinctions between the natural and the cultural. Instead they co-exist and interact in a continuum.

This means that to understand ecological systems we should not look only to "nature" but to the dynamic interactions between all three ecologies. Related notions - of a dynamic network of interconnected ecosystems in constant flux integrated with continuous interventions, loops and feedbacks - form the basis of Howard T. Odum's "systems ecology", and another platform for CoVolutions' reading of "transversal ecologies".

Through individual and collaborative hands-on experimentation and engagement with praxis, the project aimed to show how art can reach out to scientific practices through the critique, visualization and representation of the "abstract machines" of ecosystems and biogeography. How can artistic modes of representation help us to better see and understand the interrelations of the three ecologies, and how can we conceptualize their interdepenent processes of "covolutions"?

A Cross-disciplinary Context

The project sought to advance the interdisciplinary and "ecological" thinking of artistic practice by spanning a wide range of designerly "matters of concern" (Latour 2005). The project methodology runs on the continuum from "artistic research" and knowledge production (Hannula 2005, 2006) to the natural and "hard" sciences. Drawing upon examples of "Professional-Amateurs" (Leadbeater & Miller 2004), or "User-Innovators" (von Hippel 2005), CoVolutions also addresses issues of dissemination of science; into the hands of "serious amateurs" who participate in the production of "hard" science, yet through controversial means and methods, often bypass the control and politics (or the "hegemony") of the scientific establishment. The Critical Art Ensemble (CAE) has called this practice "amateur intelligence operations" (CAE 1994: 23), a form of citizen science, initiated by transdisciplinary professionals and sometimes with an emphasised critical edge.

The performative and discursive part of the project, or the "theoretical" knowledge production, resonates with the way Critical Art Ensemble perceives street theatre as a political tool of engagement, a tool-being situation to conceptualize new knowledge. The street theatres they discuss are

> "those performances that invent ephemeral autonomous situations from which temporary public relationships emerge that make possible critical dialogue on a given issue" (CAE 2000: 87)

Yet, it would be wrong to only consider the project as a "discursive" issue. Its focus lies in the hands-on qualities of intervention and the methodological discipline of scientific labour. This is indeed the orderliness of science, of "deep media" or "variantologic" practice (Zielinski 2006; Zielinski & Wagnermaier 2007).

Thus, the ecologies examined throughout the process are not "metaphorical" or limited to "the structure of language", but take a "realist" viewpoint on ecologies, even if promoting the cross-disciplinary amateur approach.

For CAE it is important to engage amateurs since they

> "have the ability to spot contradictions and rhetorical cover-ups within the dominant paradigms, are freer to recombine elements of paradigms thought dead or unrelated, and can apply everyday life experience to their deliberations with greater ease than can specialists. […] Most importantly, however, amateurs are not invested in institutionalized systems of knowledge production and policy construction, and hence do not have irresistible forces guiding the outcome of their efforts, such as maintaining a place in the funding hierarchy or maintaining prestige-capital." (CAE 2004: 147)

To use the terminology of Marres (2005, 2008), herself building on the works of Dewy (1991, 1999) and Latour, we could frame the project as a hands-on crafting and building of a "material public", or a "parliament of things" (Latour & Weibel 2005). This approach means to go from an anthropocentric view on politics to invite the material aspects of matter-energy and physical "actants" (Latour

1996), a perspective often termed “post-humanist” or a “neo-materialist” stance on science and politics (DeLanda 1997, 2006).

From a perspective of artistic research this could be an opportunity to use ”creative technologies” in new ways and to find new passages between epistemological fields, of “reconciliation” (Battle 1997) as well as of “radical democratic” antagonism (Laclau & Mouffe 1985). Yet, the core element of such endeavours would be to put emphasis to the hands-on practice and to ”hack reality itself”. The project could be an experiment to follow the encouraging words on DeLanda, to step beyond the semiotic turn which has reduced reality to questions of “frameworks of interpretation”:

> “The key to break away from this is to cut language down to size, to give it the importance it deserves as a communications medium, but to stop worshipping it as the ultimate reality. Equally important is to adopt a hacker attitude towards all forms of knowledge: not only to learn UNIX or Windows NT to hack this or that computer system, but to learn economics, sociology, physics, biology to hack reality itself. It is precisely the “can do” mentality of the hacker, naive as it may sometimes be, that we need to nurture everywhere.” (DeLanda cited in Miller n.d.)

Approaching ecologies from a materialist perspective, but with an attitude of reconciliation, could help artistic practice meet the natural sciences. It would be an embrace of precision and reproducibility, yet with the acknowledgement of ecologies as “matters of concern” under the scrutinizing eyes of amateur science. Perhaps this could be a small step for artists to start “hacking reality itself”.

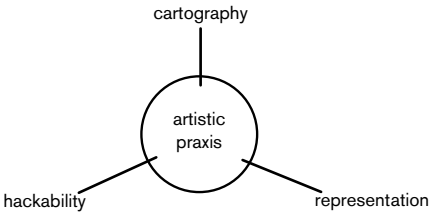
CoVolutions as new cartographies

In order to better conceptualize, understand and discuss ecological interactions, the project aimed to reveal "transversal interconnections" between ecologies by producing new artistic interfaces that tune, bend and hack the matter-energy flows of the three ecologies. The project thus connects three methodologies of praxis:

Mapping / Cartography: The mapping and representation of vectors, channels and flows of matter-energy (or what Howard Odum calls *Emergy*) through living ecosystems – environment, human settlements and organisms. (Think flowcharts, electric circuits, histograms, genotypes/phenotypes, network analysis etc)

In Aotearoa New Zealand the imposition of Western maps and Cartesian grids over an indigenous understanding of space has been discussed as a form of colonisation, that not only dominates and classifies but has aided the erasure of another sense of space. For example, from the catalogue to an exhibition addressing these ideas:

> "Maori discovered, thoroughly explored and mapped this country before the appearance of Europeans… But the grid they fixed and impressed on the land was oral. Structured by genealogy, legend and ideology and sustained by memory and ritual it was a complex map, but being oral it was invisible to the European. Europeans by that time had lost their ear for cartography." (Curnow 1989: 49)

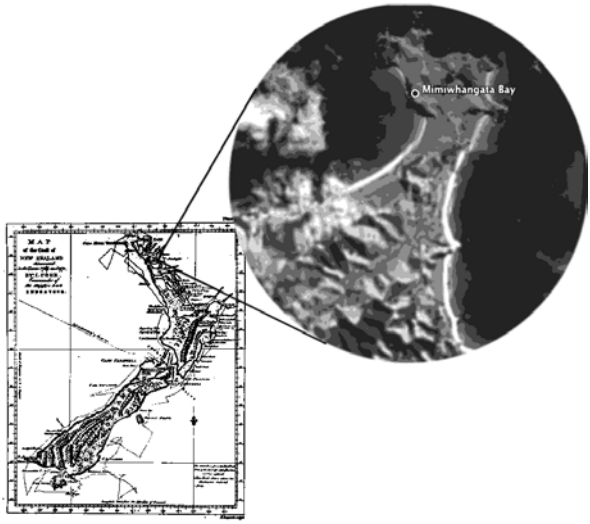


While this passage inappropriately ascribes a grid to Maori conceptualization of space it also reminds us that space was conceptualized and organised through a web of oral traditions, and this invisible oral tradition remains significant to understanding Maori relationships to space as an anchoring to place. (Nova Paul "Site Visits" paper 2008)

Tactics of hackability: Where cause-effect relationships are affected by the use of force, of blocking or controlling, ecosystems are bent, modulated, mutated – tuned by keeping the power on. This requires new tactics for intervention, of micro-politics, interventions and social practice. (Think small change, surfing, hacking, circuit bending, sampling/remixing etc)

Artistic technologies of representation: With the help of software, sensors and microprocessors create physical interacting representations of the mapped ecosystems, suggesting and simulating how these can be hacked and tuned. (Think synthesizer, arduino, physical prototyping, toy surgery etc)

These three intersecting lines of praxis were in various amounts explored throughout the workshop and the fieldwork in Mimiwhangata Natural Preservation Area. The methods and outcomes are discussed by the artists in the following chapter.



