



THE WONDER PROJECT:

Adventures in cross-pollinating perspectives on nature

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An exegesis submitted to Auckland University of Technology in partial fulfillment of the requirements for the degree of Master of Art and Design (Spatial Design)

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2012

Acknowledgements

Many people, in many conversations or events have contributed something to this project, and continue to do so. My heartfelt thanks goes to my supervisor Maria O'Connor for all of her eloquent, honest and patient support. Also to her partner Mark Jackson for his impassioned opening of my eyes to the deep roots of wonder within philosophy. To Sue Gallagher and the entire Spatial department team for being a place where art, ideas and the world are being connected across disciplinary boundaries. Julian Priest for *Slowflow 2010* and wondrous conversations about the sun, physics, energy, entropy, information and art. Emma Bugden for late night conversations, early encouragement, and bringing Harrell Fletcher over for dinner. Sophie Jerram for being a navigational star, collaborator and inspiration. Ruth Irwin for being a particularly awe-inspiring wonder of encouraging alignment and friendship. Ian Clothier for eight years of co-development work as part of Intercreate, where our interests have come to converge and complement in alternating waves. Nina Czegledy for all of the worlds that she brings to Intercreate. Maggie Buxton for her support in developing the *SCANZ 2011: Eco sapiens* project, and encouraging Intercreate towards a wider set of discipline and interest-based networks beyond the arts. Grant Corbishley for his exemplar generosity and openness. Jim Byrt for everything.

Attestation of Authorship

"I hereby declare that this submission is my own work and that, and to the best of my knowledge and belief, it contains no material previously published or written by another person (except where explicitly defined in the acknowledgements), nor material which to a substantial extent has been submitted for the award of any other degree or diploma of a university or other institution of higher learning."

Signed

A handwritten signature in cursive script, appearing to read "Suzanne". The signature is enclosed within a hand-drawn, irregular oval shape.

Dated 11 May, 2012

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Abstract

The urgencies of our age require we work together in new ways. *The Wonder Project* explores the development of a 'social wunderkammer' as a way to create inspiring modes of encounter across disciplines and cultures towards the reimagining of our perceptions of nature. Moments of wonder make us look again at how we conceive the world. A key strategy for this project has been to sight wonder in the immediate, everyday of my home and local environment, and developing these fascinations into topics for larger social encounters. Thus creating a way to encounter our world whereby a microcosm of the local holds significance for global environmental concerns.

With every discipline of knowing, nature becomes culture. Yet wonder rests in an acknowledgement of our unknowing, and a recognition of our ignorance. In an interdisciplinary encounter we enter an environment of unknowing. Through multi-faceted viewpoints, the extraordinary is revealed in and through the ordinary, becoming a means for the reimagining of political, religious, and ethical terrains. The micro and macrocosms of complexities and interconnections with which we are surrounded everyday are revealed for their global significance.

In an inversion of the historical and museum-originating wunderkammer collections of 16th to 18th century Europe, the project uses the subjectivity of knowledge to create a fluidity between boundaries of specialisation. To test the concept of a 'social wunderkammer', a first research site was formed in the *SCANZ 2011: Eco sapiens* hui/symposium. Findings from this have come to inform the second research site – a series of dinner/dialogue events called *The Wonderlogues* – sited in my home of Miranda also known as *The House of Wonder*.

The interdisciplinary and social aspects of the wunderkammer are thus activated as a long-term and sustainable curatorial and creative platform of enquiry. A practice which models the transformation of the hierarchical silos of orthodox learning environments based on a competition for our being in the world. Instead, we form ways to work collectively.

This project then becomes a new pedagogical formation for social change.

Introduction

The project responds to a climate of political inertia – a failing of our cultural systems in the face of the complexity of the issue of climate change. In the macroscopic view of our species and our civilizations, is the accumulation of the minutiae of each of our lives. Only in using my own life to test and model responsive ways of being and working in the world could I process the inertia I saw around me. I wanted to design and test a framework for an ongoing committed practice, integrated across my social, creative and financial means, so as to feasibly sustain it.

The project responds to the urgency of the issues of climate change in its ability to be replicated by others. That it bases itself in a form of creative socialising that does not require funding, a mansion, or being a polymathic genius. It requires instead the willingness to explore unknown fields, to approach people to ask potentially stupid questions, and to be prepared to continue doing that, as part of more public settings. In perseverance one gathers a momentum both in one's own understandings and in the diverse social ecology engendered.

What has been tested is the formation of events/gatherings, which involve a sharing of 'wonder' across disciplines and cultures. Research sites for study purposes have been the two event sites of:

- *SCANZ 2011: Eco sapiens* – a hui/symposium held in January 2011 at Owae Marae in Waitara, Taranaki.
- *The Wonderlogues* – a series of smaller events held at my home, *The House of Wonder*, in Miranda, Waikato.

Through developing a rationale of wonder, the work encompasses a discipline of openness. The historical wunderkammer process of collecting unusual objects from afar is inverted into a social process for revealing the ordinary as unusual, via the prism of an assemblage of varied and subjective knowledge. The individual identities entangled with these knowledges form a social encounter of intersubjective exchange.

The results and outcomes of this work are being continually integrated into the programming for *The House of Wonder* – to act as a research hub, creative project development agency, distribution platform and social aggregator. It is in this mixed creative mode – which theorist Trebor Scholz has argued emerges from our newly networked cultural conditions – that the project seeks to explore and develop creatively and financially sustainable modes of creative enquiry for social change.

*This broad cultural context of increased content provision facilitated by the World Wide Web is the precondition for the emerging paradigm of the artist as cultural context provider, who is not chiefly concerned with contributing content to her own projects. Instead, she establishes configurations into which she invites others. She blurs the lines between the artist, theorist, and curator.*¹

– Trebor Scholz

¹ Scholz, T. (2006). The Participatory Challenge. Curating immateriality : the work of the curator in the age of network systems. J. Krysa. Brooklyn, NY, Autonomedia: 189-208.



CHAPTER I:

~ *Why Wonder, Why Now?* ~

The Unsustainable Civilisation

We know we have built a civilisation which is unsustainable. How are we developing today the new culture that will allow us to create a sustainable civilisation?

— Roger Malina, Astrophysicist and Chair of Leonardo/ISAST ²



A still from *A Farm for the Future*, by Rebecca Hoskings for BBC

The BBC documentary, *A Farm for the Future*³ first brought home to me the shock of seeing the illusory nature of a civilisation completely dependent on a declining resource. In Val Plumwood's essay *Nature in the Active Voice*,⁴ she asks what council the people of the Easter Islands might have needed and argues that 'they need ecological knowledge and memory to help them recognize how nature supports their lives – ecological science and history.

Most crucially, they also need people who can open their culture to self-criticism, make them

think harder about their big assumptions, such as their high-consumption religion, and its suitability for their very limited support context.' Similarly the imploring statement from an interview⁵ with climate impacts scientist Dr. Cynthia Rosenzweig⁶ encourages further, 'we need to start working at the cultural level'.

Hubris & Alienation

We are a highly successful species. As discussed by Ruth Irwin, we have taken full advantage of a long period – 150,000 years – of favourable planetary conditions, which is now emerging into a sprawling, burgeoning pan-planet population explosion. As the toxic byproducts of our success now threatens to engulf us we have become the victims of our own intelligence, and the new planetary conditions we have created – the Anthropocene. Our long success has engendered many enduring cultural ideas of ourselves. A faith in progress, growth and technology, and a tendency to see ourselves as a super species, able to invent our way through any situation, denying any physical limits of time, space or the biosphere.

In formulating an approach to the 2011 SCANZ event, I was surprised to see this attitude repeating in many art-science-technology events in my field of curatorial work. The 2009 concept statement for the large and historically significant *Ars Electronica* started by reflecting on the Anthropocene and the likely irreversible damage we have caused on a planetary scale, yet immediately went on to posit our advances in genetic engineering and biotechnology as more significant.⁷ Others focused on our future selves as 'Superhuman'⁸ or insinuate we have control over the environment in the same way that we might develop and release a new version of software, such as

² Remote keynote speaker at *SCANZ 2011: Eco sapiens*, Roger Malina is the Chair of ISAST/Leonardo. The Leonardo Journal has documented the work of over 6000 artists, scientists, researchers and scholars that advocate new ways of cross connecting the artistic and scientific cultures.

³ Hosking, R. (2009). *A Farm for the Future*. *Natural World*. T. Marton. United Kingdom, BBC Productions Bristol: 50 minutes.

⁴ Plumwood, V. (2010). *Nature in the Active Voice*. *Climate Change and Philosophy: Transformational Possibilities*. R. Irwin, Continuum International Publishing Group.

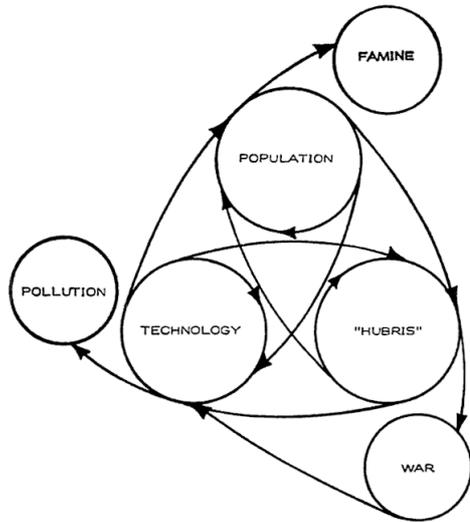
⁵ Barnard, M. (2005). *The Queensbridge Wind Power Project*.

⁶ Dr. Cynthia Rosenzweig is the Senior Research Scientist, NASA Goddard Institute for Space Studies and leader of the Climate Impacts Group.

⁷ Mao, I. S., David (2009). *Human Nature: The Reinvention of Nature*. *ARS Electronica Festival for Art, Technology and Society*. A. E. L. GmbH. Ars Electronica Center, Linz, Austria, Ars Electronica Linz GmbH

⁸ Australian Network for Art and Technology (2009). *Superhuman – Revolution of the Species*.

the 'Environment 2.0' of FutureEverything 2010. While many thoughtful projects were within these events, I found the narrative of dominance and mastery in these curatorial concepts problematic.



The Dynamics of Ecological Crisis, Gregory Bateson

In attempting to isolate the root causes of the problem, renowned anthropologist, social scientist and cyberneticist Gregory Bateson, stated that 'all of the many current threats to man's survival are traceable to three root causes' which are given as '(a) technological advance; (b) population increase; and (c) conventional (but wrong) ideas about the nature of man and his relation to the environment'.⁹ The latter is later refined as being particularly relevant to Occidental culture, and a cultural status quo which he summarizes as 'hubris'. What Bateson termed as hubris, can also be discussed as alienation, of nature from culture, which has contributed to our modern culture of consumerism. With all but ourselves reduced to an economic value – determined by relevancy as a resource for ourselves – a destructive anthropocentrism emerged.

The appearance of ecological crises on the multiple fronts of energy, climate change, and ecosystem degradation suggests we need much more than a narrow focus on energy substitutes. We need a thorough and open rethink that has the courage to question our most basic cultural narratives.

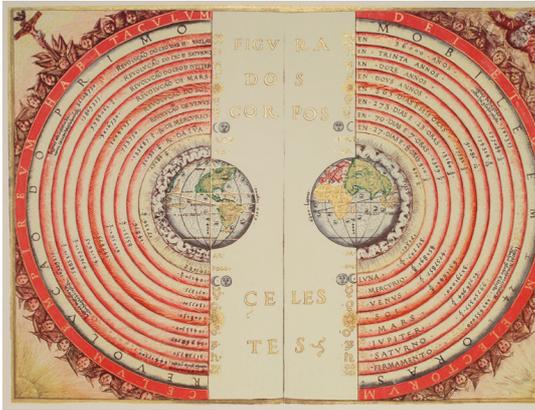
– Val Plumwood

Of these narratives, what could be targeted? How could this anthropocentrism, this hyper-significant view of ourselves be brought to light and challenged?

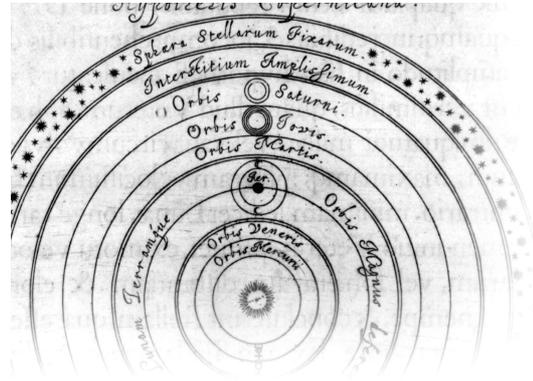
⁹ Bateson, G. (1987). Steps to an ecology of mind : collected essays in anthropology, psychiatry, evolution, and epistemology. Northvale, N.J., Aronson.

Perspectives on a Species

Western culture has before experienced major cultural shifts from thrones of hubris. The Copernicus Revolution, delivered from the realms of observation and science, bumped us from the centre of the universe, placing us in a wider cosmos of which we were one of many orbs with a sun in the centre. Galileo Galilei then followed up by further marginalizing us into the Milky Way.



The Ptolemaic geocentric model of the Universe according to the Portuguese cosmographer and cartographer Bartolomeu Velho (Bibliothèque Nationale de France, Paris).



On the Revolution of Celestial Orbs, published in 1543 by astronomer and polymath Nicolaus Copernicus.

Causing a similar furor, Darwin aligned our species with apes, identifying ourselves as animals. Removing us from the pinnacle of evolution as the most sophisticated outcome of the evolutionary process. Yet this perception persists, and you will still frequently see a 'tree of life' that features our species at the top and/or to the right edge in a line of progression. It equally signifies a faith in a path of progress for our species as possessing ever-increasing levels of higher consciousness.

Descartes has fed this perspective, positing our self-consciousness as an indication of the remaining world as a machine that could be pulled apart in order to study its individual parts. This has arguably contributed to the silos of scientific specialisation we see today, which arguably result in disconnected and partial views of the world. A situation the Nobel laureate physicist Richard Feynman described as likened to playing chess with only two squares visible at a time.

Ancient and traditional views are commonly in contrast to this, seeing the universe as an integrated whole. The young fields of complexity and system science now struggle to develop a means for contemplating the whole. Difficult as this is to arrive at, one must always first consciously step back – to start from a wide vantage point. These 'big picture' perspectives are also useful to us in that they can offer us a 'true understanding of the relative importance of things; a sense of proportion'.¹⁰

¹⁰ Definition of 'Perspective' – New Oxford American Dictionary 2nd edition © 2005 by Oxford University Press, Inc.

Wonder & Worldview

To become human, one must make room in oneself for the wonders of the universe.

– South American Indian saying¹¹

Moments of wonder create sense of awe at the universe within which we live. In psychology moments of wonder and awe are understood as experiences potentially so vast, so profound, they in effect can demand we broaden our worldview to accommodate them¹² (Keltner and Haidt). Transformative Learning theory sees this as either a gradual or single-event process, though characterises it as a '*recognition of some undeniable truth that puts lie to a fundamental belief*'.¹³ In turn affecting our worldview – what is described in anthropology as “a set of simplifying assumptions, an informal theory, a picture of how the world works”¹⁴ which provides an orientation from which to know the world.

I felt these shifts, also described as ‘wounds’ of wonder,¹⁵ within myself as I researched an approach to a new responsibility of caretaking our family land. These opened up into conversations of enquiry, and seemingly small trigger points revealed gaping rifts within my understanding of nature, with far-reaching implications. Examples such as purple carrots (as signifying the biodiversity disclosed by mass food production), the evolutionary history of cows as forest-edge dwelling animals (revealing the false common understanding of prairie/grass origins), the sun as the source of all surface energy on the planet (including the ancient energy of ‘fossil fuels’), and the demonstration of the myriad of oil or natural gas dependent systems used in the production of a simple sandwich. Each of these examples further revealing to me the socio-cultural and political constructs of my conceptions of ‘nature’.

Philosopher and Theologian Mary-Jane Rubinstein states that ‘wonder neither allows us to claim access to a fixed order... or to remain content tinkering with a patently broken set of ethico-political configurations. Rather, ... wonder reveals that the way things are need not be the way things are.’¹⁶ Inspiring rather than depressing and overwhelming, it seemed a worthwhile approach for investigation.

Yet as historian Jon Butler notes, many have expressed concern that modernity has suffocated our capacity for wonder. That we have become conceited about our learning, that we take things for granted, that we overvalue our achievements, that we bypass enigma and mystery, and that we turn instead to a dogmatism rooted in this human hubris.

So having felt these world-moving shifts, I was interested to find some way to explore, develop and share them. This reminded me of the historical Wunderkammer, where objects deemed ‘wondrous’ by the collector, formed spaces of display and discussion. Many collection owners were in this way engaged in a lifetime of investigations driven by personal intrigue. This method of collection of fascinations seemed to fit my own eclectic method of research and investigation.

¹¹ Suzuki, D. T., A. McConnell, et al. (2007). *The sacred balance : rediscovering our place in nature*. Amherst, N.Y., Prometheus Books.

¹² Buxton, M. (2009). *Trickster, Transformation and Transdisciplinary Engagement*.

¹³ Schlitz, M. M., C. Vieten, et al. (2007). *Living Deeply The Art and Science of Transformation in Everyday Life*, New Harbinger Publications and Noetic Books.

¹⁴ Durning, A. (1997), “After the Deluge, The Changing Worldview,” *Worldwatch* 10(1), pp. 25–31.

¹⁵ Rubenstein, M.-J. (2008). *Strange wonder : the closure of metaphysics and the opening of awe*. New York, Columbia University Press.

¹⁶ Rubinstein, M.-J. (2010). "Thinking otherwise." 2011, from <http://blogs.ssrc.org/tif/2010/12/03/thinking-otherwise>.

The Social Wunderkammer



"Musei Wormiani Historia", from the Museum Wormianum depicting Ole Worm's cabinet of curiosities.

'Wunderkammers' or 'Cabinets of Curiosity' common in the sixth to eighteenth centuries were collections of strange and unusual items ranging from the microcosm to the macrocosm, and was displayed in one's home, for the purpose of inciting wonder – and in many cases a sense of the intellect and prestige of its owner. In line with a Renaissance encouragement of a wide understanding of the world, owners were known to attempt to create connections across disparate fields of human knowledge. Likely in aid of this, social gatherings were also held in the spaces for discussion of astronomy, philosophy, theology, etc – at a time when single individuals would encompass many of these knowledge areas.

The collections were often barely held together by highly idiosyncratic systems of organization, and in many ways reflected the owner's own worldview and personal interests. It was from one such chaotic personal collection – that of Carl Linnaeus' own home – that the taxonomic system of scientific classification emerged which we continue to expand today. As sites of examination and classification, Wunderkammer were sometimes approached as the methodological conquering of the unknown, as a means to knowledge. A *techné* used to tame a sense of wonder, and this mode of research has been connected with the development of a perspective of ourselves as having a 'mastery' over nature (Rubenstein 2008). Taxonomies have long-since hardened into the scientific specialisations and museological displays of accepted knowledge of today. Ontologies inevitably hold cultural power in their classifications or omissions and these can form epistemological barriers to creative thinking. How might these ontological presets and the positivist view of science be diffused, complicated, and returned back to us in a more open form?

David Wilson's wunderkammer-based *Museum of Jurassic Technologies* is a truly inspiring project, which creates a questioning of these positivist views. Yet I knew that I would have difficulty living with a constant dance of truth and fiction within my own home – intoxicating and fantastic as it may be for visitors. I felt it more personally sustainable to operate out of a mode of exposed personal enquiry within which I could engage others.

In living again within the context of Aotearoa New Zealand, I had become interested in integrated systems thinking as it appears within the Māori worldview. I was also conscious of the above histories of the museum/wunderkammer as forming part of the machinery that disrespectfully treated indigenous cultures as the unknown 'other'. In speaking with Taranaki kaumatua and tangata whenua, I resolved that I can only but be genuine in my friendships with people, be willing to research, engage and ask questions, and be open to ideas.

This less object-oriented approach echoes my own intrigue with the interdisciplinary exchanges held in wunderkammer. Could I evoke and re-interpret these as also encouraging the intercultural? Might this assemblage of exchange across disciplines and cultures, once again 'make strange' everyday aspects of nature? Evoking a wonder that might tell us something about our universe and ourselves? *The Social Wunderkammer*.



CHAPTER II:

~ Everyday Aporia, Awe & Terror ~

Defining an Approach to Wonder



My first 'cabinet of curiosity' for *The House of Wonder* in Miranda. Included is a fossil of a squid-like sea creature from 400 million years ago, a collection of sea shells, a monkey skull from Africa, and a historical medical gadget which delivered electricity to the skin.

Wonder embraces the awesome complexities and mysteries of the world and universe within which we live. It underpins scientific, religious, aesthetic and moral domains, in a sustained state of inspired perplexity. As such, it is a multi-faceted and expansive mode to explore. Considered as ultimately optimistic, it dwells appreciatively on otherness as a symbol or signifier of further ways of understanding.

In *Theaetetus*, Socrates argues that 'a sense of wonder is the mark of the true philosopher' and 'that philosophy has no other origin'. The Greek verb *thaumazein* (θαυμάζειν) means 'to wonder' as a kind of seeing that elicits deeper thought. It survives beyond marvel or surprise at the novel, which fades as soon as the unusual object is understood. Encountering the unknown also opens us up to vulnerability – will our object of wonder prove to be of insignificance?

After first conceiving the idea of creating a wunderkammer, both physical (in what would become *The House of Wonder*) and social (in what would become *The Wonderlogues*), I found myself collecting objects of an odd and curious nature, though they could also be described as classic to the conception of the historical wunderkammer. In addition *The Worldwide Confederation of Wonder Collectors*¹⁷ project started while on

Slowflow 2010 journey, the approach to wonder seemed sadly still too wide open. A more refined approach would be needed that would provide a limiting of the wide cosmos of possibilities, due to concerns of time, energy and financial means.

Everyday Aporia, Awe & Terror

A mature sense of wonder may be evoked by starlings and English sparrows.
– Sam Keen

In her book *Strange Wonder: The Closure of Metaphysics and the Opening of Awe*,¹⁸ Mary-Jane Rubenstein states that Socratic wonder 'arises when the understanding cannot master that which lies closest – when surrounded by utterly ordinary concepts and things, the philosopher suddenly finds himself surrounded on all sides by aporia' (puzzles). Likewise the object of Heideggerian wonder, properly realized, is the 'everyday', the most 'usual' – this mood known as *thaumazein*. He states that, 'everything in what is most usual (beings) becomes in wonder the most unusual in one respect: that it is what it is.'

Heidegger would also search within *thaumazein*, for a wonder 'that neither neglects particular beings, nor collapses into a frenzied curiosity about them' and would 'relate to both beings, and being itself'. This possibility of a sustained, mature form of *thaumazein* he identifies in the disposition of *Verhaltenheit*, a mood occupying a threshold in between the 'equiprimordial countermovements of *Erschrecken* [terror] and *Scheu* [awe]'. An attunement

¹⁷ *The Worldwide Confederation of Wonder Collectors*. See: <http://www.wondercollectors.org/>

¹⁸ Rubenstein, M.-J. (2008). *Strange wonder : the closure of metaphysics and the opening of awe*. New York, Columbia University Press.

which is neither romantic nor bourgeois, but rather 'holds itself perpetually between the transcendent and the everyday'. Rubinstein contends that this tension, Heidegger believes 'holds out the possibility of finally letting both beings and being be' (Rubinstein 2008, pg 39).

