Future Nature, Future Culture(s)

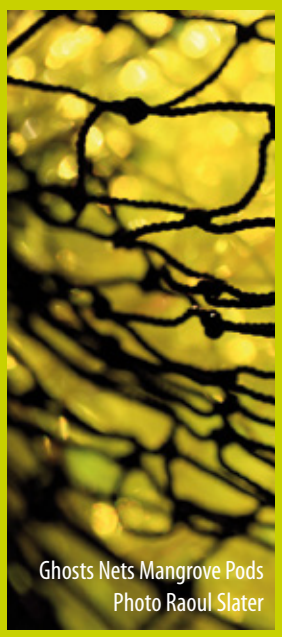
balance un balance 2013

ARTS + SCIENCES X TECHNOLOGY = ENVIRONMENT/RESPONSIBILITY

Conference Proceedings

2013 Balance-Unbalance International Conference

May 31-June 2, 2013
Noosa, Australia



Ghosts Nets Mangrove Pods
Photo Raoul Slater

Ship of Fools, James Muller & Kris Martin
Photo Raoul Slater

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Sunshine Coast Council

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Welcome to Balance-Unbalance 2013

A sincere and warm welcome to *Balance-Unbalance 2013* in Noosa. This will be the first time the *Balance-Unbalance* Conference will be conducted in the Asia-Pacific region. On this occasion we are proud to host a dynamic and diverse range of participants from at least 14 countries – including artists, scientists, activists, philosophers, sociologists, architects and engineers. We recognize that when diverse, passionate people come together there is the potential for great inspiration, future collaboration and action.

As Queensland's first UNESCO endorsed Man and Biosphere Reserve our goal is to promote harmony between people and nature through education, conservation and sustainable activities. We welcome the opportunity to host the *Balance-Unbalance 2013* International Conference recognizing its obvious synergies with the International green art event *Floating Land*, and this region's history of commitment to a sustainable future. We encourage you to engage with our local community and environment as you contribute to conversations about local, national and global issues.

Thank you to local sponsors Noosa Biosphere, CQUniversity, Sunshine Coast Council and Tourism Noosa, our academic review panel, and international program and publication sponsors. Thank you as well to our conference convenors, organisers and volunteers and you the participants for your commitment to positive global change.

Susan Davis

Chair Noosa Biosphere Ltd CQUniversity Noosa

Learning from and acting within uncertainty

We are living in a world reaching a critical point where the equilibrium between a healthy environment, society's needs and interconnected economies could pass more quickly than expected from the current complex balance to a completely new reality. We are on the brink of an era where unbalance would be the rule and as such human beings need to be more creative than ever before to survive. Have the arts a role in all this? Have artists a responsibility in this context?

Environmental problems, economic uncertainty and political complexity have been around for a very long time. Not one year, one decade or one century. What was different before was the speed and depth of transformations compared with today's rapid changes. The frequent occurrence of certain events - such as floods, twisters, and so forth – seem to be increasing. The effects human beings are having through modifying our immediate surroundings as well as very distance places have the potential to change the whole planet, improving or ruining people's life and even eliminating all human life on Earth. In this context of global threats how can the arts help? This apparently simple idea was the seed triggering the *Balance-Unbalance* project and the *art! ⋈ climate* contest.

As with many other situations we face in life, we need to gather information, reflect upon it and also act. It would be ideal to have a lot of answers before we start doing this, being able to lower the uncertainty. We hope through this conference that we can share and generate some answers. We need to ensure we do not act irresponsibly. On the contrary, we need to take responsibility, because the life of humans on our beloved but badly treated planet Earth depends on this. At the same time, we know that we will never have all the answers as there are many uncontrollable forces in nature that can affect us. Our hope is that through this conference we will all go outside our comfort zones, not leave accountability for others, and do our best to create a better life for us AND for others too.

Ricardo Dal Farra

Balance-Unbalance

Future Nature, Future Culture[s]

Balance-Unbalance is an international conference that explores intersections between nature, science, technology and society as we move into an era of both unprecedented ecological threats and trans-disciplinary possibilities. The goal of the conference is well aligned with the UNESCO recognised Noosa Biosphere, a dynamic learning laboratory for sustainability in one of the most pristine and diverse environments in Australia. It is a privilege for us to host the 2013 conference in Noosa. We believe this could be a landmark event in shaping the role of Biosphere Reserves in the future.

The 2013 conference theme: "Future Nature, Future Culture[s]" aims to challenge our expectations of Earth, provoke our understanding of nature and inspire our actions for a sustainable future. Balance-Unbalance asks us to consider what we want for ourselves, our families, our friends, and for the future of humankind. This complex universe, vastly unknown, has been revealing that all is interconnected. Timothy Morton states that everything is connected into a vast, intertangling "mesh" that flows through all dimensions of life. No person, no animal, no object or idea can exist independently. Our limited knowledge of life can be expanded, but to do so we need better ways to understand each other. This includes a deeper awareness of how different human societies can comprehend cultural differences and synergies. There is a dramatic need for a paradigm shift and we need to act now if we are going to survive as a species.

Balance-Unbalance 2013 explores how artists can participate in the challenges of our ecological crisis. The event inspires creative thinking and trans-disciplinary action to create perceptual, intellectual and pragmatic changes. Initiatives such as Balance-Unbalance underpin the true value of UNESCO Biosphere Reserves in bringing passionate communities together to inspire positive change. We see this event as not just a conference, but the catalyst for new ideas, collaborations and most importantly actions in shaping our collective futures.

Leah Barclay, Co-Chair, 2013 Balance-Unbalance International Conference

Friday, May 31st, Keynote Panels

The Junction Theatre, Noosa

Tony Fry
Tony Fry is Professor of Design Futures at Griffith University, Queensland College of Art, Brisbane, Australia. He is also an award-winning designer, a theorist, a farmer, and director of a project developing an academy of indigenous-based creative practices in East Timor.

The author of nine books, Tony is regarded as one of the most progressive thinkers on design in the world today.
On his acclaimed book, Design as Politics, a reviewer commented:
"To say it's 'timely' is an understatement. Fry offers us one of the most prescient theses for the design of a different possible future."
Tony Fry's keynote will focus around the 'Future of the Human' and how in the face of the largest creative challenge we moderns have ever faced the central question will be: what will change us and how will 'we' create it?

Fee Plumley
Fee Plumley A self-confessed 'technoevangelist', Fee was previously best known for encouraging people to be creative with their mobile phones through the-phone-book Limited (UK). She moved to Australia in 2008, and in 2011 was granted permanent residency on a Distinguished Talent visa. This major social media floozy last year live-tweeted Amanda Palmer & Neil Gaiman's New Year's Eve #TrashMasque, and managed a team of live-tweeters to cover the 2012 Adelaide Festival Artists' & Writers' Weeks. This year she was the online community wrangler for Adelaide's Mini Maker Faire and is Social Media Manager for ISEA2013. In the physical world she has curated an art/games program for Freeplay Independent Games Festival, mentored for The Hive and was commissioned for Canberra's Centennial Birthday celebrations. Last year's crowdfunding campaign for the reallybigroadtrip bus went viral thanks to tweets from Amanda Palmer, Neil Gaiman and Hugh Jackman so she is now happily readjusting to life on the road. Expect nothing but trouble to come from her as she tours the country tinkering with electronics, open source cartography and 3D printers.

Michel Tuffery
On paper and by reputation Michel Tuffery is one of the seminal role players for visibility of Contemporary Pacific Island art locally and beyond the wider Pacific. His creative output is expansive as he is adept at all arts media, printing, painting and sculpting, and works collaboratively with technicians and other art practitioners to realise his performance and installation projects, requiring moving image, light and sound. His concerns are measured and politicised around the conservation of the environment and shaped by his Pacific Island ancestry.

Andrea Polli
Andrea Polli is an artist and scholar working at the intersection of art, science and technology whose practice includes media performance and installation, public interventions, curating and writing. She currently is an Associate Professor in Art and Ecology with a joint appointment between Fine Arts and Engineering, the Mesa Del Sol Endowed Chair of Digital Media, and Director of the Social Media Workgroup at the Center for Advanced Research Computing at The University of New Mexico. She holds a doctorate in practice-led research from the University of Plymouth in the UK and an MFA in Time Arts from the School of the Art Institute of Chicago.

Polli has been creating media and technology artworks related to environment since 1999. Among other organizations, she has worked with the NASA/Goddard Institute Climate Research Group and the National Center for Atmospheric Research and her artwork and research has been funded by The National Endowment for the Arts (NEA), The National Science Foundation (NSF) and Fulbright including two over $1.5 million projects: the NEA-supported ISEA2012: Machine Wilderness throughout New Mexico and the Southwest and the 5-year NSF-funded SEPTET project.

Polli's work with art/science, technology has been presented widely in over one hundred presentations, exhibitions and performances internationally including the Whitney Museum of American Art Artport and The Field Museum of Natural History, and has been recognized by numerous grants, residencies and awards including Fullbright and UNESCO. Her work has been reviewed by the Los Angeles Times, Art in America, Art News, NY Arts and others. She has published several audio CDs, DVDs two book chapters and many papers with MIT Press, Cambridge University Press and others. She is a co-editor of the online Arid Journal <aridjournal.com> and her latest book is Far Field: Digital Culture, Climate Change and the Poles published by Intellect Press

Ramon Guardans
Artist and scientist Ramon Guardans traces pollutants and their effect on local and global populations, health and environments and examines the relevance of different ways of life in understanding exposure. He has been involved for 20 years in international action on atmospheric and marine pollution including the Stockholm Convention on Persistent Organic Pollutants (POPs) and the Arctic Monitoring and Assessment Program (AMAP). Ramon's keynote will provoke new ways of understanding Atmospheric and Marine Pollution through art and transdisciplinary thinking.

Nina Czegledy
Nina Czegledy is an award winning media artist, curator and educator who works internationally on collaborative art and science/technology projects, as well as in education. She is has led, or been a key contributor to, an extraordinary number of workshops, forums and festivals around the world.

Czegledy has published widely in books and journals and has presented at several international conferences and academic institutions. Recent and upcoming curatorial projects include: Gyorgy Kepes and Frank Malina at the intersection of art, science and technology (Ludwig Museum Budapest 2010) co-curator 3rd Quadrilateral Biennial (Rijeka Croatia 2009) Device Art in Budapest (Hungary 2009) co-curator e-mobile Art, the European Mobile Lab 2007-2009 (an EU project) and organizing team member for Eco Sapiens (New Plymouth, New Zealand 2011). She is Senior Fellow at KMDI (Knowledge Media Design Institute) at the University of Toronto, Adjunct Associate Professor Concordia University, Montreal, and an Honorary Fellow, Moholy Nagy University of Art and Design, Budapest. She is also actively involved in key international organizations including Leonardo, where she is a member of the governing board, contributing editor of the Leonardo Electronic Almanac and member of the Observatoire Leonardo des Arts et des Techno-Sciences OLATS scientific committee. Nina's keynote will explore the role of community in transdiciplinary action and provide a series of case studies (including SCANZ in New Zealand)

Featured Lunch Time Performance: The Water Reckoning
Year 10 Drama students from Sunshine Beach State High School

Creative direction: Glenn Taylor & Sue Davis

The Water Reckoning explores how humans co-operate to share and manage water and deal with hardship brought on by climate change and extreme weather events. It draws on local and international experiences of water crisis and co-operation responding to the UN Year of Water Co-operation. The Water Reckoning performance draws on work being created through an international Rolling Role Drama Project. This project involves several schools across the world, creating content using a variety of digital technologies and web based applications (including PlaceStories) to respond to a common pre-text which in this case is some of Jason deCaires Taylor's imagery of his underwater sculpture park. The result is the imagining of a fictional culture whose lives are threatened as a result of environmental crisis and human folly. For further information about the The Water Reckoning Rolling Role Drama Project visit: http://www.water-reckoning.net

Communities, Technology and Culture Forum
Sue Davis and Feral Arts

In this session Dr Sue Davis will reflect upon the important role of human interactions and relationships with other people and place in community action for a sustainable future. One of the organisational and conceptual means of engaging in this process is through the UNESCO Man and Biosphere (MaB) program and the creation of Biosphere Reserves. The Noosa Biosphere experience will be shared and considered in the context of

tools for cultivating positive 'I/Thou' relationships (after Buber). These caring relationships with people and between people and nature (or non-human aspects of place) are fundamental to creating a future where human and non-human life and the environment can co-exist in balance.

This session will follow with a presentation from Feral Arts. Feral Arts is one of Australia's leading community cultural development companies. They are innovators in the field of digital storytelling, community mapping and communications.

They specialise in partnerships in the Arts, Community, Education, Environment and Health sectors, creating new ways to communicate and collaborate through stories. Feral Arts build world-leading community-focused digital storytelling software systems and explore the potential of emerging digital technologies in finding creative solutions to cultural and social challenges.

Friday, May 31st, Pecha Kucha Night

The Junction Theatre, Noosa

(See Pecha Kucha Night flyer for speaker details)

Featured Presentation: Floating Land
Christine Ballinger, Sunshine Coast Regional Council

Conceived in 2001 by the then Director of Noosa Regional Gallery, Kevin Wilson, Floating Land came into being. I remember Kevin mulling over the naming the program…

Floating Land? What did it mean?

Did it need to mean anything except to evoke curiosity and seed innovation?

Kevin had been inspired by the art and environment movement in Europe and had recently returned from attending one event in France where the community of a small village hosted a contingent of artists. The artists lived with families, and, each day, went out into the woods or grasslands, to create sculptures on site in nature. At night, the village would hold communal meals and there would be a sharing of ideas and understandings…art, nature and community.

With this ideal, the first Floating Land was created and held in the summer over 10 days. Thirteen artists, local, national and international, participated. Remarkable work, never seen in this region before, was created and caused considerable conversation and debate.

Since 2001, a few things have changed including the time of year, but many things have not… the conversation and debate, source of artists, placing creativity into the environment (which is the art?), community engagement and participation, and inspirational artwork.

Now, after seven iterations, Floating Land significantly contributes nationally and internationally to the art and environment discourse and has inspired many artists to explore, research and advocate for this genre.

Featured Performances - Environmental Projections
Judy Barrass, Corrie Wright and Beau Deeley

After dusk during the Pecha Kucha night, the outside of J will be transformed by large-scale environmental projections created by leading local artists including Judy Barrass, Corrie Wright and Beau Deeley. This project has been

developed and supported by the Noosa Biosphere Cultural Board under the guidance of Richard Newport.

Music for the Banal, the Obvious, the Everyday
Composed and performed by Vanessa Tomlinson

Music for the Banal, the Obvious, the Everyday is an ongoing performance project that examines the specifics of site through deep listening and local materials. The materials for tonight's performance come from kitchens, hard-rubbish days, recycling bins, building-site off-cuts and my garden. Together the objects are repurposed to create a new sounding instrument, with its own unique resonance. *Music for the Banal, the Obvious, the Everyday* contributes to our understanding of the field of acoustic anthropology and ecological art, cleansing our ears, and making listening an act of positive activism.

Conversations: Sounding the Environment
Garth Paine , Arizona State University, USA

Conversations: Sounding the Environment is a work for ambisonic recordings and live flute with real-time processing.

The work arises from a number of visits to Bundanon (http://www.bundanon.com.au) in Australia, where I undertook explorations in engaging in conversations with the landscape. These took several forms:

- Ambisonic recordings of the natural environment
- Piano wire fixed between trees to record the sounds generated by the movement of the tree trunks in the wind (tightening and loosening the tension of the wires) and through bowing and striking the wires
- Vocalisations recorded as improvised conversations with the land and the birds.

Some of the above material processed in Kyma Interactions with local Aboriginal leaders regarding the lore of the land

These materials are brought together in a work that acts as an ongoing enquiry into the ways in which we converse with nature. The above materials are projected into the space using ambisonic mixing techniques to create immersive acousmatic environment.

CQUniversity, Saturday June1 and Sunday June 2, 2013.

Ear to the Earth Sound Installations – Featured Works
Listening to Mountains: *Peter Gilbert and Karola Obermueller*

Living amidst so many technologically-based sound devices, modern ears are so full that we can forget to listen to the world around us. Our collaboration Listening to Mountains asks: What would we hear if we could listen so powerfully that we could hear the mountains speaking?

The piece (variably an installation work or video piece) explores this idea by subtly adapting field recordings from two different mountain environments (one along the Bergstraße in Germany and the other in the southwestern US). We add a layer of "stone-speaking" that's just barely audible, as though, through straining our ears, we can begin to hear the thoughts of those ancient entities.

Buried in the deep history of Hesse's Odenwald lie remnants of pre-Christian cultures that valued a harmonious relationship between humans and their natural habitat (Obermüller). For the people of the Santa Clara Pueblo (New Mexico), the flow of life is the essence of life. Water and wind are the symbols of existence, which is rooted not in the body, but in the breath, concisely described as Po-wa-ha (water-wind-breath).

In Listening to Mountains we are exploring the sounds of the mountains' breathing—the water, the wind, the trees—and trying to create a musical dialogue between these very unique locations: New Mexico's Sandia Mountains and Hesse's Langenberg (at the peak of which sits the famous Burg Frankenstein). In our work, the murmuring lush greens of German forest speak with the wind-swept red-orange rock of the North American desert. We seek to capture the myriad transformations of color, captured within the sound of ageless breath and bring these two distant cousins into a conversation about the nature of time and breath. It is not an attempt to faithfully recreate these specific sonic environments, but rather to generate a musical fantasy world inspired by these two locations.