Participants
Selected participants were invited to develop and activate cartographic mechanisms and methods for manifesting cross-readings between the three ecologies. Some participants also developed site specific equipment to support practical investigations or field works. While the apparatus used in these field works addressed one of the many diverse aspects of the Mimiwhangata Coastal Park it should also conform to *standardized luggage restriction* imposed by international travel and not exceed 20kg (44 lbs) total. Baggage had to have total dimensions (length + width + height) no greater than 158cm (62”). The activation of these quasi-scientific investigations exist as self-contained artistic interventions the findings and residues also serve as the foundation for this publication and the exhibition of the project at RM gallery, Auckland.

Mimiwhangata
CoVolutions specific fieldwork site is the Mimiwhangata Natural Coastal Preservation Area. Mimiwhangata Coastal Park is located on New Zealand’s northern island between Whangarei and the Bay of Islands.
Mimiwhangata, being a Department of Conservation site, embraces a variety of ecologies and terrain within a localised and isolated geographic domain. It encompasses areas of bush, a variety of coastal geographies along the contested foreshore, controlled pastures, stocked farmland, and reserves of endangered species of birds and marine life. Archaeological evidence shows Mimiwhangata was once inhabited by a substantial Maori community.

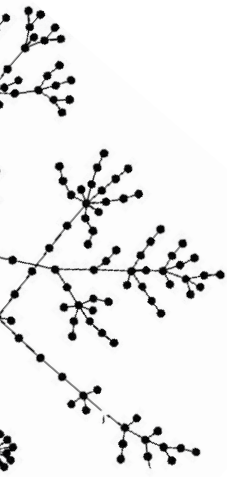
Systems, ecologies, praxis

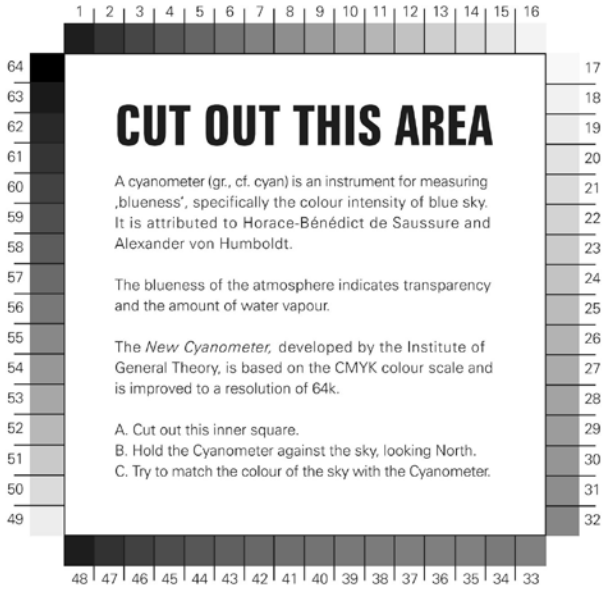
A point of departure for reading the projects from Mimiwhangata could be to take a perspective from systems ecology. Studying the projects from such angle could open for new understandings of artistic stances on the transversal dynamics of the three ecologies.

One of the key actors behind systems ecology, Howard T. Odum (1994, 2000, 2007), developed a set of tools for representation of energy flows through ecosystems. In his view electrical circuit diagrams could be used as metaphors to simulate ecosystems and for this he developed a set of general symbols of energy flows, what he called "energese".

By focusing on interactions and transactions within and between biological and ecological systems a transversal frame of reference can open new modes of practice as artistic interventions can influence the dynamics between the ecologies. Such approach could preserve the ambiguity and non-linear of the systems yet place praxis within the field of natural sciences and complexity studies. Quite as computer simulations of biosystems use metaphors to model the construction of biological assemblages, artistic interventions could acknowledge its influence on the flows of matter-energy in our shared world and not be afraid of its materiality. Artistic praxis has the possibility to diffuse knowledge of the transversal dynamics of the three ecologies and encourage further research into this trans-disciplinary field.

Projects of transversal ecologies





64k, CMYK

NEW Cyanometric measurings for further analyses
New Zealand, 02.05.2009 – 10.05.2009

	Colour	Temp.		Colour	Temp.		Colour	Temp.
02.05.2009			03.05.2009			04.05.2009		
morning			morning			morning		
afternoon			afternoon			afternoon		
evening			evening			evening		
05.05.2009			06.05.2009			07.05.2009		
morning			morning			morning		
afternoon			afternoon			afternoon		
evening			evening			evening		
08.05.2009			09.05.2009			10.05.2009		
morning			morning			morning		
afternoon			afternoon			afternoon		
evening			evening			evening		

Morning: 8am - 9am
Afternoon: 12am - 1pm
Evening: 5pm - 6pm

Orientation: facing North (N)
Temp.: in C°

Observer's name:

GPS: ___°___ __,___°___ __

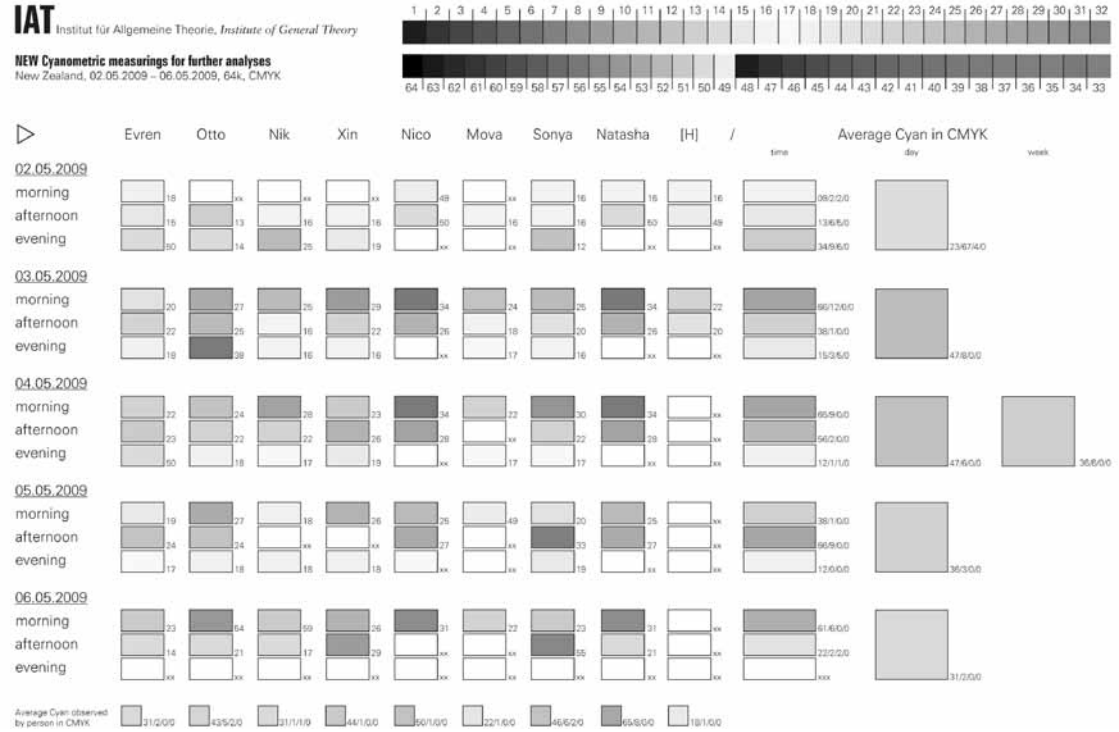
Hagen Betzwieser / IAT / Institut für Allgemeine Theorie / Institute of General Theory
New Cyanometer

A cyanometer (gr., cf. cyan) is an instrument for measuring ‚blueness', specifically the colour intensity of blue sky. It is attributed to Horace-Bénédict de Saussure and Alexander von Humboldt. The blueness of the atmosphere indicates transparency and the amount of water vapour.

The New Cyanometer, developed by the Institute of General Theory, is based on the CMYK colour scale and is improved to a resolution of 64 colours.

Using this instrument is really easy. The observer holds the cyanometer with the distance of his stretched arm in an approximately 45° angle to the sky facing North (southern hemisphere facing South). Then, he starts to compare the colour bars of the cyanometer with the blueness of the sky as long as he finds the closest matching colour on the scale.