Unfathomable Scale and Complexity



Feeling Molecules, Sommerer and Mignoneau, 2007, seen as a way of developing a nano-intuition.

Those things of unfathomable scale and complexity are also recognized as activating a sense of wonder, awe and terror due to the difficulty of comprehending them. The vast scales of astronomical bodies, the incredible complexity of biodiversity on the planet, and the unfathomable depth of deep time inspire a sense of vertigo as one attempts to accommodate and understand them. This 'accommodation' has been noted as clearly involving the alteration of knowledge structures (Keltner 2003).

Artists have worked to enable us to sense scales and complexities beyond the human scale and sensing apparatus. Enabling us to feel molecules, hear the levels of fury within a hurricane¹⁹, transplant mountains²⁰ and scramble to comprehend a speedy click-click-click as representing the full rotation of a star.²¹ Thus the area represents a known rich territory for creative exploration both for myself and for others who may become involved.

¹⁹ Discussed here is Andrea Polli's interactive work *Atmospherics/Weather Works*, a sonification of the large, powerful and complex natural system of a hurricane. The viewers is able to listen to the sound of data generated by a hurricane that devastated the New York area. The compositions allow listeners to experience geographically scaled events on a human scale. More information on Andrea's projects can be found here: <http://www.andreapolli.com/>.

²⁰ *C5 Landscape Initiative*, C5, 2005. See: <http://www.c5corp.com/venues/camerawork/index.shtml>

²¹ *radioquailia's Radioastronomy*, which uses radio telescopes to aurally reveal the spatial and movement characteristics of objects in the universe. See: <http://www.radio-astronomy.net/>

Eco/oikos and the Study of Home

This sense of studying the everyday was in part a response to the new responsibility of caretaking land in the family for four generations. I wanted to more deeply know this place and be attentive to its many layers unknown to me – social, cultural, ecological, historical, scientific. This conscious attentiveness I saw as a means for coming to understand and foster a connection to any place. Ruth Irwin describes Heidegger's conception of this as a process which, 'involves an ethos of care. ... It is the transformation of the basic tenets of ontology and epistemology, of thinking, dwelling, Being. The environment is challenging philosophy into the necessary reformulation of culture beyond modernity and Idealism, towards a caring ethos of perception and attentive inhabitation.'²²



Family history research. Graham Lane, my 85 year old Uncle who grew up in Miranda, attempts to identify those unknown persons seated on the front porch of the home I now occupy.



Small wonders abound. A cicada nymph is discovered while gardening. It is learned that cicadas live underground for 5-7 years in New Zealand. Some in the US for 13-17 years.

The gentle pursuit of attentive observation and listening in my everyday local environments has brought forth an awareness and appreciation of the histories²³ and both the knowledges and the unknown around me. For example it has revealed the detailed understanding of plant ecologies of a farmer neighbour, and that doing something as mundane as weeding the garden can reveal that I live among and on top of cicada nymphs, which live under the ground for seven years. As these intrigues and questions arise, I would find them feeding into investigative conversations with visitors of related knowledges, ever-revealing my ignorance. Some of these would intrigue me to further investigation. Often I found that those findings that created the greatest 'wound' were those that have stayed with me and have formed topical focus areas or 'boundary objects' for the events organized. In all these are meditations on the nature of Nature, which some have argued is now such a confused, complex and over-used term, that the term 'ecology' could be more useful.²⁴ Interestingly, the prefix of 'eco' is today generally understood as all things green, yet it originates from the Greek word *oikos*, meaning home. Ecology can therefore be seen as the study of home. Through his work, many similar investigations/meditations developed are still in waiting, continuing to form a growing creative pool of intrigues to draw from and connect to.

SEE: * *The Keeper's Diary*

<http://www.thehouseofwonder.org/the-keepers-diary/>

²² Irwin, R. (2008). *Heidegger, Politics and Climate Change : Risking It All*. London ; New York, Continuum.

²³ As a part of this process I had many questions for my mother (75) Aunty Isabel (92), and Uncle Graham (85) who had all grown up in Miranda in previous eras. In these discussions I could see in the historical view, just how quickly culture changes, at least at the surface level of the day-to-day, which become the expectations of normality with a new generation.

²⁴ Morton, T. (2007). *Ecology without nature : rethinking environmental aesthetics*. Cambridge, Mass., Harvard University Press.

The Long & Deep of a Creative Practice

With such large-scale issues, poetically pragmatic and sustainable ways of working are needed to support the time that cultural change requires. Therefore an approach was required which could be sustained within my own knowledges, skills, networks and resources.

Relational Practice

Initially inspired by Bourriaud's conceptualising of Relational Practice and the encounter,²⁵ his discussions of Friedrich Nietzsche's *life possibilities* and Felix Guattari's *production of subjectivity* relate to my interest in art's ability to produce momentary fluidities of perception that can prove useful in nudging otherwise hardened cultural paradigms. These socially generous ideas continue to hold value for me²⁶, though the project has also been formed in their critique. The Radical Culture Research Collective (RCRC) clearly state the oft-cited grump against these practices as a 'gallery-based game' consumed by the 'cultural élite' and 'socially ambitious'²⁷ – which are politically and socially ineffectual in their cocooned and cloistered bubble of the art world.

For myself, a key variance from relational practice is my interest in working in spaces outside of the short-term and audience-specific gallery/exhibition system and institutional framework. While losing the easy contextualisation and the benefits those relationships provide, it also provides me a freedom from related restraints. As Felix Guattari outlines, in this approach I am also advocating for hands-on strategies that brings artistic creativity into the everyday of existing social networks. Guattari states that 'just as I think it is illusory to aim at a step-by-step transformation of society, so I think that microscopic attempts, of the community and neighbourhood committee type, the organisation of day-nurseries in the faculty, and the like, play an absolutely crucial role'²⁸.

Social Practice

I found myself also responding to biennale and curatorial decisions such as flying international artists in for a *One Day Sculpture* event, where the work proposes to take on the socio-political aspects of a place for 'raising awareness'²⁹ through local engagement. While I love the encounter with serendipity that an ephemeral approach can create, the net effect of a local engagement done over a short-term means works are often insubstantial due to time pressures incurred which can also result in obliterating the identity of the locals such as is reflected on in Emma Bugden's discussion of the *Otira Project*.³⁰ In working with my family home of four generations and for the work to include the local community I grew up with, I could propose a counter-approach.

The US artist Harrell Fletcher, who visited *The House of Wonder* for dinner in 2010 as part of his Artspace residency, summarizes the overall approach I have favoured in the statement of the Social Practice artist as 'affecting the world, setting things in motion, fostering connections between people, organizing everyday life so that it can be seen as engaging and meaningful'.

²⁵ Bourriaud discusses the 'encounter' with the power of the image (flags, icons, logos) to create linkage (Michel Maffesoli), which generates empathy and bond. He in turn argues that the exhibition space functions as a kind of live feedback zone, creating a 'form of conviviality', which can 'tighten the space of relations'. This emerges into an argument that the artwork creates a 'social interstice' – a term borrowed from Marx who originally used it to describe a space in human relations which fits harmoniously into an overall system, whilst still suggesting other trading possibilities other than the status quo.

²⁶ Bourriaud groups these practises under such ideas as 'learning to inhabit the world in a better way' and 'valuing others and their viewpoints directly' I was drawn to the idea of the artistic practice as 'the invention of relations between consciousness' and that each artwork is a 'proposal to live in a shared world.' Bourriaud's work also gives a historical contextualisation of art's previous roles of drawing closer man's relationship with nature.

²⁷ (RCRC), R. C. R. C. (2007). "A Very Short Critique of Relational Aesthetics." from <http://transform.eipcp.net/correspondence/1196340894>.

²⁹ Bik van der Pol,, *1440 minutes towards the development of a site see:* http://onedaysculpture.org.nz/ODS_artistdetail.php?idartist=5

³⁰ Bugden, E. (2009). *We Are One: Resistance from the inside:* 6.

In terms of its application to my (foreseeable) lifetime, Grant Kester also discusses³¹ that Social Practice often involves a 'gradual accretion of social exchanges, events, and interactions' often with 'open-ended forms of participatory interaction, drawn out over extended periods of time'. He goes on to state that 'the immersive, sustained nature of these practices (many of which unfold over weeks, months, or even years) imposes different demands on the critic: a different sense of rhythm and duration in your relationship to the artist.' The primary focus is often 'the formation of social networks as a mode of creative praxis.'

In the decision to be taking a long-term approach, it follows that the relationships formed via the practice endeavour to be of a real and actual nature wherever possible. In this way the work again aligns more closely with Social Practice. The events organized are not choreographed or performed per se, they are simply a part of my actual research process, exposed and made into a social and shared form. It does not operate in a pre-set / 'textual' mode.

A pre-requisite for an art work that manifests a counter-consciousness is that the separation which existed between the artist and the audience is closed, that they become mutually engaged, to the point where the audience is both the rationale in both making and reception of the work.

– Stephen Willats, *Society through Art*

Here Kester critiques the status quo of rapprochement between contemporary art and poststructuralist theory and the 'S&M co-dependence between the artist and the viewer.' He cites the comfort with ironic distance, but the difficulty with understanding sincerity as anything other than 'a sign of naiveté or intellectual weakness' but that 'I would suggest that new and unanticipated forms of knowledge can be produced through dialogical encounters with politically coherent communities.'

Agonism & Difference



WochenKlausur, *Shelter for Drug-addicted Women*, Zurich, 1994, black and white photography (artwork © Wochenklausur)

In bringing together different worldviews, one expects differences and conflicts to emerge. Chantal Mouffe's concepts of agonism³² critiques a relational aesthetic that glosses over differences to try to create a happy, social consensus. While not yet encountered in my work, emergent conflict is taken as a possibly productive opportunity for discussion. Agonism however takes a more absolutist view in 'the ineradicability of antagonism', where participants are so defined by their subjectivity as to require a holding and defending of fixed positions (Kester). An example of where this expectation is unsuitably lacking in nuance is in the work of Wochenklausur in their *Shelter for Drug-addicted Women*. Parties on different sides of a contentious issue are in public

circumstances required to speak forcefully from their publicly held and mediated position. By the simple action of bringing those involved together on a boat to discuss the issue in secluded privacy, a more personalised discussion could be had, and a resolution was found.

Hence though it brings a necessary critique, the concept of agonistic democracy relies on an aggressive model of identity that can tend towards and value the practice and creation of conflict. In my own gatherings I am interested in the discovery of unexpected and unknown linkages between perspectives on nature. I therefore see conflict as a representation of difference that can be useful towards this, but in a semi-open/public event, and in the context of

³¹ Wilson, M. (2007). "Autonomy, Agonism, and Activist Art: An Interview with Grant Kester." *Art Journal* Vol. 66(No. 3 (Fall)): 106-118.

³² Mouffe, C. (2007). "Artistic Activism and Agonistic Spaces." *Art & Research* 1(2), ibid.

the potential vulnerability of participants in sharing a personal sense of wonder, its direct creation I currently deem to be a less appropriate or useful methodology.

Worlding/site

Both of the research sites of *SCANZ 2011: Eco sapiens* (hereafter referred to as *Eco sapiens*) and *The Wonderlogues* involve a context-sensitivity, background or 'worlding' for the discussion events to take place. The physical 'worlding' of the project forms its own area of work in the development of these event sites e.g. in the learning and negotiations to hold *Eco sapiens* as a hui, and the re-imagining and development of a simple and humble family farmhouse into a *House of Wonder*, and the portrayal of these within print and online media.

As an in-depth discussion of this is beyond the scope of this critical summary to describe, I will here relate this work back only to its presence in other socially engaged, context-sensitive artistic practices. Miwon Kwon's describes these layers as 'the art work's relationship to the actuality of a location (as site) and the social conditions of the institutional frame (as site) are both subordinate to a discursively determined site that is delineated as a field of knowledge, intellectual exchange, or cultural debate.'³³

Summary

I have found Social Practice to be the most aligned context for my work. With this approach I am testing a model for sustainability in art practice generally – created through the long-term development and feeding of a diverse ecology of knowledge, skills and goodwill. This social environment in turn is seen as being able to both generate and support creative work – whether a local artist attending events, or an artist, scientist or other researcher on residency at the future retreat and residency space of *The House of Wonder*.

³³ Kwon, M. (2002). "One place after another : site-specific art and locational identity." 218 p.



CHAPTER III:

— Making Strange – Design of Study —

Social Alchemies of the Unknown



Sally Jane Norman presents further reflections on *Raranga Tangata: The Weaving Together of People*. SCANZ 2009: Interconnections symposium. Govett-Brewster Art Gallery.

*Solar Circuit Aotearoa New Zealand (SCANZ)*³⁴ is a bi-annual creative residency, symposium and exhibition event organised by the Intercreate team of Ian Clothier, Nina Czegledy and myself since 2006.

Cultural theorist Sally Jane Norman and complexity scientist Sylvia Nagl's paper *Raranga Tangata*³⁵: *The Weaving Together of People*³⁶ formed a base for SCANZ 2009 and in reviewing the paper it is evident that it continues to have deep associations with my own platform development. It talks of 'translational dynamics' required to bring 'entrenched specialties' to an 'interdisciplinary crossroads'. It seeks to create 'cognitive windows' to open up through 'inspiring models of encounter'.

In early 2009 I took on the role of being the lead organizer for the 2011 event. The initial work involved proposing and refining the base concept and event title *Eco sapiens*³⁷ and

leading the event development via coordinating the input from an expanded team of five.

The symposium aspect of the event would soon emerge as the perfect chance to test the idea of the 'social wunderkammer' and I would come to be the sole organiser of this aspect, while my ongoing event collaborators (Ian Clothier, Nina Czegledy) focused on the residency exhibition and workshops.

To test the idea of the 'social wunderkammer' at the following SCANZ event, I was interested to create a rich alchemy of diverse knowledges, within which individuals could share personal intrigues and fascinations. In formulating an approach to the *Eco sapiens* event the below is a short summary of some of the key perspectives and situations I set out to find and bring together to create a generative environment.

A Social Recipe for Re-imagining

Art & Science

Art and science is sometimes seen as an ontological battle between the desire to make the world clear and explicit, versus intentional poetic obscurity (as can be seen in Burke's argument for the 'sublime'). Yet as New Zealand artist Janine Randerson notes, commonalities exist in that both cultures start from a place of not knowing, with 'open-ended questions'. Science has also long been wonder-inspired³⁸ as for many scientists, the close scientific study of

³⁴ Solar Circuit Aotearoa New Zealand (SCANZ) is a bi-annual creative residency and symposium event that is held in New Plymouth, Taranaki and forms a part of my curatorial work with the arts organisation Intercreate.

³⁵ The authors are grateful to Charlie Tawhiao for having communicated and defined this term: « I prefer the metaphor approach, so I consider a network of people such as that presented by the internet to be a weaving together of people similar to how a mat is woven: raranga or whiriwhiri refers to the weaving of a whariki (mat) or kete (basket). The internet community could therefore be described as raranga tangata or similar to describe the weaving together of people.» Personal correspondence, CT – SJN.

³⁶ Norman, S. J. and S. Nagl (2007). *Raranga Tangata: The Weaving Together of People*. HASTIC, Lulu.

³⁷ In the combination of eco/oikos with the Latin word *sapiens* (of Homo sapiens) which means 'wise', the *Eco sapiens* event proposed the far-future scenario of any surviving descendants of our species as having evolved an extended sensory capacity for a more integrative sense of the world. A far-future envisioning, to which many individuals concerned with these issues, could bring their own personal fascinations and wonders to.

³⁸ Bersanelli, M. and M. Gargantini (2009). *From Galileo to Gell-Mann: the wonder that inspired the greatest scientists of all time in their own words*. West Conshohocken, PA, Templeton Press.

these 'parts' only reveals our ignorance and yet more wondrous questions. Yet scientific knowledge is widely understood as objective, solid facts. Roger Malina sees art as capable of throwing all of this 'understanding' into a productive, creative questioning. Rather than being illustrative of science, artists and the humanities can provide the 'questioning principle', considering the wider social, psychological or cultural contexts of the work being done, and thereby affecting the future of techno-science discoveries and innovation.³⁹

Integrated Worldviews

From where I come, we have a saying, 'ko au te awa, ko te awa, ko au; I am the river and the river is me.'

– Tariana Turia, Co-Leader of the Māori Party at Snowchange 2008⁴⁰

The heart of David Suzuki's book, *The Sacred Balance: Rediscovering our Place in Nature*⁴¹, is the 'scientifically supported fact that each of us is quite literally created by air, water, soil, and sunlight'. Similarly, physics has illustrated understandings common to many ancient cultures of our interconnection to the web of life, at what could be described as an atomic level. A belief is stated as that they 'do not end at their fingertips'. In Aotearoa New Zealand, Māori are a group whose worldview – Te Ao Marama⁴² – can be considered as being of an integrated structure. Cosmological whakapapa represent genealogical interrelations from humans to all forms of life and forces in the world and in space beyond. This element of 'perceptive attunement' (*Gelassenheit*) Ruth Irwin argues 'is precisely what is missing from philosophical discourse about the relation between contemporary human beings and the environment' (Irwin 2008, Pg 187).

Boundary Objects

Danny Butt discusses the challenge of working with interdisciplinarity and indigenous knowledge is to 'develop forms of translation between worlds'. In this the creative artefact holds potential as a 'boundary object', which Susan Leigh Starr states 'are both adaptable to different viewpoints and robust enough to maintain identity across them.' Danny continues, stating 'they are curious objects, both uniquely positioned between known paradigms and yet elusive in their operation, for their role is to sensitise us to gaps and slippages in knowledge, rather than to incorporate experience into the disciplinary realm of the known.'⁴³ In my work I have interpreted the 'boundary object' as also inherent in a complex concept set for discussion, as well as a physical object, or an artwork.

Protocols of Sharing

Despite the intent of finding interlinkages between worldviews, the potential for uncovering disagreement and tension in bringing these groups together is equally high. As such an atmosphere of hosting with invitations for gestures of interpersonal generosity are seen as a way to aid the formation of a group relationship during events. Sharing protocols have varied, but are always present in some form of food, and a dialogic 'wonder' sharing. For as Kester describes, 'in attempting to present our views to others, we are called upon to articulate them more systematically, to anticipate and internalize our interlocutor's responses. In this way we are led to see ourselves from the other's point of view and are thus, at least potentially, able to be more critical and self-aware about our own opinions. This self-critical awareness can lead, in turn to a capacity to see our views, and our identities, as contingent and subject to creative transformation' (Kester 2004).

³⁹ Janine Randerson on art, space and climate change. Isaac Davidson. Article originally published on The Big Idea website <http://www.tbi.co.nz/>

⁴⁰ Snowchange (2008). The Snowchange Project – Indigenous Views on Climate Change and Ecology. Snowchange. Waitara, Taranaki, New Zealand.

⁴¹ Suzuki, D. T., A. McConnell, et al. (2007). *The sacred balance : rediscovering our place in nature*. Amherst, N.Y., Prometheus Books.

⁴² Royal, C (1998). Te Ao Marama The Māori World View, Part One

⁴³ Butt, D. (2009). "Whose knowledge? Reflexivity and "knowledge transfer" in postcolonial practice-based research."

Foundations: Developing a Social Ecology

Developing Networks – Online/Offline

The development of this project and platform has involved thinking through the interweaving of online networks and physical encounters. Professionally involved in networked media design and art, during my early masters research I was interested in the then emerging social media platforms and the social dynamics of online participation. In contrast with this, organising group creative residencies had impressed on me the ever-cascading social and cooperative outcomes (often emerging much later) generated by prolonged physical-social spaces.

In my research several key ideas stayed with me as usefully relevant across both of these working territories. These were Christoph Spher's stated conditions for 'free cooperation' as a space where all rules are negotiable by the participants,⁴⁴ and Peter Kollock's analysis of classic Prisoner's Dilemma⁴⁵ game theory posed by Robert Axelrod. The dilemma identifies three conditions necessary for the possibility of cooperation, which are a) that people will meet again in the future, b) be able to identify each other, and c) have information about each other's previous behaviour.⁴⁶

Axelrod's conditions continued to resonate with my own experience, including the comparative difficulties of developing a participatory social network online. It soon became apparent that social media held a limited capacity to build the social networks from which to in turn build events. Many potential participants (for *Eco sapiens* and the *Wonderlogues*) were very busy people who were often not socially active online. Contact was best made directly (by email, phone). It therefore emerged that the most productive approach was going to be to take a foremost focus on the physical-social encounters. Post-events, social media and similar would then be charged with the energy of relationships already formed.

In keeping with this, online media for *The House of Wonder* was designed primarily as providing the support roles of 'worlding' and public-facing information. The visual style used across print and online is reminiscent of the earnest endeavours of amateur naturalists and wunderkammer keepers (an early form of curator) of earlier centuries. Typographic choices are from within the wunderkammer and Enlightenment eras (Old Style to Modern Humanist) as are print and online layout structures chosen.

Within this 'world' I imagine and place myself as 'The Keeper' of this wunderkammer, invoking a forebear of mine Robert Graham Findlay, who built the Miranda house and was noted as 'interested in everything that walked, crawled, galloped, flew or swam.'⁴⁷ From this mood of thought comes *The Keeper's Diary*, in which I pass on little everyday discoveries made, via the site and/or social media. This presencing of the project online forms an additional home for the overall project, where guests are also made to feel welcome and can 'call in'.

Online publishing platform options had been extensively researched prior to *Eco sapiens*. The Wordpress platform had emerged triumphant and so was also used for *The House of Wonder*. Throughout the research period, the design, development and management of online media was solely my responsibility for both projects, with some content contributions from collaborators in the case of the Intercreate/*Eco sapiens* site.

Developing Networks – Hosting

Due to the focus on physical-social gatherings, the act of inviting and hosting the many artists, scientists and others to visit and stay overnight at *The House of Wonder*, forms a key part of the network development work. These visits allow the space and time for conversations, questions and ideas to emerge, and for guests to develop a sense of the place, and hopefully some of its wonders.

⁴⁴ Spher, C. (2003). *Eine Grundlegung der freien Kooperation*. Berlin, Karl Dietz Verlag.

⁴⁵ Axelrod, R. (1984). *The Evolution of Cooperation*. New York, Basic Books.

⁴⁶ Kollock, P. (1996). Design Principles for Online Communities. *Internet and Society*. Harvard.

⁴⁷ Hill, F. (2003). *The Murray Family; The McInnes Family, From Keith to Miranda*, self-published.

In alignment with the work of Australian artist Lyndal Jones' *The Avoca Project*,⁴⁸ visited in 2009, this is also seen as part of the ongoing work of the house-space – as a way to engage and involve people in the project and wider networks.



An organisational retreat for Intercreate, while developing SCANZ 2011: *Eco sapiens*. We are here discussing a korowai gifted to our family in 1918.



A day visit from architect Dina Kraljovic, artist Diana Burgoyne and her partner Simone Williams. Design-build projects for Architecture students are discussed.



A family retreat for artists Julian Priest and Sophie Klerk and family. With the kids we tested what all kinds of things looked like under my Dad's old microscope.



A day visit from Canterbury ecologist Colin Meurk. Colin taught me how to read the sex of totara trees, and gave me a tour of the lesser-known natives behind the house.



An organisational retreat for Aotearoa Digital Art Network (ADA). Hard at work on the picnic blankets.



A weekend visit from ukulele-playing moa expert, Mike Dickison. Shown whilst taking a tour of the R. G. Findlay Wildlife Reserve and Miranda Shorebird Centre.