To create speech for the mountains we take the sound of smaller rocks rubbing against boulders, which, as they grind against one another, form something akin to phrases and thoughts. The transients of the stone recordings trigger a parallel set of phonemes to emphasize the wordiness of the grinding. By using FFT-based tools we are able to carve out vowels and consonants (using filters and formant structures) on these stone-chorus words, heightening the speech sensation. And then by adding pitch contour, the "sentences" take on more emotional clarity.

Because all of these processes are live, we can, in the installation version of the piece, have people grind stones and hear the "speech" version in real-time mixed into a video-immersed environment. We also invented a syntactic logic for the "language" allowing us to use these filters on the wind from the field recordings as though there is a common language for all of nature which is human-like, but not based on any specific tongue.

We want to use the project to suggest that a piece based in a technological adaptation of nature can be a provocation to reengage with non-technologically driven sound more deeply.

Installations

1. Runoff
Sarah Pirrie

As fresh water moves to sea it takes with it our culture and brings it to the ocean's floor to be accreted into clusters or islands of habitat. Runoff proffers a new vision of our environment. The space becomes a stormwater trap where discarded matter found along our coastline is collected, examined and re-invested with significance. Runoff reawakens our disposable selves to the way we think and feel about the world in which live

2. Gondwana Sensitivities
Roslyn Taplin

The GONDWANA SENSITIVITIES video installation will explore the scenario for a warmer Earth with reference to the Gondwana Rainforests of Australia. These World Heritage listed forests '...include the most extensive areas of subtropical rainforest in the world, large areas of warm temperate rainforest and nearly all of the Antarctic beech cool temperate rainforest. Few places on Earth contain so many plants and animals which remain relatively unchanged from their ancestors in the fossil record.' (Aust. Govt. 2011) Their resilience to the impacts of climate change is however in question. Experts argue that they are under greater threat from climate change than the Amazonian and African rainforests due to their small area and fragmented state, a legacy of past clearing.

The GONDWANA SENSITIVITIES video installation will address the fragile and transient nature of the biotic and abiotic elements of Gondwana ecosystems and the effects of anthropogenic interference with the climate system. GONDWANA SENSITIVITIES will explore climate sensitivities with a central focus on selected Gondwana Rainforest sites in National Parks in Northern New South Wales and South Eastern Queensland.

The video installation will be developed in conjunction with the rainforest's animate environment. GONDWANA SENSITIVITIES will involve the free, creative visual interrogation of climate impacts on the forest. Primarily found elements in situ (trees, leaves, detritus from the forest floor, rocks, water) in the sites' ecosystems will be mapped and documented electronically via video and photography and by hand through drawing. These works created in the field will then stimulate further creative responses in film for the Balance-Unbalance installation.

GONDWANA SENSITIVITIES will intersect the cultures of art and science and aims to stimulate a dialogical process in order to record and transmit significant insights concerning the rainforests and climate change and to develop metaphors that represent their vulnerabilities. The Balance-

Unbalance installation will bring together video, drawing and sound components.

Realisation of GONDWANA SENSITIVITIES will be facilitated by emerging artist Roslyn Taplin.

3. Aspects of Trees:

A Sound and Video Installation by Teresa Connors and Andrew Denton

Aspects of Trees is one of a series of ongoing projects by Teresa Connors and Andrew Denton that assemble a range of moving image and sonic experiments which records and then responds to changes in the ecology. The subjects of this installation are the escalating pine beetle epidemics that have decimated forests on the West Coast of North America.

Aspects of Trees seeks to operate in a more poetic or affective register as a tactic for opening up dialogue around anthropogenic climate change. The raw visual and sonic material was collected from locations in New Mexico, Canada and Tasmania. The experiments play with temporal space and spectacle through poly-screen compositions and abstracted moving images. The project embraces the scale and complexity of its subject as a method of sustained visual and aural inquiry and as a forensic tool to highlight human impact on the ecology.

The sonic layer of *Aspects of Trees* was developed using a computer-based instrument constructed in MaxMSP/Jitter as a technological tool to create an interaction between improvisation and composition - 'comprovisation'. *Aspects of Trees* expands on this method by building an interactive network between the projections, several live improvisation performances with cellist and laptop performer Charlotte Ketel, This opens up conditions for each agent to respond in an evolving collaborative process.

The tree audio samples are provided by:

David Dunn of New Mexico, www.acousticecology.org

Felix Wilson of Tasmania, www.felixwilson.com

4. ATM Manifiesto: *Proyecto AbRiGo*

"Accelerator mass tissues" is a machine that can reproduce the web of life, that fabric that binds humanity to Earth, space, stellar motion. We decoded the code from that network and synergy analyzes of various symbolic manifestations that man done throughout its history (mitogramas, creating molds textile, electronic circuits, cartographic maps, etc). Since then we have discovered / created a new body: the biotexinas (living tissue) that

synthesize the convergence of different energies of nature: magnetism, electronics, light, resulting in tissue, which is the pattern of plants and animals.

The ATM, part of the artistic research "Manifesto", is an installation that offers a new vision about the relationship between man, nature and technology. It is not the discovery of a product to the market, but a political and aesthetic experience, a moment of communion which places us in time and space in the world.

This vision sees a man created by nature, and a man-made machine able to generate nature. Thus establishing a fabric of relationships that blurs edges and abolishes hierarchies.

5. Hug@ree: Embrace Nature for a Sustainable Future:

Monica Mendes, Pedro Angelo and Nuno Correia

Trees have an enormous power but they are also vulnerable to human action. When hugged in public, they can become a powerful symbol for environmental activism, a reminder about our responsibility towards nature – in the present and for the future. A healthy relationship between the evolving human nature and the changing natural world demands the need to iteratively rethink concepts and communication models through the exploration of new forms of expression and emerging technologies.

Assuming a role towards environmental sustainability, we created the Hug@ree interactive experience, which encompasses two distinct moments. In an outdoor space, a real tree instrumented with a microcontroller and sensors detects participants' hugs and transmits a video loop of each hug to a real-time video interactive tangible interface or projection. Then, participants place the video loop of their own hug on the real-time video tree foliage, becoming leaves of a collective experience. Multiple Hug@ree installations around the world will upload their leaves to an online platform, creating a global shared embrace of nature. So far, the Hug@ree installation has been presented in several contexts and venues: PopUp in Lisbon, AZ hackmeet in Porto, TEI'11 in Madeira, Sci | Art Summer school in Los Angeles, Artropocode in Santiago de Compostela, and Summer in Maçal do Chão.

Hug@ree is part of ARTiVIS – Arts, Real-Time Video and Interactivity for Sustainability – a research project that explores the use of real-time video for forest protection. Through this installation we seek to bring people closer to forests, while at the same time promote care and respect for nature and empower communities to better protect their natural resources.

6. Beads

Teresa Connors and Rene Burton

Beads is an ecological interpretation of landscape through photomedia, moving image, and sound/music transcoding. Using data collected from the worst maritime environmental disaster ever to occur in New Zealand, this collaborative artistic enquiry is a metaphorical consideration of human's uneasy and destructive relationship with the landscape. A composite record of organic and manmade marks, *Beads* attempts to provide a way of conceptualising the landscape as a record of both human culture and environmental activity.

7. Oscillations

Garth Paine

A sonic oscillation of the exhibition space will be established by Tibetan singing bowl robots, each carrying 2 singing bowls, producing pure sustained tones and percussive struck sounds, filling the room with an omnipresent series of harmonics. By contrast the oscillating cymbals produce an earthy, gritty and urgent intervention, marking out the soundfield in a dynamic manner. The work pays homage to Alvin Lucier's engagement with the material qualities of sound. The work creates a rich sound bath of ever evolving timbres.

8. Birding the Future

Krista Caballero and Frank Ekeberg

Many say we are living through the "Sixth Extinction." Loss of species and biodiversity is occurring at an alarming rate. There are a number of animals that possess a perceptual accuracy that by far surpasses that of humans as well as much of the technology we rely on. An investigation into these animal behaviors can offer important clues to changes in the natural environment. Furthermore, indigenous knowledge of animal behavior has been vastly under-recognised, but can aid in the process of disaster prevention, preparedness and response in effective, participatory and sustainable ways.

What does it mean that we are only able to see and hear certain species through a technological apparatus? How does technology hinder or enhance the ways in which we perceive our surroundings? How can knowledge gained via technology be combined with traditional knowledge in order to increase awareness of our role in the natural environment?

"Birding the Future" explores these questions and current extinction rates while specifically focusing on the warning abilities of birds. Seen by many to be barometers of changing habitats and environmental health, it has been estimated that a quarter of all bird species will have disappeared by the end of this century. In Australia alone the government reports that at least 25 bird species have become extinct since European settlement, with an additional 51 currently listed as endangered. Despite conservation efforts,

estimations indicate significant ecological disruption with a vast decline in bird populations across the world.

"Birding the Future" pairs an outdoor sound installation with a stereoscopic image walk. Viewers will be guided through a walk of extinction.

9. Bioelectric

Hamilton Mestizo

Bioelectric is a prototype which compiles some experiments around how energy is transforming in different levels of matter. It also reflects about energetic interactions between organic and artificial systems (working together). Alga_e is like a "laboratory instrument" to represent an idea about how everyday things will operate by symbiotic relationships (inter-species/systems) and how it would produce electricity through microorganism.

The principal part of alga_e is a bioreactor, where anaerobic bacteria are growing. In this case the bacteria are eating green algae biomass (rich in energy). Green Algae had cultivated into a DIY photobioreactor (algas verdes 2.0.1) for one or two months using CO2 and solar radiation as feed.

Anaerobic respiration in the bacteria produces without cell many molecules of hydrogen (H+) which could be transformed to electricity using a little “hydrogen fuel cell”. This was extracted to a toy (a little car which moves itself using hydrogen as combustible) so it was hacked to adapt that as a "microbial fuel cell" (MFC) using hydrogen from bacteria.

Electricity is storing in a little chemical battery. Its propose is to feed with electricity a low power (1.8v - 5.5v) microcontroller (attiny45). A human "stimulus" switches the microcontroller on/off and a "tiny" algorithm (arduino program) is started. Then the attiny45 begins to observe the alga_e electricity production in real time, and translate this data in a frequency (45hz) and rhythm (tempo) using a piezofilm as output for to generate a faint sound: a pulsum through 2 seconds and 8 microseconds.

10. Urban Flock

Todd Ingalls and Mary Bates Neubauer

Urban Flock is a series of lively portable interactive light-forms that are part of a growing family of interactive site-specific art installations. The flock of ‘talkative’ liAle forms are made of translucent gels and acrylics in aquatic colors. Small or large groups of them will travel throughout Balance-Unbalance, creating anticipation of where they may turn up next. Each little sound and light emitting form carries its own power source or independent wiring, and each is has embedded within it own microcontroller, sensor, wiring, LEDs, and a sonic transducer which turns the form into a small speaker. These light-objects operate independently of one another but are

networked together groups that communicate with one another somewhat like birds where the reaction of one would generate cascading responses from the others. They notice you, as you go by and start gossiping among themselves or asking you to interact in their own musical language.

12. Trans-Tasman Integration Project
Ian Clothier

This creative project connects Noosa Biosphere in Australia and Taranaki in New Zealand Aotearoa. Data sensors are placed in each location, with live data readings controlling the audio is played online. The system used was that created for the Intercreate project "The Park Speaks" and utilised again for "Te Iarere (communication over vast distances)" part of "Wai" at ISEA 2012 Albuquerque.

CQUniversity, Saturday June 1, 2013, 9.00am-10.30am

Tambourine Bay
Damian Castaldi

Tambourine Bay is a single channel video installation. It can be seen and heard as a window into the wild weather experienced in an inner city suburb of Sydney from the 10th to the 26th of January 2012 and represents a transition or dramatic shift in the climate over a 16 day period. Additional audio and text combine with this to reflect on more severe weather patterns across the east and west coast of Australia leading up to the Australia day long weekend.

The audio visual is in three parts and has been processed to alter its duration, hue and perspective, situating the viewer inside an apartment room looking out over Tambourine Bay. The first two parts of the video are saturated in a red and orange hue, intended to illustrate and heighten the unusual weather patterns we currently experience and a dramatic indication of the deterioration of our environment. As such the work is intended to provoke a disturbing reaction of potential dread at the ongoing shift in our local weather patterns and what this might indicate in terms of broader climate change.

Throughout the video the viewer witnesses the systematic pounding of the Tambourine Bay Reserve, situated on the Lane Cove river as it is severely struck by thunder and lightning. It then transitions from late evening into an overcast midday with a forecast of further showers, storms and bush fires. The final scene is late afternoon interspersed with sunshine and heavy cloud cover and again with further predictions of wild and dangerous weather.

Industrial, ambient and minimalist sound and video blend together to create this disturbing atmosphere. The emphasis in the sound design is on the movement and relationship between location and synthesized sound manipulated through signal processing and synthesis. The location recording (thunder, lightning and birds) / intense bursts of synth pipes / manipulation of frequencies using EQ and sound relationships created by dynamic mixing are the main components. The video soundtrack is also composed as a backing track for a future live performance of the work.

Spiralling processed text fuels the narrative of the video installation. Using the daily weather broadcasts transcribed from ABC news radio throughout January 2012 the narrative builds and repeats itself in an upward movement passing in front of the window frames from which the video was shot. The text is both readable and sometimes not, providing snippets of news, which can be distinguished at random throughout.

The soundtrack will include oral snapshots (to be recorded) from an aboriginal elder, one of the oldest inhabitants of this Sydney location, from the Cammeraygal group of the Kuringgai Aboriginal tribe. Prior to the arrival of the First Fleet her group inhabited the area in which Lane Cove is situated. The Cammeraygal group lived on the north shore of Port Jackson and were one of the largest groups in the Sydney area. The aboriginal elder speaks of her environment and reflects on this in the historical context of her Cammeraygal group and the Lane Cove river.

HOMAGE TO THE SEED: From One Small Seed - Encounters in Bio-Cultural Diversity

Sophie Munns
Homage to the Seed

My current project *'Homage to the Seed'* negotiates intersections where Art, Plant Science, Technology and Ecology meet in relation to the fascinating world of Seeds.

This project on seeds - a childhood preoccupation that resurfaced decades later - evolved from broad questions arising out of frequent relocations over several decades. Navigating change... noticing tensions, issues and circumstances in new communities and regions... shaped the quality of intellectual inquiry brought to the studio in very particular ways.

This presentation will illuminate key themes and discoveries underlying the project from conception to the present... investigating questions restlessly in an effort to get beyond the polarised debate which runs high around seeds in this era. It will demonstrates how this visual artist generates public discourse, engages outside one's own discipline, whilst maintaining an Art Practice that offers space for ideas and research to be tested, developed and gradually integrated into the Artwork.

Connecting to Place: Creating Web Stories to Illustrate Then, Now and Next

Angelina Ambrosetti
Central Queensland University

Today's learners are often described as the '*connected*' or '*digital*' generation, however it has been reported that these learners are harder to engage in classroom learning, due to the disconnected learning approaches still being used in 21st century teaching.

A key educational goal for young Australians is that of becoming an active and informed citizen, as such, this requires connection to place. If our learners are to become active and informed citizens they will be required to

investigate, inquire and create solutions for our present and future world by engaging in authentic learning.

Learning about history does not always occur through authentic approaches; however history which connects to place through the use of digital resources, has the potential to engage our learners in local and global learning.

This paper explores the use of a '*webstory*' to connect 21st century learners to place and engage them in investigating the then, now and next.

A webstory is a digital tool, which acts as an engaging resource made by the teacher or be generated by the learner as a learning task. A webstory provides the opportunity to construct a story about the past, make links to and offer solutions for the present and identify issues for the future. Web-based digital resources and links would be embedded within the webstory to provide perspective, inquiry and debate.

This paper will firstly explore the concept of a webstory and examine ways in which history can be explored through a webstory. The paper will then provide examples of webstories and discuss contextual factors which should be considered when designing a webstory.

Rongo: Balance

Ian Clothier
Intercreate Research Centre, WITT

Recent Intercreate.org projects aim to integrate art, science, technology and indigenous knowledge. This is in order to develop the culture to create a sustainable civilisation. This paper presents and discusses important issues around three main projects.

1. **At 2011 Istanbul we presented "*Te Kore Rongo Hungaora: Uncontainable Second Nature*."** This included art, installation, video, M□tauranga M□ori (traditional M□ori knowledge pre-colonisation) and computational zoology.

Five themes were used to select works:

- Cosmological context
- All is energy
- Integrated systems
- Life emerges from water, and
- Anthropic principle.

2. In 2012 at ISEA Albuquerque Intercreate presented "*Wai*".

The title means *water* or *flow* in M□ori, and was provided by Dr Te Huirangi Waikerepuru. Istanbul was the first large scale project with Dr Waikerepuru and "Wai" was the second.

We were able to use the experience of Istanbul to inform our process and one result was the involvement of a Navajo/Dineh musician in the project, and a Medicine Man at the dawn opening.