With the cyanometric reading, made by the participants during the workshop, an analytical chart was created that shows the single readings of every person as well as different average cyan calculations like time, day and even an average cyan of the whole week and of a single observer. With this measurements for further analyses it is now possible to compare, archive or generate more data which could then be used for all kind of general or specific purposes.



In the 18th century, the Swiss inventor Horace-Bénédict de Saussure who came from a wealthy background, could go for adventurous travels to exotic places which inspired him to develop such a simple and beautiful research instrument like the Cyanometer, however, it was not of much importance to science.

This first field test of the NEW Cyanometer during the Covolutions workshop in Mimiwhangata showed that the range of 64 colours,

starting from black to cyan to white and back is still not enough for precise readings. In the next step, the NEW NEW Cyanometer will be enhanced with cyan to magenta as well as with a recently completely newly developed Magentometer for measuring sunsets, inspired by Jean-Baptiste Joly, one of the first users of the NEW Cyanometer. This NEW NEW instrument will improve the quality of the readings and increase the fun of active research a lot.

Stella Brennan
3 Nature Stories

Auckland
The weediest city in the world, so they say. Plants lie in wait everywhere, ready to leap the garden fence and work their way into the scraps of forest remaining between the roads and houses. I live in a sliver of land laid out so that, if I ignore the sounds of leaf blowers and stereos and voices and the dull chirp of sparrows I can imagine my house alone in the great forest. But this is all theatre, it's a potemkin forest, a narrow strip of trees amongst the suburban sprawl.

Singapore
We take the cable car to Sentosa Island where we walk through manicured parks and gardens, lurching from hidden speaker to hidden speaker, the piped-in, disneyfied jungle music setting the scene for our tame adventure, a trip to the southern-most point of Asia. We share an expensive icecream from the franchise on the beach, watching the cargo ships offshore waiting to enter the port. Australian coal, Japanese car parts, logs from Malaysia, New Zealand meat, all at anchor in the roadstead, the grist for this tiny place on the way to everywhere. Every year the island gets flatter, as the hills are shaved off to make new land from the sea. Eventually it will be smooth and featureless as this white sand curve. Out in the warm tropical water we finally escape our soundtrack.

Mimiwhangata
The farm on the peninsula is covered in traps and bait stations, accompanied by warnings of poison and broken fingers. Its hills are corrugated by the feet of cattle. In the washed-clean morning sun a stuffed kiwi stands forgotten by the roadside, stiff leftover from a school-group show and tell. Among the tide-line's flotsam is a bright green plastic toy, a mould for forming a forest of gritty trees on the white sand of the bay.

James Charlton
The Dryland Transcoder

Observer Error and the Ecology of Representation

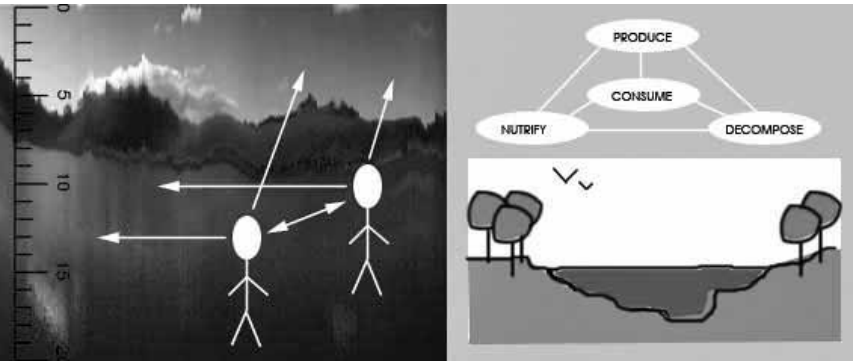
Measurement is an inherently inaccurate process that renders results contestable. Representation of that which is measured layers subjective interpretation on top of "observational" error and opens the door for *The Fantastic*[1] within the scientific.

Like using a foreign currency to pay for a trip to the movies the scientific economy lapses into the fantastic at the moment of representation. How then do we deal with the exchange between that which is and that which we represent and claim it to be factual?

In this exchange of currency there is loss of value. What happens to this loose change that observational error lets slip through our fingers? Does it simply roll across the floor and under the door never to be seen again, or is there a residual "Bank of Errors" where the transaction fee between the actual, the measured and the represented is stockpiled?

If hermeneutics requires recognition and understanding of parts as discussed by biologist and software theorist Ray Paton (Paton 2006) then knowledge of subject requires a closed system not one in which loose change is accounted for by Swedish rounding.

[1] The term "the Fantastic" was originated in the structuralist theory of critic Tzvetan Todorov in his work *The Fantastic*. He describes the fantastic as being a liminal state of the supernatural. A truly fantastic work is subtle and leaves the reader with a sense of confusion about the work about whether or not the phenomenon was real.

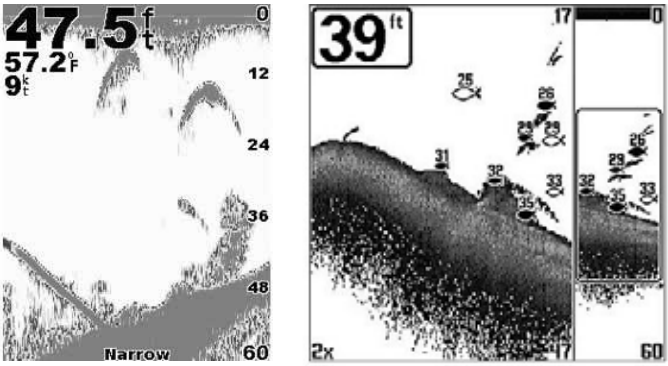


For Paton modelling relations and diagrams are the key to multi-modal interactions between explanation and interpretation. (Paton 2006) The model then operates as a representation or measure of the relation between parts. Filling the gap between the explained and the perceived and becoming an object of the unseen.

The Dryland Transcoder attempts to deal with this accounting error by proposing a tool for visualising the unseen. – the moments of the fantastic missing from representation. In attempting this it presents not a factual account but a farcically fabricated fantastic that is perhaps no more distance from the actual than the observed is from the subject.

Beneath the Unseen

Local knowledge once fishermen's guarded porthole to the seabed, has been usurped by technology. Fish finders now installed in most recreational boats penetrate the veil of the waves while the nautical equivalent of Twitter (www.WorldFishingMap.com) provides access to the bedrooms of the ocean floor and all the secrets it once held. Technology allows us to peer beneath the waves where once only hooks and could go.