⁴⁸ Lyndal Jones, *The Avoca Project: Art, Place and Climate Change*, <http://www.avocaproject.org/>

Existing Networks

Another strategy has been the adoption of existing networks – local organisations, networks, etc – and their established social energies and processes, to create efficiencies in forming social overlap.

For *Eco sapiens* for example, a number of trips were made to Taranaki prior to the event, to meet with people involved in local organizations such as the New Plymouth Astronomy Society, Hive environment centre, partner museums, and to personally visit various tangata whenua and attend local hui in order to discuss and generate connections and possibilities. My collaborator Ian Clothier who lives locally in New Plymouth has since furthered this work.

For *The House of Wonder*, organizations have included individuals involved with the Miranda Naturalist Trust, Ecoquest, Auckland Astronomy Society, Geosciences Society, Entomological Society, Royal Society of New Zealand, Science Communicators of New Zealand, Auckland University of Technology (AUT), Auckland and Waikato University, and Café Scientifique in Hamilton, Hauraki Plains High School, Makomako and Wharekawa marae in Miranda and Kaiaua... and the list continues to grow.



Aerosphere and Atmosphere, Nina Czegledy and Janine Randerson, 2011. Public discussion in held with the New Plymouth Astronomical Society as part of their regular Tuesday night meetup. *Eco sapiens* Residency period.



light, sweet, cold, dark, crude_Aotearoa, AE Lab, 2011. Audiovisual micro-event performance at Fernery in New Plymouth's Botanic Gardens, Pukekura Park. Organised via The Friends of the Park network and with Park staff. *Eco sapiens* residency period.



A greater involvement with those at the Miranda Shorebird Centre and Naturalists' Trust has been formed through the wonder research. The shorebird reserve is on family land.



Ivan Vazey, Curator of Instruments for the Auckland Astronomy Society (AAS), kindly shares a cup of coffee and his love for astronomy as I come to his home to pick up one of the AAS Dobson telescopes for rent.



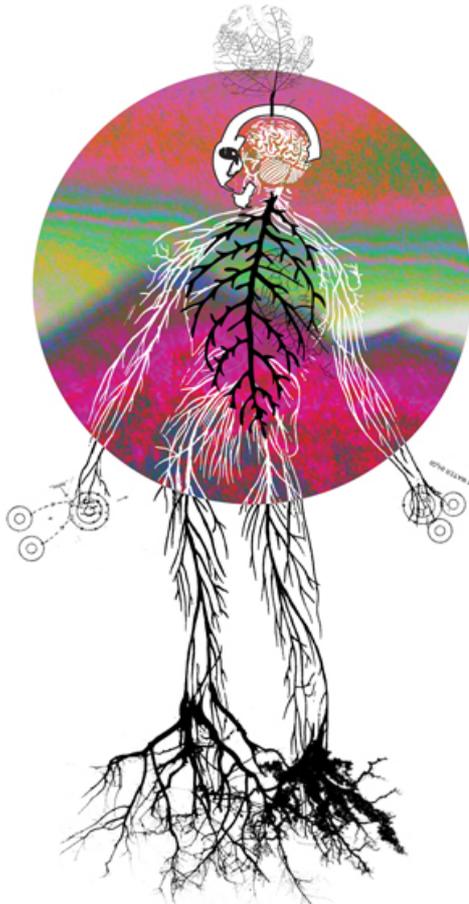
CHAPTER IV:

Research Sites



Wonder & the *Eco sapiens* – Research Site I

SCANZ 2011: *Eco sapiens* – Hui/Symposium



SCANZ 2011: *Eco sapiens* – promotional graphic

*Solar Circuit Aotearoa New Zealand (SCANZ)*⁴⁹ is a biannual creative residency, symposium and exhibition event organised by the Intercreate team of Ian Clothier, Nina Czegledy and myself. In early 2009 I took on the role of being the lead organizer for the 2011 event, for the purpose of developing it as a masters research site. The initial work involved proposing and then refining the base concept, forming the event title *Eco sapiens*⁵⁰ and leading the development of the event via an expanded team of five.⁵¹

The symposium aspect of the event would soon emerge as the perfect chance to test the idea of the ‘social wunderkammer’ and I became the sole organiser of this aspect, while my ongoing event collaborators (Ian Clothier, Nina Czegledy) focused on the residency.

Previous SCANZ symposium audiences were predominantly digital media arts-based. Keenly interested to widen this approach into an eclectic assembly of knowledges, calls for participation in the residency and hui/symposium events were determinedly open, and were created in multiple versions for different audiences. In consultation with the scientist Mike Dickison, the symposium event flyers asked simply, ‘how might we re-imagine our relationships with nature?’ However despite promotional efforts, participation largely came through the direct development of personal contacts – i.e. via researched meetings and personal visits, attending hui, and the direct invitation of individuals. There was a conscious ‘collecting’ of

knowledges for the hui/symposium in this way, largely guided by an interest in creating of overlaps in my ‘wonder research’ areas of intrigue.

This stretched across topic areas from cosmology to food production, though the context of the hui in particular could allow us to bring matakāwhiri Māori (Māori knowledge) into discussion with arts and sciences. So for example, evolutionary biologists and zoologists ideas of our own species’ fishy beginnings were invited to speak, alongside matakāwhiri Māori ideas of our slippery origins from wai/water. Similarly artists/physicists were invited to discuss ideas of energy where it could be seen alongside ideas of mauri. Astronomers were asked to speak about the immense scales of the universe, in the cosmological context of the wharenui. In this way I was curiously testing for

⁴⁹ Solar Circuit Aotearoa New Zealand (SCANZ) is a bi-annual creative residency and symposium event that is held in Taranaki and forms a part of my curatorial work with the arts organisation Intercreate.

⁵⁰ In the combination of *eco/oikos* with the Latin word *sapiens* (of *Homo sapiens*) which means ‘wise’, the *Eco sapiens* event proposed the far-future scenario of any surviving descendants of our species as having evolved an extended sensory capacity for a more integrative sense of the world. A far-future envisioning, to which many individuals concerned with these issues, could bring their own personal fascinations and wonders to.

⁵¹ Organising team roles for SCANZ 2011 consisted of myself as Creative Director of SCANZ 2011, with Ian Clothier, Nina Czegledy, Maggie Buxton and Grant Corbishley supporting as co-organisers. Please see here for further details: <http://www.intercreate.org/2010/02/scanz-2011-organising-team/>

possible alignments and bridges between worldviews within these ‘wonders’. The resulting complex of knowledges held amongst artists, theorists, tangata whenua, philosophers, astronomers, engineers, physicists, evolutionary biologists, zoologists, musicians, educators, food producers, and others present ensured the event developed into a richly varied ontological environment. This networking was only possible due to the wealth of personal ‘wonder’ intrigues and questions I had previously accumulated from my observation work in Miranda, allowing me to have some specifics to approach and personally invite people with.

In this way the hui/symposium came to be in some cases a direct, and now very public furthering of my research into those wonders. In particular, my preoccupation with those vast scales of time and space – which provide a ‘big picture’ or cosmological view of ourselves – resulted in the first session, ‘Perspectives on a Species’. Thankfully this all came to pass in the wharenui – and an amateur astronomer/astrophotographer opened the presentations with *Stardust birthing wards and scales of the universe* (Moss). Far-reaching possible futures for our species followed, in the project *Areosphere and Atmosphere* (Czegledy, Randerson) which involves the topic of the terraformation of the planet Mars. A humbling backtracking in evolutionary time with the zoologist Mike Paulin, allowed for an investigation of the watery origins of life and cognition. While an artists’ work with our olfactory senses further revealed our human animal (Turner, Newcomb). In this way the overall session programming started from the cosmological or picture view, which so affects our worldview, and would slowly focus in on discussing work with a more hands-on, pragmatic or cultural-political foci.

SEE APPENDIX 1: ✨ SCANZ 2011: *Eco sapiens – Hui/Symposium schedule*

Sharing Dynamics

Due to the interest in encouraging intercultural dialogue, and the number of worldviews hoped to be present, it had been important for me that the event be this time held within the powerful and leveling social processes of the hui.



SCANZ 2011: *Eco sapiens* Hui/Symposium venue of Owae Marae in Waitara. Exterior and interior view. (Please note that the sharing of these pictures is within tikanga).

This was first experienced in 2005 as part of the *Cultural Futures*⁵² symposium organized by Danny Butt, Jon Bywater, and Nova Paul at Hoana Waititi marae. Danny reflects on this as ‘the marae – accompanied by the relevant tikanga – is a sophisticated physical, intellectual, and spiritual infrastructure for conversation. This holistic environment that self-consciously supports large group interaction in ways that professional facilitators like myself could only dream of creating in another context. Conversations are more intimate and less defensive when you’ve just spent the night sleeping in the same room; when you’ve been formally introduced; when you are in the embrace of an ancestor; when you know who is responsible for maintaining the environment you’re in.’⁵³

⁵² Cultural Futures: Place ground and practice in Asia-Pacific New Media Arts. Hoani Waititi, Auckland, December 1-5 2005.

⁵³ Butt, D. (2006). "Cultural Futures recap." from <http://dannybutt.net/2006/02/cultural-futures-recap/>.

Of particular inspiration for holding the event as a hui was the tikanga of the whakawhanaungatanga and poroporoaki – the introduction and farewell sharing processes – where they involve each individual present sharing something of themselves with the group. This became an emotional process for many at *Cultural Futures*, and made the event a highly personal, moving event unlike any symposium I had ever been to before. It was a gift to experience, and through the relationships built for seven years with our kaumatua Dr Te Huirangi Waikerepuru and others in Taranaki, I was interested to see if that connection could be made again. Fortunately after some discussions, some advisory and organisational assistance, and some swift learning curves, this was made possible.

Amid the *Eco sapiens* hui, Matehaurua Limmer of our paepae (people of the house there to guide us) had given me guidance regarding the whakawhanaungatanga (introductions) process, explaining it as revealing that we are all connected by water. As expected this became an emotional process for many at *Eco sapiens* also. Keith Armstrong reflects on his experience of these processes in his feedback.

As has been said often - the events at the Marae were able to create an environment of connectivity and camaraderie quite unlike any event that I had attended before... the request to recount our family history at the event gave me particular pause to consider the nature of my 'ungroundedness' and the physical, psychological and creative influences that it exerts in our collective imperative to become Eco sapien. Through a call from one of the oldest cultures we were asked to reflect upon the future human - a magnificently complex task.

– Keith Armstrong, Artist and *Eco sapiens* residency participant

In the rich and complex cosmological context of the wharenuī, and under the gentle guidance and karakia (prayers) of our paepae, there was a sense of reverence for the moment, as well as a very upbeat and family-like mood to the symposium. As with sleeping in the same space, the sharing of meals increases the sociability of the gathering.

The goodwill was also in no small part due to the effect of good sustenance. I had made the request to our cook Marlene Benson, for local and organic food wherever possible within budget, not really understanding the difficulty of what I was asking for. Marlene and Sue James however took on the challenge and the sensual nourishment of fabulous food was much noted in its effect in increasing the overall positivity of the group. It was this factor, as well as the *Stone Soup* workshop that Sophie Jerram proposed and carried out on the high energy day that was the Open Workshop Day on the Sunday, which encouraged my interest in continuing to work with food as helping to create a dynamic of sharing in *The Wonderlogues* events.



Stone Soup – a workshop held in the wharekai at Owaē Marae led by Sophie Jerram. Participants were asked to bring along some form of food which were local to them or had meaning for them in some way. They were invited to speak about it offer it to the workshop group which then devised lunch from those ingredients. The above was the resulting Sunday lunch, with some leftovers mingled in.

A particular critique I had of the sharing dynamic during the symposium part of the event, was seeing the tendency for presentations which were more ‘publishing moments’⁵⁴ than my having achieved my aim – of participants sharing of a personal sense of ‘wonder’ from their related research area. This was particularly from artist participants, whose tendency was to take the public opportunity to describe a latest work. While still in alignment with my conception of a ‘boundary object’, in this large gathering situation I felt it tended to lessen the engagement possible with the individual themselves and the intrigues driving their work. In this I believe I lost the chance to create an overall cohesiveness around ‘wonder’. This critique is something that I have continued to trial how to communicate better, and test the results, within *The Wonderlogues* series.

There was also less direct engagement/involvement with tangata whenua than I had been hoping for. Both kaumatua Dr Te Huirangi Waikarepuru and Haumoana White presented during the symposium, and participated in some discussions. Haumoana also played a significant role as our guidance/paepae. Despite prior efforts to invite local Māori it was stated by the tangata whenua present that they had wished that their mokopuna and others had come to join in. This we see in the long-term of learning how to market the events, as well as in the perspective of the time it takes to become known and trusted – a relationship that cannot be rushed or forced with such a large group. We therefore continue to endeavour for our events to gain notice and relevance for Māori with the SCANZ 2013 event.

Analysis

In summary, the *SCANZ 2011: Eco sapiens* hui/symposium event was a hugely rewarding experience. For this cosmologically rich world, to hold for a moment these highly varied individuals in the leveling space of the hui, resulted in an unusually warm and inspiring event. It can be said that exchanges between individuals who otherwise may never have encountered each other produced new linkages between people and ideas.



UNCONTAINABLE Second Nature – Te Kore-Rongo-Hungaora. Compilation image for the Intercreate exhibition at ISEA 2011 in Istanbul, Turkey.

Immediately emerging from the *Eco sapiens* event was the exhibition *UNCONTAINABLE Second Nature – Te Kore-Rongo-Hungaora*⁵⁵ curated by Intercreate collaborator Ian Clothier. In an expansive and daring move, the exhibition combined the work of artists, scientists and cultural participants of the *Eco sapiens* event with responses to an open call, for an exhibition to be held at the highly regarded international art/technology festival, ISEA. Five themes were isolated as a recontextualisation of works from art and science as cultural texts symbolic of belief systems. The linkages include the cosmological contexts of the macroscopic level of stars, suns, planets and stellar systems; energistic conceptions of nature ranging from quantum theory to ‘mauri’ or energy; the anthropic principle in sub-nuclear physics (which in Māori terms refers broadly to the relationship of humans to the cosmos); and integrated systems as also instantiated in Systems thinking, Cybernetics and Chaos theory. Many of the selected works speak to micro-macro and cosmological linkages between Māori and western ideas of nature.

⁵⁴ This term was from a feedback session prior to the event with Maggie Buxton, to review my symposium schedule organization.

⁵⁵ *UNCONTAINABLE Second Nature – Te Kore-Rongo-Hungaora*
<http://isea2011.sabanciuniv.edu/other-event/uncontainable-second-nature>

Also held in Istanbul – responses to the associated *Eco sapiens Roundtable*⁵⁶ event, which was lead by our Taranaki kaumatua Dr Te Huirangi Waikerepuru, revealed an international concurrency of thought regarding the need for alternatives to working within the ‘existing, interdependent financial and academic protocols [which] reinforce values, processes and systems associated with ongoing environmental and financial collapse’.⁵⁷ Also an interest in ‘finding ways to facilitate inter-cultural and interdisciplinary exchange’ to ‘overcome dangerous ruts in behaviour and models of mind in order to avoid dead-ends and dead-drops in the development of our civilization’.⁵⁸

In its overall affect the *SCANZ 2011: Eco sapiens* event chartered new territories and a new focus for Intercreate as an organization. Moving it towards the cross-pollination of creativity and ideas across a wider diversity of disciplinary and cultural boundaries, and to an active audience beyond media arts.

SEE: ✨ *Second Nature – Te Kore-Rongo-Hungaora*
<http://isea2011.sabanciuniv.edu/other-event/uncontainable-second-nature>

SEE: ✨ *Eco sapiens Roundtable*
<http://isea2011.sabanciuniv.edu/other-event/eco-sapiens-round-table>

⁵⁶ Eco sapiens Roundtable

<http://isea2011.sabanciuniv.edu/other-event/eco-sapiens-round-table>

⁵⁷ Catlow, R. (2011). "Re-rooting digital culture at ISEA 2011." Retrieved 22/09/2011, from <http://www.furtherfield.org/blog/ruth-catlow/re-rooting-digital-culture-isea-2011>.

⁵⁸ Bateson, G. (1987). Steps to an ecology of mind : collected essays in anthropology, psychiatry, evolution, and epistemology. Northvale, N.J., Aronson.



The Wonderlogues – Research Site II

... the Social Practice artist is also affecting the world, setting things in motion, fostering connections between people, organizing everyday life so that it can be seen as engaging and meaningful.⁵⁹

– Harrell Fletcher



Saturn, as seen from our front porch during, *A Dinner for a Lepidopterist*, May 2011 (image creator unknown).



A six hour back-tracing of the air breathed the night of the *Atmospherics & the Experiential* event. June 2011. (image generated using the NOAA Hysplit Trajectory Model).⁶⁰

The Wonderlogues are an evolving series of dinner/dialogue events held in my home, also known as *The House of Wonder*. These again involve a prism of intersubjective exchange via ‘wonder’ sharing. *The Wonderlogues* however more specifically explore aspects of nature that oscillate between the everyday and the awe-inspiring in this Heideggerian mood of *Verhaltenheit*. In a socially attentive and unmediated way I seek that the events ‘relate to both beings, and being itself’, and thus in their slow accumulation I hope to build authentic relationships and encourage a diversification of the social ecologies of those who become involved.

Dialogue & Sharing Dynamics

A noticeable mode of experimentation has occurred in the events, particularly with dialogic strategies. The first event was a comparatively straightforward dinner, though incorporated some more performative or active elements such as a stargazing session, an impromptu show-and-tell with a case of displayed moths, and poem readings (*A Dinner for a Lepidopterist*, May 2011). Enjoyable and memorable as it was, I felt that though I had connected the people, I had been less successful in drawing connections between the ideas and knowledge of those present.

Hence in the next event (*Atmospherics and the Experiential*, June 2011) I wished to introduce a more

formalized self-introduction process, drawing inspiration from the *whakawhanaungatanga tikanga*⁶¹ guidance given during the *SCANZ 2011: Eco sapiens hui/symposium*. In keeping with this, the intention was for the self-

⁵⁹ Fletcher, H. (2007). "Some Thoughts on Art and Education." from <http://www.harrellfletcher.com/>.

⁶⁰ NOAA Hysplit Trajectory Model – <http://ready.arl.noaa.gov/hysplit-bin/trajtype.pl?runtype=archive>

⁶¹ *Tikanga* are the customary etiquette or protocols in Māori culture, and *whakawhanaungatanga* is a self-introduction process where those gathered each take turns to trace their whakapapa or lineages of origin. The following explanation of the fuller purpose of the protocol comes from the Te Wharekura o Manaia – a school in Manaia, Coromandel. ‘The principle of whakawhanaungatanga incorporates the acknowledgement of whakapapa as the framework that connects people to one another, to generations past and future, and to the wider environment. It reminds us of our responsibilities to one another as well as to our kaupapa [purposes, goals]. It encompasses the concept of inclusiveness, whereby we seek to reach out to those around us and to include them within our kaupapa. It acknowledges the connectedness between people and all aspects of our environment (for example, the connections between the mountains, rivers, land and ocean).’

introduction session to 'open' the evening. However I had to be flexible on this, so that all intended guests were able to be present. Hence a combined introductions and topical sharing session was instead held after dinner. Though not my intention this worked reasonably well, as the guests had had time to become familiar with each other over dinner.

The act of formally opening the session felt significant to me, as memories ran through my mind of the many group bible studies my parents had once held in the same room. Following their own forms of 'wonder', as I had come to think of it. My own wonder shared for the evening – a meteorological tracing of the air we were breathing that night, which showed the path of that air over the previous six hours. Drawn from the work of meteorologist Ramon Guardans at *SCANZ 2011: Eco sapiens*, this was chosen as a starting point for the evening due to its demonstration of global interconnectivity given the great international currents and eddies in the ocean of air that we all live at the bottom of, and breathe into our bodies. In enacting/hosting this session, a more intimate and contemplative social space opened up as each person took up the audience of the group. Stories shared were more reflective than the dinner chatter, and included some highly impassioned pleas. These responses again reminded me of the emotion that can be involved when asking someone to speak 'from the heart' to a group.



As seen by those in Denmark, the gathering at *The House of Wonder*, Aotearoa New Zealand. September 2011.

My fascination with the topic of time led to the experimentation in the next event of a dinner shared across time and space (*Open Time*, September 2011). This Wonderlogue was organised with Majken Overgaard and Christian Villum and formed part of a creative technology festival in Aalborg, Denmark.⁶² A group in each country would share a table telematically elongated, so that our dinner gathering would coincide with their breakfast, and we could share personal stories on the topic of time. In terms of dialogics, the noticeable difference with this sharing session was the performative energy response generated from each group being beamed to the screen of the other group. There was also a surprising sense of togetherness that came from small

things (such as a sneeze in New Zealand automatically responded to by a 'bless you' in Denmark).

The *Open Time* event workshop had earlier that day initiated the development of *A Walk Through Deep Time* – bringing into the series a more physical, active dimension. A dialogue played out as a roving discussion – a shared, embodied experience. Kester has described similar practises as experiments in 'new modes of being together through a sustained process of interaction that operates on multiple levels: speech, haptic experience, shared labor, [and] the proximity of bodies in space.'⁶³

It is worth noting that I found that the research for local individuals with relevant knowledge and/or interest to be involved in these events was slowly allowing me to rediscover my locality and the variety of individuals it contains. This then also functioned as a means for reconnecting to, drawing from, as well as feeding into and developing the existing knowledge and social networks of the area.

Altogether the combination of elements developed prior to the final 2011 event in November, further expanded from this, allowing a repertoire of flexible format options to emerge. These events continue to involve experimentation and a responsive tailoring of the approach taken to the dialogic aspects of the events, and this is expected to be ongoing. As such each event is unique, involves elements of improvisation, and contributes to a growing conceptual and social complexity.

⁶² Platform4.0. *Future Meeting Hub #1* – <http://www.platform4.dk/node/72>

⁶³ Wilson, M. (2007). "Autonomy, Agonism, and Activist Art: An Interview with Grant Kester." *Art Journal* Vol. 66(No. 3 (Fall)): 106-118.

The series could be summarized as finding ways to bring people together for interdisciplinary dialogue on topics which involves the awesome and complex in nature. Though there is a utopian aspect to them, they are also pragmatically produced, using what is at hand, and financially feasible. They may be playful but are not intentionally performative. As single events, they simply form a means of socialised research and exchange on a particular aspect of our environment.

Manaakitanga or Hospitality



Bringing out the family china and polishing up the silver – the Findlay family tea sets laid out for guests arriving to the event on Energy & Adaptation. November, 2011.

Though *The Wonderlogues* are rapidly developing into their own entity – in subtle, personally significant ways, the protocols of hui gatherings remains a considerable influence. As encouraged and guided by Te Urutahi Waikerepuru,⁶⁴ I continue to work to develop both self-introduction and sharing processes in a way that seems true to the ethos of *The House of Wonder* while recognizing its dual roots.

Efforts to gather historical fragments to form a small family and local area museum relates to the ‘memory theatre’ of the wunderkammer, and allows the space to reference my own familial relationship to the land or whakapapa. I have been drawn to involving these family antiques and treasures in the events – photographic

portraits, tea sets and other treasures – as a way to invite all the guests into a more trusted and familial relationship with me, and therefore with the space/place and the other guests. As Danny Butt eloquently described in regards to the work of the Sarai Media Lab, ‘the spirit of inquiry is underpinned both philosophically and practically by a spirit of manaakitanga or hospitality’⁶⁵ – a goal the work continues to uphold. In the final gathering for the year the hosting ritual of providing a morning tea using the family tea sets was combined with organizing a shared lunch to which all were asked to contribute. Here the exchange of food between guests plays a social aggregation role, which echoes the exchange of knowledge that occurs later, while also resolving pragmatic issues with hosting the events.