"*Wai*" involved data controlled audio, installation objects and video.

3. The third project with Dr Waikerepuru is SCANZ 2013: "*3rd Nature*"

"*3rd Nature*" sought to bring together knowledge and practices similar to ours, so that experience and understandings gained could be collected and distributed.

SCANZ 2013 involves a residency, exhibition and w□nanga-symposium.

"*3rd Nature*" involves creativity and innovation at the intersection of three critical interfaces:

- Acknowledging the environmental crisis
- Engaging with Maori and indigenous peoples
- Engaging with Sciences and the Hybrid Arts

These three intersecting dialogues provides space for a Third Nature: a fresh space for engaging with new knowledge and approaches vital to a sustainable civilisation.

Paradox in Sculpture: Hypermodernity, Nature, and Digital Medium

Claire Brunet
OCAD University, Canada.

Artistic creation has mutated from its introverted nature to become a collaborative act merging the scientific and artistic domains into an extroverted process of creation.

Referencing research creation, we explore sensory knowledge inspired by environmental concerns ranging from ecological to technological perspectives. The artwork *"Vulnerable: The Salmon Project"* addresses the condition of our natural environment and aims to create an awareness in the viewer of questions of sustainability.

The sculpture installation project proposes opposing temporal forces—a 3D digital and technological approach as a mode of production, in opposition to an ecological statement on the vulnerability of the living environment—which stress the values of a hypermodern society, evoking a culture of paradox.

The time we live in, which French philosopher Lipovetsky (2005) calls the here-and-now, brings into this research a hypermodern worldview representative of the social and cultural changes that have influenced modernity and, more specifically, how the combination of science and technology is constantly reshaping our lives through an accelerating notion of a space-time context framed by digital media.

Hypermodernity also reflects an economic context which emphasizes the value we bring to tradition, as a need to safeguard our heritage. The sculpture discourse focuses on the vulnerability of the salmon species, a Canadian icon, perceived as a metaphor of the human condition. A film projection of historical family documents on salmon fishing in the Gaspe Peninsula from the 1940s brings to the work the concept of memory. Through mapping a referential past on one side of the standing salmon sculpture form, while on the other side the viewer can read the text "Vulnerable" referencing a present condition, the artistic work encompasses a hyper-modernist worldview. The researcher's family heritage becomes a metaphor for the declining condition of the salmon population, expressing the vulnerability of today's marine life.

The talk explores the ways in which artists adapt to new ways of experiencing 3D in a hypermodern epoch where space-time and materiality are greatly affected by the growth of digital media.

From a philosophical point of view the definition of hypermodernity is linked to individualism, where the self is the main focus. We argue that a parallel could be established between this era of the self and the autonomous freedom that artists need to be able to experience creativity in totality through digital means. This concept again is paradoxical. As the relationship between science and art grows, artists and scientists work in collaboration to share knowledge necessary to the creative exploration of both a scientific and artistic domain.

How do we cope with this dichotomy opposing the artist's cognitive experience (the self) and the necessity for collaborative work inherent to achieving creative freedom from both perspectives—science and art? This questioning brings up the research's principal question: In sculpture and installation art practices, how does 3D digital technology impact artists' cognition and the correlation between a conceptual and practical approach to the creative process?

Blue Trail: Imagination and Innovation for Ocean Sustainability

Jennifer Parker
UCSC OpenLab/Blue Trail Project

Laura Cassidy
Stanford University

Experimentation is needed to boost civic engagement in a sustainable future. Rather than telling people what to do, Blue Trail installations will ask them *'what would you do?'*

Integrating art with marine science will both deepen and expand the potential for innovative possible solutions to arise, as we work within and across disciplines and with the public, to achieve a sustainable future.

Blue Trail will examine topics ranging from the accumulation of plastic marine debris and other by-products of the global economy such as pesticides and ocean acidification; resource depletion and food systems including agriculture and aquaculture as they affect the oceans; and, variations on marine biodiversity ranging from species extinction to species migration and the ecological effects of sea level rise caused by global warming.

Animal Ecologies: Laurie Spiegel's Musical Explorations of Urban Wildlife in New York

Sabine Feisst
Arizona State University

Animals and their songs have inspired many human musicians throughout the centuries.

In rural cultures humans have often and closely communicated musically with a wide variety of animals. In urban cultures, especially those in which Western classical music was developed, humans have also related to animals in their music, albeit differently and less frequently. In urban environments humans have focused on fewer animal species, preferring birds such as the nightingale, cuckoo and bullfinch and domesticated mammals such as the cat and dog. Moreover they have often used animal songs in a highly stylised, sanitized and symbolic fashion in their compositions.

Such approaches point to what animal rights supporters would call "speciesism," constructions of hierarchies of living beings grounded in specific species memberships. More recently however, inspired by deep ecological perspectives, an increasing number of composers and performers, including Emily Doolittle, François-Bernard Mâche, Kiyoshi Mizutani, David Rothenberg and Laurie Spiegel have recognized the

genuine value of animals and their songs and taken them more seriously in their creative projects. Yet while most of these musicians have highlighted animals popular among humans such as birds, dogs and whales, few have felt inclined to give voice to those regarded as pests: rodents, pigeons and geese.

In this regard Spiegel, a New York City-based experimental composer and animal rights activist, stands out. Spiegel has made it her mission to draw attention to urban wildlife through music, visual art and film and to shed light on the otherwise invisible histories of these animals.

Focusing on the work of Spiegel, I will specifically explore three of her works:

- *Cavis Muris* (1986), an electronic work composed with Spiegel's software program "Music Mouse" and inspired by real mice in her loft;
- *Anon a Mouse* (2003), a ten-minute opera about mice and a dog, a work drawing on processed animal sounds; and
- *Ferals* (2006), a sound installation dedicated to New York City's pigeons.

I will show how these musical tributes to urban wildlife relate to other artistic portrayals of these animals in the past and present and how they express Spiegel's ecological concerns and philosophies, including Bioregionalism (which highlights the preciousness of bioregions) and Deep Ecology (which stresses the equality and interdependence of human and non-human species).

My study is based on published and unpublished materials including interviews I conducted with Spiegel. It is also indebted to musical, environmental and animal studies by such writers as Joanna Bosse, Jody Castricano, Emily Doolittle, Amy Fitzgerald, Greta Gaard, Kyle Gann, Elizabeth Hinkle-Turner, Linda Kalof and Hilda Kean.

An environmental artist's vision for finding economic viability for artists creating the future we want, a future with a culture of sustainability

John Dahlsen
Charles Darwin University

This paper discusses the career of the Australian environmental artist John Dahlsen, who has for the past seventeen years made and exhibited environmental art from found and recycled objects. As a writer, he has upon invitation, submitted peer reviewed papers for the World Policy Journal on "The Future of our Cities" and for the United Nations Rio 20 Conference, where he wrote on "The Future We Want". After completing two manuscripts between 2009 and 2012, he began a PhD earlier in 2013 on environmental art and how marginalised artists can adjust to tough economic times.

The paper explores early stages of his PhD and the impacting tough economic times on artists whose work is creating the culture of a sustainable future. There is opportunity for artists to participate in finding solutions to existing ecological crises. They can help guide the future with experts from other fields, facilitating paradigm shifts for a sustainable future. This is possible with widespread industry support, coupled with those artists learning new ways of adapting to uncertain economic times.

The significance of this work is to help shift the perceptions of contemporary artists within our culture, particularly marginalised professionals, whose livelihood is severely compromised with economic disruptions. Sometimes surfacing as unemployment, marriage breakups and homelessness, resulting in cessation of career activities, or at best new career paths in associated fields.

I ask: Can we find economic viability for artists working in marginalised areas including environmental art? Can we reduce economic stress for artists, who may otherwise compromise their creativity to survive? Is it socially justifiable that they compromise their creativity? Do these artists' diverse career paths necessitate their downfall during tough economic times? Can we change this trend?

I aim to provide insight into education, which will help fill gaps in this knowledge. Our cultural future must be guided by artists who are freed from outmoded financial constrictions, who choose not to mass-produce art in order to make their serious work. They can then create perceptual shifts for others to be ushered into the brilliant interconnected future envisioned by these creators.

In my paper I will be drawing on an essay I wrote for the United Nations for the 2012 Rio+20 conference titled "The Future We Want", which includes my vision of a golden age for humankind, where for the first time humanity has a collective enlightened vision, where science, religion and art are almost inseparable with their understanding of the sense of Oneness, connecting everything from the smallest organism to the vast expanses of the universe.

I believe our future is brilliant. It will take major perceptual shifts for this to eventuate, beginning with the artists involved in implementing their vision.

I anticipate this research will reveal that development of new education and support is necessary for those affected by globalisation's unexpected economic disturbances. The artists, whose creativity is focussed in the fields of environmental awareness aesthetic, require industry and social backing. They can help shape a future sustainable society, which champions understanding and interconnectedness.

The Complexity of 'Living Simply': Cybernetic Art in Future Society

Toby Gifford
Queensland Conservatorium, Griffith University

Joshua Howard
Queensland College of Art, Griffith University

The evidence is overwhelming that industrialised society is affecting the earth's natural systems on a massive scale, at an unprecedented rate, and with potentially catastrophic implications. Governmental response has been inadequate and is projected to remain so. At the heart of the problem is the mantra of perpetual economic growth, which is physically incompatible with the finite carrying capacity of the earth's biosphere. Calls for a new economics, variously termed zero-growth, sufficiency, or sustainable economics, promote abandonment of 'material living' and a return to the 'simple life'.

In this paper we argue the opposite; we promote abandonment of 'immaterial living' and return to the 'complex life'.

Why is the 'growth fetish' so entrenched in our economic theory, and so resistant to change in our society? Various commentators argue societal organisation has co-evolved with the institutionalisation of growth economics, resulting in inherent structural dependency on continuing growth. Growth is seen as driving investment returns, which have become the primary means of supporting people in retirement, due to an increasingly geographically fragmented societal structure, where the role of family and local community in aged care has become negligible. Others argue our financial structures are built on the dynamics of debt, in which growth operates as a form of intergenerational robbery by diminishing to real value of debt over time.

We propose another fundamental cause - the simplistic pursuit of personal growth, and a solution - widespread adoption of cybernetic art theory and practice. We argue that the 'simple' life is that of mindless profit maximisation, resulting in 'immaterial living', where our ontological, epistemological and spiritual views have become divorced from the physical (material) world.

The role of personal growth, or a sense of forward trajectory, in happiness is well attested. Harnessing creative expression in art potentially provides, we contend, a sustainable outlet for personal growth. Cybernetic art holds particular promise, due to its theoretical emphasis on understanding the artist, artwork and audience as an integrated system.

In order to live sustainably in harmony with the earth's systems, we propose embracing, understanding, and harnessing the complexity and diversity of our local environments. We envision a central role for cybernetic art, as a widespread personal practice; whose critical methods, ecological

philosophy and integrative processes promote a mindful materialism that understands and respects the complexity of the stuff of life.

Wind over Water: making visible the invisible

Nigel Jamieson
School of Art and Design, AUT University

Robert de Goedde
Interior architect and visual artist

Andrea Polli
University of New Mexico

An initiative from a small international collective of artists and researchers, Wind over Water (WOW) combines public art with emerging technology to connect the public/participants' experiences in everyday life with the immediate environment. WOW brings together 3 individuals from 3 continents from 3 disciplines: site-specific sculpture, sonics and mobile geo-reality.

Objective

Concerned about oversimplification of the science of complexity - which has been poorly communicated to the public by the mass media – WOW aims to present new public space possibilities, to combat the dumbing-down of information in mass media which has added to the global environmental crisis. Through both physical and augmented realities, using greener and virtual technologies, and non-invasive ephemeral interventions in the local environment, WOW provides a full and diverse participatory media experience including workshops and other activities designed to engage the public with ideas and concepts related to environmental systems at varying layers. WOW explores the unique Bio-Sphere of Noosa by challenging human spatial perception and cognition, and storytelling through computational simulation, and is experienced via dramaturgical and performance based digital media representations of what it means to live on and with our planet.

Method

Recognising the importance of multi-level interdisciplinary collaboration and through consultation with local experts to research the site and history, WOW development begins with guided soundwalks through the landscape. Locations are then identified for sculptural engagement with the eco environment and geo-locative media is developed for web-delivered mobile augmented reality applications.

Soundwalking is a practice that involves listening and sometimes recording sound while moving through a place. The term was first used by members of the World Soundscape Project (WSP) in Vancouver in the 1970s. Today, the legacy of soundwalking continues to inspire and inform composers, researchers, ecologists and activists across the globe. WOW regards the soundscape as a part of the whole system of an environment and the interdisciplinary practice of soundwalking provides a new way to understand that system.

Environmental Land Art forms for WOW act by placing temporary minimalist artworks in an environment that follows other rules. The placement of recognizable connotations of our ever growing urban culture in non-urban locations challenges human perception based on urban-scale in an environment where other demands are made of us. The subject of this research is the difference in human behavior across these two differing environments.

Mobile Geo-Reality applications for WOW use the technologies of Global Positioning Systems (GPS), cloud computing and augmented reality. Based on the Imersia platform, a localized, mobile search portal that delivers relevant informative or entertaining content based on the user's location, geo-reality applications will be developed to augment the experience of the environment through real-time 3D graphical content and multi-media visualisation of geo/atmospheric micro-data.

Green My Favela: An Act of Defiance

Lea Rekow
Green My Favela & Rocinha Media School

Located in the dense urban slums of Rio de Janeiro, Green My Favela (GMF) works with favela residents to reclaim chronically degraded land and to create productive, sustainable green space. We work through collaborations with individuals, NGOs, and schools, and partner with the public sector and cultural innovators to remediate neglected and abused land; to cultivate food security; to create environmentally responsible and desirable public space; to problem solve for some of the favela's critical needs; and to skill share with a wide range of participants. This presentation discusses how GMF links creative action to processes that integrate with policy decisions; to form alternative economic models; to physically improve the quality of land and mitigate erosion; to build new organizational networks; and to improve public space. I will also discuss how GMF brings new perspectives and proof-of-concept to many fields, including urban planning, social innovation design, environmental law and ethics, cultural and environmental geography, landscape architecture, and more - and how, through integrated citizen action, GMF provides fresh social and economic templates that can be used to inform practical models that merge innovative public mobilization with top-down policy through cultivating more environmentally responsible land use. In a world where one out of six people currently live in slum conditions, and with an estimated one of three people expected to be living this way by 2050, there is a critical need to build collaborations with the informal sectors of society to improve social space; to build alternative, sustainable economic opportunities; to improve air and soil quality; and to preserve and create green space.

CQUniversity, Saturday June1, 2013, 11.00am-12.30am

Nature and Human Interconnections: Literary Imaginings as Cultural Change

Clare Archer-Lean
University of Sunshine Coast

Susan Carson
Queensland University of Technology

Lesley Hawkes
Queensland University of Technology

This panel will provide three analytical papers presented in a collaborative discussion on literary work as enabler of future insight and change. After all, fiction is not simply an artefact of entertainment or an act of cultural mimesis. Literature can bring about actual changes, philosophically, creatively and practically. The notion of literary works as both presaging and transforming future visions is not limited to utopian genres. This paper concurs with philosopher Umberto Eco's assertion that the act of reading is a productive part of the artistic event; artwork does not stop at the work of the artist but continues into the work of the readers and communities (Eco, 1989). Readers' engagement with literature fulfils a regenerative role within culture; literary language has special properties that can influence the human sense of nature (Bateson 1973, Zapf 2008). This panel uses an ecocritical focus to explore various forms literary potential. Ecocriticism can be defined as "the study of the relationship between literature and the physical environment" (Glotfelty and Fromm 1996, xviii) and, although, ecocritics may take different approaches in their focus, it is this relationship between literature and environment that remains at the centre. This paper focuses on Australian literature, both the artefact and the presentation and reception of that artefact in community culture. It explores community arts events in the Blue Mountains and specific literary works, including but not limited to Sonja Harnett's Forest, Richard Flanagan's Wanting and Alexis Wright's Carpentaria. It will suggest three ways in which Australian literary forms may enliven and augment not just our future engagement but the philosophical, aesthetic and epistemological tools we use to establish that engagement. This engagement will be investigated through three modes: the philosophical, the literary, and the practical.

Green Love: Engaging Young People's Connections to Place Through Arts-Based Learning and Digital Framing

Susan Davis
CQUniversity

With many young people increasingly alienated from the environment, more active and engaging strategies are needed to connect them to place, to

build their knowledge of their local environment and enter into a caring relationship with it.

This approach is supported by the increased focus internationally on sustainability education across all sectors of education (ACARA, 2011; UNESCO Education Section, 2006; United Nations, 2010). The teaching and learning components of many school-based sustainability education programs are often based on fairly traditional models of delivery.

Connection to place is central to environmental and behavioural change that is needed for us to be able to deal with the global eco-crisis that we are facing - changing people involves cultural change and shaping the ways children and young people think and feel about their environment.

Using the arts and digital media invites young people to look and think about things, to observe, to document and express ideas, offering deeply personal but also social ways for expressing and sharing thoughts and feelings.

This paper will outline several projects whereby arts-based strategies have been using for engagement, involvement and learning. Through art-making processes and engaging with creative work we can work with young people to think and learn about where they walk and how, and consider the impact of human actions upon place, her nature and future culture.