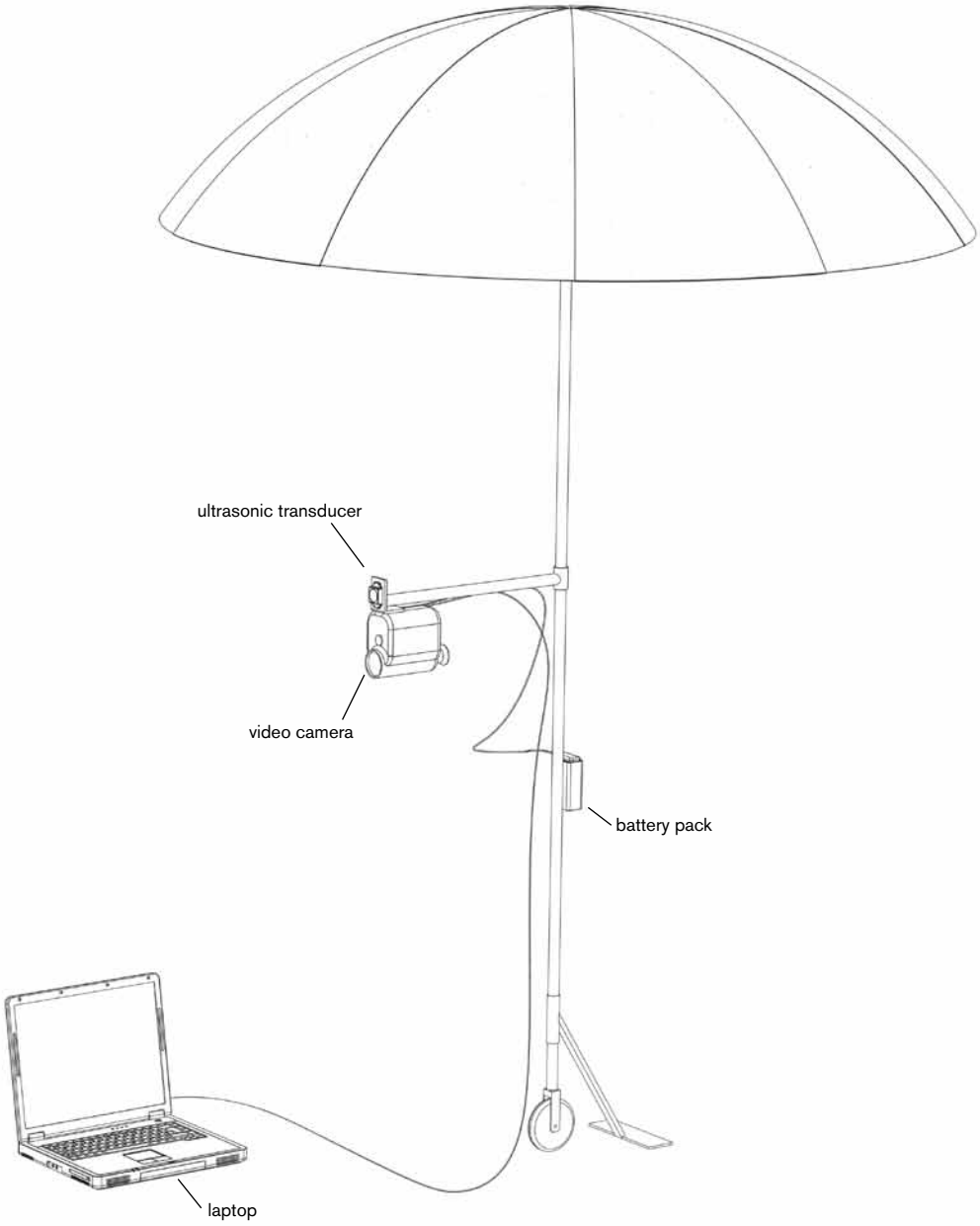
Fishfinder 565 Zoom

Bouncing sound waves of underwater objects, fish finders extrapolate and interpret distance. Initially depicting fish merely as painterly gesture through the ocean, contemporary fish finders now show the catch of the day as icons depicting not only depth but also size and in some case likely species.

Fishing has become has become a conceit of the fantastic in which the “duration of uncertainty” (Todorov 1975) is forgotten in the representation of the measured.

“The fantastic is that hesitation experienced by a person who knows only the laws of nature, confronting an apparently supernatural event.” (Todorov 1975)

The Dryland Transcoder is a custom-built fish finder that uses an ultrasonic transducer to measure the distance of surrounding objects. Interpreting this data as a fish finder would it maps icons of fish to a slit-scan 360 image of the terrain. What appears is a fantastic landscape in which nature merges with the representational, photographic with the symbolic, scientific with the perceptual.


ultrasonic transducer
video camera
battery pack
laptop

Technical
The Dryland Transcoder software (written in MAX/MSP) captures a single column of pixels from video input supplied by a web cam mounted just above an ultrasonic sensor. As the unit is rotated on it's axis a landscape is compiled. As this is a manual process the rotational speed causes dislocations in the image allowing repetition or compression of objects in the image. This is seen most readily in the appearance of the artist in multiple locations and the disfiguration of cows. While still images appear as a photographic moments time is not continuous but is to read linearly as suggest by the progress bar.

Overlayed on this warped landscape icons of fish appear as the ultrasonic bounces back data acknowledging the presence of the unseen. That appearing closest to the centre of rotation is placed at the top of the image while distant forms are represented by icons at the bottom. Emerging from this scan we find a compilation of the representation that mixes ecologies of representation as readily as we blend the actual and the fantastic. Occasionally we will see shoals of fish lingering around the base of tree trunk or swimming freely with a shoal of cattle.

Thanks to Joe Swann and Nico Refiti for their help with this project.

Xin Cheng
I went walking

I went walking, everyday, trying to find the native bush part of Mimiwhangata. All because, upon arrival I had the illusion of checking into a holiday park lodge in a farm: pasture, sheep, cows, lonesome native trees dotted around as decoration.

Out of the beetle holes on clay banks, there was a sudden emergence of animals, wild and farmed, extinct and surviving species. At the same time, everywhere and everyday humans are randomly disappearing. The remaining humans panicked: the animals are invading us! There is nowhere to hide! Yesterday I turned on the TV and saw a cow speaking eloquently about environmental ethics, power relations, and the plan of the Kakapos to restore Auckland City into a native forest. Then it dawned on me that humans are turning into animals, the ones that died due to human intervention. The ones brought into the world to be eaten, others that were hunted, stuffed and collected, eaten by cats and dogs, or simply died due to habitat destruction... They are coming back and demanding their places.

I woke up.

Biodiversity is a unique feature of New Zealand's ecology, due to its long history of isolation (Parsons 2006: 4). Yet looking around Mimiwhangata you see mostly homogenous fields of grass, like a piece of minimalist monochrome painting. Someone said that design is all about striking a balance between order and chaos. Humans have a natural desire for order.

The native forest is not the no-maintenance garden, either. They need us to trap invasive mammals (that we had introduced) so the native birds can survive. So are farms, they need lots of work, take up lots of land, and grass and cows cause erosion… But you know, beef tastes good.

On another track:

Sensing a place, notice the difference in experience as I leave farmland and enter the forest. Gates to climb over, more shelter from the sun. Then you realise how seldom the track is used. Remote and isolated, fear drifts through. Fear of what? Other human beings. The forest has no intention to harm. Trying to find cell phone reception in case of emergency, how I am dependent on modern technology.

Attempting to match the lines on the map with what is in front of me. Such beautiful abstractions. Thought about exploring the unknown but worried about getting totally lost. It is useful to memorise shapes of trees when you can't see the track markings. I have lost my primordial survival abilities. Instead I need to rely on signs and abstracted information, and traces other people have left for me.

That is how knowledge builds up.

I am adapted to the civilised world.

Sonya Lacey

Notes on a process of sound recording

1. This technology neither prioritises the social nor mutes the spatial.

2. Amplified, these sounds (etc) become objectified; wind, finger-tapping, verbal instruction, humming while cooking, laughter, some movement of water. Amplified, they present as unsorted data.

3. Listening to these schizophonic* sounds slows down the ingrained processes by which the brain confers value to this information. This deceleration creates a space wherein I can structure the data in a more conscious manner.

4. This process of recording environments becomes a strategy to formalise observation, a way to observe myself observing. (Such an ocular term for this aural process! Why is the word 'listening' so unhelpfully reductive in this case?)

5. I listen to the location and these occurrences via microphone and headphones. If all actions may be considered social actions, the headphones set up a paradoxical relationship between the introverted gesture they might signify (like hands over ears, like partly here (hear), and partly not) and the disproportionate amplification of presence experienced using them to negotiate geography, sociography and technology.

* Sounds divorced from their source, termed by R. Murray Schafer.

Nova Paul

Circles within Circles - The telling of places and other maps

Stories find space. The space of story telling is intimatly linked with a sense of place. Everyday stories are a treatment of space, to say where you are from is to tell a spatial story. In Maori tikanga this is of course reciting ones whakapapa, linking the moment with ones mountains, rivers and ancestors. To speak where one is from is to speak who one is. This citation, as in recitation, of your genealogy and geography is to situate yourself, and enables you to come in contact with a site. My mountain, Whatitiri, my river Wairua, my marae Maungarongo and my iwi Nga Puhi: these are the things that locate me, and they stand alongside me, making it clear that where you're coming from matters. As James Clifford says "To know who you are means knowing where you are, your world has a center you carry with you." (Clifford 1989)

In Fernard Deligny's studies of autistic children (an entry point for De Certeau's book *The Practice of Everyday Life* and referred to several times by Deleuze and Guattari) he examines the indeterminate paths and wandering lines they make. The layers of tracings accumulated over time reveal two things for Deligny: what is common and that we unknow what is human. Through the children's movement, a language emerges, one that simply signifies that the human takes place.