As inspired by the shared living spaces while at hui on marae, guests were encouraged to stay overnight/the weekend. Where this occurred I found it formed an extension of the familial and situated experience post-event. It allows for many of the more delicate or extended exchanges to happen over morning cereal, during walks around the garden or along the shorebird reserve, and/or over relaxed cups of tea or coffee. In this way it assists in the formation of personal bonds between guests and also deepens their individual experience of place.

In retaining the essences of these socially generous processes, originally inspired by Māori tikanga, the project intends to make welcome those collaborators from matauranga Māori and related areas of interest, particularly as I gradually build relationships with tangata whenua of my own area.

During events, I found myself focusing on being attentive to guests and their wellbeing during the potentially conflictive or otherwise challenging discussions. This made various attempts at simultaneous mediated documentation of events feel both socially awkward and somewhat invasive given the potentially personal nature of discussions. Hence the evenings are being summarized post-event from the perspective of The Keeper of *The House of Wonder* on the project site so to allow for some contemplation of what occurred, as well as a respectful vetting of what materials from the events are made available to a wider public. These accounts of the *Wonderlogue* events are available in the below appendix and online at *The House of Wonder* site as shown below.

⁶⁴ Te Urutahi Waikerepuru is the daughter of Taranaki kaumatua Dr Te Huirangi Waikerepuru, and also a professional cultural advisor for matauranga Māori. Intercreate and the Waikerepurus have formed an ongoing collaborative and advisory relationship.

⁶⁵ Butt, D. (2006). "Cultural Futures recap." from <http://dannybutt.net/2006/02/cultural-futures-recap/>.

SEE: ✨ The Wonderlogues

<http://www.thehouseofwonder.org/dinners-dialogues/>

SEE APPENDIX 2: ✨ The Wonderlogues, Year 2011

A Dinner for a Lepidopterist: Energy as Orientation – May 22nd

Atmospherics & the Experiential – June 11th

Open Time – September 10th

Energy & Adaptation – November 5th



CHAPTER V:

~ A Long-term View ~

The 'Social Wunderkammer'

In reflecting on each of the five events held from January to November 2011, how well did the 'social wunderkammer' concept work in these, as an inspiring model of encounter? Was it a structure able to develop the complexities of a subject, rather than striving to create a 'mastery over nature'? Had it been able to encourage the development of a diverse ecology of individuals capable of interdisciplinary and intercultural dialogue on topics significant to our understanding of nature? What had I learned from this of the nature of wonder?

Overall Findings

In terms of development process, I was interested to see how the idea encouraged a personal mode of exploration that is then opened out, to be furthered with, and to the potential benefit of others. It allowed me to enquire into entirely new fields of knowledge, knowing I was essentially curating encounters between others, rather than with myself (where I would be expected to be equally knowledgeable). The focus instead becomes the building of authentic relationships to encourage a diversification of the social ecologies of those who become involved.

I was also surprised to get a sense for the power of the idea of 'wonder' in others' minds. As a mere mention of it as a project basis often sparks a smile, widening eyes and sometimes that telltale short, sharp intake of breath as memories of wonder and awe swell up to re-inspire. Hence my own research during this period has attempted only to find ways to cultivate my own and others' sense of wonder, to unearth it from beneath day-to-day responsibilities, pressures and social routines.

Within the vast territories of wonder, it was those multi-faceted topics full of complexity and unknowns – the awesome – that most easily engaged and involved a significant diversity of individuals. Topics which no one individual could encompass on his or her own, where expertise areas inevitably intersect, and where vast tracts of unknown territories exist. These unknowns or unfathomables are in fact a powerful rubric with which to bring people together. The awesome topics of great scales and complexity in nature also often directly reveal the anthropocentrism that is so difficult to escape.

Here I discovered an existing widespread desire for direct engagement across disciplines, which was most pronounced within the sciences. Interdisciplinary collaboration is widely seen as a means of adaption to an age of enormous changes and related complexities. Silos of specialisation are a lived frustration most keenly felt by the older researchers whose views have over the years gathered the height and width from which to connect ideas.

Though inherent in philosophy, arts and culture, I came to see the sciences as the most overtly driven by wonder. A view in opposition to the common idea of the scientist that would pull something apart to understand it, without any appreciation for the aesthetic of the whole. As Carl Sagan commented, it is by understanding the parts that they are able to develop a greater and deeper appreciation for the whole.

Site Comparisons

There were both successes and challenges within the dialogues across the two sites that have been tested and developed. These manifested within the different research sites of the project, and were adjusted in accordance with and response to the environment of the events.

SCANZ 2011: Eco sapiens

In the research site of *SCANZ 2011: Eco sapiens*, held within the richly complex environment and cosmology of the Owae Marae wharenui, the dialogue was cocooned by both people (paepae guidance) and ancient processes (tikanga) for sharing. This impressive sense of place and the unique opportunity to be welcomed into a familial living interaction there – of shared spaces for eating, sleeping, washing, swimming, praying and singing together – combined to ensure a heightened sense of community developed. Though organised essentially in a symposium format, the event was held on ‘Māori time’, where discussions would go as long as they needed to, and all else adjusted to the timing for the tikanga of karakia/prayers. We had left our other worlds behind and had moved into a new space where disciplinary, cultural and personal boundaries were made temporarily vague. In this mode I was able to develop a greater/deeper appreciation for the richness of concepts of whakapapa, whakawhanaungatanga, manaakitanga and other concepts that continue to inform my work. This has further revealed to me that this integrated sense of the world common to many indigenous groups, is an important ingredient for the changes required in our dominant cultural paradigms.

Research into the wondrous and awesome had underpinned the construction of the event, though went wider to develop a highly eclectic suite of knowledges and activities. Scales of the universe followed by green smoothies; en masse potluck lunches after making and playing with tiny robots mimicking the first brains; Continental philosophy later followed by a discussion on school gardens; bike-fixing workshops alongside bee and butterfly attracting dresses; the plant/computer/person energy loops of the Biomodd project alongside discussions of cosmological whakapapa. As a larger scale event, *SCANZ 2011: Eco sapiens* was a much more highly eclectic social wunderkammer, which included hands-on knowledge demonstration. A highly memorable experience, participants have continued to network and develop ideas.

The Wonderlogues

The Wonderlogues were held in a very different space – our family homestead – re-imagined as a wunderkammer, and as a future retreat space. This forms the larger ‘worlding’ within which the series exists, and within which I exist and explore as The Keeper (curator) of the entity, *The House of Wonder*. In *The Wonderlogues* series I give wondrous and awe-inspiring topics a central focus. The topics of time, energy, complexity, interconnection, and scale are all examples of this. The idea of a ‘boundary object’ has been put forward as either a strangely combined set of concepts for discussion, as an encounter, or as an artwork.

Dialogic forms evolved from a dinner party, to an after dinner discussion, to a telematically connected discussion session at the end of dinner, to (and this was an adaption for examination requirements) a morning tea, with a shared walk discussion, before a shared lunch. In conversational tone these then travelled from casual dinner conversation (with strangers), to a ‘personal wonder sharing’ circle, to a more formal and performative sharing session telematically connected with another group, and then finally the larger, roving group discussion walk event.

With the channeled (via telematic broadcast) input of artists, filmmakers, physicist/astronomers, biologists, engineers, and inventors, the *Open Time* dinner was likely the most successful in evoking the Socratic wonder of dealing with ‘that which lies closest’ – i.e. time – and finding oneself ‘surrounded on all sides by aporia’⁶⁶ (puzzles). The recorded video exchange also resulted in the most successful and naturally occurring event documentation.

⁶⁶ Rubenstein, M.-J. (2008). *Strange wonder : the closure of metaphysics and the opening of awe*. New York, Columbia University Press.

Among the key difficulties and challenges of the series is that beyond hosting is the facilitation. To invite and allow very different voices to speak, also means being prepared to handle and direct potential conflicts. While the *production of subjectivity* (Felix Guattari) may produce momentary fluidities of perception useful in nudging cultural paradigms, it also holds the potential for one or more identities attached to the ideas now in fluidity to become defensive of a position! Here I believe there is ongoing work and play with the potentials inherent in disparate views, disagreement and conflict.

A Walk Through Deep Time



The gnarled remains of storm-destroyed fencing gains a new life as the beginning of the earth at 457 metres, or 4.57 billion years ago.



As we walk through the timeline, evolutionary biologist Mike Dickison notes the serendipitous placement of the slope on the timeline fence as indicative of a period of massive oxygen depletion on the earth.

Originally developed as the workshop component for *Open Time* (the third *Wonderlogue* event), the physical laying out of 4.57 billion years to-scale to form *A Walk Through Deep Time* is now taking on its own life as a project.⁶⁷ This project is the most focused on targeting the hubris borne of an anthropocentrism at the ancient cores of many of our dominant cultures. The topical interest in geologic time is around how these hyper significant views of ourselves might respond upon reaching the 1.18 mm of human civilization at the end of an intense 457 metre walk through the history of the earth.

In addition I was interested that in its immense scale and complexity, geologic time as a topic holds a level of complexity and abstraction that is difficult to conceptualize,⁶⁸ even for students of geology.⁶⁹ It is an example of a concept 'so vast, so profound' as to inevitably 'demand we broaden our worldview to accommodate'⁷⁰ it (Keltner and Haidt). Many cultures and disciplines reference and theorize on its vast unknowns, thus containing the elements of many cultural worldviews. Thus this space of 'unknowing' attracted the greatest assemblage of varied knowledge of any event held at Miranda. While placing the walk in a position to form a 'translation between worlds' (through dialogue),⁷¹ it also posed the greatest potential to-date for oppositional perspectives to surface.

The biggest challenge of the project was tackling such an immense, multi-disciplinary scientific topic with its basis of linear time, and isolating an approach to it that would also resonate with cultural perspectives present and allow philosophical/cultural intervention in the discussion. The physical installation was kept minimal for related reasons of wishing to focus on bringing out the thoughts and knowledges of others. Existing farm structures, landforms and detritus were explored for their serendipity, along with typographically developed time marker posts, as a way to outline these scientific concepts, while grounding them in everyday experience.

⁶⁷ Riddell, D. (2011). Time line to stimulate scientific literacy at Miranda Waikato Times. Hamilton. <http://www.stuff.co.nz/waikato-times/news/5691638/Time-line-to-stimulate-scientific-literacy-at-Miranda>

⁶⁸ Gould, S. J. (1987). *Time's arrow, time's cycle*. Cambridge, Harvard University Press.

⁶⁹ Dodick, J. O., Nir (2003). "Cognitive Factors Affecting Student Understanding of Geologic Time." *Journal of Research in Science Teaching* 40: 415–442.

⁷⁰ Buxton, M. (2009). *Trickster, Transformation and Transdisciplinary Engagement*.

⁷¹ Butt, D. (2009). "Whose knowledge? Reflexivity and "knowledge transfer" in postcolonial practice-based research."

Worldview-forming stories are inherent in this timescale, such as the origins of life and similar ‘where do we come from, where are we going’ questions. In the *Energy & Adaptation* event, I sought to focus on the interrelation between forms of energy and life, and how this might relate to philosophical ideas such as Ilya Prigogine drew from these relationships and his studies of non-linear thermodynamics. Also related cultural ideas such as cosmological whakapapa in matauranga Māori (Māori knowledge) as a representation of genealogical interrelations from humans to all forms of life and forces in the world and in space beyond. This linking back into the ‘perceptive attunement’ (*Gelassenheit*) discussed by philosopher Ruth Irwin as, ‘precisely what is missing from philosophical discourse about the relation between contemporary human beings and the environment’ (Irwin 2008, Pg 187).

Despite contacting widely within cultural arenas, on the day there was an unintentional imbalance towards the scientific as due to unforeseen circumstances, three people of my ‘cultural entourage’ (so to speak), were not able to attend. However one has to accept that this is very much part and parcel of working socially – participation is never guaranteed – and it made it clear that I needed to further develop ways to draw out the cultural aspects for this topic, in preparation for such eventualities. Ways to ensure that the event cannot fully swing towards one expertise area or another.

A core concern however is to resolve a common lack of perspective on ourselves in the world, which has brought us to ecological crisis. As science is a key to this wider understanding, I feel a responsibility to accurately explore scientific understandings – as I also feel is important in bringing forward related and valuable cultural ideas, such as integrated worldviews. In keeping with a long-term view, I see a role for myself in providing the linkages of inspiring ideas, and people, so that others can then pick up and explore them further. Hence a focus on a particular expertise may in some cases be appropriate and useful in the larger scheme view.

Despite the imbalance, a productive self-introduction session took place with an interestingly recurring focus on energy as a base for economics – in the place of money – from people from across ecology, engineering and physics. The following joint walk became – after a few initial shoulder-taps – a free-flowing feast of concepts within the various threads of scientific research, propelled by an equal flow of inquisitive questions. One participant, a geologist and amateur astronomer, became known as ‘the man with the world in his pockets’, as he continuously throughout the walk brought forth from one pocket or another, a meteorite that was older than the earth, a diagram of an early bacterial life form, small models of creatures from a significant archeological record, and so on. These would again form a phenomenological affective bridge between disciplines, and from remote geologic time to the here and now. The open-ended process of walking together outdoors (versus an orthodox and seated learning environment) did allow for alternative paradigms to be entered into the flow by artist Jo Tito and philosopher Ruth Irwin to challenge the ‘arrow of time’ account of reality.

As the project continues, there are many ideas for how to develop a flexibility of form which might allow for more expanded reading of the walk. Possible approaches have emerged from the participants themselves. November participant Hugh Morgan, states that ‘molecular biology now allows us to put a timeline on biology rather than biology being placed on a timeline’. This provides a more complex and serendipitous view, rather than a linear progression that can too easily be interpreted as an inevitable line that culminates in hominids. Combining this with cultural perspectives, I am interested for the project to be developed in such a way as the participants themselves negotiate on or influence the form of the walk and therefore the readings possible.

Outlook & Conclusions

Financial Sustainability

... the role of artworks is no longer to form imaginary and utopian realities, but to actually be ways of living and models of action within the existing real, whatever the scale chosen by the artist.⁷²

– Nicolas Bourriaud

Phase II – Revenues, Community, Installations

The next grand adventure of *The Wonder Project* is to work towards developing the revenues to renovate the house in Miranda into *The House of Wonder*, and as a retreat and creative residency space. Due to the realities of renovation costs (estimated at \$250,000) and other financial factors involved, this will require a pragmatic first phase of stepping away from the homestead in order to save renovation funds via rental and other revenues. This will be coupled with active fundraising for the project in the cities of Auckland and Hamilton particularly, and the development of the non-retreat revenue streams that form part of the wider concept. This involves a range of ‘wonder products’ sold in an online shop, which also enable a reflection on awe-inspiring topics, this time via everyday/houseware items, books, and equipment.

The Wonderlogues series will branch out into a new phase where partnership with arts, science, community, cultural and learning institutions will be sought from those who would benefit from ‘day-nurseries in the faculty’⁷³ (Felix Guattari) and the provision of a diverse knowledge ecology for interdisciplinary dialogue and experimentation. This direction is taken due to the concrete/practical desire demonstrated amongst various researchers within and outside of academia. Social innovation initiatives such as *The Kitchen* in Auckland are a good example of a potential venue/cuisine partner, due to a common interest in working socially to develop an innovation ecology around social and ecological issues.

In addition funding has been received which will allow for furthering the development of creative projects of a more physical installation nature, such as *A Walk Through Deep Time*. These artworks (by myself and commissioned currently via Intercreate programming) will be organized to in future form installation options for the house and landscape of *The House of Wonder* retreat. The work is currently being developed on invitation, from ISEA 2012 in Albuquerque, USA in September.

In the above ways I plan to again utilise existing networks, to continue to grow a diverse ecology of knowledge, skills and goodwill. Due to the long-term nature and commitment to the project, I next need to focus on building a financially feasible and sustainable base from which to earn, fundraise, and find partners to make the overall concept for *The House of Wonder* a reality.

Phase III – Retreat Development

Upon renovation, the retreat will need to operate as a business able to repay the renovation costs. The intent is to provide a quiet and inspiring country retreat space to companies, organisations and families. A particular emphasis will be given to supporting sustainability research and development in all areas. The retreat business will benefit from the prior *Wonderlogue* events in the form of networks, partnerships, marketing and goodwill. It is envisioned as an elegant space where landscape/gardens and architecture house subtle installations of thought-provoking creative works, to provide a quietly (and in some cases dramatically) inspirational environment. The network developed is also a networked capacity for critically assessing ideas generated, where this is useful for partners and

⁷² Bourriaud, N. (1998). *Relational aesthetics*. Dijon, Les Presses du réel.

clients. In addition *The Wonderlogues* series and related works (such as *A Walk Through Deep Time*) will continue, alongside other walks and workshops offered to retreat guests.

For this phase, please see the early planning in *The House of Wonder Business Proposal* and *House of Wonder Permaculture Plan* attached as appendice. The above is albeit an ambitious plan, as just learning how to manage a house, garden and business is definitely something that can fill a lifetime. However I feel I've gotten off to an inspired start, and with the addition of like-minded partners, I hope that this next adventure together will be as inspiring as its formative adventure has been.

Creating a Wondrous Life

At a personal level, this project has allowed me to develop an all-encompassing life-style choice that is holistic and inspiring. In practicing the attentive inhabitation of my everyday, I encourage the disposition of *Verhaltenheit*, and an oscillation between the everyday and the awe-inspiring. The events and projects that result provide a way for me to respond purposefully to cultural inertia on the issues of climate change.

The work has demonstrated how I can allow for the expansion of the borders of where and when one would normally expect to encounter the formation of new knowledge. Essentially I explore a mode of being in the world that seeks to invigorate fresh thinking across disciplines and cultures – with a focus on the re-imagining of a dominant anthropocentrism. I take an intentionally widely replicable strategy – for just as the earlier Wunderkammers existed in the Age of Discovery of the then New World – wonder is now required to rejoin us at a moment when we have to rediscover the world under our feet.

To close I find resonance in the below from long-time Situations International interpretor Ken Knabb:

As the situationists concluded, the true fulfillment of art ultimately implies going beyond the boundaries of art, bringing creativity and adventure into the critique and liberation of every aspect of life; and first of all into challenging the submissive conditioning that prevents people from creating their own adventures.⁷⁴

SEE APPENDIX 3: ✱ Upcoming Projects

SEE APPENDIX 4: ✱ The House of Wonder Business Proposal

SEE APPENDIX 5: ✱ The House of Wonder Permaculture Plan

⁷⁴ Knabb, K. (2002). *The Relevance of Rexroth*, Bureau Of Public Secrets.

Summary of Appendices

APPENDIX 1: ✧ SCANZ 2011: Eco sapiens – Hui/Symposium Schedule

APPENDIX 2: ✧ The Wonderlogues, Year 2011

APPENDIX 3: ✧ Upcoming Projects

APPENDIX 4: ✧ The House of Wonder Business Proposal

APPENDIX 5: ✧ The House of Wonder Permaculture Plan

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SCANZ 2011: Eco sapiens

Hui/Symposium Schedule and Presentations

Version - Jan 14

FRIDAY, 14 JANUARY

- 9am **Meet at Marae Gates.**
Registration, singing practise and **Tech Check** for welcoming.
- 10am **Powhiri / Welcoming Ceremony.**
Coming onto the Marae and into the Whareniui.
- 11am **Whakawhanaungatanga / Introductions**
A brief welcome and orientation, followed by short self-introductions.
- 11.30am **Kai / Lunch** (Eat, Clean) and **Tech Check** for following session.
- 12.30pm **Mana Mouri Tangata Whenua**
Keynote
Dr Te Huirangi Waikerepuru – Taranaki Kaumatua
Dr Te Huirangi Waikerepuru brings his perspective as a Taranaki kaumatua and will speak on maori conceptions of nature.

Discussion
The session continues with kaumatua Dr. Te Huirangi Waikerepuru in conversation with the ethics philosopher Ruth Irwin and artist Sophie Jerram, to further discuss concepts of whenua.
Session Lead: Sophie Jerram

2.30pm **Afternoon Tea** and **Tech Check** for following session.

3pm **Perspectives on a Species**
Space/scale/matter/time perspectives
Far past and far future envisioning and projections
Evolution and understanding the human animal
Session Intro: Trudy Lane

Stardust Birthing Wards & Universal Scales

Paul Moss – Astronomer, Audiovisual Artist

Humans have looked at and drawn the universe for at least 17,000 years, more recently using advanced sensors in many ways to study both smaller and larger objects. Theorising on the age of the universe from the big bang microwave background energy and playing with space and time concepts endlessly. We take a quick look at cave art, historical structures and equipment for understanding the heavens, and then we travel from nothing to everything; 48 steps from Yoctometre to Yottametres (with a few quantum leaps).

Areosphere and Atmosphere

Nina Czegledy + Janine Randerson – Artists and Educators

In the era of increased scientific debate about the **terraforming of Mars** (a process of chemical warming of the frozen Martian climate) in order to sustain a future human population, the Areosphere and Atmosphere project enacts a sensorial connection between Earth and Mars. Materially, the project draws on the historical naming of the two planets' polar regions by earthly colonists, science fiction imaginings and satellite mapping. As we contend with an anthropogenic climate crisis in our own bio-system, the work ruminates such 'Big Science' proposals as the deliberate staging of artificially produced climates in other parts of the solar system.

4pm **Session Discussion & Open Topic**
Session Leads: To be decided.
Reflection on the previous sessions, with some summary of the day. Possibly start a board to note ideas so far on the wider question of ways to reimagine our relationships with nature.

5pm **Dinner** (Prep, Eat, Clean) and **Tech Check** for following session.
Head Chef & Kitchen Wrangler: Sue James.

7pm **Open Observatories: or the sense of place in the age of big data**
Keynote
Roger Malina – Astrophysicist and Editor of Leonardo Art & Science Journal
Session lead: Nina Czegledy
Discussion/Questions 30 mins.

8.30pm Close, Social time and Sleep

Sidewalk Astronomy night sky tours with Astronomer Paul Moss

Bristlebrains: The Origin of Cognition

Mike Paulin – Zoologist

A talk about the evolution of the first nervous systems, and why animals have brains and plants don't (and why asking why this is true may be the key to understanding how brains work).

PLUME

Raewyn Turner + Richard Newcomb – Sensory Artist; Molecular Biologist, Nanotechnologist

Since August 2009 I've been working in collaboration with Richard Newcomb, molecular biologist, at Plant and Food Research, on an art + science project PLUME. The human thermal plume has a maximum upward airspeed of 0.25 m/s and continues to rise above the body, carrying with it molecules of olfactory information. Human beings breathing in a local area may convey their mental, physical, emotional and environmental states, into their plume; it may cycle back to earth via rising vapour and the clouds in the sky that are bound into earth's continuous water cycles. Other organisms can perceive the plume e.g. mosquitos. Our investigations include anosmias and unconscious human olfactory sensing of the plume, in addition to my exploration of intuitive responses for example expansive and contractive experiences in the body, intersensory sound/movement/visual associations, and associations made with sensations of novel flavours and fragrances.