Tracking Nature: Deciphering the Core Functions of Environmental Art

Nicolas Bullot
Macquarie University

The paper investigates the significance of environmental art in the context of an increased scientific and technological surveillance of nature. I classify an artefact as a work of environmental art if it is an artistic artefact that addresses environmental themes or issues regardless the medium, style, and advocacy chosen by the artist.

What are the functions that set works of environmental art apart from the functions of scientific enquiry into natural phenomena and environments? How can we identify such functions? I propose a framework that addresses these questions.

In contrast to ahistorical conceptions, I expand historical and psycho-historical theories of artefact functions to explain effects of environmental artworks that are reproduced over history. I identify reproduced effects that tend to cluster together in environmental art: broadcasting and surveillance of environmental facts, emotions-manipulating processes, and reflection-triggering functions.

In contrast to views that assume the axiological neutrality of environmental art, the account predicts that the core functions of environmental arts tend to be tied to normative attitudes.

To illustrate this normativity, I discuss how environmental arts can help us track indicators of environmental crises, and how artists can act as agents of psychological, historical, and political environmental change.

Contemporary Climate Change Art as the Abstract Machine: Ethico-Aesthetics and Future Orientation

Roslyn Taplin
University of New South Wales

The numerous speeches by national leaders and UN heads in recent years at climate negotiation conferences, notably in Copenhagen, Cancun, Durban and most recently in Doha, appear to have achieved little diplomatic progress, with nations and their representatives having differences over the precautionary action needed. Yet warming catastrophic future impacts on the Earth, are predicted by climate scientists with warming of 4 degrees by the 2060s, if emissions reductions are not realised very soon.

As a response to concerns about climate change, there is an emerging and not inconsiderable body of climate change art that addresses future impacts on humans and the natural environment from extreme climatic events including polar melting, drought, heatwaves, bushfires, floods, severe storms, biodiversity impacts and sea level rise together with focus on current political and media discourses on adaptation and mitigation challenges.

The establishment of collaborative visual arts projects, and climate change focused group exhibitions, and the work of individual artists on climate change themes have arisen over the last decade as a cultural response to climate scientists' warnings. Provocations or incitements to artwork production arise from artists' concerns about the barriers to collective global action.

This paper discusses this fusion of visual art and climate science to produce something new to mediate the urgency of this issue. Simon O'Sullivan's conceptual framework in "*From Aesthetics to the Abstract Machine*" is invoked in the discussion of climate change art initiatives such as the Cape Farewell and Tipping Point projects; exhibitions including 'Heat: Art and Climate Change' and 'Rethink: Contemporary Art and Climate Change' and the work of visual artists including Tomas Saraceno, Janet Lawrence, Olaf Eliasson and Jill Orr.

O'Sullivan discusses contemporary art practice in relation to Deleuze's and Guattari's theoretical perspectives. In particular O'Sullivan emphasises

contemporary art's ethico-aesthetics and futures orientation. The concepts and components that he delineates - aesthetics, the production of subjectivity, the minor, the virtual, the event, mythopoesis and the abstract machine – accordingly provide a thought-provoking conceptual framework for analysis of contemporary art practice motivated by climate change.

The question considered is: *can and does climate change art crystallise a different subjectivity within viewers to search within their own thought processes and emotional responses, to summon within them a personal response to the work, and some realisation of future implications of climate predictions and impending impacts, and the intergenerational ethics of inaction?*

Stuck-Unstuck: Moving Through Limitations of the Human Perceptual Field

Zsuzsi Soboslay
BodyEcology

As caretakers of our environment, we have a huge task to accommodate what needs to be considered in our actions and decisions. How do we know what to consider? How do we even know of our omissions?

There is a classical division in Western philosophy (and Western medicine) that distinguishes between 'visible' and 'invisible', 'inside' and 'outside' of our 'selves'.

These distinctions serve some purpose, but run the risk of upholding cruelly dissociative and negligent decision-making and limiting our abilities to respond.
To a certain extent, the blind spot will always be a factor of human perception, due to the structure of our retina. The counter to this limitation, however, is to remain aware of our conceptual limits but keep in mind certain principles: that we can only perceive holistically by constantly adjusting our perspectives, sweeping the field, being on guard for what we have missed; piecing together information over time.

This paper analyses a series of processes and techniques, which can be helpful tools when working in the field of environmental ecology and decision making. It references practices from several different traditions (including shamanic and indigenous) and extracts some core re-cognitions from them. The overall framework -working in respect of all potential contributors or components within the systemic field - is significant and centres on an idea of honouring (the deepest form of bearing witness) the equivalent value of all beings.

There are parallels to draw between the experiential anatomy and spatial awareness a performer draws on to conduct environmental dance, to the considerations of an engineer in constructing a roadway or dam, to the

process of a parks ranger or sheep farmer trying to manage land under their jurisdiction or leasehold. Each practice can be a violation of elements easy to neglect. But equally, it can be a navigation of the best possible decisions/choices made in respect of the systemic field.

The essay will move from a phenomenological consideration of a (performing) body-in-space to considerations of:

- Countermemory and subaltern studies
- The "Law of Mother Earth" legislation passed in Bolivia and its ramifications in our culture
- Biological sciences: Charles Birch, Spinoza's '*hilaritas*'
- Gyorgy Doczi and "*The power of limits*"
- Holistic Management - a farm management principle, devised in South Africa by Alan Savory and centre on the key questions:

1. How do we hear the 'invisible'? - The purpose of sensory integration and working from First Principles
2. Working in landscape: what is speaking to us, and how?
3. History/Her-story/subaltern studies -the principle behind researching alternative histories and seeking out 'countermemory'
4. The use of the Medicine Wheel (and other shamanic practices) in several traditional cultures as a tool used to help redress imbalance (what needs re-membering), on both micro (personal) and macro (transpersonal) levels.

Knowing nature – our thinking betrays us

Daro Montag

Our current environmental crisis appears inevitable, but it is not preordained. Inevitable in that the course of action pursued by Western civilisation leads directly to the collapse of many of the earth's life support systems. Over time this civilisation has spread itself pervasively over the entire planet. At first it was a slow, creeping force that seemed insignificant upon the face of the global biosphere. Indeed for many of its advocates it seemed to bring nothing but goodness labelled as progress (although the same could not be said for its victims). But as time passed and our species developed industrial technology, insatiable consumption and an inability to live within limits, the malignance of this, now dominant, civilisation became a growth with the power to disrupt its host. Despite this, the current situation is not preordained – it didn't have to be this way.

This situation has in part come about because a division has been

established between what is considered human and the rest of nature. Often referred to as a Cartesian split this mental construct has been reinforced by mechanistic and reductionist philosophies. However there are many other conceptual models which could lead civilisation in a different direction, for example complexity and systems theory offer a radically different way of approaching the world. And although the balance does not currently tip in their favour, there is a growing awareness that these theoretical positions offer a potential way out of the mindset that has helped to generate the global crisis.

In this paper I explore one aspect of this emerging paradigm that contradicts the notion that humans are separate from the rest of the biosphere. Whilst it is often assumed that indigenous people around the world are familiar with the idea that everything is connected, it is less appreciated that there is a strand of Western philosophy that holds a similar idea. This line of thought, best defined as 'process thinking', suggests that the world is more correctly understood as being constituted of interrelated events rather than independent entities. Following this position leads us to appreciate the world as a flux of events in which the human is inextricably embedded.

The presentation will briefly examine this philosophical position through the lens of a visual art project that focuses attention on phenomena as process. A mark making strategy is presented which avoids the tendency to objectify the world, by showing not objects, but events. The practice therefore aims to redress an imbalance by contributing to a growing awareness of the human entanglement in nature.

The Currency of Birdsong

Tamsin Kerr
Cooroora Institute

This paper investigates the vital role of artistic and multidisciplinary research for our future nature/future culture through the more-than-human example of the Currency of Birdsong.

The Currency of Birdsong draws together the tools of music (heart), craft (hand), and text (mind) as research components in collaborative partnership with the land and environment of Australia's Sunshine Coast to result in an imagining of nature and specifically of birds, as researchers and artists: their nests, practices, visual and performing arts, as well as suggesting how human political economies might learn from wilder practices drawn from the poetics of nature. It includes craft, artwork, and sound from Cooroora Institute's collaborating and visiting artists that explore material research practices around the ideas of the currency of birdsong.

What if we used wild birdsong as an indicator of success and status? Instead of asking about jobs or money, we might ask of any process: "*yes, but does*

it produce birdsong?" The currency of birdsong would be seasonal, diverse and biogeographic; bird habitats would be more important than banks; value would be tied to the ritual of every day's dawning and twilight; outside life connected to local places.

The paper imagines a world that uses birdsong as an indicator of value, and asks how we might research more collaboratively and live more ecologically with nature using music, art and craft as tools to dis-solve the contemporary problems of Western lifestyles.

Future Cities: Concepts and Case Studies

Tony Fry
Griffith University /QCA

Paul James
RMIT

Eleni Kalantidou
Griffith University/QCA

The form of future cities is uncertain. What is clear is that cities will not remain the same; many existing cities will not survive the environmental challenges of coming decades and centuries. Those that do survive may well dramatically change, while new types of settlement will arrive which will radically alter how the environments are seen, created and occupied. Certainly the current distinction between the urban and the rural will not remain the same. By implication, it is increasingly urgent to think, plan and act toward adaptive and major change. This panel will look at these issues in general and in relation to three case studies; Dili (Timor-Leste); Porto Alegre (Brazil); and Athens (Greece). In general, and in relation to the case studies, there will be lessons of interest to Noosa and the broader Sunshine Coast future planning. Tony Fry is Professor of Design Future, Griffith University/QCA and senior advisor to the Government of Timor- Leste on education and indigenous creative industries; Paul James is Director of the Global Cities Institute (RMIT) and Director of the United Nations Global Compact, Cities Programme, and he is Professor of Globalization in the Globalism Research Centre (RMIT); Dr Eleni Kalantidou is a Senior Research Fellow at Griffith University/QCA and a design psychologist.

Ugandan farmers become filmmakers: Participatory video for managing increasing climate volatility

Julie Arrighi

Graham Walker

How can we help communities in rural Africa understand and address growing climate risks? Perhaps the best way is to help farmers help themselves by giving them tools to access and share information through art-making skills. The American Red Cross and its partners recognize the need to accelerate peer-to-peer learning among vulnerable communities concerning ways to manage the uncertainties of increasing exposure to hazards including tropical cyclones, floods, droughts and other hazards - particularly given climate change. Increasingly affordable communication technologies allow for extending the benefits of knowledge sharing to those who most need it. Audiovisual media, if combined with participatory processes, offers effective ways to raise awareness, scale up capacity building, support community-level planning, and develop innovative approaches to advocacy and institutional partnerships.

In this interactive session we will learn the basics of participatory video - how to help others learn to operate camera equipment, develop a script, shoot, and contribute to the editing process so that they tell their own stories. We will explore a pilot project by the Uganda Red Cross and Partners for Resilience whereby farmers became filmmakers, and made a video to help other farmers understand the climate change risks they are experiencing.

CQUniversity, Saturday June 1, 2013, 1.30pm-3.00pm

Creative Exchanges: Environmental Art as a Catalyst for Dialogue and Change

Lisa Chandler
University of the Sunshine Coast

Claudia Baldwin
University of the Sunshine Coast

Megan Marks
Sunshine Coast Council

For individuals and communities, the challenge of addressing a mounting global ecological crisis, understanding complex issues such as climate change and building a sustainable future can be an overwhelming one. Generating individual and collective action to facilitate change requires meaningful communication and a shared sense of values and direction, so what role can artists play in such processes?

Creative practitioners possess astute communication and innovative thinking skills which can be applied to the dissemination of environmental information in imaginative ways. Additionally, artists' capacity to elicit emotional responses, present fresh perspectives and circumvent habitual ways of seeing can stimulate behavioural changes that support sustainable living. By employing open rather than didactic forms of communication and by engendering aesthetic or challenging experiences, artists open a space of questioning between the work and the participant/viewer.

Increasingly, much eco-art practice is focusing less on a singular art object and more on process, including the processes of communication that the work catalyses through audience engagement and the 'dialogical exchange' that it fosters. Through such participatory and dialogical practices, artists can produce works which connect people with what they value within the environment and why they might choose to enact sustainable practices.

This paper explores such processes of dialogical exchange in the context of the biennial, site-specific environmental art event *Floating Land* which, by '*merging arts and culture with science and the environment … aims to contribute to positive global change through education and conversations*'. Examples are employed to consider, on a broader level, how artists and events such as *Floating Land* communicate about environmental issues and how they facilitate dialogical processes which foster reflection on environmental values and operate as catalysts for change.

The Courage of Art: The Journey Through Shame and Vulnerability to Creativity

Maya Ward

There is a fascinating and growing understanding of how the brain works, gleaned through neuroscience, mindfulness research, and innovative psychologies such as process psychology. There are also innovative and inspiring areas of social research that are being shaped as empowering technologies of resilience and adaptation. *Brené* Brown, research professor of social work at the University of Houston, whose TED talk unexpectedly went viral, states in her talk that; 'Vulnerability is the birthplace of creativity, innovation and change.' It seems a message people are interested in hearing, and it is one I feel is key to both art and activism. Effective activism seems to rely on personal stories, courageously told, that generate empathy and understanding.

This presentation will be a bridge between my past work and my current PhD research into creativity and change at LaTrobe University, as I deconstruct the process of writing my memoir of environmental activism, *The Comfort of Water: A River Pilgrimage*. I aim to make explicit the process of working through shame and the fear of vulnerability to find the passion and courage for transformative art. My desire is to offer a humble provocation to other artists. It is also to make a stand for the role of thoughtful vulnerability in all professions, as a tool to assist us make the profound changes these times demand. I am interested in how rarely artists seem to share this experience, almost as if creativity were afraid to expose its own power source. Louise DeSalvo in *Writing as a Way of Healing* writes that 'Trauma acts as a strong stimulus to the imagination, as the distressed person tries to replace what has been lost or to restore what has been damaged. Creativity, then, seems a basic human response to trauma.'

The Comfort of Water is the story of my three-week walking pilgrimage along the Yarra River from the sea to the source, through city, forest, and farmland, following an ancient Songline. But to write the story of this wonderful adventure, the most powerful, enchanted experience of my life, was an often harrowing battle to become aware of and integrate the lessons of shame. There was shame of our history and the outplay of that history in how we live now, shame for the destruction of wild places and indigenous cultures. As I ventured further into my process, I also discovered shame for having a strong, passionate love for the earth; shame, perhaps, of my own wild nature. Shame disconnected me from my own depth and from the possibility of transformation, and held up the writing for many years. It was only through embracing my vulnerability and finding the courage to tell the depth of the story that I could finish the work. This process revealed to me an understanding of the nature of art that could reveal me to myself, and touch the hearts of others.

Towards Ecological Autarky

Michel van Dartel
Hanze University of Applied Science / V2_ Institute for the Unstable Media

Anne Nigten
Hanze University of Applied Science/The Patchingzone

Today's ecological threats call for far-reaching changes in the way we live. To achieve such far-reaching changes however, they first need to be envisioned. Art plays a crucial role in such imagination of how we could, should, or should not deal with ecological threats. Art therefore serves as an important catalyst to awareness with respect to ecological issues.

This paper will assess the role of art as a catalyst in climate awareness by analysing several artistic scenarios that (directly or indirectly) deal with climate issues. It will especially focus on artistic scenarios that call for increased levels of self-sufficiency with respect to existing infrastructures and systems, such as art projects that propose alternative energy infrastructures (such as the mobile architecture projects *Walking House* by artist collective N55 or *The Blind Painters' World* in a Shell project), reflect on agricultural systems (such as Christien Meindertsma's *PIG 05049*, Sjef Meijman's *Chicken Tractor* project, or Claudy Jongstra's textile projects), or question consumer economy (such as in Thomas Twaites' *The Toaster Project)*.

Certainly, science and philosophy also propose scenarios that call for far-reaching changes to cope with ecological threats. Some of those scenarios even also advocate increased levels of self-sufficiency. The more radical their proposals are however, the less chance there seems to be that they will lead to concrete experimentation or implementation. In contrast, in the context of art, radical ideas are never merely conceptualised, but always put to practice through art objects, installations, performances, or interventions, that serve as proof of concepts for micro-ecosystems or as conversation starters. While doing so, art dealing with climate issues often helps establishing constructive dialogue and knowledge exchange between artists, engineers, scientists, scholars, and the general audience, as the artistic scenarios discussed in this paper will illustrate.

To put the artistic strategies assessed in this paper into context, the strategies will be discussed in the light of an existing body of theoretical work that proposes increased levels of self-sufficiency as a solution to ecological threats. In this discussion, historic forms of autarkic living are considered an important reference in thinking about the future in the light of climate issues. The paper combines the above-mentioned artistic research and theoretical work to sketch the contours of a new, 21st century, version of autarky: An ecological autarky, in which individuals live 'autonomous' with respect to existing agricultural systems and water and energy infrastructures.

Transcending the Disciplines. Teaching for the UC Davis Art Science Fusion Program.