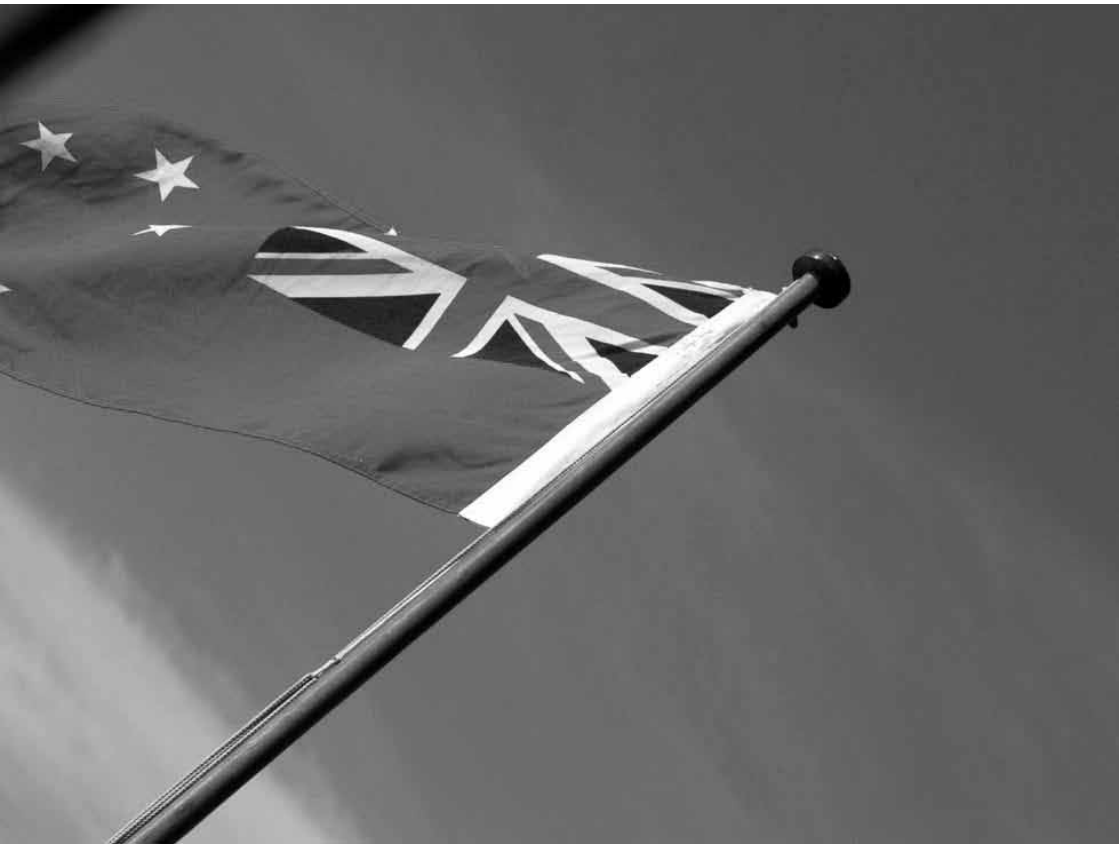
> *What was still to be discovered between us and them, was the PLACE. When I say between, I do not mean a barrier, on the contrary the fact that it was something to share and discover and this was the place, the topos, the settlement, the outside.* (Deligny 1976: 24)

Deligny's studies remind me that there are maps and there are maps, what they reveal moves beyond the representable, perhaps towards of heart of a place. That is to say that communities are created and connect through a shared understanding of place, or rather the sharing of place creates a sense of community. Like the traces of the autistic children oral histories and whakapapa are a mapping from within, telling of a connection to place, which in so many ways defies representation. In doing so they move towards constructing a sense of community through sharing place.

Up and down the river we go, life always goes at several rhythms and at several speeds. I draw a line that leads up the stream from Mimiwhangata, across the farm lands, a grid of blocks, onto the hillsides, inland towards the Hikurangi wetlands, to where my river starts. 'As individuals and groups we are made of lines which are very diverse in nature – we have as many entangled lines as a

hand. What we call with different names – schizoanalysis, micro-politics, pragmatics, diagrammatics, rhizomatics, cartography – is nothing else but the result of the study of the lines that we are.' (Deleuze & Parnet 1996: 151)

Here I share the place with the tuna, we share the same whakapapa, place of origin and belonging, we belong to the same community because our sense of place is intertwined. I talk to my cousin about the demise of the tuna and she says "if you want to save the tuna, you have to address it's whakapapa, where can the tuna go once the wetlands are destroyed, it starts or ends there" They are refugees from their community, from the wetlands, New Zealand's shy places, which have been drained and "reclaimed" for housing development. Thinking about the survival of the tuna seems more dependent on acknowledging that they make our community and place as much as we set up pulling apart theirs. That we cohabit and that their demise might also tell something about the fabric of a community unravels when what is shared and common, that sense of place is undermined and eradicated.



Clive Picthall

In participating in this workshop by sailing there aboard my boat, the Lady Margaret the intention was to see if I could derive any maritime aspects that would support this project. Recording my track data for the entire passage on the GPS/Chartplotter, this was supported with information on paper charts and my log book of position fixes. Although I have encountered problems with the GPS data that I brought back from this trip - in getting it off the device and into a usable format, I have found something that could possibly be of more significance with regards to the exhibition in five weeks time. I came across the New Zealand Coastal Atlas in the AUT Reference library. (i.e. it can't be taken out from the Library)

I came across this publication quite by chance. It was as if it were dangled there for my attention! (it was actually too big to fit on any of the shelves and was sitting on top of the cabinet). The maps in this are quite extraordinary in that the lines of latitude are presented at 45' to the norm to accommodate the length and breadth of New Zealand's coastline to be printed in such a journal. The map that includes Mimiwhangata, covers the area from Cape Brett to Auckland and includes Great Barrier Island (in the outer Hauraki Gulf). I would need three Admiralty charts to cover such an area.

The supporting written information includes such aspects of who manages each resource and a wealth of content from various Government Departments. This publication describes the bird life, fish species, whales, known currents, mean wind direction &