SATURDAY, 15 JANUARY

7–8.30am **Breakfast** (Prep, Eat, Clean) and **Tech Check** for following session **from 8am.**
Whakatau for new people

8.45am **Intro to day 2**

9.00am **Ecoliteracy and Cultural Adaptation**

Co-beneficial relationships, Ecoliteracy and education, Biomimicry and complexity

Session Lead: Keith Armstrong

Keynote

Adapting the worldscape of modernity to climate change

Ruth Irwin – Cultural Ethics Philosopher with a focus on Climate Change

It is well known that modern industrial “business as usual” is “very likely” (to use the IPCC’s technical term) to create a tipping point in the earth’s climate that will take us from the Holocene, through the Anthropocene and collapse to a new climatic Age altogether. Ironically, Heidegger regards this proximity as potentially the greatest possibility for transforming modernity towards a more authentic relation with the earth. Could embracing certain indigenous concepts of whenua, or the inextricable connection between the earth and the people, like a placenta or umbilical cord, begin to dissolve the antithesis between the global poor and the modern elite whose toxic emissions are causing calamity for us all?

Discussion

An open discussion session will follow, kicking off with statements from include the evolutionary biologist Mike Dickison.

Biophilia

Mike Dickison – Evolutionary Biologist, Ukulele Master

I’m interested in exploring the universality and common basis of our relationship with the environment. In particular, how do we reconcile our universal biophilia with the destructive effect we have on the natural world? I’m also interested in challenging idealised Western representations of indigenous peoples worldwide as ecological caretakers, and exploring how we can move beyond these simplistic binary oppositions to develop an environmental ethic for the 21st century.

10.00am **Morning Tea** and **Tech Check** for following session.

10.30am **Stream 1 – Wharenui**

Session Lead: Nelle Rose of HIVE Taranaki

School Gardens

Dee Pigneguy – Educator, Writer, Grower, Environmentalist

How can we develop school gardens to teach children how nature supports life on earth? Is it possible that by using an integrated (holistic) approach school gardens could reveal the ecological principles of how life on earth works? Dee works with schools developing gardens and mentoring on ways to sustain existing gardens. While mentoring and visiting many school garden in the Auckland area, she has found only a few schools have managed to integrate gardening/gardens into the curriculum. What makes these schools different?

Feed Me Right

Tamarin Pigneguy – Holistic Health Practitioner

The root of nutrition means to nourish. How do we nourish ourselves in these modern times? The relationship we have with ourselves and our environment directly affects how we choose to nourish our body, mind/emotions and spirit. This relationship goes on to influence the experiences we have in our lifetime. Can changing the way we relate with food truly heal us and our planet? By bringing awareness to our state of being and how it affects the way we nourish ourselves, we can become more aware of choices that lead us closer to or further away from well being. How do our food choices affect our inner and outer landscapes? What is our personal responsibility in relation to our health? What role do health practitioners and educators have in helping the community to expand their ability to respond to food, health and planetary challenges in our modern world?

Live Food Café

Dhyana Beaumont – Artist, Athlete

How can we reconnect to nature – heal the land and ourselves? How can we raise awareness and develop experiential moments and transformation? How can we activate and energise people so they transform by reconnecting with the land and their local community? How can we gain access to food beyond the supermarket? By foraging food, and using pedal-powered blenders to produce nutrient-rich smoothies, Dhyana investigates the pragmatic politics of finding or growing sources of fresh food today, as well as challenging notions of taste and nutrition. Expeditions to local growing spots are planned, such as seeking out the several council-tended gardens, which are grown to be foraged.

11.15 Discussion 30 mins

11.45pm **Lunch** (Prep, Eat, Clean) and **Tech Check** for following session.

10.30am **Stream 2 – TameTane**

Session Lead: Maggie Buxton

Horizontal Leadership – Nature’s Style

Peter Goldsbury, Organisational Learning Facilitator

Our world of complexity, ambiguity (and even chaos) involves networks, inter-dependency, alliances that cross-organisational boundaries and systems thinking. In this domain, to help grow agile and resilient organisations and communities we can turn to nature itself as the world’s most experienced mentor. Perhaps today’s leadership needs to be more horizontal, diverse, shared and decidedly more organic.

Super/natural: A Beginner’s Guide to Psychobotany (working title)

Emil McAvoy – Artist, Writer

This presentation will critically survey a range of historical and contemporary experiments concerning psychic interactivity with plant life. Conducted by scientists, artists, independent researchers and the military, the experiments reflect a range of intentions, methods and results. However, they collectively signal compelling new thresholds of interaction between human consciousness and other living organisms.

The G spot of Sustainability

Andree Mathieu – Educator, University of Sherbrooke, Quebec, Canada

When asked if Sustainability is a new kind of religion, I answered my students that it is more like “falling in love with Life” again. When we fall in love with someone, we want to know everything about them. The more we know that person, the more we understand them, the more we value our relationship, and the more we want to take care of our lover. In a similar way, if we fall in love with Life and our living Planet Earth again, we will want to deepen our understanding of Her, we will value our relations with Her and all other living things so we will feel compelled to care for them. In other words, we will live sustainably ... and the G spot of that is Generosity.

Discussion 30 mins.

1pm

Rethinking 'Resources'

Energy, networks and information

'Resource management' and worldviews

Perceptions of nature, waste, and non humans

Session Lead: Sophie Jerram of Now Future

Pollinator Frocks: Interdependency and Interdisciplinarity

Karen Ingham – Artist (working with Scientist Team)

The plight of the Honey Bee is relatively well known but what of other pollinating insects such as butterflies and moths. How aware are we of the mutually beneficial relationships these pollinators have with their host plants, many of which are also endangered? Intricate ecological systems are under threat as never before due to climate change, irresponsible farming practices and land management, and other deleterious human activities. This presentation will demonstrate an unusual artistic and pragmatic response to this predicament through a project called Pollinator Frocks, which forms the focus of my SCANZ 2011 artist's residency.

Biomodd

Angelo Vermeulen – Biologist, Artist and Gamer

The presentation is focused on Biomodd, a worldwide cross-cultural installation project in which **ecology, community building, and case modding creatively converge**. The project's second iteration in the Philippines was a 6-month long collaboration with over 50 Filipino artists, scientists, engineers, gamers, craftsmen, volunteers and students. Biomodd will be elaborated upon using video excerpts, photos, work sketches and participant testimonies.

The Future Network

Julian Priest – Artist trained in Biology, Physics and Wirelessness

The Future Network is a prose poem that discusses the planetary energy, information and entropy balance, and contrasts a future energy network based on renewables with the current fossil fuel based energy infrastructure. Using the development of the Internet as a recent model of infrastructural change it suggests directions for implementation of the network and provides an infrastructural critique of existing energy provision. First performed at Downstage Theatre in Wellington on 3rd June 2010 as part of the Nowfuture series of Dialogues with Tomorrow.

Discussion & move to streams

2pm

Stream 1 – Wharenui

Session Lead: Ian Clothier

Humans, Hooves, Landscape

Peter Heard – Educator, Farmer, Environmental Engineer

How many sacred cows can we dispense with? Our cultural norms have influenced how we see the landscape. We are a pastoral culture where the cow and the sheep reign. Our great grandparents transformed the land and within decades caused immense, invisible and mostly forgotten damage. We are an island in the Pacific and it is time to shake off pastoralism as a European colonial concept, and adopt the traditional farming systems of the Pacific-Asia region.

Incompatible Elements

Josephine Starrs + Leon Cmielewski – Artists

Incompatible Elements is an ongoing project that evolved during an artist residency at Performance Space, Carriageworks, Sydney in 2009. The media art installation explores ways of representing the relationship between nature and culture, embedding poetic texts into animated satellite images of global landscapes at particular risk from climate change. Starrs & Cmielewski engage in a kind of digital geochemistry, terraforming new waterways and barren patches of sand that tell stories in winding, cursive script.

Poutama Hapu

Haumoana White & Poutama hapu

A korero/talk and presentation from the Poutama hapu will include a brief overview of their cultural, economic, legal and political perspective on:

- Rangatiratanga
- Tikanga
- Poutama World View
- Water
- Relationship with Corporates
- Climate Change

Discussion 30 mins.

Stream 2 – TameTane

Session Lead: Grant Corbishley

Evolutionary Televisions

Sue James – Glass artist

Archaeological digs have defined our stages of evolution and the residues we leave on the Earth. My work addresses our current stage of evolution and how this particular stage will be evaluated in the future. By using E-waste (currently TV & computer monitor glass) my work is a reminder of what we waste. It underlines the unsustainable nature of consumerism, and the impact on the environment. My work looks at the interconnectedness of people, product and planet.

Reflexions on Light, Sweet, Cold, Dark, Crude (LSCDC)

Ælab (Gisèle Trudel and Stephane Claude) – Artists

Gisèle Trudel of Ælab will discuss a few key themes related to the research and production of light, sweet, cold, dark, crude (LSCDC) (2006-), the cycle of audiovisual microevents that includes immersive sound, moving image, drawing and light, and that is informed by the transformations of waste water, such as the Eco-Machine™ system, pioneered by biologist and ecologist Dr. John Todd.

Botanical Garden Networks / (The Remnant Emergency Artlab)

Keith Armstrong and Leah Barclay

How might we better initiate new design partnerships that enhance urban biodiversity? In November 2010 our team developed a participatory project in Sydney to highlight a tragic clash between two key urban species: One a critically endangered species of nomadic fruit bat that requires the treetops of Sydney Botanical Gardens to roost – and ourselves – a broad scale developer of the Australian landscape and an enthusiastic purveyor of gardens for predominantly human education and enjoyment. The resulting 'X-tension' of the Botanical Gardens to a neighbouring urban development suggested the possibility for city wide networks of botanical gardens - together designed to foster critical urban biodiversity. www.xtension.cc

Discussion 30 mins.

3pm

Afternoon Tea

3.30pm

Open Discussions – Topics of Choice

Session Lead: Maggie Buxton

Proposals for people who want to have chats with others. Could also be a time for people to talk for 5 mins on what doing on Sunday, and gather any helpers, etc..

5pm

Dinner Prep starts (Prep, Eat, Clean) and **Tech Check** for following session.

7pm

InterPolar Pathways

3 pres
x 8min
= 32min

InterPolar Pathways presentation exploring interdisciplinary and cross cultural links between Arctic and Antarctic research topics in collaboration with the Ars Bioarctica initiative of the Finnish Bioart Society and scientist Ramon Guardans, and Intercreate.

Session Leads: Nina Czegledy and Ian Clothier

Imagining the Flows in a Global Monitoring Plan

Ramon Guardans – Scientist, Artist

Far Field

Andrea Polli

People of Huka (Snow and Ice)

Tero Mustonen

Snowchange

Te Urutahi Waikerepuru (to be confirmed)

ArsBioarctica

Erich Berger

Arctic Perspective Initiative

Marko Peljhan and Matthew Beiderman

Herbologies/Foraging Network

Andrew Gryf Paterson

Re-imagining the Flow

Ramon Guardans – Scientist, Artist

Persistent organic pollutants (POPs) are artificial substances that take a long time to degrade are volatile and can thus travel long distances in air or water and accumulate in organisms provoking health effects. The international community started being concerned by the presence of these substances in large quantities in the Arctic some 30 years ago. It is known by now that any sample from air, water or living organism contains small but measurable quantities of POPs. The international community organized in the UN has established a global agreement on POPs, (the Stockholm Convention) and under it a Global Monitoring Plan (GMP) is being implemented to understand better the circulation of POPs around the world and make this information available and useful to fine tune the actions undertaken to decrease their presence in the environment and people. One central component of the GMP is measuring in air and people, one other very important element is interpreting, imagining, representing these results in the context of global and local flows, from sources to transport and effects.

Far Field

Andrea Polli – Artist

Andrea Polli presents Far Field is a book-length collection and critical study of climate change, the poles and digital culture edited by Andrea Polli and Jane Marsching. Human understanding of the North and South Poles has been radically transformed by innovations in digital and networked technology, particularly in the last decade. The realities of the climate crisis have fueled new technologies in the fields of science, engineering, and art. This volume seeks to explore the transformation of cultural understandings of the unique position and rapidly changing environments of the North and South Poles through digital technology.

People of Huka – Snow and Ice

Tero Mustonen – Appointed leader of the Sami people of Lapland

As the term "huka" in Maori indicates for snow and ice, the local and Indigenous traditional cultures of the circumpolar north are depended on proper ice and snow cycles. Disruption to these cycles not just undermines the very basic of the daily subsistence activities such as ice fishing, reindeer herding or hunting, the whole cosmology and traditional calendar of the circumpolar peoples is affected with the changes imposed on them by the industrial society. I will focus in my speech briefly on the expected scientific estimates of these changes in the Arctic and move then to discuss the collaboration between traditional ecological knowledge of the indigenous peoples of the Arctic teaming up with the scientists in the Arctic Climate Impact Assessment. Finally words will be shared on the Maori - Arctic links through the award winning Snowchange work and methods for rebirth of traditional knowledge amongst rapid changes offered.

Snowchange

Te Urutahi Waikerepuru & Sandra Julian

Organisers of the Snowchange Symposium held at Owaē Marae in 2008, will be present to respond to questions about the event, it's goals, participants, discussions and outcomes.

Arctic Perspective Initiative - Progress Report

Marko Peljhan & Matthew Biederman

The presentation will focus on the current research and engagement in the Arctic in the framework of the Arctic Perspective Initiative (API). The Arctic Perspective Initiative (API) is a non-profit, international group of individuals and organizations, founded by Marko Peljhan and Matthew Biederman, whose goal is to promote the creation of open authoring, communications and dissemination infrastructures for the circumpolar region. It's aim is to empower the North and Arctic peoples through open source technologies and applied education and training. By creating access to these technologies while promoting an open, shared network of communications and data, without a costly overhead, further sustainable and continued development of culture, traditional knowledge, science, technology and education opportunities for peoples in the North and Arctic regions is enabled. Conceptual decisions behind the current API projects and their future paths will be traced.

ARS BIOARCTICA - art and science above the polar circle

Erich Berger

The Finnish Bioart Society, established May 2008 in Kilpisjärvi/Lapland/Finland, is an organization supporting, producing and creating activities around art and natural sciences, especially biology. The Society is the motor behind Ars Bioarctica, which is a long-term art&science initiative with a focus on the Arctic environment. Ars Bioarctica fosters concrete joint projects between artists and scientists to develop new kind of scientific and artistic thinking and through this participate and contribute to the discussion on the relation of humankind and nature.

Herbologies/Foraging Networks towards Berry Commons

Andrew Gryf Paterson

Artist-organiser, researcher and previous SCANZ participant (2009), Paterson initiated a Baltic sea region project in collaboration with Ulla Taipale and Signe Pucena, called 'Herbologies/Foraging Network', which "explores the cultural traditions and knowledge of herbs, edible and medicinal plants". The ambition this year is to extend this programme into the Arctic circle on the subject of 'Berry Commons'. Paterson will present this proposal, anticipating and looking forward to a trans-disciplinary social arts-research and heritage project in residency at Kilpisjärvi Biological Station in Finnish Sampi/Lapland. There he hopes to investigate the knowledge-worlds and views surrounding particular local wild berries, such as the cloudberry & black crowberry.

Poroporoaki / End of Symposium Sessions

Session Lead: Grant Corbishley

9pm

Social time and sleep

SUNDAY, 16 JANUARY
OPEN WORKSHOP DAY



7-8.30am **Breakfast** (Prep, Eat, Clean)

From 8am **Setup & Tech Check**

9am Whakatau for Open Day Visitors

Welcoming & orientation. Some overview of the different workshops to choose from.

9.30am Workshops Start

Stone soup

Please bring an ingredient for lunch. Bring some carrots you have picked, a herb you love, or a local delicacy or food item from your region - it doesn't have to be home grown. Come with a small story as to why you have brought it and energy to prepare the food. We will create some alchemy in the kitchen.

Location: Wharekai/Kitchen Duration: 3 hrs

Materials: Bring an ingredient, however much you would like.

Biomodd Workshop

Angelo Vermeulen will talk about the Biomodd workshop, where participants will explore how to create a cooperative relationship between technology, biology and gaming. Angelo also invites discussion of local understandings of Taranaki landforms and ecologies.

Participants are encouraged to join for the full workshop that will follow.

Location: Wharenui Duration: 2 hours

Toothbrushes of Perception

Zoologist Mike Paulin will talk about the beginnings of perception and the evolution of the first animals and nervous systems over 500 million years ago, relating this to emergent behaviour in simple robots. He is joined by robotics educator Andrew Hornblow to lead a bristlebot workshop where you can learn how to create a small fast moving robot. Suitable for children, youth and adults. Material fees to be announced. With thanks to Greenbench.org.

Location: TamaTane Duration: 2 hours

Materials: Kits are \$4.

Live Food Café

Come and learn how to create nutrient-dense green smoothies you and your kids will love. Dhyana Beaumont will be sourcing locally grown leafy greens, fruits and then demonstrating the combining of these with other ingredients for her pedal-powered blender. Come join in and you might find your kids love vegetables after all.

Start time: 10am

Location: Wharekai/Kitchen Duration: 2.5 hrs

Materials: Gold coin koha. Donations of or BYO locally grown food welcomed..!

Miniature Green Bikes – How to make a Steel Bike Trailer

Green Bikes is a community bike recycling scheme (fixing, modding, reselling very cheap or giving away) which Jonah Marinovich will be running a mini version of in New Plymouth during the SCANZ 2011: Eco sapiens event. On Sunday Jonah will show how to make a steel trailer for your bike.

Location: To be determined Duration: 3 hours

12.30pm Lunch

1.30pm Workshops Continue

Terraquaculture – the beautiful landscapes of foresters, gardeners, fishers.

- the traditional farming system of the Pacific-Asia region
- farming the water flowing through the landscape

Peter Heard will do a further presentation and discussion of this ancient traditional farming system. Interested in the beauty and productivity of the method, Peter and his partner Kama Burwell are creating a terraquaculture farm on a corner of their family farm in Taranaki. Peter will share some of their learning about the system, and the visual culture that represents it.

Location: Wharenui Time: 1 hour

Thriving in a World of Complexity – using Living Systems Thinking

Peter Goldsbury and – Educator, University of Sherbrooke, Quebec, Canada and Learning Facilitator, Strategic Expertise Ltd, NZ

On this workshop we will question long held assumptions and knowledge about how we make things happen in complex environments, communities and organisations where things are seldom black and white. That will involve us better understanding the nature of complexity itself, its networks, dynamics, ambiguities, patterns and how the new emerges within in it. In this domain we need to be prepared to replace our simple and complicated “problem solving” and “change management” processes with more effective ways involving networks, inter-dependence, win-win alliances and telling new stories that lead us towards the long term outcomes we all seek – far beyond just today’s sustainability practices.

Living Systems Thinking is about taking lessons from nature and applying them (sometimes called Biomimicry). The Tipu Ake ki te Ora Organic Leadership model (www.tipuake.org.nz), the Cynefin Framework, a range of other participative exercises and fun will be used to help us do that. Its all about growing team behaviours and organic leadership that can exploit our collective wisdom and co-creative power.

Location: TamaTane Time: 2 hours

3.30pm Poroporoaki / End of Open Workshop Day

Session Lead: Grant Corbishley

4.30pm Pack up, clean up & leave



APPENDIX 2

~ The Wonderlogues ~

Year 2011

Contained in this appendix is a summary of the online pages documenting the series of Wonderlogue events held in the year 2011, at *The House of Wonder* in Miranda, Aotearoa New Zealand.

A Dinner for a Lepidopterist: Energy as Orientation – May 22nd – Page 2

Atmospherics & the Experiential – June 11th – Page 5

Open Time – September 10th – Page 8

Energy & Adaptation – November 5th – Page 16

*SEE: * The Wonderlogues*

<http://www.thehouseofwonder.org/dinners-dialogues/>



MAY 22ND, 2011

~ A Dinner for a Lepidopterist ~
Energy as Orientation

Guests:

Robert Hoare – Lepidopterist

Paul Moss – Astronomer

Annie Wilson – Orchardist

Sean Wilson – Engineer

Ruth Irwin – Philosopher

*Keith Woodley – **Miranda Shorebird Centre** Manager*

Maria Heidemann – Stiltwalker

Trudy Lane – The Keeper

Jim Byrt – The Keeper's Keeper

The House of Wonder site pages referenced:

Notes from: A Dinner for a Lepidopterist

<http://www.thehouseofwonder.org/2011/05/23/notes-from-a-dinner-for-a-lepidopterist/>

A Dinner for a Lepidopterist: Energy as Orientation – May 22nd

June 2, 2011

by **The Keeper**

If Antares was where our sun is now, we would be engulfed by it.

– Paul Moss, Astrophotographer



Above: At dinner, Jim Byrt, Paul Moss, Keith Woodley, Annie Wilson, Sean Wilson, Ruth Irwin, Maria Heidemann, Trudy Lane. (By disciplinary descriptors: Animator, Lepidopterist, Amateur Astronomer, Shorebird Centre Manager, Orchardist, Engineer, Philosopher, Stiltwalker, Artist/Curator)

Miranda Shorebird Centre in May, and an astronomically knowledgeable friend Paul (from the *Eco sapiens* event) simultaneously in Auckland, I was curious to see if there might be crossovers to explore. If I joined that conversation with my organic orchardist neighbours who are obviously reliant on and work with pollinators – what might come of it then? Joined further by the Philosopher Ruth Irwin (also of *Eco sapiens*), and a stilt-walking friend of Paul's, I had together my first *Wonderlogue* dinner.



A representation of the telescope views of a quivering miniature Saturn and its rings.

that is the **Auckland Astronomy Society**, where you can hire Dobson telescopes for \$10 a week. The night sky was clear, a 'good night of seeing' as they describe it at the Society, and Paul had first pointed the telescope to Saturn. The guests filed out to see, and to hover above the telescope eyepiece to see the gorgeously quivering image – reminiscent of a tiny early film – of a small but distinct planet and its rings. This was something you felt you knew... Saturn has rings... but there was something about seeing the *thing itself*... sitting high in the sky, and there they really were... those well-known rings clearly visible around it suddenly felt *physically real* to me.

A large moth that landed on our front porch¹ many months earlier, had gotten me researching moths and butterflies – or Lepidoptera as they are known through **Carl Linnaeus'** taxonomy of flora and fauna. Never having seen something as huge and green in Aotearoa before, my mother and I presumed it must be an Australian something blown over. We had to call Landcare to find out that it was the endemic Puriri moth, a green female. This was how I first met **Robert Hoare**, and found out that it is understood that moths fly in circles around lights because they believe they are **orienting themselves to the moon**.²

I was interested in the moths' use of light energy to navigate, in correlation with the local shorebirds' use of electromagnetic energy to navigate to Miranda from Alaska and Siberia. With Robert coming to speak at the

After much cleaning and preparations for the big event, and the generous cooking help from my lovely partner Jim, all was ready and guests began to arrive. One guest's dip went tragically crashing to the floor, but fortunately there were no other casualties. I gave the guests a short welcome and introduction to the concept behind *House of Wonder*, why I had brought them all together. The dinner proceeded into a hum of crossing conversations. None of which was going to be decipherable by my audio recording setup for documentation!

Much conversation, stories and wines later, Paul Moss disappeared outside to set up the telescope outside on the side porch. I had become a member of the friendly group

¹ <http://www.thehouseofwonder.org/2010/09/13/puriri-moth-landing/>

² <http://www.sciencelearn.org.nz/Contexts/Hidden-Taonga/Sci-Media/Video/Collecting-moths>



A representation of the glowing fields of the moon as we were able to view them from the side porch.