Anna Davidson
University of California Davis Art Science Fusion Program

Multidisciplinary education programs that fuse the arts and sciences are necessary for today's generations of learners who are faced with complex global issues including climate change, cultural extinction and environmental destruction. These challenges are overwhelming and difficult to dissect. To mentally navigate such important topics, one must possess the ability to link concepts from an array of disciplines to create a clear thought process that questions and criticises.

We must be able to think creatively, invent new approaches for solving problems, and collaborate with others. These learning techniques need to be present in the classroom.

Fortunately, a movement is happening that transverses the disciplines of art and science, creating an intellectual borderland where their shared creativity and pursuit of discovery is united. The UC Davis Art Science Fusion program is at the forefront of this movement empowering students to synthesize big ideas, become creative thinkers, and to be mindful of the fragility of our environment while intrigued by the species that inhabit it.

This undergraduate program includes classes fusing art with entomology; photography with physics; and environment with song. The program emphasises experiential learning: taking lessons from science and creating works of art.

Zombie Environmentalism and Cyclonic Change

Perdita Phillips
Perdita Phillips Contemporary Artist

A recent trend in twenty-first century relations with the natural world has been a 'darkening' in the tone of debate. The popularity of the zombie as a cultural symbol points towards our apparent attraction to the 'dark side' where polluted environmental conditions make for 'sexy' contemporary art.

Disengagement with the consequences of individual or collective behaviours can be seen both within and outside of environmentally conscious thought. To counter this tendency of retreating from disaster and 'battening down the hatches,' I mobilise resilience, complexity and contingency in my visual arts practice.

In February 2013 I completed a solo project called *fast:slow:complex* that brings together waste and wastelands, disaster and recovery. Drawing from process-based and socially engaged art practice, specific parallels between personal and societal consumption are linked by combining exploration of the urban wild of abandoned lands near the artist's home, with a personal reassessment of the deluge of things central to modern consumer lifestyles.

A central visual motif in this project is the tropical cyclone as a natural and devastating force and as something that is changing its character as part of global warming. The critical question under consideration is, within the shadow of critical environmental conditions, whether destructive change can lead to productive developments. The paper invites an aesthetics of action in the face of the inevitable uncertainties inherent in an ecological worldview.

The Agricultural Vernacular: Technological Appropriation for Adaption in Complex Agroecosystems

David Burraston

The Agricultural Vernacular is an experimental approach at technological appropriation of agricultural based objects for art and science, with particular emphasis on climate change issues and agriculture. Agroecosystems are subsets of conventional ecosystems where human activity through agriculture is at the core, but the area of interest also encompasses the region impacted by this activity, the complexity of its species, energy flows and nutrient balance.

Vernacular engineering and technological appropriation has a long history, especially in agricultural contexts such as adapting car engines for mechanised farm work. However, it is now recognised that modern technology is undermining user agency, limiting its own use, and removing the ability of users to repurpose their own objects and tools.

Complex systems are suggested to possess unintended consequences such as hidden fragility, where a system has a vulnerability that results in unexpected failure. A reduction in the adaptive capacity of vernacular engineering and technological appropriation may have the potential for increasing hidden fragility within agricultural and associated ecological systems.

Endangered Sounds: An Acoustic History of Brunswick

Anthony Magen
Australian Forum for Acoustic Ecology

The purpose of Endangered Sounds: An Acoustic History of Brunswick is to record the current cultural and the physical landscape of Brunswick utilising oral history and spatial acoustic information.

Due to Planning Zoning changes in Brunswick, the impending increased density of residential development will displace the current industry/people. This project has required personal engagement with these endangered buildings including through the owners and workers within, giving a voice to the people who have often spent their entire lives living and working in Brunswick, before they are rendered silent.

This local knowledge and the relationship to the golden era of Australian industrialisation particularly clothing manufacture centred in Brunswick for decades, provides a strong sense of place for those people and future generations about where they live.

Understanding the poetic palimpsest of ephemeral acoustic space allows a deeper cultural connection to place. The recordings collected include oral history interviews with key personal/owners, recordings of the buildings and the machines using stereo and ambisonic recording techniques, detailed contact mic recordings of the machines and locative recordings from street locations. Detailed metadata with all publicly accessible recordings will form a rich and broad aural perspective of the local landscape at a visceral and academic level.

Finally, utilising current technologies to disseminate this information is critical to this project. Augmented Reality (AR) is now accessible using mobile hardware devices and accessing geo-locative information is becoming commonplace.

The recordings are incorporated into a Layar where information resides in the very location they were recorded and are accessed from mobile devices within a specified proximity, as well as through familiar online repositories such as a dedicated website and through the National Library of Australia.

Sonic Archeology: An Approach to Sound Art and Composition. Enquiries and Methods.

Susan Frykberg
AFAE (Australian Forum for Acoustic Ecology)

I have recently begun thinking about what it means to do Sonic Archeology. By this I mean, can we get a sense of the history of place through a 'history' of its soundscapes? Immediately, we ask the question - *whose history?* Followed quickly by the question *what is an historical sound object and how do we access it?* The final question asks, *having acquired these sonic objects by one means or another, how do we present them for others to experience?*

In traditional archeology, we dig up objects buried in the ground - going down layer by layer till we get to what is called pre-history. Sometimes we get complete objects but mostly fragments. We recreate whole objects from fragments through the knowledge we have of them from other sources. These objects are then presented, mainly in museums, for the general public to experience.

In Sonic Archeology however, we only have actual objects (archival recorded sounds) from the last 100 years or so. Other sounds must be either recreated from written or other historical material, or imagined, under guidelines. One asks, *what would these guidelines be, and are there particular methodologies from other disciplines appropriate to this area of investigation?* The final question is the issue of presentation: *How do we present our archival, recreated or imagined sonic objects from the past in a meaningful way?*

Museology, the study of how one gives contemporary people access to the past, is a highly advanced discipline, deeply concerned with issues of historical bias, veracity, clarity, presentation, aesthetics and experience. What can we learn from that discipline in this new area of Sonic Archeology?

A Love for Nature, A Love for Sound: A cross-section of approaches to integrating fieldwork and art making by New Zealand Sonic Artists

John Coulter

Since the broadcast of Douglas Lilburn's The Return in 1965, strong connections have been identified between New Zealand's natural heritage and the establishment of a national identity in New Zealand composition. In the intervening 5 decades a large body of expert domain literature and repertoire has been produced exploring facets of this complex relationship. More recently, a growing number of composers and sonic artists appear to be engaging directly with the natural environment as an integrated component of their creative practices. This study presents a cross section of the work of 12 prominent New Zealand Sonic Artists, and their approaches to integrating fieldwork and art making. Techniques of engagement are often dynamic, and frequently involve a number of simultaneous modi operandi including: ambisonic field recording, zoned field recording, microphone and software improvisation in the field, the use of gestural controllers in the field, instrumental improvisation in the field, taonga puoro (traditional Maori instrument) making and playing, site-specific works and installations, multichannel sonic imaging in the field and in the studio, and diverse methods of presenting work in more traditional settings such as in live performance, and through audiovisual media. The study adopts a process of collation, differentiation and comparison of individual approaches with the expectation of identifying a grouping of unified, shared, or central pioetic concerns. For example, the use of cutting-edge technology appears to be common, as does the universal listening attitude sometimes described as 'acoulogie' - 'the study of sounds in terms of their musical potential' (paraphrased from Landy's 2008 definition). The survey also seeks to identify a series of more general social concerns related to issues of holistic living, conservation, and sustainability. An anticipated outcome of the project is the production of a detailed report relating to the intersection of two remote paradigms: a shared respect for nature (shared by those surveyed) and Sonic Arts practice in New Zealand. This information is expected to be relevant to both sonic and visual artists alike, and it is hoped that it may further serve as a means of contemplating more robust strategies between the day-to-day concerns of art making and the responsibilities all artists share in caring for the natural environment.

Long Time, No See?

Linda Carroli

Keith Armstrong

Gavin Sade

Robert Henderson

Long Time, No See? is an interactive and generative art project, funded by the Australia Council's Broadband Arts Initiative, involving an interdisciplinary and collaborative team of artists, designers, scientists and urban practitioners. The project addresses the pressing need for futuring and 'making time' in the face of the crisis and ruin wrought by the storm of progress. It invites communities to participate in creating the future by visioning and imagining the long term future. In this panel discussion project team members will address the value of interdisciplinary and collaborative processes in socially engaged arts practice for addressing complex environmental and cultural issues.

Panel: Water Ecologies & Interdisciplinary Online Networks

Suzon Fuks, James Cunningham, Irina Novarese, Mary Gardner, West D.L. Marrin, Eklavya Prasad, Christine Destrempes

This panel will combine panelists and audience on site and online on WATERWHEEL's interactive interface The Tap (videoconferencing & media mixing system) http://water-wheel.net/tap - Presenters & online audience will meet on a dedicated webpage, which will become live on the day at the designated time, and projected in the conference room.

The panel will illustrate & discuss:

• How the theme of WATER gives entry points for exchange and contribution from a variety of people and with various levels of engagement
• How artists, scientists, and activists dedicated to and inspired by water, along with those simply curious, are sharing creativity and knowledge across cultures, disciplines and generations
• Looking at case models from events already produced on various internet platforms, the presenters will highlight successes, tips, future possibilities, unexpected outcomes and protocols of inclusivity

Panel facilitator: Suzon Fuks, initiator and co-founder of WATERWHEEL. Intermedia artist, choreographer and director exploring the integration and interaction of body and moving image through performance, screen,

installation and online work, she was an Australia Council for the Arts Fellow from 2009–2012, Copeland Fellow & Associate Researcher at the Five Colleges, Massachusetts, for the second semester of 2012. Suzon is co-artistic director of Igneous since 1997, and coordinates projects on WATERWHEEL, a collaborative online venue for streaming, mixing and sharing media & ideas about water. It is free and open to everyone for the awareness, celebration, care & accessibility of water everywhere. http://water-wheel.net

Go-between (online co-ordinator): James Cunningham

PANEL MEMBERS
Hydromemories - Irina Novarese (Berlin, Germany) is a visual artist (mostly with installations) who studied Painting in Italy, and got a Master of 'Art in Context' from the University of the Arts, Berlin in 2008. Since 2006 she organises and curates Hydromemories, an interdisciplinary artistic project on the theme of water resources . The project is as a kind of laboratory of images bringing together international artists who share the idea that art can inform and support communities who live with clean water difficulties by supporting concretely the work of Engineers without Borders, as well as other NGO's working on water resources. http://www.hydromemories.com

Tangle of Life - Mary Gardner (Byron Bay, Australia) is a biologist and writer, presently undertaking a PhD on historical marine ecology of the Byron/Tweed East Marine Bioregion. She has over twenty years experience in community-based science work in both Aotearoa/New Zealand and Australia. Since 2007, she writes regularly to the regional independent newspaper Byron Shire Echo as well as on her website TANGLE OF LIFE, which was one of the Australian sites selected by the UN for the International Year of Biodiversity 2010. Gardner will talk about her readership: http://ww.tangleoflife.org

Water Sciences & Insights - DL 'West' Marrin, Ph.D. (San Diego, CA - USA) is an applied scientist, educator, and founder of Water Sciences & Insights, which portrays water in diverse ways and assists various groups with water-related projects. Author of three books and a wide range of scientific papers, he is an Adjunct Professor at San Diego State University and a Principal of two firms focusing on science communication and water chemistry. West works with artists and musicians for the purposes of [1] using artistic portrayals to describe or investigate nature, [2] incorporating scientific insights into artistic works that reach people in innovative ways, and [3] developing a common language (pattern-based) to enhance communication between scientific and artistic disciplines. http://www.watersciences.org

Cloud's Water Campaign - Eklavya Prasad (New Delhi, India) is a social worker, artists photographer and managing trustee of Megh Pyne Abhiyan (Cloud's Water Campaign), a Public Charitable Trust committed towards behavioural change amongst the rural communities to effectively revive,

innovate and institutionalize water and sanitation management practices and mainstream issues concerning floods through collective accountability and action. MPA works through a network of grassroots organizations, social development professionals and resource institutions/individuals in five flood prone districts (Supaul, Saharsa, Khagaria, Madhubani, and Pashchim Champaran) of north Bihar, India. http://meghpyneabhiyan.wordpress.com

Art for Water - Christine Destrempes (Keene, MA-USA) is designer, illustrator, director and founder of Art for Water, an initiative to raise awareness of the shrinking availability of clean water through the creation of monumental, public-participation art installations. She engages people of all ages as activists through creative self-expression as a path to social change, fosters stewardship of our most precious natural resource, and inspires advocacy for those living without basic needs. She will take 'Stream of Conscience' site-specific installation to illustrate her talk. http://artforwater.org

CQUniversity, Sunday June2, 2013, 9.00am-10.30am

Virtuality and Nature's Digital Spectre

Debra Livingston
University of the Sunshine Coast

The author's studio practice is concerned with strategies to facilitate innovative modes of seeing to increase awareness of human impact on nature.

The conceptual ideas for the work evolved through exploration into how we see images through photographic and cinematic frameworks that represents our world in general. The article considers how this shapes our vision of the world—importantly how we use aesthetics in 'new' media—and how technological advancements present the simulated image in the virtual environment.

The creative work uses photography as the medium. First, to explore the effectiveness of the cyber-hologram which to simulate a virtual experience relating to human transformation of nature-scapes and nature's resilience to technology.

Second, to explore the distinction between artificial modes of viewing nature and seeing the natural world. Third, the author's images act as metaphors to illustrate the changes in our perceptions of nature by positioning the everyday flower into the future echoing a past ecology as a distant memory, reflecting back via a virtual mirror image, a post eco-apocalyptic view of global warming and changed natural systems.

Virtual space is increasingly changing the way we view images, creating a fundamental ontological shift in our visual constructions of what we call reality. Virtual spaces have the ability to transport the viewer/user into a totally self-contained 'other' world that requires no reference to actuality.

The images here, present the importance to what Jung (1964) suggests is for the *'ecologisation of technology'*, relating to the need for a balance with nature and our industrialised world.

Interactive Data driven Public Art

Todd Ingalls

Mary Bates Neubauer

This paper explores recent work by Neubauer/Ingalls that combines interactive public artworks with the development of conceptually sophisticated sculptural and virtual surfaces containing embedded numerical data as texture. The goal of these projects is to enhance urban public spaces while revealing important underlying cycles of power usage, water flow, traffic density, resource consumption, and larger global cycles. The works also seek to create spaces for social interaction and play in what are otherwise places that people pass by unnoticed.

The collaborators seek to develop n new generation of sophisticated public art projects addressing the translation of numerical data streams into a series of two and three-dimensional display formats for interior and exterior sites. The creation of original, aesthetically-driven methods to display data that is normally inaccessible aids in a wider understanding of the complex attributes of large natural and human-made systems. Statistical information, interpreted in ways that are aesthetically challenging, can produce lively, appealing, understandable models.

Continuing development of computer programming, open-source technologies, and web-based libraries will allow direct visual translation and three-dimensional realization of data streams through insertion of plastic capabilities and an increased capacity to apply numerical 'noise' to designed surfaces in real time. The collaborators' approach to visualizing long streams of numbers has significance for its implications for wider public perception of long-term global and urban patterns.

Echology: Making Sense of Data - reflections on ecologies of partnership
Jodi Newcombe

The Echology: Making Sense of Data initiative seeks to break new ground in arts practice by asking artists to innovate with respect to a) the possible forms of data representation in public art and b) the artist's role in engaging publics on environmental sustainability in new urban developments. Initiated by ANAT and Carbon Arts in 2011, Echology has seen three artists selected by National competition in 2012 for Lend Lease sites across Australia. In 2013 commissioning of one of these works, the Mussel Choir by Natalie Jeremijenko, began in Melbourne's Victoria Harbour development. This emerging practice of data-driven and environmentally engaged public artwork presents multiple challenges to established systems of public arts production and management, at the same time as offering up new avenues for artists to forge new modes of collaboration. The experience of

Echology and in particular, the Mussel Choir is examined here to reveal opportunities for expansion of this practice through identification of the factors that lead to a resilient 'ecology of partnership' between stakeholders that include science and technology researchers, education providers, city administrators, and urban developers.

World-Wide-Walks: Global Coastlines in the Age of Climate Change

Peter D'Agostino
Temple University

David Tafler
Muhlenberg College

This paper focuses on a series of World-Wide-Walks projects from the 1970s to the present that form a theoretical model for techno / natural interfacing. The inquiry extends our work on The Techno/Cultural Interface: tracking the boundaries of high-tech and traditional cultures published in Media Information Australia, August 1993.

Originally based on ‘dialogues’ and ‘metalogues’ inspired by Gregory Bateson’s concepts of mind and nature as ‘sacred and necessary unities', the techno/cultural ideas evolved over the next two decades from theories of interfacing, identities, and consciousness to techno/natural concepts.

The World-Wide-Walks documentation/performances explore ‘natural/cultural/virtual identities’ mediated by video/web/GPS tools, contextually framed between earth & sky and between earth & water. Conflating technology within the "natural" order marks a key challenge in this age of global warming and man-made climate change. To address this challenge we produced World-Wide-Walks between earth & sky/Donegal, a Leonardo/Art & Climate Change project in Ireland.