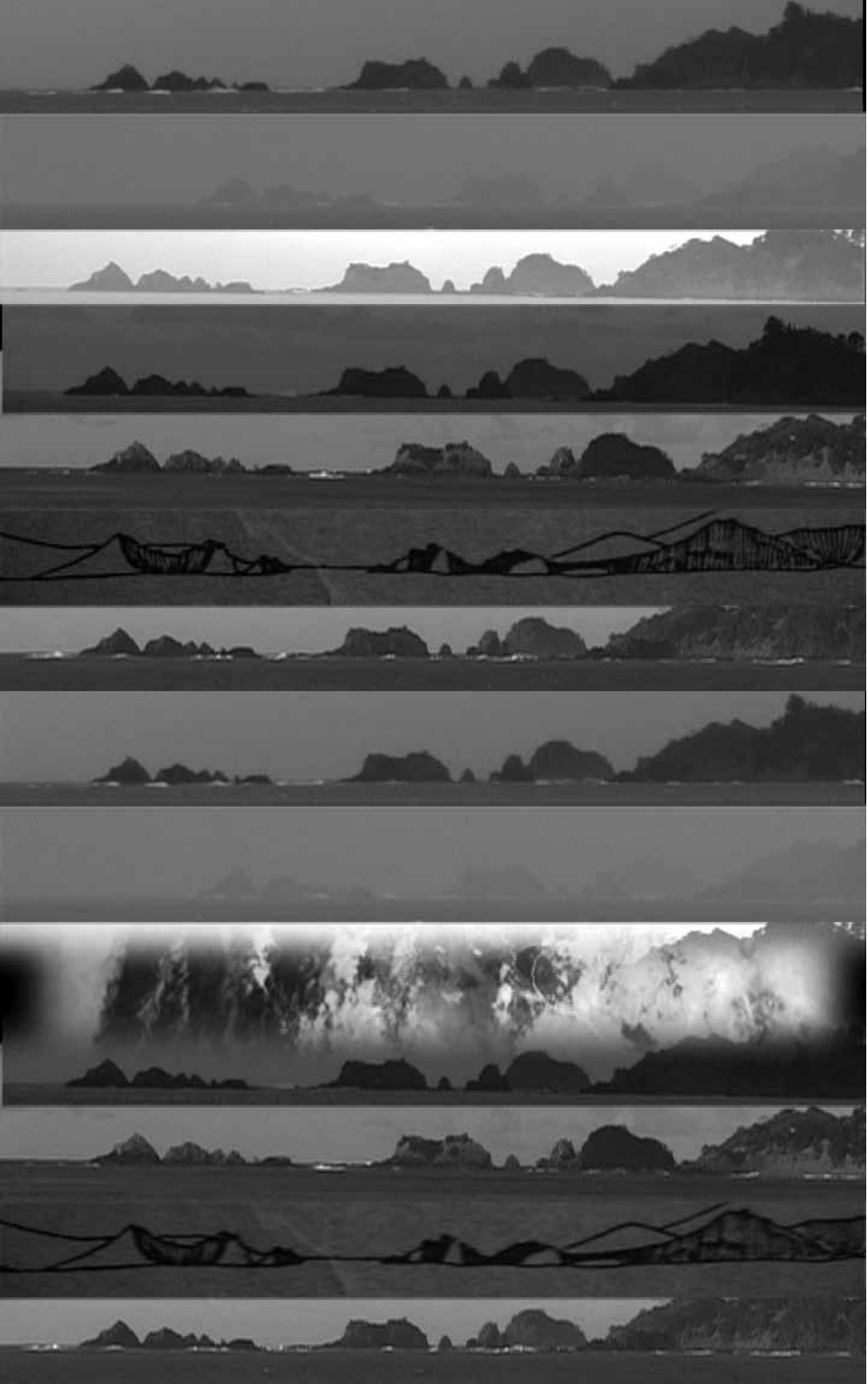

LOWRANCE

speed and describes the coastline in great detail with the use of diagrams. I see the content of this publication as the basis for an exhibition piece..

What I am looking at is a detailed map of the Mimiwhangata Coastal Park area whose topography is made up of 12 manmade Pa sites against the naturalness of the weather-worn coastline.. In using a flat map laid out on a table, the user would be able to move around the map with a Puck digitiser to display information presented from a screen. I have a range of photographs of the coastline and the information content from the New Zealand Coastal Atlas to work with..

Personally, I got a lot out of this trip so see that I have a fully functional vessel that I can operate from. I'm working on an idea of taking people to regional parks where there is camping or accommodation for my guests and this trip has proved that potential. In learning about the trek to Cape Brett Lighthouse - 20 km away (8 hrs walk) and the lighthouse keepers cottage to stay in, I have another destination to aim for.

The voyage also allowed me to observe some of the navigational information I been researching with Pacific voyages and think about the Sidereal Compass in relation to the Southern Cross/ pole stars and knowing the direction home i.e self-orientation that I'm reading about in *We the Navigators* by David Lewis. Working alongside other established artists has certainly expanded what I considered to be the 'Art' in Navigation.



Janine Randerson
Topologies (2.5.09 - 5.5.09)

Topologies (2.5.09 - 5.5.09) is a digital video record of four days of weather and maritime conditions, filmed twice a day, from the same position from the deck of the DOC lodge at Mimiwhangata, Northland. The framing of this shot was suggested by the accidental find of a Mimiwhangata coastal park document that included a topographic drawing of a rocky outcrop rising from the sea. I discovered this document in one of the DOC cottages on the first, rainy day of the residency, when we were forced to stay in-doors. The simple lines of the map-drawing are incorporated into the video loop along with the 'real' weather conditions outside. Weather from the morning and evening of each day is represented by a horizontal slice of video, set against the same rocky outcrop in the topographic drawing. The daily layers of weather play simultaneously in vertical striations across the screen. In addition, a vertical slice from the synoptic scale weather map, with the NOAA-17 satellite recording of meteorological movements from the time period of the residency, is layered over my ground surface weather observations. The satellite map 'slice' of animated weather data was accessed from the LandcareResearchNZ database.

While the video camera captured the weather, it also recorded an audio track of activity and weather conversations of the artists inhabiting the DOC house. The video provides a record of both the weather outside and the social 'climate' inside the lodge. The video-loop is designed to be projected onto a folded screen, to reflect the temporal folding of the layers of time and weather. Philosopher Michel Serres makes the distinction between the topog-


UNDER SIDE

raphy, which is 'visual' - and topology, which is 'tactile'. I think of my video-weather map as audile-tactile-social, including the fourth dimension of time and conversation.

Diagram: pateke (work in progress)

Diagram: pateke is based on observations of the pateke (New Zealand brown teal) at Mimiwhangata. The work is part of a larger body of work started at NERI (National Environmental Science Institute) in Denmark in 2008. GIS data generated by the patterns of bird-tracking information is aligned with 'surface' observations of the animals by non-professional observers, including myself, armed only with video equipment. The endangered pateke is a species that is monitored by radio-tracking instruments by the Department of Conservation (DOC). I was given documents and data relating to pateke tracking by Tiffany Brown, one of the DOC pateke monitoring project leaders. I am interested in the strange, new ecologies, or the inter-relations generated between humans-instruments-birds-biosphere by such interventionist methods of scientific monitoring.

While on the Mimiwhangata residency, first hand experiences of the process of identifying, capturing pateke in nets, and attaching radio antennae around their necks for tracking, were related to me by the local ranger and his son. I collected video and sound recordings of the pateke from various sites around Mimiwhangata, with a focus on a pond near Tutaemaitai stream. I also recorded video data from all around the DOC park in an attempt to place the pateke at a crossing point between human activities, botanical information, bugs, boats, geographic maps and the other (wanted and unwanted) species. This work will be developed into a diagram of the site in the form of a video projected hanging 'mobile'. Non-scientific methods of observation are combined with fragments of scientific documents, such as illustrations of bird parts, again found at the DOC lodge. Maps are often used as instruments of leverage to convince the doubtful of 'objective truths'. My 'open' diagrams include too much information to be considered objective at all.

Roomservices
Perpetual articulations

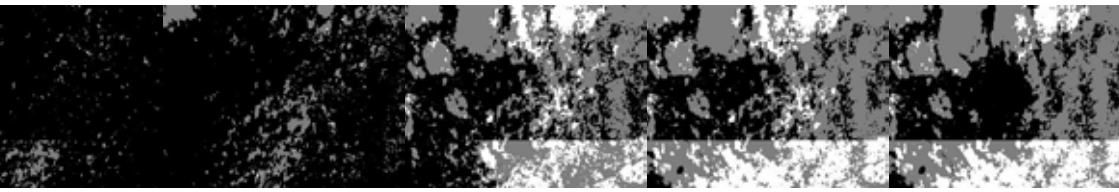
Roomservices experimented on three tools during CoVolutions workshop in Mimiwhangata, each within an effort to draw new lines of reference between ecologies. The idea was to, in a playful manner, bring about new understandings of the intersections and interfaces between material reality and artistic representation. The aim was to move beyond ecologies and the anthropocentric connotations of them as being "subjugated" or "colonized" by semiotic systems. The intention was instead to work towards the construction of mechanical tools or instruments that could be analogue interfaces between ecologies. The ideal of such utensils would be that of almost automatic transcription of data, which of course has problems of its own. Yet, by keeping a ludic approach to the task three translators were constructed.

Cezannoscope
Paul Cezanne, with his multifaceted perspectives, was a contemporary with the development of the stereoscope. These schizophrenic ways of looking, that later evolved into cubism, are very similar the 3d goggles we see today. Yet, more crucially, they embrace the duality and complementary notion of two simultaneous perspectives onto the same matter, without selecting one before the other.

The cezannoscope was a tool to update this type of perspective into a more dynamic process. The instrument itself was a variation of stereoscope to visualize the duality (or "double articulation") of stratification processes. The fabrication processes of sedimentary rock, almost what we witness as the waves hit the sandy beach, is in the theories of Deleuze and Guattari (and the interpretations of DeLanda) also descriptions of the engineering diagrams or structure-generating processes that form other forms of ecologies. Thus the stratification of pebbles, through the sorting by the movement of waves, and the cementing with help of silica and hematite, creates sandstone – a process similar to how genetic material are sorted through selection processes and reproductive isolation into various species (DeLanda 1997: 60ff). The purpose of the cezannoscope was to observe these double processes.