We were also fortunate that night to have a large moon. As each person stepped up to see, there began again the recurring sounds of short, sharp intakes of air, and the visceral gasps of ‘wow’... ‘amazing’... the tell-tale sounds of astonishment. Filling the viewfinder, was the moon’s vast pocketed paddocks of madly glowing luminosity, its soft and dusty surfaces seeming strangely close and enticing for a lunar frolick. With guests going back for many second and third looks, it was a beautiful, if chilly way to spend time relaxing together outside, with wines in hand, and many continuing conversations.

Later, after coming inside to some warmth, Robert gave a little tour of the specimen display of moths and butterflies he had brought along for his talk that day. He had discussed the mysteries of a Miranda moth that went misidentified for a long time, and on my hinting, he also mentioned the discovery of **Fred the Thread** (*Houdinia Flexillissima*), in nearby Hauraki Plains and recounted his **related poem**.³ This discovery of Fred the Thread is an inspiring example for my own humble efforts at local entomological observation and collecting. On the Sciencelearn Hub site, Robert discusses just how little is known about so many of the entomological species around us.

*...over 80% of our insects at least will be endemic to New Zealand and occur nowhere else. We think there are probably about 20,000 different species of insects in New Zealand, and only about half of those – maybe 9,000–10,000 – have actually been given scientific names. And even of the ones that are named, probably more than half of those, really, almost the only thing that is known about them is that they have been found here and they have been given a name, and we know almost nothing about their life histories and how they behave or what their particular requirements are for habitat and... how common or how rare they are. – Robert Hoare, [Ecology of New Zealand](#), Science Learning.*⁴

In the morning long conversations over cereal were spent discussing the philosophical and cultural underpinnings of the world, which emerged into wanderings in the garden. A lovely end to a great weekend, with many good conversations to follow up on. Some of which were taken note of, as per below.

Notes-to-self – items to be translated and shared factoids to look into:

Navigation methods

- The godwit/kuaka shorebird and whales are central to Māori mythology.
- Early Māori navigation method was to mimi in the water to see which direction the phosphorescence flowed, to ascertain which direction the land was.

Astronomical

- If Antares was where the sun is now it would engulf us.
- Showings on paper from telescope eyepiece. Projecting the moon onto screen.
- Solar telescopes for viewing the sun. Could the HoW afford to get one?
- Maramarua –meaning ‘two moons’ in Māori?
- Miranda is the 11th moon of Uranus.

Evolution & Biodiversity

- The name—Lepidoptera—is derived from the Ancient Greek words for “scale wing.”
- Butterflies are day-flying moths.
- Pinkish knothorn – first discovered at Miranda
- The tag-team evolution of the bat vs the moth with the radar scrambling antennae. Related Link; <http://www.sciencedaily.com/releases/2006/12/061218122629.htm>
- Mind/brain – Mckneelidge has done wrybill research into left/right brain preferences for favouring legs.

³ <http://www.ourfuture.net.nz/Stories/103>

⁴ <http://www.sciencelearn.org.nz/Contexts/Hidden-Taonga/Sci-Media/Video/Ecology-of-New-Zealand>



JUNE 11TH, 2011

~ *Atmospherics & the Experiential* ~

Guests:

Ian Clothier – Artist

Mark Thornton – Maths & Latin Teacher

Andrea Polli – Artist

Janine Randerson – Artist

*Keith Woodley – **Miranda Shorebird Centre** Manager*

Ben Bamsterboer – Artist (local)

Kanani Cowell – Artist (local)

Trudy Lane – The Keeper

Jim Byrt – The Keeper's Keeper

The House of Wonder site pages referenced:

Notes from: Atmospherics & the Experiential

<http://www.thehouseofwonder.org/2011/06/12/notes-from-atmospherics/>

Notes from: *Atmospherics & the Experiential* – June 11th

June 12, 2011

by **The Keeper**

Relating to [Māori] elders what had just happened at Hiroshima and Nagasaki, the elders responded by saying, 'so the pakeha have ripped the fabric of the universe?' Yes. 'Oh and I assume they don't know how to stitch it back up.'

– A story told by Bishop Muru Walters, recounted by Andrea Polli

In the work *Atmospherics*, US artist **Andrea Polli** created a data sonification of the awesome power and complexity of a hurricane, allowing listeners to travel five elevations within it.⁵ Her work *Ground Truth* (part 1) – involving interviews with scientists about their physical 'reading' of natural phenomena – further overlapped my research areas. Hence Andrea's trip to New Zealand presented a starting point and I began to form a dinner stemming from meteorology and atmospherics, as a meditation on the everyday wonder of water and their omnipresence.

In order to disclose connections between guests both known and unknown to myself I wished to this time trial a more formal sharing session than had been enacted at the previous *Wonderlogue*. So after dinner we 'adjourned' to the lounge room for this, a more formal part of the evening.

Amid the *SCANZ 2011: Eco sapiens* hui/symposium in January – a sister-event of *The Wonderlogues* – Matehuirua Limmer of our paepae/elder panel had given me guidance regarding the whakawhanaungatanga/introductions process, explaining it as revealing that we are all in fact connected, by wai/water.

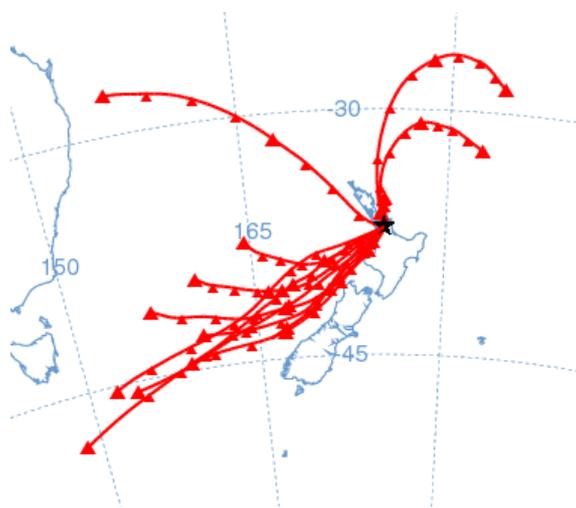
Thus with the images of my great grandparents listening in, and with us all gathered where my father had once gathered people for bible study, I related this guidance from Matehuirua to the group as a way to set off a sharing session of the participants own stories and 'fascinations' as they related to the over-arching topic of the evening – water.



In the lounge (from right), Trudy Lane, Ian Clothier (off picture), Mark Thornton, Andrea Polli, Janine Randerson, Keith Woodley, Ben Bamsterboer, Kanani Cowell, (by discipline: Artist/Curator, Artist/Curator, Classics and Maths Teacher, Artist, Artist, Shorebird Centre Manager, Local Artist, Local Artist/Farmer)

⁵ Andrea Polli's *Atmospherics* is an interactive work that allows viewers to listen to the sound of data generated by a hurricane that devastated the New York area in 1991. The compositions allow listeners to experience geographically scaled events on a human scale. *Atmospherics* can be viewed here: <http://artport.whitney.org/gatepages/may04.shtml>. More information on Andrea's projects can be found here: <http://www.andreapolli.com/>

Post-dinner and with wines, the sharing session was an informal space which ranged from discussions of the travel of air particulates, in relation to the recent nuclear concerns in Japan, to reflections on youthful perception of waterway areas in Dunedin.



NOAA-Hysplit rendering of the paths the air breathed that night had taken in the six hours prior. Shown as part of a discussion of Ramon Guardan's SCANZ 2011: *Eco sapiens* work, on the interconnected circulation of the global oceans of air.

I started things off by discussing the work of the meteorologist and ecologist Ramon Guardans, who had been a participant at the *Eco sapiens* gathering. This was his work *From the Bottom of an Ocean of Air* done in collaboration with two other participants, Tega Brain and Kirsty Boyle. Also his *Where was the Wind?*, an installation which utilised the online NOAA Hysplit model which can allow you to see where air flows have come from, or are predicted to travel to, in a given time period. By activating a rendering to see where the air we were breathing that night had come from six hours earlier, visually illustrated the concept of ourselves as living at the bottom of the great swirling pools of globally interconnected air. As a meteorologist, Ramon also considers himself an ecologist, as these air currents intersect all of these localities that they encounter. Our ideas of ourselves in separate nationalities literally goes to and flying out the window with the wind and air currents.

There were many other discussions of connections to water for people's conception of themselves, such as Ian's parents meeting while bumping into each other swimming. From a local artist, Ben Bamsterboer, there was also an impassioned plea for the sanctity of water from a local artist based on the writings of Viktor Schaubberger – who called for the regard of water as a living as 'a living substance'. As such a heartfelt, indepth summary of personal research, Ben's statement/korero first posed for me the scenario of a participant with deeply-held views, and with whom the potential for a passionate counter-view could have surfaced. During this evening, the session continued with the quieter voice of the self-described 'Art Farmer' Kanani Cowell, determining her way forward to speak of her own creative relationships, of drawing with water.

The session was closed with a thank you to all the guests, and the sense of having participated in a less-than-usual dinner gathering continued to hum through to the conversations of the next morning, for those guests who stayed overnight.



SEPTEMBER 10TH, 2011

~ Open Time ~

Open Time Workshop – Morning

Mike Dickison, Evolutionary Biologist;
Luke Duncalfe, Artist;
Daniel Cermak-Sassenrath – Arts Lecturer
Tresa Kendrick – Arts Student
Luke Golds – Arts Student
Ryan – Arts Student
Ben Courtier – Network Administrator
Trudy Lane – The Keeper

Open Time Dinner Guests – Evening

New Zealand

Tony Burns – Amateur Astronomer
Mike Dickison – Biologist
Raewyn Turner – Artist
Brian Harris – Filmmaker
Chris Davison – Inventor
Marcos – Microbiologist
Keith Woodley – Conservationist
Daniel Cermak-Sassenrath – Arts Lecturer
Tresa Kendrick – Arts Student
Luke Golds – Arts Student
Ryan – Arts Student
Ben Courtier – Network Administrator
Trudy Lane – The Keeper
Jim Byrt – The Keeper’s Keeper

Denmark

Olof Werngren – Pseudonostalgiker
Vanessa Carpenter – Geekphysical
Dzl – Geekphysical
Christian Liljedahl – Illutron
Christian Villum – Platform4
Michelle Thorne – Mozilla Drumbeat
Henrik Chulu – Freelance Consultant
Majken Overgaard – Curator

The House of Wonder site pages referenced:

Preamble: Open Time, Deep Time – <http://www.thehouseofwonder.org/2011/08/22/preamble-open-time/>
Notes from: Open Time, Workshop – <http://www.thehouseofwonder.org/2011/09/12/notes-from-deep-time-workshop/>
Notes from: Open Time, Dinner – <http://www.thehouseofwonder.org/2011/09/12/notes-from-open-time/>

Preamble: Open Time, Deep Time

August 22, 2011

by **The Keeper**



Still from *Ground Truth*, Part 2. See:

<http://www.youtube.com/watch?v=v7T-hM6EL14>

In Andrea Polli's *Ground Truth* (part 2) interviews⁶ a geoscience researcher laments our human lifetime-scaled view of time and the misreadings of the Earth's processes this creates. Further research revealed the work of environmental psychologists such as **Taciano Milfont**, who studies the resulting environmental attitudes, borne of different perspectives on time.⁷

Yet the time perspective of the researcher – of geologic or 'deep time' with its immense scale and complexity – holds a level of abstraction that most people find difficult to conceptualize,⁸ including for students of geology.⁹ The

geologist and geophysicist James Hall commented in 1788, "the mind seemed to grow giddy by looking so far into the abyss of time", noting the sense of awe and terror it inspires.

In looking at attempts to diagram geologic time, I began to notice that for practicality reasons, geologic timeline was rarely represented to scale. The first four-fifths or so are usually graphically compacted into obscurity. Leaving room for those things deemed interesting to us (basically dinosaurs to today) to be made discernable.

What did it look like fully outstretched to scale? What was its full length made up of, and what might a clearer sense of these enormous lengths of time afford our understandings?



The geologic timeline demonstrated as a spiral disappearing as it goes further back in time.

An over-arching key interest in geological time for me here is in the perspective that it allows. At the scale of a 457 metre timeline, human civilization (from stone age to today) equates to 1.18 mm. Thus a perspective that sits in stark contrast with a widely held sense of the strength and significance of our species. While capable of altering the planet climate, we could as easily disappear in the next millimetre, just as thousands of other dominant creatures have disappeared in previous ages, periods, and eons. A second interest was a curiosity to learn about what the geology of Miranda had been in prior eons. How might that knowledge affect my sense of this place – my home – and so in turn of my sense of identity?

I had first thought to demarcate a walk through the geologic timescale on the farm property for retreat guests

to enjoy. But where and how? To what scale?

In talking about it with them, neighbours Mark Thornton and Kanani Cowell had been enthusiastic about having a timeline installed that would stretch along all of Findlay Road. Together we organised a meeting with neighbours – dropping tiny invitation scrolls to every letterbox along the road. A lovely potluck evening for neighbours was held

⁶ Polli, A. "Ground Truth." Part 2, from <http://www.youtube.com/watch?v=v7T-hM6EL14>.

⁸ Gould, S. J. (1987). *Time's arrow, time's cycle*. Cambridge, Harvard University Press.

⁹ Dodick, J. O., Nir (2003). "Cognitive Factors Affecting Student Understanding of Geologic Time." *Journal of Research in Science Teaching* 40: 415–442.

at their home, with a project video demonstrating the concept that Mark had created. A great group came along, including many faces that were new to me. Everyone there was keen to do something creative and social in the community such as this, though there were some reservations as to a road installation. This was further deliberated on, and we soon ruled out the scale of the road due to traffic safety concerns and other complexities. Therefore the focus returned to experimenting with the smaller scale of a short walk, which could be installed on anybody's farm.

An artist friend, Ilka Blue Nelson, meanwhile pointed me to a long history of creating physical walks through geologic time – known as 'Cosmic Walks'. Originally developed by a nun, Dominican Sr. Miriam MacGillis, these walks have since been adapted into many different versions. Often done as a spiral, they also involve a script that a group can follow as they walk the line or spiral. It was great to find this history and different versions, though I was less interested in the style of language and the pre-scripted delivery, and more interested in allowing the complexity of the topic to create a conversation.

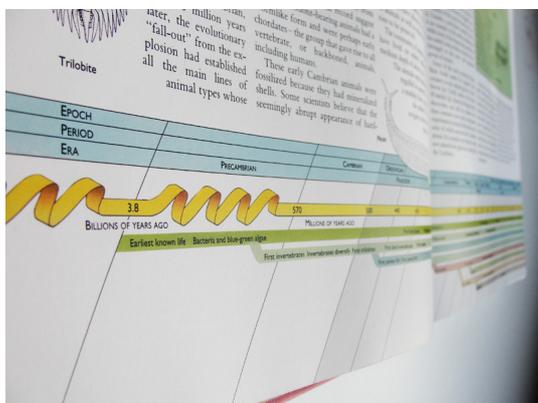
Paraphrasing curator Steve Dietz from his thoughts given in a discussion around curatorial ontologies, the walk 'should create a platform that does the opposite of fixing meaning and allows for personal, communal, and opposing points of view to be argued and emerge'.¹⁰

¹⁰ Steve Dietz, CRUMB discussion list, 8 Sep 2004

Notes from: Open Time, Workshop

September 12, 2011

by **The Keeper**



Diagrams of geologic time typically represent four-fifths of the timeline intensely condensed.

As outlined in the preamble for this event *Open Time, Deep Time*, a geoscience researcher first alerted me to the misreadings of the Earth's processes our human-scale view of time creates. However the perspective of geologic or 'deep time', with its immense scale and complexity, holds a level of abstraction that most people find difficult to conceptualize,¹¹ including students of geology.¹²

I had noticed that geologic time **is rarely represented to scale**. Billions of years are compacted into obscurity so that things like dinosaurs and the development of apes (that are merely millions of years ago), can be made discernable. What did it look like fully outstretched to scale?

An event on the topic of time was being planned with Danish curators Majken Kramer Overgaard and Christian Villum. A simultaneous/simulcast dinner/breakfast was planned, and a further workshop was requested to be part their upcoming festival in Aalborg, Denmark – **Platform4.0.Future Meeting Hub #1**.¹³

I had been interested to demarcate a geologic timeline just around the house as a walk for *House of Wonder* retreat guests to enjoy. Though with such a large and complex topic, creating the walk as a workshop seemed a way to open out that learning process to others – as a kind of joint social learning project. Given enough space, it could allow for a layering of multiple understandings brought to it over time from participants. It would be fun to create, as Bourriaud puts it, a 'projection of the symbolic onto the real' – and in this case onto what was here i.e. farmland, its structures, paraphernalia and detritus.



The gnarled remains of storm-destroyed fencing gains a new life as the beginning of the earth at 457 metres, or 4.57 billion years ago.

The work begins!

So after a bit of wandering with a measuring wheel a good timeline candidate was found in a simple, rolling fence on an open-skied part of the farm. Similarly the gnarled and rusted remains of storm-destroyed fencing was designated a new life as symbolizing the proto-Earth, of 4.57 billion years ago.

As **evolutionary biologist Mike Dickison** was keen to see how geologic time might be to experience physically when laid out to scale, he came to help me with the workshop. After my big spring clean out for prototyping materials, our

gathering of various measuring and graphic tools, and printing out of info on the timeline and the creatures and processes that make up some basics of it, we were prepared for our first little workshop.

Part of the idea was to invite participants to join me in prototyping the timeline – by responding to intriguing occurrences or creatures within it. So after a quick tour of the info and materials we'd gathered, we all went for a walk through the timeline with Mike – to get a sense of the occurrences along it. It was the first time that Mike had

¹¹ Gould, S. J. (1987). *Time's arrow, time's cycle*. Cambridge, Harvard University Press.

¹² Dodick, J. O., Nir (2003). "Cognitive Factors Affecting Student Understanding of Geologic Time." *Journal of Research in Science Teaching* 40: 415–442

¹³ <http://www.platform4.dk/node/72>

walked the area that I had roughed out, and he noted many serendipitous demarcations already in the placement. The large twisted mess of fencing wire (and the remains of a storm-destroyed woolshed) surrounded by the circular truck turnaround was a suitable representation of the gravitational gathering of space detritus that formed the earth, a dip in a hillside was strangely aligned with the 'oxygen catastrophe' event, and a huge pile of old concrete sat nearby the largest extinction event on the timeline.

After the walk Mike quickly set to work using these as further extinction event cairns. He was particularly intrigued to find ways to try to see one end of the timeline from the other, over the brow of the hill between. Hence he cut and erected huge bamboo shoots (from our 100+ year old stand nearby) at either end. A swath of fence posts were also painted white to represent the period of 'snowball earth' where the Earth is believed to have been completely covered in snow and ice. Ryan was fascinated with the bizarre shape of an early single-celled creature called a *dinoflagellate*, and used clay from a nearby creek to model it. Other crazy creatures were devised from the spring-clean materials, and all these things were ceremoniously placed on the timeline that afternoon.

A fun day was had and despite the heat and shortness of time, some new thoughts were introduced into the ideas of the timeline. Mike would later do a quick summary of our day together, at the dinner that evening.



As we walk through the timeline, evolutionary biologist Mike Dickison notes the serendipitous placement of the slope on the timeline fence as indicative of a period of massive oxygen depletion on the earth.



AUT professor and student of Creative Technologies, add a prototype creature to the timeline.

» *See video report on the workshop below*

» *See original invitation*

Video excerpt from the dinner that evening, of Mike Dickison giving an overview of the first workshop on developing *A Walk Through Deep Time*.

Report on New Zealand workshop...

Open Time – NZ workshop

Evolutionary biologist Mike Dickison gives an overview of the workshop held that morning in New Zealand, for the joint event of Open Time, with Platform 4 in Denmark.

Notes from: *Open Time, Dinner*

September 12, 2011

by [The Keeper](#)



A simultaneous dinner/breakfast and sharing session with participants at Platform 4 in Denmark. Two tables joined across from a breakfast in Denmark and a dinner in New Zealand. Photo: Waikato Times

Though a structural element of our everyday, the concept of time abounds with aporia (puzzles) once picked apart by physics, psychology, philosophy and cultural comparison, revealing the socio-political. Einstein thought that the time at your head was different to the time at your feet – that all time is relative. Recent quantum physics discusses its form as clusters of time, while many cultures believe it to be cyclical rather than linear.

In order to reveal these scientific and cultural aporia, this event explored the format of [inviting an interdisciplinary exchange of ideas](#) across time and space – from a dinner table at *The House of Wonder* in Miranda New Zealand, to a breakfast

table at [Platform 4](#) in Aalborg, Denmark. In Denmark, the event was being held as part of the weekend festival of [Platform4.0. Future Meeting Hub #1](#). All dinner/breakfast guests were invited to bring along their own ‘wonders’, as they relate to the topic of the evening/morning. These short self-introductions and wonder experiences or thoughts about discussed by guests are documented below.

Reports were also given on workshops that had been held prior in each country, both dealing with how we might be able to approach the opening up of our concepts of time. The workshop in Denmark was facilitated by [Olof Werngren](#) (SE) and in New Zealand by [The Keeper](#), Trudy Lane.

» *See video documentation below*

» *See newspaper story, Waikato Times – 27 Sep 2011, Page 5*

» *See original invitation*

Event Guests

The House of Wonder, New Zealand – Tony Burns, Amateur Astronomer; [Mike Dickison](#), Evolutionary Biologist; [Raewyn Turner](#), Artist; Brian Harris, Filmmaker; Chris Davison, Inventor; Marcos, Microbiologist; Keith Woodley, [Miranda Shorebird Centre](#); [Daniel Cermak-Sassenrath](#), Artist and AUT Lecturer; AUT Art Students Tresa Kendrick, Luke Golds, Ryan; Ben Courtier, Network Administrator; Trudy Lane, [The Keeper](#); Jim Byrt, [The Keeper’s Keeper](#).

Platform 4, Denmark – [Olof Werngren](#), pseudonostalgiker; [Vanessa Carpenter](#), [Geekphysical](#); Dzl, [Geekphysical](#); [Christian Liljedahl](#), [Illutron](#); [Christian Villum](#), [Platform4](#); [Michelle Thorne](#), [Mozilla Drumbeat](#); Henrik Chulu, Freelance consultant; Majken Overgaard, curator and creative host at [everybodyknowsfrank](#).

Video Excerpts

Below are some excerpts from the evening event to give a sense of the nature of the exchange and the ideas discussed. This video was taken as a record only, and so the visual is here compressed, so that the audio can be better represented.



A video is shared that was created during the workshop, to demonstrate different psychological effects of time.

Getting started...

Open Time – getting started

A dinner table at *The House of Wonder* in Miranda New Zealand, connects across to a breakfast table at *Platform 4* in Aalborg, Denmark. People in both spaces come into view, wave, and a sneeze in New Zealand gets a hearty ‘bless you’ in Denmark. The two social spaces are now joined.

Report on New Zealand workshop...

Open Time – NZ workshop

Evolutionary biologist Mike Dickison gives an overview of the workshop held that morning in New Zealand, for the joint event of Open Time, with Platform 4 in Denmark.

Report on Denmark workshop...

Open Time – DK workshop

Olof Werngren, artist and leader of a workshop on the topic of time, the previous evening, shows and discusses the videos created during the Denmark workshop for the joint event. Held as a part of the larger event, Platform4.0. Future Meeting Hub #1.

Trudy and Majken outline the conceping behind the shared space part of the event...