By navigating an art/science interchange of ecological concerns through video walks, and by accessing satellite data including the World Meteorological Organization’s real-time World Weather Watch (WWW) program, this paper examines issues related to coastlines that are now and will continue to experience unprecedented extreme weather events. Peter d'Agostino's World-Wide-Walks/between earth & water projects, performed on five continents, included coastlines in the U.S., in Venice and along Australia’s Sunshine Coast that have had recent experiences in the ravages of weather related calamities.

On the New York and New Jersey coasts, Hurricane Sandy swept ocean surf and river water onto residential communities, across parts of the financial district, and into subterranean transportation and electronic systems. As recently as 2012, Venice has experienced increasing episodes of flooding, and has at times dealt with droughts that expose and rot the wooden beams upon which the city rests. Over the three-year period from 2010

through early 2012, Queensland has suffered from "hundred year" river flooding events that have claimed lives and destroyed property.

The unique hi-tech mobile gates project for Venice, the MOSE (MOdulo Sperimentale Elettromeccanico, Experimental Electromechanical Module) will allegedly provide some protection for this historic city after 2014. However, most low-lying coastal regions across the globe must rely on a better understanding of wetlands and other natural strategies to combat the continually rising sea levels caused by the main global warming pollutant: carbon dioxide. (In 2012, the Earth's C02 level reached 395ppm, 400 in the Arctic, exceeding the highest safe level mark of 350 set by environmental scientists several years ago as reported by NOAA's global monitoring lab.)

These comparative events across the globe provide our current research with compelling evidence of escalating climate changes. The World-Wide-Walks, along the coastlines and their river environments, explore the referential points between technology, science, nature, culture; the shared relationship between the arts and sciences, addressing the 'glocal' issues of global and local communities, the consciousness, insight, policy, and behaviour, necessary for working toward a sustainable future.

The Importance of Perception to Environmentalism

Louise Fowler-Smith
College of Fine Arts, UNSW

In the book '*Landscape into Art'* Kenneth Clark states, *'It is generally true that all changes or expansions of popular taste have their origins in the vision of some great artist or group of artists, which sometimes gradually, sometimes rapidly & always unconsciously, is accepted by the uninterested man.* The importance of perception and cognition are integral to my research.

This paper explores modes of perception from a cross-cultural perspective and shows instances where a changed perception of the natural environment can influence the overall protection of that same environment.

How we perceive and contemplate the land affects how we treat the land, and ultimately how we live on it. We are less likely to honour and respect the land if we see it as separate from ourselves. This perception remains pertinent irrespective of how the land is ideologically managed across cultural divides.

And the Stones Would Cry Out ... an Analysis of a Site Specific Transdisciplinary Project Held on the Historic Site at St. Helena Island, off the Coast of Queensland

Kim Cunio
Griffith University

Patricia Hoffie
Griffith University

This paper draws from our transdisciplinary project ...*and the stones would cry out* held on St. Helena Island in 2012.

One of the aims of this project was to work in a transdisciplinary, collaborative, interactive way with a number of organisations and institutions: from Griffith University, key researchers from the Film School, the Conservatorium and the College of Art; members of the Environmental Protection Agency, Queensland and key social historian to the island, Lauren Penny - in order to harness key historical aspects of the former prisons site (now a national park). This process allowed us a way of reflecting on current social, cultural and environmental concerns within contemporary Australia through a one-night performance/installation event followed by an immersive film and CD.

Part of the rationale of the project was to make as much of the music and art within the space, performances were captured where possible with mobile equipment in a completely live and unedited manner. Music was led by Kim Cunio but included many of Queensland's finest musicians, selected for an ability to respond to external conditions in real time. Many of the responses were improvised or composed to the spaces of the island itself. For visuals, a similar process was undertaken; concepts were garnered from time spent on the island, which were then rendered at Griffith University by staff and students, before returning to the Island itself.

A brief background context to the event: St. Helena Island has always been a place where local Indigenous people would paddle to hunt for dugongs. A demand for dugong oil as a medicinal cure-all generated a small industry there, until 1867 when the St Helena Penal Establishment was created as a high security prison. The strict discipline, fertile soil and kind climate created a model prison system that used the Island's resources to full benefit.

Prison stones were hewn from the strange, friable shell-and-sandstone blocks from the island itself and mortared with lime produced by burning coral. These stones still remain, bearing traces of the seabed in which they once lay and of the work of men who fashioned them into the walls of their own incarceration. This prison Island was home to individuals from places far and wide – immigrants from all over Europe worked alongside Indigenous inmates, South Sea Islanders and Chinese.

This event celebrates aspects of the island's history – its ecosystem, its Indigenous past and present, the way its history provides clues of energetic inventiveness as well as of longing and regret. The Island was a temporary home to men who were forced to live their lives in isolation. The performance follows a track around the island to trace some of those aspects of the past that continue as presences that haunt the present.

This paper will draw from the experience and utilise the conference participants as another iteration of the ongoing process of immersive storytelling. It will comprise live sound, projections and performance.

Precarious and Poetic Interpretations of the Anthropocene: Return to Nature Through Beer Cans, Bottles and Fireworks

Sarah Pirrie
Charles Darwin University

This area of research seeks to address concepts of Nature by examining local norms and forms in a Top End Australian community. The examination of coastal refuse becomes a creative exercise, exploring Nature as envisioned in the Anthropocene era. Using predictive observations to explore local engagement with the environment, this paper examines the complexities of the Human/Nature nexus and explores through multiple philosophical schemas, creativity and disturbance as interrelated processes.

Defining Nature today is a complex pursuit involving codes of behaviour assigned to different modalities; a multiplicity of thresholds including economic, social and cultural mechanisms and imperatives. These in turn are witnessed through a multiplicity of viewpoints including classical mimetic view, the positivist view, the critical criminology perspective and the poststructuralist Naturing position. All posit different relationships with our environment casting doubt on an authentic 'Return to Nature'.

The various interventions and gallery installations discussed in this paper address the immediate environmental effects and affects of public and private outdoor actions of a coastal community. Working directly with anthropogenic found objects such as discarded drink bottles, burnt-out fireworks casings and abandoned cars facilitates an exploration of how contemporary communities resonate with their environment.

Hug@ree – An ARTiVIS Experience for Sustainability

Mónica Mendes
Faculdade de Belas-Artes da Universidade de Lisboa and CIEBA

Pedro Ângelo
Audiência Zero

Nuno Correia
Faculdade de Ciências e Tecnologia da Universidade Nova de Lisboa and CITI

A healthy relationship between the evolving human nature and the changing natural world demands the need to iteratively rethink concepts and communication models through the exploration of new forms of expression and emerging technologies. Concerned with climate change, especially in what relates to forests and their preservation, in this research we are addressing artistic, scientific and technological aspects of this challenging theme.

Assuming a role towards environmental sustainability, we created the Hug@ree interactive experience, which encompasses two distinct moments. In an outdoor space, a real tree instrumented with a microcontroller and sensors detects participants' hugs and transmits a video loop of each hug to a real-time video interactive tangible interface or projection. Then, participants place the video loop of their own hug on the real-time video tree foliage, becoming leaves of a collective experience. Multiple Hug@ree installations around the world will upload their leaves to an online platform, creating a global shared embrace of nature.

So far, the Hug@ree installation has been presented in several contexts and venues: Pop Up in Lisbon, AZ hackmeet in Porto, TEI'11 in Madeira, Sci|Art Summer school in Los Angeles, Artropocode in Santiago de Compostela, and Summer in Maçal do Chão.

Hug@ree is part of ARTiVIS – Arts, Real-Time Video and Interactivity for Sustainability – a research project that explores the use of real-time video for forest protection. Through this installation, we seek to bring people closer to forests, while at the same time promote care and respect for nature and empower communities to better protect their natural resources.

For the Balance-Unbalance International Conference, we submitted Hug@ree as three proposals that independently highlight different aspects of the project that are of interest to conference participants. We will be presenting a paper (describing the research framework, technical implementation and user experience results), a live interactive installation to be set up at the conference venue and a virtual project enabling online participants to add their own hug to the virtual world of hugs already collected by previous presentations of the installation.

This paper aims to reflect and present in detail the concept, related work, technical description and interaction design, user interface and experience design, development iterations, exhibition history, evaluation and future work.
The mediated interaction in Hug@ree provides contact with nature through technology. From our interviews of local populations, observation of participants and tests during the installations experiences, and their feedback, we infer that the interactions are leading to communities' awareness and empowerment – ultimately, for a more sustainable environment.

Balance-Unbalance International Conference is a privileged venue to present this project and to expand the network of this multidisciplinary exploration into the Australian continent.

Manifiesto

Andrea Varela, Natalia Pajariño, Marina Vila, Patricia Saenz, Sebastian Escudero, Leandro Nicolosi, Pedro Cuevas

Molds textile, cartographic maps, electronic circuits have in common the power to determine a direction for a model to work. this graphic material indicate where the machine must pass, the tool, the body, electricity and electronics: the vital space and human creation. It is designed to be toured in a particular way and within these margins is experienced pleasure of working. Without realizing it, many of our experiences are highlighted by thin dotted lines. The mitogramas - drawings and geometric signs that represent the worldview of indigenous peoples, and sky maps symbolize the ancient of the world and its movements. They also describe routes, mark positions, attest to the pace of life. The geometry also find it useful to name, print, testimony. This confluence of symbolic manifestations created by man produces a new map that awakens thoughts and inspiration. On that crossing of languages we open our research networks to reach the essence of a production that is expressed in various artistic disciplines as heuristic strategy. A process that always throws different exhibition instances of the same subject displayed by various artistic viewpoints. The substance that embodies these ideas arises from materials obtained from WEEE and discards and industrial textiles. Technological Art that works semantically on technological obsolescence. To transit that journey, in this instance we created fabrics Accelerator Mass (ATM) and its product: the biotexina - living weave crossed by magnetism, electronics, light - that reproduces the web of life that binds humanity to Earth, space, stellar motion. This metaphor allows us to look into the relationship with those who live the piece and nourish their future developments from that conversation. The working procedure reflects that other map that allows rewriting addresses, models, routes, tracks, stories, testimonies back into the helicoidal described.

In this paper, we will explain the artistic research process in which, through theoretical and plastic work, we generated an artwork that offers a new vision about the relationship between man, nature and technology.

This vision sees a man created by nature, and a man-made machine able to generate nature. Thus establishing a fabric of relationships that blurs edges and abolishes hierarchies.

Designing the Future: Sustainable Design and Biomimicry

Stephen Guthrie, Lindy Atkin (BarkLab) with Professor Tony Fry

Bark Lab's 'Growth' project is a green art installation piece designed for Floating Land 2013. Through loosely connected sculptural constructs, 'Growth' is about orchestrating an experience for a way of viewing the landscape and a heightened awareness of the characteristics that create Place. This panel involves BarkLab directors Stephen Guthrie and Lindy Atkin in conversation with Professor Tony Fry about the creative development of 'Growth' and the process of interdisciplinary collaborations.

Green Art in the Noosa Biosphere Reserve

Judy Barrass, Lenni Semmelink, Tamara Kirby, Corrie Wright

Green Art refers to any creative project which expresses, documents and/or responds to the natural environment. Throughout history people from all cultures have practiced Green Art, creatively expressing and documenting their connection to place in painting, song, sculpture, dance and story. Over the last several decades, Green Art has emerged globally as a prolific and compelling contemporary social and art movement. This panel involves a series of short presentations from local green artists working in the Noosa Biosphere Reserve for Floating Land 2013. The artists will each discuss the creative development of their projects followed by a Q&A about their practice.

The Arts/Science Interface

David Burraston, Sarah Last

Rainwire is a long-term project exploring rain events and our intercultural dialogues with this natural phenomenon as a means to better understand rainfall and societies' relationship with water. The long-term goal is to develop an acoustic rain gauge using a unique landscape scale long wire instrument, a form of giant Aeolian Harp. In its current form Rainwire is realised through the sounds of rainfall falling on long wire instruments as a medium for creative investigation. Long wire instruments have foundations in sculpture, land art, complex systems science and music composition, as well as many historical precursors. David Burraston is an artist-scientist exploring investigations of complex systems and the natural world. Sarah Last is an artist-curator working in regional/rural contexts with landscape scale projects which incorporate communities, live arts, old/new media and the arts of sound. Presented at Floating Land 2013, this project highlights the possible value of Biosphere Reserves as a platform to facilitate innovative arts/science collaborations that can enable communities to better understand the environmental through interdisciplinary collaborations.

Environmental response

Ian Clothier, Elinor Nina Czegledy, Trudy Lane

Solar Circuit Aotearoa New Zealand (SCANZ) followed Solar Circuit in Tasmania, with both events calling on the heritage of Polar Circuit events. Since the first SCANZ in 2006, there have been events in 2009, 2011, 2013 and one in 2015 is planned.

Each SCANZ consisted of a residency, a symposium of some kind, and either exhibitions or public workshops. SCANZ 2006 was themed as Environmental Response; 2009 was Raranga tangata: the weaving together of people; 2011 was Eco sapiens and 2013 was 3rd nature.

Over this period there have been considerable developments in thinking and approach. This panel discusses the SCANZ projects, tracing the involvement of Maori through the SCANZ residencies - from guests in 2006 to symposium partners in 2013; and science - from external to the project to part of the exhibition and process.

CQUniversity, Sunday June2, 2013, 11.00am-12.30am

Music for the Banal, the Obvious, the Everyday - The Interrogation of the Object; an Eco-acoustic Investigation

Vanessa Tomlinson
Griffith University

There are two parts to my practice which sits broadly under the title *Music for the Banal, the Obvious, the Everyday* and both are centred around the idea of expanding our capacity to listen – honing in on what we can hear. Hearing is an unconscious act, but to listen and cognise sound is an extremely active process, difficult in a world already saturated with so many layers of sound.

The first part of my practice is to learn to listen to my immediate environment, discerning layers of sound, the presence of sound, and listening to the effort taken to make a sound. This process takes place through sound diaries, meditation, deep listening. And preferably it takes place over hours, days and weeks in the same environment until I can hear the changing seasons, the days of the week, the times of day, the weather. Within this listening a few things have become clear:

It is virtually impossible to escape the ubiquitous sound of traffic as it permeates even the most rural settings as a drone, extreme bushland as a punctuated event, and the city as an unavoidable hum

The sound of wind is extraordinary as heard through every different tree (the clapping trees/poplars of Western Queensland are a favourite), through each architectural framework, and as it passes by ones own ears

The environment is not tentative about sound. A Galah flying overhead is not self-conscious about the peaceful environment in which it squawks, nor is the tractor or the cow. Sounds can sooth, startle, obfuscate and seduce, just as in any musical practice.

The second part of my practice is to collect objects around the site of my intended performance. This can include discarded and unwanted manmade objects (metals, glass, paper, plastic etc) or natural objects (twigs, wood, leaves, water etc). Because most objects are found on site, they are reflective of local vegetation, seasonal change, recycling habits, culinary interests, and general perspectives on clutter. Together they form my instrumentarium to investigate and perform upon: they are my sounding environment. Using percussive techniques - and manufactured factory made mallets - these objects get hit, rubbed, dropped, shaken, scraped, or broken.

This work harkens back to an important chapter in the development of Western percussion – the sound finding days of the 1920s and 30s with composers William Russell, John Cage, Lou Harrison, Henry Cowell using everyday objects as instruments: Russell called for a Jack Daniel's bottle, a suitcase; Cage asks for brake drums (no pitch specified, although the make of drums he used is known), tin cans -gradated, a conch shell; Partch constructed instruments made from bamboo, brass shells, steel springs and gourds.

This was a time when pitch was the result of what was hit. Modes were the result of the combination of objects hit, constantly reconstructing the harmonic language in not just every piece, but every different performance. This accidental ordering of pitch produces surprising results – it is always interesting and always correct. The ear tunes to the sounding material, much as the ear tunes to ones sounding environment. Surprisingly incongruous sounds develop tensions and relationships.

Another trajectory of found sound comes from traditional musics from all parts of the globe where locally supplied objects are incorporated into the music: the Afro-Peruvian wooden box cajón, the cardboard box of Slim Dusty fame, the musical saw used in Finland, spoons from Ireland and Italy, the Indian ceramic bowls – Jaltarang, and the panzi dance from Sichuan province, China, where the plate and chopstick are the main musical feature.

There is immediacy in people making music with what is available; the opposite of the refined nature of the violin or the oboe where technological construction is working in sympathy with a desired sound. With locally found objects the sonic outcome is idiosyncratic and open. It is always a question – what sound can I make with that? What music can I make with that?

My work with listening is an extension of that which has been articulated and explored by composers such as John Luther Adamsii, Pauline Oliveros, and Annea Lockwood and environmental improvisers such as Lawrence English and Jim Denley.

There is an almost post-electronic perspective on my sound analysis; discerning objective qualities of sound– envelope, amplitude, frequency, spectral analysis, duration - and the more subjective awareness of presence and effort in sound making. Once awareness of subtle transformations in sound has been achieved, this attention can be passed over to the collection of objects and they become the site for sonic investigation.

Fundamental to this practice, is that each object contains within itself discrete musical properties and potentials. The work is made from exploring these potentials, giving voice to the sonic properties, altering their function from utilitarian to fundamentally musical - the wine bottle is not just a bottle, but a myriad of transforming sounds.