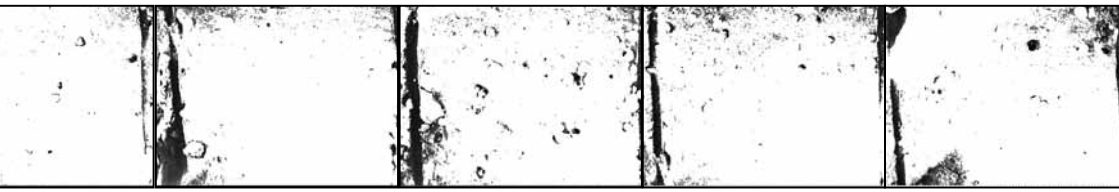
Or rather, in the case of the observations of wave-movements on a beach, the subject under observation was the dynamics of the perpetual sorting of pebbles at a beach. With time-lapse photography the cezannoscope captures the meeting of several time modes. Here, the "deep time" of geology meets the ephemeral arrangement of sand as endless waves hit the shore to reassemble pebbles into new patterns. As the sorting continues the geology reveals some of its hidden diagrams.

If we just have the "deep time" to wait.



Toposcanner

The toposcanner was a flatbed scanner for long stretches of landscape. Just like the cezannoscope, its purpose at Mimiwhangata was to capture the patterns of organization along the waterfront. With its long sections of observation it can depict full stretches or lines as waves roll up on the beach. As it is rolled along the fresh patterns it can update in real time the emergence of new geologic formations. With its long scans it can make us see each new wave as a new landscape, with its new horizons, mountains, lakes and if we set the focus right perhaps even some traces of primordial soup.



Vernacular Vodka
A typical translator between ecologies, especially in Northern Europe, is the “water of life”, the aqua vitae, or Akvavit. As a vodka flavored with local herbs, like anise, coriander, dill or fennel, akvavit is a drink connecting the taste buds directly to the aromas of the natural environment. Like a radio transmitter, the vodka tunes one wavelength of taste (or smell to bend the vibration theory of olfaction of Luca Turin into the realm of cultivated liquors), to a frequency of human sensory systems.

For a visitor to an unknown environment there can be a need to tune the untrained senses to the landscape. Too long have nature been subjugated and inscribed into the visual culture, “colonized” into a landscape of “spectacle”. Are not our other senses more refined, protected, almost primitive? What could be better than translating the vernacular landscape’s resources into edible alcoholic primal culture?

The local tastes of Mimiwhangata was Basil, Feijoa, Kanuka, Kawakawa, Honey, Manuka, Neptune’s Necklace and Sage. An independent jury judged Kawakawa, Kanuka and Feijoa the best.

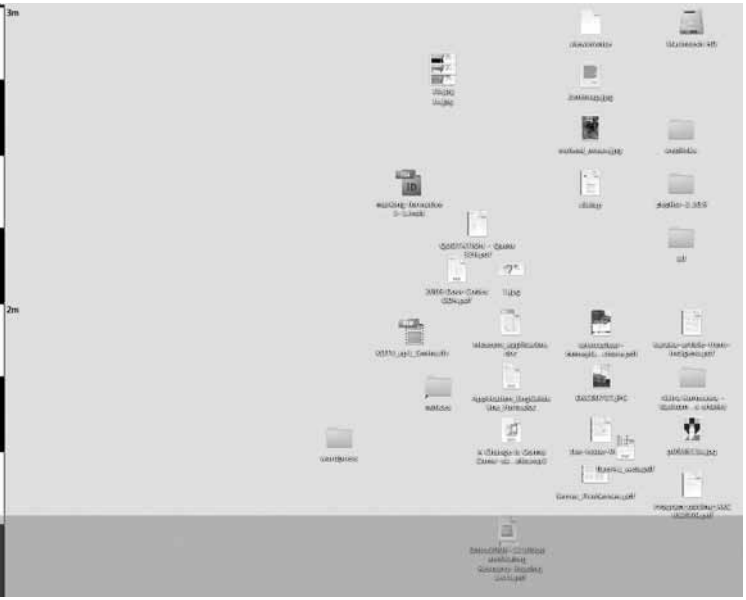

Warning 1080 Poison
Sodium fluoroacetate
DEADLY to DOGS

Nick Spratt
Walking/Drifting

Two projects looking at repetitive flows and movements that have reshaped and redrawn the land at Mimiwhangata—mapping a landscape in a constant state of change.

Walking
On one side of a hill there are giant steps worn into the earth—the face of the hill entirely covered in deep, broad grooves that track horizontally across its grassy surface. They are giant steps that emphasise the steep rise of the hill, like an oversized and weirdly crafted topological model. The tracks have been made by cattle and sheep, moving countless times across the hill's surface whilst foraging for fresh grass. As a home to a fragile ecosystem, the Mimiwhangata DOC brochure asked me to be careful where I stepped, so it came as a surprise to see so much farmland, and such vivid scars across the landscape made by so many other feet and hooves.

On the other side of the hill there is a gently rolling meadow that leads to a bay. From the crest of the hill down towards a foot-stile there is a small path can be seen in the grass that lolls to one side as it wanders down to the beach. It is a narrow groove within the pasture, a small but clearly defined indent in the grass formed by repeated journeys up and down the hill, casually arcing out to the right, all meandering in the same way. No longer so worried about having to tiptoe around Mimiwhangata, I traced a new line from the crest of the hill to the stile, walking in as direct a line as possible. I walked this way twice a day, seeing whether I could create a new path, and a chord that might cut through this gentle arc.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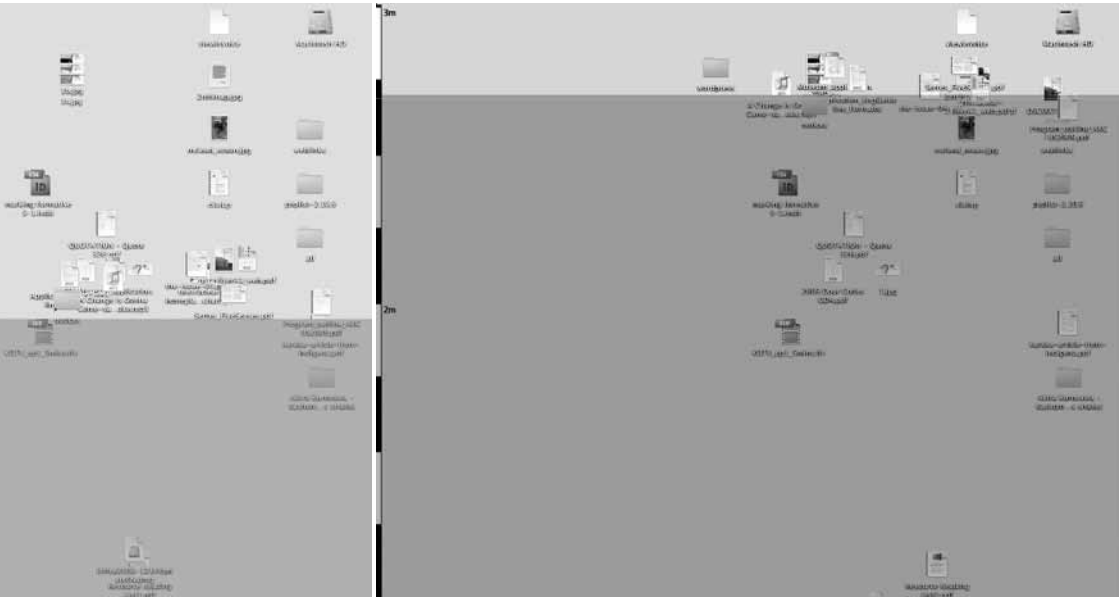

Drifting
The Lodge faces onto a long beach that seems to run for miles, its crashing waves a constant background sound. When the tide is high the water seems to completely swallow the sand of the beach, but craggy rocks jut out in places, constantly battling the waves as they gradually wear away at the shoreline. Small rocks and pebbles are continuously being repositioned by the tide, along arcs in the sand left by the retreating waves. Daytime walks would reveal new patterns and strange additions to the shoreline (a shoe, a dead penguin, an empty energy drink bottle…) and at night, or when I'd returned to sit behind a book or my laptop, the sound of the waves would be a reminder that it hadn't finished its job yet.