Open Time – sharing space concept

Trudy Lane and Majken Overgaard discuss their meeting at Slowflow 2010, a canoe trip down the Whanganui river in New Zealand, and how this social space is being continued in the interest in experimentation with a sharing space across time zones.



A view of the guests at *The House of Wonder* in New Zealand, as seen by the Platform 4 guests in Denmark.

Dzl on the spooky accuracy of atomic clocks...

Open Time – Dzl on atomic clocks

Dzl relates the experience of getting shivers down his spine as he witnesses the accuracy of time synchronisation kept across atomic clocks thousands of miles apart.

Tony discusses the paradox of time for astronomers...

Open Time – Tony on the timelessness of photons

Engineer and amateur astronomer Tony Burns shares his wonder at the paradoxes of time, from an astronomers point of view. The timelessness of photons which ‘go-splat’ on his telescope lens make up his view back in time to see the cosmic background radiation from the big bang, only visibly reaching us now after 10 billion years.

Vanessa plays with time, space and the minds of nightclub patrons by swapping restroom signs...

Open Time – Vanessa

Vanessa discusses playing with the perception and social expectations of time and space by swapping the ‘mens’ and ‘womens’ bathroom signs around.

Olof (artist) reflects on an encounter with a village with a cyclical sense of time

Open Time – Olof on cyclical time

Olof reflects on his experience of the cyclical perception of time in a nearby village, as it related to their ideas on life and death.

Luke (AUT art student) discusses the novel 'Slaughterhouse 5' and his Time Travellers convention...

Open Time – Luke, Time Traveller conventions and Slaughterhouse 5

Luke, one of three AUT arts students present, discusses the novel Slaughterhouse 5 and his interest to develop a time traveller convention. Olof recounts the horror with which our form of linear time is described in the novel, by planetary beings who can conceive of four dimensions.

David (biologist) reflects on the lineages of ancestry we all share ...

Open Time – David, Biologist

Biologist David Riddell relates about his own family history and how his discipline has made him acutely aware of the huge continuity of ancestry that we all share. Trudy Lane follows up, explaining and reflecting on the introduction process at the *SCANZ 2011: Eco sapiens* event, and the effect of scientists relating their ancestry back to sponges in the context of a hui / Māori meeting space.



NOVEMBER 5TH, 2011

~ Energy & Adaptation ~

Guests:

<i>Hugh Morgan – Microbiologist</i>	<i>Jo Tito – Artist</i>
<i>Keith Thompson – Ecologist</i>	<i>Jono Clark – Environmental Educator</i>
<i>Thomas Everth – Physicist</i>	<i>Mike Dickison – Evolutionary Biologist</i>
<i>Hamish Campbell – Geologist/Paleontologist</i>	<i>Nelle Rose – Environmentalist</i>
<i>Alistair Brickell – Geologist/Astronomer</i>	<i>Bruce Miller – Chemical Engineer</i>
<i>Ruth Irwin – Philosopher</i>	<i>Frances Karl – Science Educator</i>
<i>Janine Randerson – Artist</i>	<i>Joy Geary & husband – Findlay family researchers</i>
<i>Sue Gallagher – Artist</i>	

In absentia:

Mark Jackson – Arts Lecturer
Maria O'Connor – Arts Lecturer
Julian Priest – Artist

The House of Wonder site pages referenced:

Preamble: Energy & Adaptation

<http://www.thehouseofwonder.org/2011/11/01/preamble-energy-adaptation/>

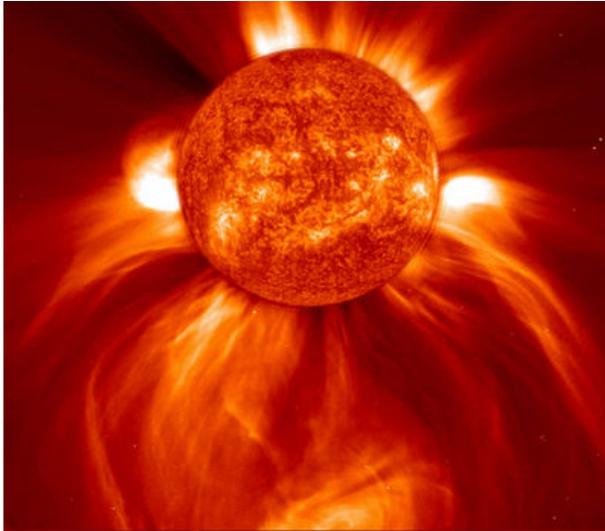
Notes from: Energy & Adaptation

<http://www.thehouseofwonder.org/2011/11/10/notes-from-energy-adaptation/>

Preamble: Energy & Adaptation

November 1, 2011

by **The Keeper**



A view of the sun, revealing the extensive reach of the energy fields it exerts.

The idea that ‘all energy comes from the sun’ had stuck in my mind for years, after a dinner conversation with an artist friend Julian Priest who had trained in physics. Though a simplification, this lens began to reveal to me the transmutation of energy across all forms of matter on the planet including all life. I felt this as a significant shift in my own way of viewing the world. It would clarify for example ‘fossil fuels’ such as oil, as ultimately the ancient sunlight stored by the great forests of the Carboniferous Period some 400 million years ago.

Julian would later work to refine and reframe this – quantitative and industrially useful – idea of energy in terms of the information and entropy flow of non-linear thermodynamics. The artwork

All Information Comes from the Sun,¹⁴ discusses this reframing and was supported in a weekend residency at *The House of Wonder*, in preparation for its exhibition as part of the Intercreate exhibition *Second Nature* at ISEA 2011 in Istanbul, Turkey.

That first conversation had for me however, developed a fascination for this transmutation of energy/information, from such seemingly simple beginnings to dissipate and recombine into the complex systems of exchange that continue to emerge from it, including my own daily energy/information exchanges.



On-farm installation of the timeline, and demarcated on google maps. The ‘Basins Group Era’ is thought to mark the emergence of life, and is the 3rd marker on the timeline.

In developing a physical walk through a history of the earth in September, it had surprised me to see how early the first life is thought to have appeared. Also that it would come in the midst of a hostile planet of exploding volcanoes, crashing meteorites and chemical chaos – repetitively crushed and each time resurging.

In a major school of thought, the first life is believed to have formed in the relative calm of geothermal vents on the ocean floors. These ancient thermophiles, managed to survive in and utilise the energy of this environment of extreme heat. I was intrigued – how did these thermophiles go from the energies of chemical matter and reactions to a form of ‘life’?

Of cultural significance as an origin story, it is a research area that also involves far-flung

future possibilities, as thermophiles serve as analogues in the continuing search for life on other planets such as

¹⁴ <http://www.intercreate.org/2011/08/julian-priest/>

Mars. As it happens, in Aotearoa New Zealand, our rapidly mineralising geothermal systems have entombed this biota, attracting global interest and bringing many foreign researchers, such as geologists and astrobiologists, to study our siliceous hot springs.¹⁵ The thermal activity sited on a long geological rift stretching from the Hauraki Gulf to the Taupo Basin, which includes our humble local Miranda Hot Springs.

I would find that similar stories of adaption to energy sources repeat and complexify through the timeline as one story of our evolving world. The repeating story of processing, storing and utilising what was originally either solar, geothermal or some form of chemical/atomic energy. Dividing, multiplying till all the surface of the planet is teeming with complex life. For as ecologist Keith Thompson would put it, 'Life is just organic chemistry with legs and its all about dynamic equilibrium, efficiency and adaptation'.

In conversations with Keith and Julian, I was pointed to those areas within ecology and physics that analyse these systems of energy exchange and entropy (or information loss) – such as non-linear thermodynamics, and an area that is sometimes called complexity studies.

In reflecting on this, I was interested for the November Wonderlogue event to, as Sally Jane Norman and Sylvia Nagl eloquently put it, encourage reflection on 'our embeddedness within complex systems and our own embodied nature as complex systems' (Norman & Nagl, 2007). I was curious to continue to create a more physical experience, as a way to develop an embodiment of knowledge. This would also I hoped, allow for a social environment which would more easily invite reflection from knowledge and cultural perspectives other than science, on the significant elements of worldview and identity that the topic of 'deep time' encompasses – ideas of origins, ancestors, time, energy and futures.

How might for example, those knowledgeable in ideas of whakapapa within matauranga Māori relate to this linear timeline of ancestors? What were the marker points within philosophical ideas on time, space, connectivity or other that a philosopher might be relevant?

Again a breadth of knowledge areas that I could never cover on my own, this approach reflects my overall research strategy. I am interested in using my own fascinations with deeply complex topics to be able to intrigue, invite and welcome a far-flung mix of expertise into a discussion where the greatest exchange occurs between participants, for the reflection and learning of all present. Thus as an artist/curator, I am open to a dialogic aesthetic that might 'suggest a very different image of the artist, one defined in terms of openness, of listening ... and of a willingness to accept a position of dependence and intersubjective vulnerability relative to the viewer or collaborator' (Kester).

As a result the day was organized so that the guests would experience a combination of travelling to and being welcomed to a place, being part of the social rituals of sharing food and self-introductions, followed by a physical walk through and alongside our ancestors of energy processors, and finally soak their bodies and minds in a 'heated conversation' in the geothermal energy of the Miranda Hot Springs, now transformed into an immersion into this originating environment for life.

¹⁵ Associate Professor of Geology Kathy Campbell, speaking at the 2011 Burbidge Dinner for the Auckland Astronomy Society.

Notes from: Energy & Adaptation

November 10, 2011

by **The Keeper**



Bringing out the family china and polishing up the silver – the Findlay family tea sets laid out for guests arriving to the event on Energy & Adaptation. November, 2011.

This day was spent as a reflection on connections between energy and adaptation, with *The House of Wonder* having the great honor of hosting a wide variety of perspectives and knowledgeable guests. Geologists, Physicists, Philosophers, Ecologists, Astronomers, Artists, local people and all were invited and joined for *A Walk Through Deep Time* – a short walk on the farm property through the deep time of the earth's formation, to discuss the energy exchanges involved in developing from a violent nascent planet, to one with abundant complex life.

I had gathered people according to their knowledge areas perspectives on this, and so during introductions, I was interested and surprised to hear in the introductions a recurrence of participants calling for a redevelopment of the economic system to be based on units of energy rather than money, as a more realistic relationship to the overall systems of life. It was a shame that an artist friend influential in the development of the topical focus, Julian Priest, was at the last moment unable to join, as his input here would have been a further addition to this overlap. Others spoke of their own connection to ideas of energy, such as the philosopher Ruth Irwin's study of modernity, and artist Jo Tito's speaking of her sense of the mauri or energy of life.

I had gathered people according to their knowledge areas perspectives on this, and so during introductions, I was interested and surprised to hear in the introductions a recurrence of participants calling for a

The installation for the walk itself I had kept minimal so to be able to focus on bringing out the thoughts and knowledges of those present. Existing farm structures, landforms and detritus were explored for their serendipity, along with typographically developed time marker posts, as a way to outline these scientific concepts, while grounding it in everyday experience.



Photos from various points in the walk where different participants stepped forward to discuss occurrences in the timeline, driven by questions from the group.

We got away on the walk, and after a few initial shoulder-taps, the joint walk became a free-flowing feast of concepts within the various threads of related scientific research, and inquisitive questions.

As such worldview-forming stories are inherent in this timescale, such as the origins of life and similar 'where do we come from, where are we going' questions, I wanted to spend some focused time on these areas.

To get things rolling, geologist/paleontologist Hamish Campbell first gave us a background to the work behind forming the New Zealand geological timeline. Physicist Thomas Everth, then gave us a picture of the grand formation of the planet via the slow gravitational pull of vast tracts of stellar dust and detritus together, to become the accumulated molten ball of kinetic energy at the core of our

planet. This stellar dust is thus the molecular basis for all life, and this core our continuing source of geothermal

energy. I then tapped the shoulder of Hugh Morgan who is a molecular biologist who studies thermophiles – the bacteria capable of living in extremely hot temperatures, and a prime candidate to be one the first forms of life on Earth. Hugh proceeded to discuss this amazing moment of life emergence, which appears to have occurred extremely early, then was repeatedly destroyed and would resurge, on what was an extremely hostile environment for life. Hugh’s tour of tour duty stretched for many a billion year into the walk – two in fact – as once evolved, these thermophiles remained, and remain today almost exactly as they first formed, as their environments have never changed. Big marker points after that for Hugh was going from singular to multiple cellular life, which was about where he ducked out, as, as he put it, ‘it all gets much more concrete from here’.

One participant, the geologist and amateur astronomer Alistair Brickell, would later become known as ‘the man with the world in his pockets’, as throughout the walk he brought out various wondrous objects – a meteorite that was older than the earth, a diagram of an early bacterial life form, small models of creatures from a significant archeological record. These then formed another bridge between remote geologic time and the here and now, as did the soak in the local geothermal springs that followed the discussion.

The conversational, open-ended process of walking and talking together outdoors (despite the wind!) allowed for a wider conversation to occur, such as with thoughts from the Māori artist Jo Tito and philosopher Ruth Irwin which challenged the 'arrow of time' account of reality. Jo also curiously commented on how water/wai was present and flowing throughout this largely scientific account of the timeline. However in overview, on the day there was an unintentional imbalance towards the scientific due to unforeseen circumstances for three further people who were part of the intended ‘cultural’ entourage. However this is very much part and parcel of working socially, and it also made it clear how I needed to further develop ways to draw out the cultural in preparation for such eventualities. Also to think again about the ‘arrow of time’ base format of a walk which follows a continuous line.

In the *Energy & Adaptation* event, I had sought to focus on the interrelation between forms of energy and life, and how this might relate to philosophical and cultural ideas. Philosophical ideas such as Ilya Prigogine drew out from the non-linear thermodynamic studies of these relationships. This was somewhat discussed, despite some missing bodies (Julian Priest!), but as we’d gotten so excited about earlier discussions, we all but ran out of time and in-stomach food reserves for an in-depth discussion on this area. Hence the oddly tiny measure for human civilization became a brief discussion, which could be returned to.

<hr/>							
TE KORE (POTENTIALITY)							
MAI ĀIŌ-HIRINGA-Ā-NUKU, of nurturing Earth							
MAI ĀIŌ- HIRINGA -Ā-RANGI, of radiant Sun							
MAI ĀIŌ-MATUA TE KORE, fundamental potentiality							
O TE TUPUA, O TE TAWHITO, potentiality of all life							
<hr/>							
TE TAIAO MĀORI							
Elements of the Māori Universe							
wā	Atea	Hirihiri	Āwheko	Taketahi	Wai	Ora	Moengaroa
I	I	I	I	I	I	I	I
(Time)	(Space)	(Energy)	(Matter)	(Interaction)	(Water)	(Life)	(Deep sleep)
<hr/>							
WHAKAPAPA							
Genealogy							
Rāngi-i-ateanui	Papa-tū-ā-nuku	Hina te marama	Whetū	Upokoroa			
I	I	I	I	I			
(Radiant Sun)	(Revolving Earth)	(Moon)	(Myriad Stars)	(Meteorites)			
<hr/>							
ATUA							
Elements of natural law							
Rongotau	Tāne	Tangaroa	Tūmatauenga	Haumia Tiketike	Tāwhiri-Mā-atea	Rūaumoko	Whiro
I	I	I	I	I	I	I	I
(Peace)	(Land life)	(Water life)	(Defender of community)	(Fernroot, agri-food)	(Wind, rain)	(Earthquakes, thermal activity)	(Balance)

Te Taiao Māori, Dr Te Huirangi Waikerepuru

Another under-discussed area I would like to explore in future, are the related cultural ideas such as cosmological whakapapa (genealogy) in matauranga Māori (Māori knowledge), and similar ideas found in 'integrated' worldviews. This whakapapa acts as a representation of genealogical interrelations from humans to all forms of life and forces in the world, going beyond the familial and human, to the stars and the great void of Te kore. Here the research of Dr Charles Ahukaramu Royal into cosmological whakapapa and Te Ao Mārama¹⁶ (the Māori world view) has been invaluable, as has the work of Intercreate collaborator Dr Te Huirangi Waikerepuru.¹⁷ I am interested here also in what the philosopher Ruth Irwin links back to a 'perceptive attunement' (*Gelassenheit*) which she states as, 'precisely what is missing from philosophical discourse about the relation between contemporary human beings and the environment' (Irwin 2008, Pg 187).

As the project continues, there are many ideas for how to develop a flexibility of form which might allow for more expanded readings of the walk. Possible approaches have emerged from the participants themselves. November participant Hugh Morgan, states that 'molecular biology now allows us to put a timeline on biology rather than biology being placed on a timeline'. This provides a more complex and serendipitous view, rather than a linear progression that can too easily be interpreted as an inevitable line that culminates in hominids. Combining this with cultural perspectives, I am interested for the project to be developed in such a way as the participants themselves negotiate on or influence the form of the walk and therefore the readings possible.

¹⁶ Royal, C. (1998). Te Whare Tapere: Towards a Model for Māori Performance Art, Part One, Te Ao Mārama: The Māori World View.

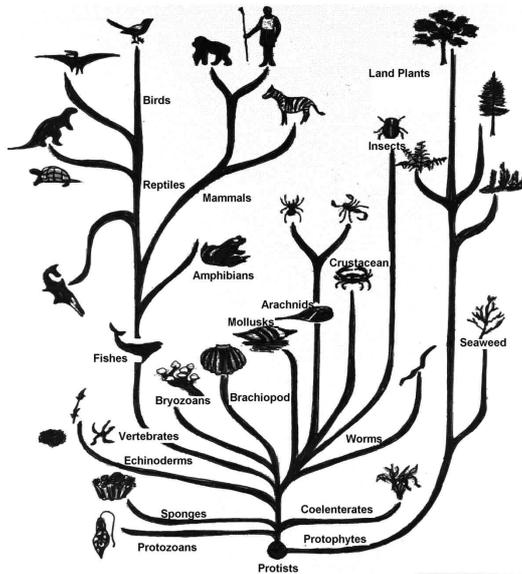
¹⁷ <http://www.intercreate.org/2011/08/huirangi-waikerepuru/>



APPENDIX 3

~ *Upcoming Projects* ~

1) Next Wonderlogue / Walk themes: Complexity of Biodiversity



In the popularly conceived 'tree of life' you commonly see a positioning of our species to the top and/or right in a position of progression. (Image found online, and is adapted from "A Simplified Family Tree of Life" in *The Evidence of Evolution* by Nicholas Hotton III, Smithsonian, c.1968.)



Field test for the *Pollinator Frocks*, *Daywear for Butterflies*, Karen Ingham, 2010. This project was further developed and tested as part of SCANZ 2011: *Eco sapiens*.



Dr Karen Ingham at Owae Marae with *Daywear for Butterflies* of the *Pollinator Frocks* project, January 2011. Photo: Thomas Busby/Taranaki Daily News.

The biodiversity of life on earth is a clear source of unfathomable complexity and is a continuation topic for a summer 2012 *Wonderlogue* and/or *Walk* event. As an outcome of niche adaptation often with symbiotic flora-fauna pairings (e.g. tui and kowhai), the topic also aligns with the SCANZ 2011: *Eco sapiens* project by Dr Karen Ingham *Pollinator Frocks*. Each frock is visually a mini-natural history lesson on these symbiotic relationships and a pollinator feeder. As a continuation of her project I will be making up her *Daywear for Butterflies* frock so that I can wear it as a part of the day. In tracing the complexities of phylogenetic systematics, the common perception of the evolutionary 'tree of life' will be reviewed – in note of genetic research having revealed it to be more like 'an impenetrable thicket of interrelatedness'¹. With of course, no one creature as the pinnacle or finale of our formerly thinly disguised *Great Chain of Being* as Waikato biologist Alison Campbell discusses.² What are now/might be some other ways to imagine those relationships?

¹ Lawton, G. (2009). Why Darwin was wrong about the tree of life. *New Scientist*.

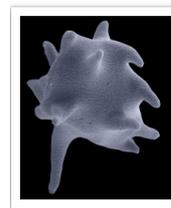
² Campbell, A. (2010). "Iconography of Evolution." Retrieved July, 2011, from <http://sci.waikato.ac.nz/bioblog/2010/06/iconography-of-evolution.shtml>.

2) Developing a Microcosmos – for *A Walk through Geologic Time*

I am currently developing a series of workshops with neighbour and potter Adela Christiansen, where participants each create small sculptures of the single-celled creatures, from a portion of clay, to fire in her kiln and place on the timeline. In this way generating a uniform scene, with individualized smaller components. An approach inspired by the work of Antony Gormley. In this way stimulating learning, creativity, and the local economy.



Day, Antony Gormley, 1991
Terracotta, approx. 200 units, height varies from 3-17 cm



ameba.jpg



coccolithus21.jpg



protoperidiniumsem101.jpg



pharus.jpg

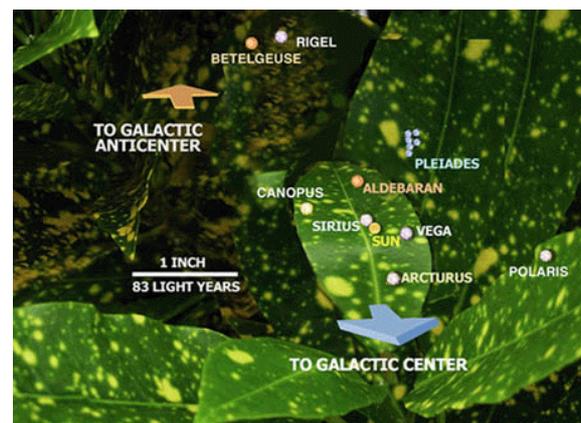
Eukaryotes – examples of the early single-celled organisms that make up much of the length of the Geologic timeline.

3) Developing a Macrocosmos – *Galaxy Garden*

The Auckland Astronomy Society (AAS) is discussing the development of a *Galaxy Garden*. Developing a scale model of our galaxy as a garden, was originally conceived and built by John Lomberg, a well-known astro-illustrator. He has encouraged that a southern hemisphere garden be built. If a suitable place cannot be found in Auckland I have offered Miranda as a possible development site. Failing that, a non-plant implementation will be looked at.



Galaxy Garden, Jon Lomberg. Paleaku Peace Sanctuary Garden, Hawaii. A 100 ft. diameter model of the Milky Way. The scale is 1,000 light years per foot, which is about 83 light years per inch.



A small yellow crystal earring shows the position of our Earth and Sun, though our solar system is actually 1,000 times smaller than the jewel.



THE HOUSE OF WONDER

House of Wonder Proposal

Prepared for: Glen Isla Farms

Prepared by: Stephen Lane with Trudy Lane

1 October 2011



THE HOUSE OF WONDER

Executive Summary

Objective

The objective is to increase the value of one of Glen Isla Farms (GIF) Miranda property assets by creating a business model that enables renovation of the farms original homestead built in the 1920s.

Background

The homestead is located in Miranda, which is in what the real estate agent's term as the "Golden Triangle". Miranda is a unique little part of the North Island that is within 1.5 hours of 3 of NZ's major city centres, Auckland (1 hr), Hamilton (1.25 hrs) and Tauranga (1.5 hrs). So Miranda has accessibility to a large % of NZ's population yet still has a wonderfully inspiring "small country" environment helped by northerly facing sea views and a warm microclimate.