In the building of the instrumentarium, or meta-instrument, not only are the objects examined, but also their relationships are examined. A series of wine bottles form a pitch set and contain subtle timbral variation. When they are combined with a piece of roofing tile, the story transforms. The quality of clay versus glass is called into question, as is the relationship between a wine bottle and a roof. Therefore the larger scale work, *Music for the Banal, the Obvious, the Everyday*, is a kaleidoscopic probe of the potentials of all these objects, which together teach me (and potentially the listener) their relationships, stories and properties.

I choose to sonically interrogate my found objects in three different, acoustic ways:

• **Dropping**. This process was first investigated in Practice (Clocked Out CD001) in 2000, and then later taken to an extreme in Erik Griswold's hypnotic kinetic work *Spill*. In *Music for the Banal* the act of dropping can include locally found seedpods, gravel, grass or purchased wheat, rice, lentils etc. In this manifestation the objects are constructed into a static installation, a prepared object, and the dropping items cascade and collide into the construction. Here there is little control of the end point – the individual pathway of a grain of rice – but the intention comes in the preparation of the installation.

• **Hitting.** The act of percussing on an object is central to this work and is possibly the most intentional sound-making device used in this practice. Years of training have revealed the subtleties and variations possible through transformations in technique, hitting position on the object, hitting position of the stick, dampening techniques among many others. These variations provide an assortment of sonic transformations that make the command such as "hit a snare drum forte" incomprehensible. Where do I hit it, with which part of the stick, do you want a high pitched sound, low pitched, resonant, non-resonant? The <u>where</u> of hitting, is perhaps the most comprehensive investigation in this work.

• **Ropes**. Erik Griswold began rope work with the well-known *Strings Attached* in 1999. This idea has been mutated in my work, tethering the ropes to a single point and playing them in the air with only the troughs of the sound waves coming into contact with the instruments now scattered on the floor. The resulting sound world is akin to wind chimes, only with a more timbrally diverse palette. The preparations of the floor – usually in zones or families of sound (ceramic, glass, metal, paper, leaves etc) – allows for a degree of timbral control in the sounding of the installation. But the intentional lack of specific control, which I refer to from a post-Cagean perspective as determined indeterminacy, is the central tension in this work. The individual icti, and the ordering of these individual icti are virtually impossible.

There is no doubt that this work challenges one of the central notions of Western Art Music – reproducibility.

The artefact of score does not exist in this work, nor is the investigation elementally about improvisation. Or if it is about improvisation, it is certainly not free, but investigative of a specific question. And it also demands that we consider the where of music making. The impoverished sound world of so many clean concert halls will yield different music from the potential clutter of a school, or a gallery, or an outdoor space. Outback Australia will produce a different instrumentarium to the pastoral environment of Umbria in Italy.

This is reflective, ephemeral work that exists only in its moment of activation and retains some form of permanence through recordings and photos. Eventually a larger collection of these works undertaken all over the world will build a larger, as yet invisible, narrative. But for now, the retuning of my ears, the immersion in environment, and acceptance of so many new pitch propositions is the immediate and endlessly varied narrative.

Designing Urban Soundscapes For the Effects of Nature

Jordan Lacey
RMIT University

Acoustic ecology prioritises the protection of natural soundscapes from urban and technological noise; however, the incessant global spread of human-induced noises calls for renewed creative responses to urban soundscape design.

This paper suggests a deep listening practice within undisturbed natural soundscapes to reveal the effects of nature, the knowledge of which may be transposed upon the noises of urban soundscapes.

A methodology emerging from this practice is the repatterning of existent sound objects in urban spaces. The suggested practice requires a bifurcation of acoustic ecology's traditional approach: firstly, continued active preservation of existing natural soundscapes; secondly, transforming the noises of urban soundscapes by referencing the effects of nature.

Applying the ideas of Serres and Guattari to acoustic ecology practitioners, such as Schafer and Truax, is integral to this emergent approach. Serres suggests noise has a stercoral effect on space, while simultaneously acting as a transformative tool for the reordering of social relations; Guattari's ecosophy by eschewing the nature-culture dichotomy interrelates the protection of environmental ecologies with the diversification of mental ecologies and social ecologies.

Such transversal analyses of differing modes of thought offers recontextualisations of acoustic ecology approaches, demonstrated by the two case studies described in this paper.

Biosphere Soundscapes: Interrelationship of nature, culture, technology and sound

Leah Barclay

Biosphere Soundscapes is a large-scale interdisciplinary project underpinned by the creative possibilities of soundscape ecology. It is a network of site-specific creative projects embedded in multi-layered community engagement processes within global UNESCO Biosphere Reserves. The process is led by sound artists, who participate in various activities ranging from labs and residencies to networked performances and sound mapping. The content generated is embedded in a virtual network of global Biosphere Reserves via Google Earth technology and shared though the BioScapes community on the project website.

Biosphere Soundscapes is a key outcome from the author's practice-led doctoral research that involved conceiving and delivering seven original electroacoustic music projects for dissemination in multi-platform environments. The divergent projects were created in cultural immersion, spanning from ambitious sonic explorations in the center of the Amazon Jungle to sounding the rivers of the world through India, Korea, China, Australia and New Zealand. The delivery and dissemination of each project was underpinned by a rich methodology that pivots on a site-specific project embedded in community cultural engagement.

Biosphere Soundscapes is currently in its second phase of research and implementation with seven Biosphere Reserves participating. This paper reflects on the outcomes from the first two Australian Biosphere Reserves; the Noosa Biosphere and the Great Sandy Biosphere, both situated in Queensland. This project highlights the potential role composers and sound artists could play in ecological crisis. Biosphere Soundscapes is designed to inspire communities across the world to listen to the environment and re-imagine the potential of UNESCO Biospheres as learning laboratories for a sustainable future. This project combines art, science, technology and community to give Biosphere Reserves across the world a voice and a global audience to listen.

1000 Cactus Project: Social Art and Resiliency

Matthew Garcia
desert ArtLAB

Over the past 100 years American Western desert regions have witnessed massive population growth resulting in a transplanting of native desert ecology. This transplantation has left urban residents disconnected and unaware of local desert agricultural and culinary practices.

This presentation will explore the *1000 Cactus Project*, a production of desert ArtLAB, a Phoenix-based community initiative dedicated to a social art practice exploring the (dis)connections between identity, ecology and community. *1000 Cactus Project* is an initiative to restore urban vacant space with native desert ecology by planting 1000 Cacti in the Phoenix metropolitan area.

This multimedia performance and social art project seeks to question what we forfeit when our relationship with native ecology is sacrificed for a more desired manufactured environment. The project utilizes urban space and cactus as tools to engage residents to reclaim desert ecology through ecological intervention.

The project informs a discourse and critique of Phoenix's urban landscape, while challenging residents to consider how native ecology can inform identity, progress and the sustainability of our communities.

Designing the Culture of the Common and the Psychology of the Unsettlement.

Eleni Kalantidou
Queensland College of Art, Griffith University

The still-growing biophysical instability of the planet is well known. What is yet to be grasped is the interrelation of other major factors to planetary and socio-cultural destabilization.

This paper aims to demonstrate that late modern human psychology is one of these factors and, as such, a contribution to unbalance. It will specifically investigate the potentialities of "a culture of unsettlement", which requires detecting the hindrances connected to the formation of the condition. Pursuing this further, it will look at: the refusal to acknowledge the magnitude and coming impacts of climate change and the imperative of creating a "community of the homeless".

Special attention will be given to the definition of negation in contemporary society. Examples will be presented here showing the reluctance of developed westernised societies to recognise the already revealed and increasing presence of unsettlement, as it expands what homelessness is and does.

The paper will also expose the human unpreparedness to deal with emergent environmental conditions and the global spatial order. In this context, it questions how to recompose a community based on "the Common" to counter societal fragmentation - this established in a new ethos grounded in modest ways of life.

The perspective adopted by the paper is part of a larger research agenda oriented towards a shift from designing things and images to the solution of

environmental, social and economic problems by design.

The Garden in the Machine

Laura Garofalo
University at Buffalo (SUNE)

This paper addresses historical and contemporaneous perceptions of pristine wilderness and Arcadian landscape as well as current analysis of what we recognize as our socio- ecological context, by highlighting the contemporary garden as a generative construct.

While building architecture continues to rely on the Modernist construct of the nature culture dichotomy, the architecture of the garden makes it into an interface where the boundaries between nature and the man-made are negotiated.

As an architect, I propose an exploration of this interface's relation to a context where the perceived intersection of human time with geological time is affecting both ecology and society at a structural level as a generative tool.

The design of a temporary garden, Buoyant, is presented as a case study that proposes an alternative ecological imagination for design as a counterpoint to the nature/culture dichotomy underpinning not only architecture practice, but the construction of most contemporary eco-narratives. Ultimately it imagines a collaborative "building process" that appropriates some tenets of landscape urbanism for architecture.

Action Storming: rapid prototyping new behaviours

Viv McWaters
Johnnie Moore

Wicked problems require us to use more than just thinking - we need to engage our whole bodies and actively collaborate with others to explore possibilities for action. We will introduce you to Action Storming, an approach drawn from improvised theatre, sociodrama, lean/agile/design thinking and forum theatre that uses relational learning to fast prototype new behaviours. Using real examples drawn from the experiences of participants, we will demonstrate Action Storming and its applications.

A Second Glance

Agnes Btffn

For the Balance-Unbalance conference 2013, I propose posters, videos, a transdisciplinary workshop or creative activities and maybe a performance taking it's source in the project SECOND GLANCE.

SECOND GLANCE is a meta project within the visual arts that expresses itself through performing exhibition, workshop, lecture, video.

The project is about our interactive affiliation to the universe. It takes its roots in the clichés and habits of how we look at the sun setting and rising, when it is in reality the horizon that rises and sets as the earth rotates around itself and around the sun.

I investigate our dizzy movements in space through video-performances and attract the curiosity of others to the subject by giving short lectures and organizing exhibitions and workshops.

Historical resumé: Since 1992 I investigated the sunset as a real and as artistic phenomenon with the mean of various artistic researches like drawing and painting at first, then by the making of performing-exhibitions and installations, performances, lectures and workshops. Today I create video performances.

Finding New Kinships
Zela Bissett, Tanzi Smith, Shawn Jarvey

Finding New Kinships (FNK) is an interactive workshop for up to 25 participants. A partnership between environmental science and performing arts, it draws upon first nations' knowledge to suggest that each human must become an advocate for an element of the ecosystem in which s/he is enmeshed. In the workshop, presenters re-create an opportunity for each adult to establish a bond with a creature found in the surrounding ecosystem. In Indigenous societies, this might be referred to as a "totem" animal or brother creature. Traditionally, the person becomes responsible not just to avoid harming the special creature, but also to promote its welfare. In the FNK workshop, presenters take the group through an interactive "journey" through a freshwater ecosystem using voice, images and music. After participating in some interactive games where they take on various roles within the ecosystem, the participants select a creature (or plant) with whom they feel an affinity and create an assemblage of natural objects which represents their totem entity. Using their symbolic totem, participants share with others how they can express their kinship and promote the welfare of their special species in the future.
The assemblages created during the workshop could be displayed around the site with some signage to explain what they represent for the duration of the event.
Finding Our New Kinships is based on the proposition that in order to shape a future society of understanding and interconnectedness, role play, empathy and creativity can combine with scientific knowledge to help humans connect, at a deeper-than-intellectual level, with the other organisms which make up the ecosystem upon which we depend.
The scientific authenticity if the freshwater scenario is provided by Dr Tanzi Smith, an expert consultant with the Mary River Catchment Coordinating committee (MRCCC) who has recently completed the Mary River Threatened Species Recovery Plan commissioned by the Federal Department of Environment and Heritage. The educational and interactive

aspects have been developed over a number of years of partnership with Earth Smart Science's Zela Bissett, who designs and organises educational events where participants enjoy experiential and holistic deep learning.

CQUniversity, Sunday June2, 2013, 1.30pm-3.00pm

Australian Forum for Acoustic Ecology (AFAE) Symposium
The Australian Forum for Acoustic Ecology (AFAE) is a not-for-profit, which is home to a collection of people across Australia who listen and who have a professional or personal interest in fields such as: acoustics, audiology, architecture, digital design, education, health, landscape, phenomenology, sound art, sound culture and sound design.

The organisation brings together people who aim to promote a culture of listening to raise awareness generally of issues around listening, sound and sonic environment; and to encourage discussion, debate, education, practical activities and research. Our inaugural National Symposium will allow members meet and plan for the next 5 years in the context of theme of the 2013 Balance-Unbalance International Conference.

Biosphere Reserves and the Noosa experience

Ben McMullen

Biosphere Coordinator and Community Partnerships, Sunshine Coast Council

The Noosa Biosphere Reserve was recognised by UNESCO (United Nations Educational, Scientific and Cultural Organisation) in 2007 under the Man and Biosphere (MAB) programme. Noosa Biosphere Limited (NBL), as the governing body of Queensland's first UNESCO designated Biosphere Reserve, promotes harmony between people and nature through education, conservation and sustainable development. The diverse board of community directors and volunteers work with local government and partner organisations to manage and promote the biosphere reserve. Over the past five years Noosa Biosphere Limited has worked towards its mission of promoting a balanced relationship between human interaction and the environment through partnerships and good governance, community engagement, innovative projects, advocacy, research and learning. This session will outline the background about the UNESCO Man and Biosphere program and the Noosa experience to date.

Social Capital and Seafood: Balancing Industry and Community Linkages

Vikki Schaffer
University of the Sunshine Coast

Small seafood producers make a significant contribution to the economic and social prosperity of many Queensland coastal communities. These contributions are enhanced through strong community relations, levels of interactions between fishers and their families, and relationships between different industry members, interest groups and regulators.

This paper investigates the social capital within Queensland's East Coast Trawl Fishery (ECTF) and the implications for regional communities. The results suggest that despite the potential for doing so, social capital is not actively or purposefully created, utilised, maintained, or drawn upon within the focal fishery.

A more collaborative approach to decision making is needed to gain the potential benefits from the extensive knowledge embedded within the industry. Recognition of the social value of the ECTF fishery derived through community cohesion, contribution, and diversity, is required for sustaining and balancing economic and social growth, whilst maintaining a healthy environment and viable industry.

Biosphere Reserve as a Provincial Management Tool for Climate Change in Vietnam

Chu Van Cuong
University of Queensland

Sharon Brown
GIZ

Kien Giang is a coastal province in the western portion of the Mekong delta. The Kien Giang Biosphere Reserve, Vietnam (KGBR) was established in 2006 and encompasses much of the 200km coastline and adjacent marine areas of the Province as well as U Minh Thuong and Phu Quoc National Parks.

The challenge for the Biosphere Reserve and Provincial managers is to balance sustainable economic development with conservation of the environment. Eighty per cent of the land area is less than one meter above sea level and therefore under threat from climate change, mainly sea level rise and storm influence.

In 2008, the Provincial Peoples Committee (PPC) established a Biosphere Reserve Management Board (BRMB) composed of PPC representatives, heads of all relevant Provincial Departments, Districts, National Park Authorities and mass organisations such as the women's, youth and farmers unions. The role of the BRMB is to provide advice to the PPC on how to solve complex issues using integrated, cross-sectoral management decisions. The use of cross-sectoral planning is a new concept being encouraged by the Government of Vietnam.

The BRMB members are active in seeking new and innovative management options through National and International visits and meetings with the management teams of a range of Biosphere Reserves - Cat Ba, Vietnam; Noosa, Australia; Ranong, Thailand and the Wadden Sea and Hallig Islands of Schleswig-Holstein, Germany.

In consultation with a wide range of stakeholders and national and international experts, the BRMB is currently preparing integrated management plans.

Integrated Management plan for Dong Ho Lake

The lack of appropriate natural resource planning has placed the integrity of Dong Ho Lake under threat. Increasing population from displaced people following the American war and the Pol Pot regime has contributed to overfishing and the introduction of aquaculture has led to the destruction of a population of rare mangroves.

Inappropriate infrastructure is causing changes to the natural water flow and has reduced water quality and increased sedimentation. The local

District authorities and the Province are committed to restoring the lake's productivity and natural beauty. National and International experts have been adding to the existing knowledge base by providing scientific evidence to support well informed decisions on the future management of Dong Ho Lake, near the Cambodia border.

Integrated Coastal Management Plan for Climate Change

The province has just endorsed an Integrated Coastal Management Plan under Climate Change. The plan was developed with close consultation between the PPC, Departments, Districts, Communes and mass organizations including Women's Union, Youth Union and Farmers Union. The plan is largely based on a detailed data set that describes the current condition of the coastline collected in 2009 and again in 2012 using an innovative method of coastal monitoring developed by the University of Queensland in 2009. It also uses the results of a series of studies and reports commissioned by the Kien Giang Provincial Peoples Committee (KGPC), the Project, the Asian Development Bank (ADB), Mekong River Commission and other donors.

Gubbi Gubbi Gun'doo Yang'ga'man: Reviving Indigenous Knowledge Systems through Creative Collaborations

Lyndon Davis, Brent Miller, Nathan Morgan, James Muller, John Waldron and Ray Kerkhove.