Tha Ltd's *Kaze to Desktop* screensaver takes local weather reports and, depending on the strength and direction of the wind, blows the windows and icons of an idle computer around the screen. Following this idea of using a screensaver to illustrate the weather I began to investigate ways that Mimiwhangata's waves might redraw my desktop—picking up the icons and, depending on the 'weight' of the file begin to push them up the screen as the tide came in.

Susie Thomas
Free Bird

The premise for Susie Thomas' work at Mimiwhagata Coastal Reserve was selecting a candidate from a range of bird species at the site to create her 'Free Bird' campaign. After selecting the Dotteral species, she tracked several candidates and choose one particular bird, naming this for the purposes of identification 'Delta 1'.

The project primarily culminating with a petition to the Honorable Nick Smith, Minister for the Environment, hopes to achieve the liberation of this one particular bird from the Department of Conservation's jurisdiction.

The petition currently in progress aims to have the Dotterel 'Delta 1' recognised as it's own legal autonomous entity. The petition singles out this resident of Mimiwhangata who was one of four Dotterels tracked by Thomas during her stay. 'Delta 1's' habitat includes, but is not restricted to, Okupe Beach in Mimiwhangata.
The petition explicitly envisages that this bird should be freed of all obligation to members and representatives of the New Zealand Government under its new liberated status.
Thomas' aim is to gather five hundred signatures, before entering into a mediation process with the Department of Conservation and the Honorable Nick Smith. (To sign a copy of the online petition please email susiethomas@xtra.co.nz)

Background

Thomas has a particular interest in the contingencies of site as material and commodity alike.

Central to this particular project was an exploration of how dominant, anthropocentric world views are seeminingly an inherent quality within map making, due to the ontological conditions of language.

Thomas' liberation gesture as such, is geared towards a revision of our model of operation within any given site - an invitation to reconsider an articulation of space within the environment.

Ownership here, clearly an underlying feature of the Cartesian grid, takes form via the sets of social agreements that construct the experience of space.

Thus by activating these naturally occurring fauna as cartographic instruments, Thomas is interested in defining a method of navigating between this premise for understanding and the artist's etiolated social role in environmental ecology.

Participants

Hagen Betzwieser is an artistic researcher and founder of the IAT, Institut für Allgemeine Theorie - Institute of General Theory.

Stella Brennan is an artist, writer and curator. In 2008 she edited (with Su Ballard) the Aotearoa Digital Arts Reader, the first comprehensive text on digital arts practice in New Zealand. She teaches at AUT University.

James Charlton is an amature philologus piscatorus working in the field of creative technologies.

Xin Cheng has studied ecology, psychology and fine arts at the University of Auckland. She is also a co-director of RM project. Her current interests include: folk art, vernacular design, indoor and outdoor survival.

Sonya Lacey lives and works in Auckland, New Zealand, where she co-founded the artist-run initiative Newcall Gallery. Her predominantly sculptural practice pays particular attention to the politics of communication and subjective experiences of space.

Nova Paul is interested in storytelling and oral histories as a form of map making. She is a film maker and is currently working on a film about family river Wairua.

Clive Picthall is a sailor and creative technologist.

Janine Randerson is an artist working with time-based media. In recent work she investigates socio-environmental engagement and Meteorological Science. She is a PhD researcher at the University of Melbourne and currently teaches at Unitec in Auckland.

Roomservices (Evren Uzer & Otto von Busch) is an interventionist research institute for practice-based and experimental design projects.

Nick Spratt is an artist, a graphic designer and a lecturer at the Unitec Department of Design and Visual Arts. He is based in Auckland, and is a co-director of the artist-run-space, RM.

Susie Thomas is an artist based in Auckland, New Zealand. Recent projects include ‘Island’ a two space show in Auckland and Malmo, Sweden, and a solo show at A Centre for Art in Auckland.

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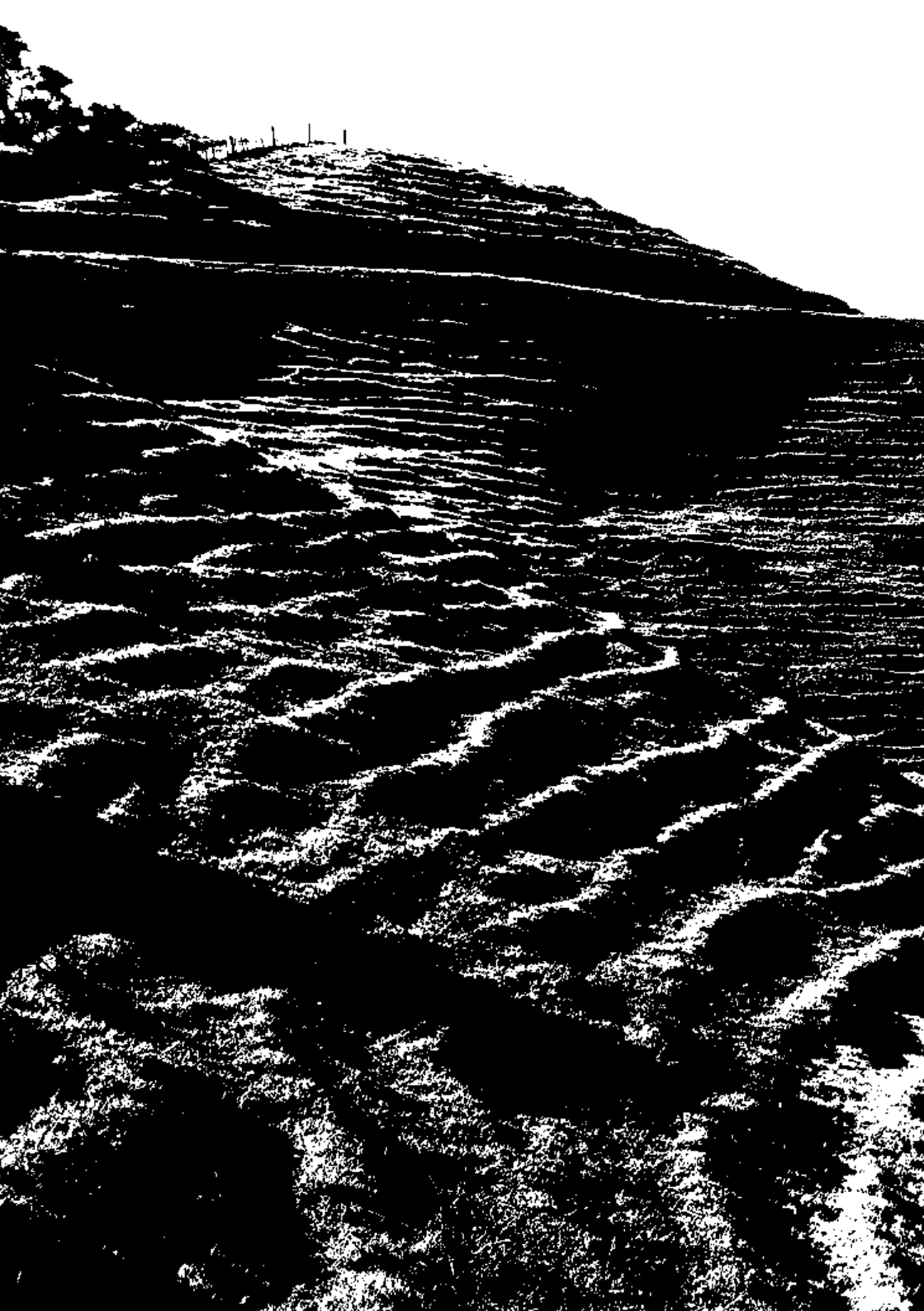

CoVolutions was an artistic research project and hands-on workshop aimed at exploring the dynamcis and interrelations between the ecologies of environment, society and subjectivity. The collaborative endeavour was to stimulate interactions between a diverse range of artistic practices, ecologies and system-generating processes. With a materialist approach artistic practice can to move beyond mere representation, reverse engineer ecological systems to start hacking reality itself.