The homestead is also close to a number of tourism centres. It only takes 1 hr to get to Pauanui, the first of the beautiful white sandy beaches of the eastern Coromandel ranges. The Miranda Shorebird Centre is on the coast 4-5kms down the road. The centre caters for international and local visitors who come to see the world-renowned migratory bird habitat on the coastal QEII Trust reserve, which is on another of GIF's properties 2-3 kms away. The Miranda Hot Springs, which enjoys a high profile among NZers, is just down the road too and is a very welcome way to finish to a big day seeing the sights.





THE HOUSE OF WONDER

So the property is uniquely positioned to provide a special service to those looking for a quiet and inspiring experience on their big city doorstep. To be able to cater to this market House of Wonder, the original homestead needs a major renovation. Outlined in this document is the plan to provide the resources that will enable the renovation and ongoing sustainability of the property, as well as benefit the local economy.

House of Wonder Proposal

Business Model

The homestead will be marketed as the “The House of Wonder” (HOUSE OF WONDER). HOUSE OF WONDER will charge short and long term rentals and service fees to companies, organisations and families. This will provide multiple revenue streams described below.

Service Features

Already in development, the HOUSE OF WONDER is a retreat space. We mix creativity in art, science and business to offer a quiet and inspiring country retreat space to companies, organisations and families.

The House has a particular focus on supporting sustainability research and development in all areas. This includes those companies or organisations working to innovate or improve products and services, learning institutions developing scientific or cultural understandings, through to interested families and individuals.

As a strategy towards this, our programmes encourage the sharing of knowledge, ideas, skills, perspectives, intrigues and fascinations about nature across disciplines and cultures.

In this way we nurture a far-reaching and multi-disciplinary network of knowledge areas. This allows us to look again at often overlooked or forgotten principals of nature, and to create an environment for developing inspiring and critically assessed ideas

HOUSE OF WONDER will provide services under the general headings of:

- One off or annual events
- Think tank retreats for companies and organisations
- “Learning Holidays” for families
- Public attractions (e.g. Geological Timeline featured in the Waikato Times 27 Sep 2011)
- “Art Parks”
- General accommodation catering for the tourist market

A range of graphically treated “wonder products” drawing from the same topics could also be created, such as shirts, bedding, lampshades, gardening or sun hats, window blinds and teatowels, etc. These would then form part of the accommodation.

Target Market

The pricing still has to be established, but initial research for the HOUSE OF WONDER that there is a gap in the “mid-priced retreat” market. The type of client the HOUSE OF WONDER will be targeting is SMEs, especially those with a “Sustainability Agenda”, and families looking for somewhere to stay with something to do.

Auckland, Waikato and BOP Regions

- Population: 1,943,163 (predicted to have 60+% of all future growth)
- Small/Medium Businesses: Auckland alone has 32% of all NZs businesses

House of Wonder Business Plan



THE HOUSE OF WONDER

Sustainability

Full quotes still have to be established, the HOUSE OF WONDER initial estimates range from \$100k for a basic renovation through to \$250k for full energy efficient technology renovation.

Price Sustainability Calculator								
Renovation %	\$20,000	\$200k @ 10% incl principle (\$250k less 20% deposit)						
Operations	\$50,000							
Staff	\$50,000							
Other								
Other								
Other								
TOTAL	\$120,000							
BREAKEVEN								
Days Rented/Year		50	100	150	200	250	300	350
BE Day Rental		\$2,400	\$1,200	\$800	\$600	\$480	\$400	\$342.86
Profit	\$ / Day							
Price @ \$1,000		-\$70,000	-\$20,000	\$30,000	\$80,000	\$130,000	\$180,000	\$230,000
Price @ \$1,100		-\$65,000	-\$10,000	\$45,000	\$100,000	\$155,000	\$210,000	\$265,000
Price @ \$1,200		-\$60,000	\$0	\$60,000	\$120,000	\$180,000	\$240,000	\$300,000
Price @ \$1,300		-\$55,000	\$10,000	\$75,000	\$140,000	\$205,000	\$270,000	\$335,000



THE HOUSE OF WONDER

Marketing Plan

Overview

Before we spend any money on advertising or marketing, we have to try and establish where the best results will come from.

Steps

1. Questionnaire to determine plan, done for the main product line of retreats
2. Plot Customer Perception to identify what business we're in
3. Which determines where we spend our advertising \$
4. Marketing timeline
5. Marketing media
6. KPIs and a 3-5 Year plan using an annual % target increase on those KPIs.

Background.

Three parts to business... but you're always in the business of marketing.

Business
What you do.

Marketing
Getting them to
"Want" to buy.
Everyone likes to shop.

HR
Value them let them
contribute.

Trudy has built up a very good network here in NZ and internationally. The following planning and system development will be used to utilise this network to raise awareness of the HOUSE OF WONDER. There is likely to be a high level of repeat business due to the nature of the service provided.



THE HOUSE OF WONDER

Step 1: Questionnaire

Q	True or False	Qualifying Question
	Retreat	From the customers perspective
1	T	Does the customer have an established way of buying the product?
2	T	Does the prospect think they know as much as you do about what they want?
3	T	Can the customer live/operate without your product?
4	F	Are there 3 or more competitors in the local market?
5	F	Is it an off the shelf product/service? e.g. someone can go into the store & grab it.
	3	Total True
6	F	Does the customer rely on our expertise?
7	T	Is the quality of support more important than the price for the customer?
8	T	Is the price not important to the customer if the benefits are great enough?
9	F	Does the product/service have to be customised for each customer?
10	F	Does the product/service have to be tailored to each customer?
	2	Total True
11	F	Is the general discussion with the customer purely about your product/service?
12	F	Does the customer buy in only 1 or 2 contacts?
13	T	Do they buy the product/service as is e.g. no install, customisation etc?
14	F	Does the customer feel like you only contact them to get more business?
15	F	Do you only hear from them when its a warranty issue?
	1	Total True
16	T	Does the customer expect regular contact, not just to make more sales?
17	F	Did the customer take a long time to trust you e.g. lots of contacts?
18	T	Does the customer talk about their personal & business matters as well?
19	T	Is personal service more important then price?
20	T	Does the customer expect you to be aware of the things affecting them?
	4	Total True

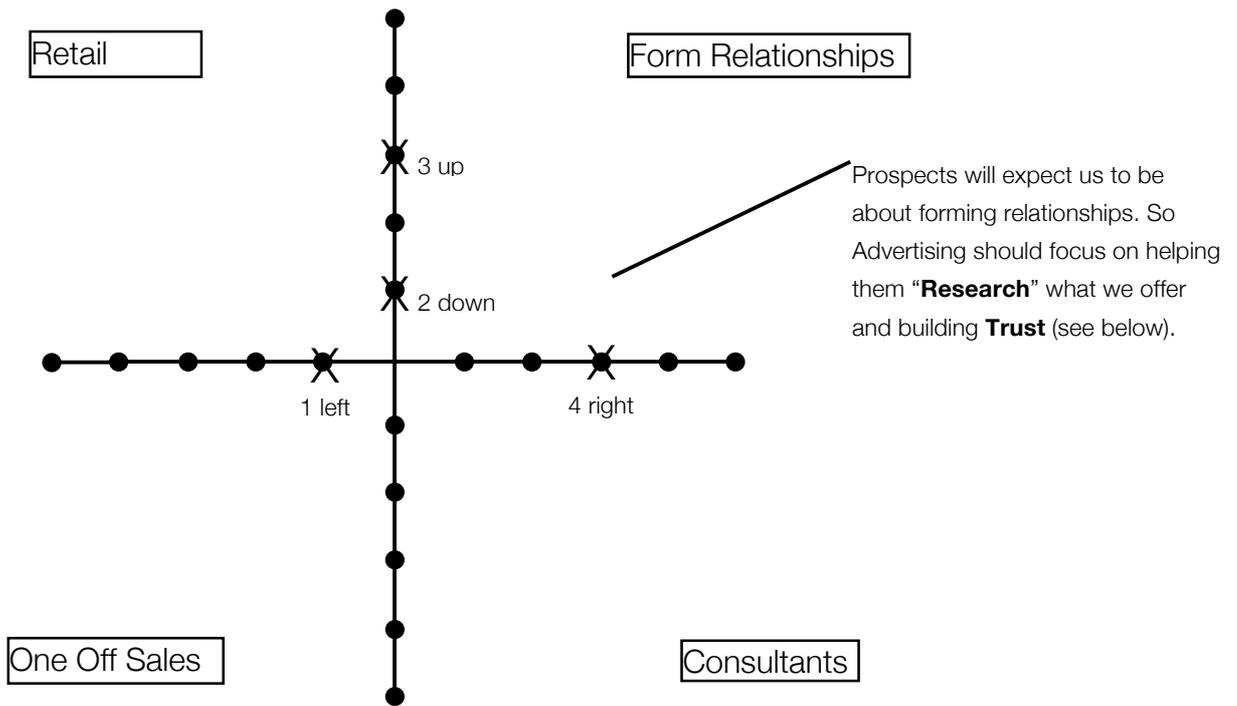


THE HOUSE OF WONDER

Step 2: Customers Perception Of Your Business

We take the results of above and plot them on this graph.

Customers Believe or Perceive We're...



This determines where you advertise, who you're advertising to, your copy writing style and where on the prospect "buy stage" clock you focus your advertising on.

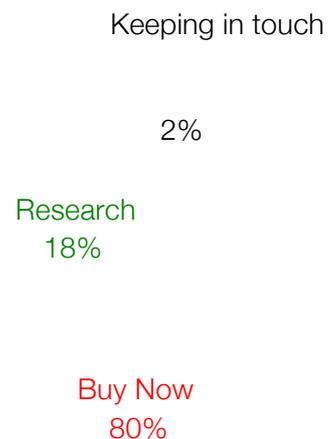
Step 3: Prospect "Buy Stage" Clock

80% of marketing is in the "Buy Now" category. Responding prospects work on price only.

Only 18% advertise into the **Research** area, where it's about building credibility, value proposition, education & trust e.g. warranties. Brand in other words. They "Know - Like - Trust" us.

Only 2% of advertising goes into "**Keeping in Touch**" with your customer base, yet this is where your best return on advertising is. If you don't do this, your advertising is a lot more expensive.

Most product/services advertising should be in the research area, though for the HOUSE OF WONDER there are cases where going straight to the Buy Now is appropriate e.g. door to door.





THE HOUSE OF WONDER

Step 4: Marketing Timeline

Systems to deliver on this timeline are essential.



What's In It For Me Phase

Delivery Systems

Delivery Tasks	Systems
Highlight Pain Point - Introduce Path to Solution (Research)	<ul style="list-style-type: none"> - Education about our difference - Build Trust
Introduce Targeted Marketing	<ul style="list-style-type: none"> - Make a note of what the enquiries are asking for, not where they came from e.g. web, radio etc. This will tell you what message your marketing is sending. - Increase Margins - target where the spending ability is, not just where the Value Proposition or need is - Financial Systems - House Of Wonder much are they spending, increase the ave spend - Demographics, surveys , networks and CRMs linked to financials - Marketing KPIs - enquiries to Quote (Ask to Buy) ratio
Followup	<ul style="list-style-type: none"> - CRMs
Validate with Logic <u>for</u> them	<ul style="list-style-type: none"> - Memberships - Networks with other customers/members - Feedback from other customers - Keep customers up to date with the latest innovations
Frequency of spending - "Invite them back"	<ul style="list-style-type: none"> - Referral programs - Stay in contact, keep them informed of the interesting events - Financial systems have to be set up to sHouse Of Wonder this



THE HOUSE OF WONDER

Step 5: Marketing KPIs

The key will be to monitor actual results against these targets.

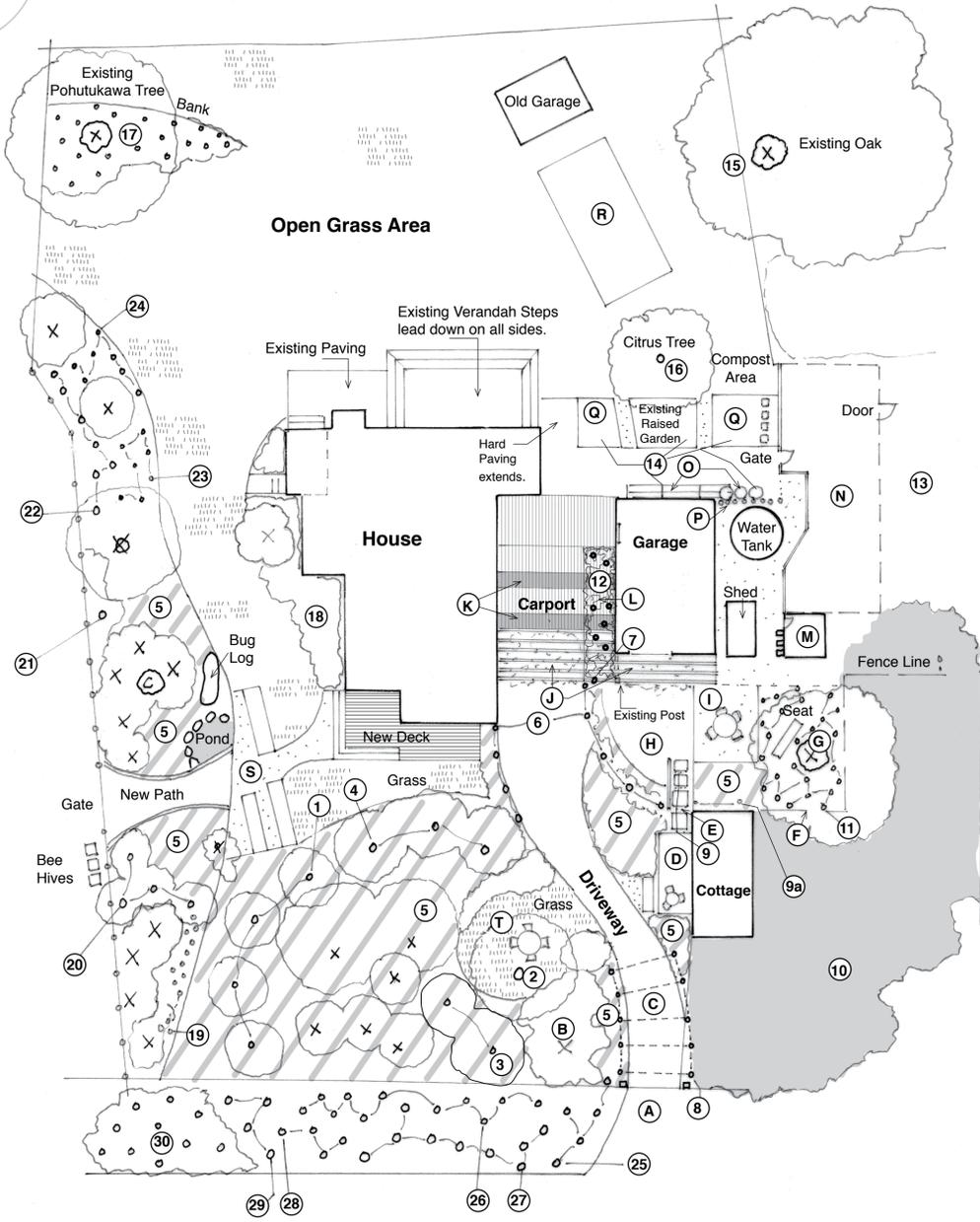
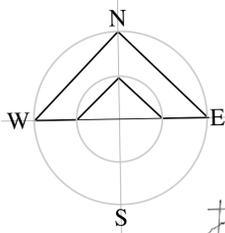
Business Growth Plan					
10%	Annual KPI Increase				
	Year 1	Year 2	Year 3	Year 4	Year 5
Leads	500	550	605	665.5	732
X					
Conversions	20.0%	22.0%	24.2%	26.6%	29.3%
=					
Customers	100	121	146	177	214
X					
Ave \$ Spend	\$1,000	\$1,100	\$1,210	\$1,331	\$1,464
X					
Frequency	1.0	1.1	1.2	1.3	1.5
=					
Turnover	\$100,000	\$146,410	\$214,359	\$313,843	\$459,497
X					
Margins	25.0%	27.5%	30.3%	33.275%	36.6%
=					
Profit	\$25,000	\$40,263	\$64,844	\$104,431	\$168,187

Notes

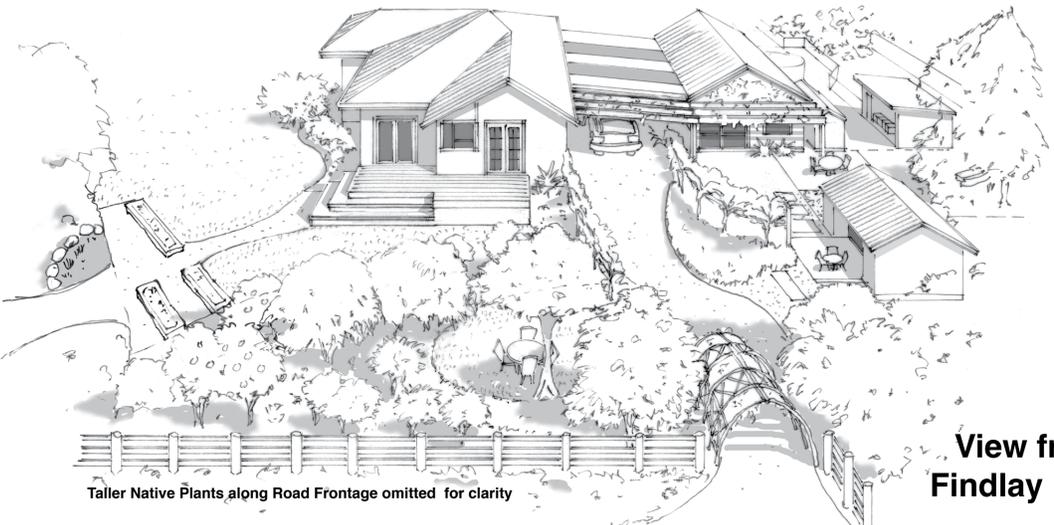
Valuation - Generally business brokers offer 2-3 times the annual profit

Better to target increasing marketing KPIs then business size.

Most businesses have a 3-5 year cycle to sale



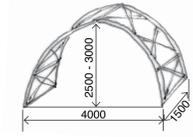
Findlay Road



Taller Native Plants along Road Frontage omitted for clarity

View from Findlay Road

Legend	
A	Selected Gate.
B	Existing Fig - Prune to shape.
C	Entry Willow Pergola.
D	Hard paved area outside Cottage. 2 metres wide x 4.5 metres long. Big enough for small table and chairs. Stepping stones lead to Garage and across to orchard.
E	Gate.
F	Realign fence to run behind Rimu tree.
G	Existing Rimu Tree.
H	Hard Area, existing concrete.
I	Gravel Area with table and chairs.
J	Open Pergola extends into Carport between House and Garage - approx 2 metres, extends across front of Garage. Remove existing cover in front of Garage.
K	Corrugated fibre light panels or similar to let in light.
L	Concrete cut out to create garden.
M	Chicken House.
N	Fenced Chicken Run - approx 5.5 x 14 metres.
O	Plant Pots - stack on ladders and planks.
P	Manuka Screen - 1.8 metres high to hide watertank.
Q	Two new raised Vege Beds. Vege Bed on right has stepping stones.
R	Open Area, approx 9 x 4 metres, for larger crops - corn, potatoes etc. This area can be extended west if need be. Possible small glasshouse to be fitted into this area.
S	Three raised Garden Beds and Path to new deck. Path can be paved or gravel.
T	Afternoon area - table, chairs etc for guests staying in cottage.



Plant Schedule				
Ref	Plant No.'s	Botanical Name	Common Name	Notes
1	4	Selected dwarf Apples & Pears		Early & late fruiting varieties.
2	1	Large growing self-fertile Plum		This will be developed as a shade tree for sitting under.
3	1	Non-astringent Persimon & Medlar		
4	3	Peach varieties		Early & late fruiting varieties
5		Areas for Orchard Herbal Lay groundcover (stripped area) to attract beneficial insects & bees. Plant complete area with a mixture of :- Borage - Lupins - Cornfrey - Tansy - Thyme - Oregano - Barley - Allyssum - Gypsophila - Bulbs - Phacelia - Calendula - Poppy - Celery - Strawberry's Chervil - Vetch - Coriander - Corn - Cosmos - Lobellia - Sunflowers - Rye - Subterranean Clover - Marjoram - Yarrow - Rhubarb - Dill - Lavander - Rosemary - Angelica - Cone flowers - Nasturtium - Catmint - Asters - Buckwheat - Geraniums - Wallflowers - Basil - Onion - Garlic - Mint - Meadowswift - Lovage - Korean Mint - Chives - Fennel - Raspberries - Old Roses - Ceanothus (ground cover) - Hollyhocks - Blueberries. Most of these are low growing perennial & annual plants. Plant in groups from 0.5 - 1 metre apart, this will leave enough room to develop access ways to trees for picking and pruning. Leave small clearings throughout for bug logs, possible small pond, rocks & seats.		
6	9	Dwarf Apples & Pears, train along wires or fence structure as espalier trees to approx. 1.8 metres high.		
7		Grape to grow over pergola.		
8		Dwarf Willow species		
9		Grow prostrate plants between pavers e.g. Prostrate Thyme.		
9a	2	Espaliered fruit trees trained against cottage wall.		
10		Native Area (extent to be verified) All weeds will need to be removed by cutting, save any existing natives. As weeds come away again they will need to be sprayed with a systematic herbicide twice (you only need to do this once, then hopefully never again!) Most of this area already has a mature canopy. Plant natives under this that are suited to shade - e.g. Ferns, Tree-Ferns, Astelia's, Macropiper, Pratia, Coprosma's, Cabbage Trees, Corokia's, Native Blueberry, Native Ground Fuchsia, Hebe stricta, Five-finger, Nikau Palms, Pate, Pohuehue, Mapou, Mountain Flax. A lot of these plants will also attract birds.		
11		Clear the Area around existing Rimu of all weeds. Plant a mixture of approx. 20 x Fuchsia procumbens (Native creeping Fuchsia), Pratia and Mercury Bay Weed groundcover. Plant 5 x Myosotidum hortensia (Chatham Islands Forget-Me-Not) throughout this area.		
12	4	Pineapples & Edible Ginger - Zingiber officinale.		Will need to keep this area watered.
13		Existing Orchard Cut back weeds, let chickens into this area to clean up. A good permanent area for chickens to be let into. All Herbal Lay species can be planted in here, plus in Chicken Run 'N'. Also plant sunflowers, pumpkins, squash, marigolds, mustard, corn.		
14		These areas used for quick salad greens & herbs.		
15		You could take fence out and run down the hill behind the Oak. This whole area could then be sown into a seasonal flower meadow with bulbs.		
16		Mass out under Grapefruit with Allyssum, will attract beneficial insects to Vege Garder & Grapefruit Tree.		
17		Mass out under Pohutukawa with 20 x Chionochloa conspicua (Hunangamoko Grass)		
18		Clear out unwanted plants in this area, replant in between with a selection of plants from 'Item 5' (in this schedule). Herbs, Small Shrubs, Annuals etc.		
19	13	Libertia	NZ Iris	
20	4	Mandarin Trees		
21	1	Rugosa Rose		
22	7	Phormium cookianum		
23	7	Astellia		
24	7	Coprosma taiko		
25	5	Cabbage Tree		
26	11	Phormium 'Purple Haze'		
27	9	Coprosma virescens		
28	4	Cabbage Tree		
29	4	Hebe stricta		
30	10	Mixture of Manuka & Cabbage Trees.		

Permaculture plan

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Date: 6 October 2011
Scale: 1:200 (A1) 1:400 (A3)

Sheet 1