In 2012, the Australian National Maritime Museum held Australia's first major Indigenous watercraft conference. NAWI explores Australia's diverse and unique indigenous watercraft and culture. The ongoing initiative aims to throw new light on the study of Aboriginal and Torres Strait islander craft, to look at the long history of bark and dugout canoes, rafts and outriggers craft through fresh perspectives and as a catalyst explore their importance to communities around Australia, historically and today.

This conference saw the launch of the Gubbi Gubbi Gun'doo Yang'ga'man, the first reconstruction of traditional canoes on the Sunshine Coast. This panel explores the process of reviving Indigenous Knowledge Systems and the value of creative collaborations to facilitate this process. The core focus is on the importance of understanding and translating these knowledge systems into the future and recognising their significance in the context of community and environmental sustainability.

The ecology of indigenous cultural expression as a force for building peace, self- determination and sustainability

Thomas Dick, Luke Johnston, Jason MacLeod, Kerry Brown, Tristan Schultz

Some of the most profound cultural signifiers of Indigenous peoples in Australia and Melanesia are their practices of singing their ecologies. When songs are sung, this courses through the land, validating everything that is integral to living. The oral tradition remains strong, and the concept of "voice" and "story" are strong cultural methods of governance through communal discourse and consensual decision-making.

Over the last decade-and-a-half research has deliberated on the conceptual and historical interactions of 'culture' and 'the market' (see for example Caves (2000); Pratt (2004); Throsby (2008); Cunningham (2002; 2009); & O'Connor, (2009); 2011). Although contentious, the impetus for this has largely been the creative industry paradigm and how this has translated globally (Cunningham 2009). Despite this, with only a few notable exceptions, research in this domain has been largely Euro/Anglo – centric. As a response, this panel proposes to draw from a series of practice-led research projects in the Pacific & Northern Australia to give voice to alternative frameworks from which begin to conceptualize how cultural expression may be mobilised for the creation of peace through enterprise development, democratic engagement, and cultural and linguistic maintenance.

The DAM(N) Project: A Model for Intercultural Collaborations and Social Change

Jehan Kanga
The DAM(N) Project

Leah Barclay
Griffith University

Shakthi Sivanathan
CuriousWorks

The DAM(N) Project is an interdisciplinary collaboration between producer Jehan Kanga, sound artist Leah Barclay, digital artist Shakthi Sivanathan and India's premier contemporary dance company Attakkalari about water scarcity issues in India and Australia.

The Project stems from one of the largest social movements in India's modern history, the Narmada Bachao Andolan (NBA). 2011 marked the 25th anniversary of the NBA in their fight for the rights of Adivasi and Dalit people to stay on their land and not be submerged by 3000 dams. So far the building of large dams in India has displaced an estimated 30 million people and the presence of the NBA has forced corrupt governments into paying compensation and in some cases have stopped the building of new dams.

The purpose of the project was to find out the personal stories and understand what the long-term impact of the NBA has been on the indigenous people of central India. The stories challenge accepted notions

of development and has strong resonances with the struggle for indigenous land and water rights in Australia.

The Project was a cultural exchange between the artists and between the artists and the communities we visited. We shared stories and undertook dance and digital capacity building workshops in the local Jivanshala schools. Despite much of the tragedy, a great triumph for the NBA through their peaceful struggle for water rights was the emancipation of the indigenous people of India with a demand for education.

This paper will look at how small projects can have a large impact on marginalised communities and how intercultural collaboration between artists and non-artists can reveal stories of immense power.

SurSouth: Is Convergence Inevitable?
Claudio Rivera-Seguel & Alfonso Matias Hermosilla

The SurSouth and "BioTroniK 2.0" initiative is a Cultural Exchange event/program between six Chilean and six Australian New Media artists that will explore innovative ways of international remote collaborations in relation to the theme of "Sustainable Futures". The initiative will use 2.0 web platforms and tools to coordinate the design, production and dissemination of six Interactive New Media collaborative art projects and will be presented in collaboration with the ISEA's IV- Latin American Forum and the SurSouth-Open Space Sessions. A second stage of this initiative will culminate with a reciprocal event/exhibition in Chile in 2014.

The first stage of BioTroniK 2.0 at ISEA2013 will consist of a series of "Artist Talks" (Interactive new media works) and encounters (collaborative work meetings in Sydney) amongst Chilean and Australian participants. The Australian collaborators will be selected in collaboration with ISEA2013 organization committee and through a prospection trip by the project's coordinator Claudio Rivera-Seguel (Chilean Cultural Ministry Grant has been secured). These participants will be defined and selected in accordance to the Chilean artistic research interests and creative compatibility.

The Chilean participants of the BioTroniK 2.0 initiative are all new media artists that are active in different areas of cultural interactive new media creations which explore complex forms of artistic interdisciplinary production within the field of art, science, and technology.

Anastatica Sensibile: a case study about natural processes as medium for interactivity

Daniela Di Maro, Andrea Bene, Diego Bernini, Simone Bonetti, Giorgio De Michelis, Francesco Tisato, Gianluca Colombo

Interactive artistic installations, especially the ones exploiting digital technologies, represent an active area of research both from the artistic and technological sides. These works are able to detect different properties of people in the environment (e.g., motion, localization, gestures) and determine their behavior accordingly, for example modifying sounds and lights. Manifold installations have been realized exploiting audio-visual elements as key media for interactivity. This paper presents a case study of a non-conventional interactive installation ("Anastatica Sensibile"), which has been conceived around a natural process. In this installation people determine the life cycle of specific plants, in terms of an opening/closing process. The contribution of the paper is stimulating reflections about how the plants natural life cycle can become the fundamental element of an interactive artistic installation.

Games for a New Climate: intensely participatory learning and dialogue in the humanitarian sector

Julie Arrighi, Graham Walker

How can we accelerate the integration of science into humanitarian work for risk management? Can creative processes help? The Red Cross / Red Crescent Climate Centre, the American Red Cross and the Boston University Pardee Center have been working with academic partners through an innovative approach: participatory games that simulate complex system dynamics, allowing players to inhabit the trade-offs, thresholds, feedbacks and delays involved in real-world decisions among people and organizations confronting serious challenges. In this intensely interactive session you will become a subsistence farmer, a Red Cross disaster manager or an international donor: with limited information and resources you will have to make individual decisions that will have collective consequences. Join us to experience the richness of serious yet fun ways to collect, process and share information about hazards, vulnerabilities and capacities - and help us explore ways to integrate art into humanitarian work.

CQUniversity, Sunday June 2, 2013, 3.30pm-5.00pm

Beware of the ants because they shall inherit the Earth: Ant mimicry in the post-biologic technology of humans

Kuai Shen Auson

Emergent phenomena in nature manifested at the organizational level by cooperating organisms can also be found in the artificial systems we humans create for social interaction. The contemplation of the complex life of ants have inspired humans in many ways to create models to optimize the flow of traffic, find the shortest and most energy efficient travel route, simulate decentralized collectivity, mimic the mechanics behind swarms, and learn the power of relationships in the formation of intelligent networks. To this extent, the social behavior of ants can be associated and interconnected to the generative processes found in technology, especially emergent networks that exist in the Internet and other self-organized digital systems.

From a macro-perspective, technology is a man-made assemblage of artifacts, a collective force which uses nature as its model. Emergent and complex technologic manifestations of our post-biologic nature catalyze experiences and nurture social interactions beyond the screen; they resemble forms and behavioral algorithms found in the natural social system of ants. From the bottom to the top, ants and humans dominate the planet by exploiting different media and engaging in interspecies interactions. We have created a globalized technology-dependent world that has become self-aware and self-regulated. The presence of ant mimicry in the technology of humans will be revealed by exploring examples of solitary insects that use Batesian and Müllerian mimicry to mirror the behavior and appearance of ants for social adaptation and survival, in order to unfold the similarities to the emergent and complex manifestations of our technology.

Ecosistema: Eletrorganics Experimentations as Tools for Social and Environmental Awareness in Sorocaba, Brazil

Maira Begalli
Universidade Santa Cecília (UNISANTA) e MetaReciclagem

Ricardo Guimarães
MetaReciclagem

Hudson Augusto
MetaReciclagem

Fernanda Scur

Royal Holloway, University of London

Walter Barrella
Universidade Santa Cecília (UNISANTA)

This paper reports the use of organic and electronic experiments as tools for environmental awareness, in the city of Sorocaba, São Paulo, Brazil.

The research was made in SESC Sorocaba, in the Internet free area, in a project called *Lab Livre: Experimentações EletrOrgânicas,* between September and November 2012.

Twenty-seven people participated, including: 4 seniors, 9 adults, 12 children and 2 teenagers. Despite the heterogeneous public, all participants reported interest in developing similar projects and that the process has added new knowledge and environmental perspectives.

LEARNing LOCAL: Embedding local coastal Natural Resource Management in a National Schools Curriculum

Maree Prior
Noosa Integrated Catchment Association

Edition 3 of *Noosa's Native Plants* was launched in 2011. All three editions have been the original work, including all photographs, of Noosa Integrated Catchment Association (NICA) volunteer, Stephanie Haslam.

Noosa's Native Plants origins started as a project to fulfil a Noosa Catchment Management Strategy requirement of raising awareness about Noosa's local native plants and the importance of understanding the local natural environment and sense of place. We have been asking the question, *why has a book like this not been a reference book in schools generations ago*?

An entry in Captain Arthur Phillip's Journal may go some way to explain the answer:
'There are few things more pleasing than the contemplation of order and useful arrangement, arising gradually out of tumult and confusion; and perhaps this satisfaction cannot anywhere be more fully enjoyed than where a settlement of a civilized people is fixing itself on a newly discovered or savage coast.'

Australia has a lot of coast. The 'civilised people' have been fixing themselves upon it for sometime now.

NICA and Cooloola Coastcare Association Inc have been working diligently for over ten years in their respective communities of Noosa, Sunshine Coast

and Rainbow Beach to Tin Can Bay on the Cooloola Coast, to raise awareness about South East Qld's coastal native plants, now commonly referred to as 'wallum'.

When native plants are removed from the landscape for whatever reason, there is a proportional loss of identity and sense of place. It is the native plants of coastal SE Qld that hold the key to soils, geology, aquifers and the climate history of a particular place. When the canvas is wiped clean for the landholder to paint (plant) anything, we 'become' something else, losing local connection to the reality of place.

Although this maybe justified as an individual right and freedom on private land, on a larger landscape scale, it impacts on a collective sense of place, identity and connection to nature, and above all, impedes progression towards a 'sustainable future'.

Ecoflicks

Maree Prior
Noosa Integrated Catchment Association

Jessica Denman
Noosa Integrated Catchment Association

Ben McMullen
Noosa Integrated Catchment Association

Ecoflicks is a Sunshine Coast environmental short film festival that aims to raise awareness about the importance of the natural environment and systems through amateur filmmakers, invited to tell their environmental stories about their place.

A showcase of the work is provided at the World Environment Day celebrations at University Sunshine Coast (USC) in June each year.

Two important aspects of the Ecoflicks Project is providing the facility to improve the skills of participants by running workshops for aspiring students and filmmakers, so that the messages conveyed in their films are more powerful; the other is in providing a venue and opportunities for their films to receive public exposure.

Ecoflicks is a project conceived by a Noosa Natural Resource Management (NRM) organisation and Noosa Integrated Catchment Association Inc (NICA). It started in 2010 with the financial assistance of a Qld Government NRM Awareness grant and has grown in both popularity and quality each year.

By 2012, Ecoflicks had the support of local government, educational institutions, community organisations and local business. NICA is seeking corporate partners into the future, and the reasons for this are

explained. Participants provide their feedback from the Ecoflicks experience, and share their work with the audience.

Carrier Pigeon-like Sensing System: Beyond Human-Red Forest Interactions

Hiroki Kobayashi
Centre for Spatial Information Science, University of Tokyo

The Carrier Pigeon-like Sensing System (CPSS) is a future-present computing archetype that will enable the human race to observe inaccessible natural spaces, such as the contaminated forests around the Fukushima nuclear power plant.

The system aims to elucidate the scientific knowledge underlying the self-repair mechanisms of contaminated natural areas and allows users to maintain a connection with forests in the absence of any human intervention for future societies.

This novel sensing system can be used to create a sustainable balance between humans and animals to ensure that the self-repairing process of contaminated natural areas can be applied anywhere in the future.

This paper describes the theoretical underpinnings of such a sensing system through designing a CPSS.

Sandskin | Bloodwater: Tracing Topographies Through Floodlands

Rachel Sweeney & Marnie Orr, Orr&Sweeney

Dance ecologist Rachel Sweeney presents her 'live research' practice that maps parallel geological features, identifying transnational environmental themes between the UK and Australia. Reflecting on pre-existing models of site-based contemporary performance practice, the paper will introduce dance ecologists Orr and Sweeney's recent project '*Sandskin | Bloodwater*', developed in direct response to remote farming areas devastated by flooding in Western Australia.

This presentation directly addresses current themes surrounding regional and global water management, using maps, collated stories and photographic documentation to illustrate where emergent collective responses to flooding might present their own critique of map making, performance writing and ephemera, locating instead an ecologically-based vernacular that operates within a somatic-empathetic framework, within environmental performance practice.

The paper will also introduce certain transformative education processes engendered within learning 'on site' that enable further cross disciplinary dialogue by placing environmental dance practice in direct relation to ecology as highlighted within current discourses surrounding Environmental and Holistic Science. In positioning dance within current debates surrounding contemporary performance praxis and sustainability, the holistic potential of environmental dance practice offers both pedagogic and artistic resonance in functioning both as innovative research practice and also as an experiential learning tool.

ADAPTATION embodied research forum

Orr & Seeney: Rachel Sweeney and Marnie Orr.

Promoting an awareness of individual agency in relation to an ever increasing volatile balance between human development and material resources must start with the individual, through whatever sensibilities are present. Adaptation is an embodied research forum that invites academic researchers and arts practitioners from a range of disciplines to engage in a debate surrounding the role of sustainability as a governing principle that challenges traditional knowledge practices within the academy as well as conceiving a mutually constitutive and relational experience of place, body, and cog¬nition.

Using the round table as a forum, Orr & Sweeney will discuss the term dance ecology as an adapted position whose application seeks to re-imagine, analyse and intervene in the following areas: cultural embodiment and inhabitation; parallels themes within global environmental practices; and creative intersections between memory, place, and identity. Borrowing from James Lovelock's Gaia theories in developing an integrated holistic approach to deep ecology, Adaptation will reflect on pre-existing models of sustainable performing arts practice that parallel environmental concerns between arts and sciences through locating interdisciplinary approaches to renewal and the environment.

As part of this round table forum, Orr & Sweeney will reflect on their own sense based languages and approaches to land, briefly introducing some cross disciplinary methods formed through working on site, including topographic movement training, choreography as a cartographic process, and adaptation/adoption tasks. In particular, the transfer of properties is a recurring motif in their dance ecology research, which extends to the idea of the dancing body as a shifting site that can reflect current cultural and ecological issues, engaging directly with questions surrounding sustainability based on its ability to articulate physically a critical response to the interior (anatomical) and exterior (environmental) states.

RhyCycling - Border area in flux (Exhibition title)

Flavia Caviezel

The river Rhein as flowing border area forms boundaries of communities, cantons and countries from his origin in Grison/Eastern Switzerland until the entrance into the sea in Rotterdam. It is water and power provider, living and working space – an ecological, socio-economical and cultural divers microcosmos.

The research project „RhyCycling – Esthetics of sustainability in the Basel border area" examines in a geographical perimeter of the border region of Switzerland-Germany-France how the human and non-human environment is linked together and what interdependences, problematics, un/balancies and scenarios are resulting. Beside of the audiovisual research on recent (waterecological) circumstances over, under and along the water – a.o. fish fauna, aspects of energy, utilisation of the riverbank – also future changes, planned or imagined for that space, are examined. The special foci allow to show interdependencies inside of the ecosystem with local and global relevance, like for example for fish fauna the character of fish ladders for fish species migrating upstream or downstream.

The research relies on the so-called „esthetics of sustainability" which is found in (media) art and is affected by a perception of current theories of aesthetics including nature. It differs for example from scientific and technical positions by the choice of the focal points in content, methods and the forms of presentation.

GOAL
The goal of the project is to give an inside view into the network and interdependencies of this ecological microcosmos to the interested public, through an innovative form of presentation which adresses divers senses (see below). Local and global aspects are focused – like water ecology generally and fish fauna in particular, current as well as prospectiv.

PRESENTATION
The material of the audiovisual research – videos, sound essays, texts, graphics – representing the current situation is organised on an interactive computer platform and may be projected into the physical space. At the exhibition "RhyCycling - Border area in flux" which took place from 13.10. - 4.11.2012 in the harbour area in Basel just beside the river the platform was integrated into a scenographical setting of installations and video projections. One especially was representing visions of a possible or imagined future of the area. The audience had the possibility to experience the Basel border area and specially the rather difficult accessible world of the fish fauna in a multisensual way.

The Currency of Birdsong (Panel)

Tamsin Kerr

To supplement the written paper presentation, that focuses upon the theory and outcomes of the research, a panel of participating artists will discuss the artistic research process and showcase some of the consequent results, all of which will form part of an open day at the Cooroora Institute on the last day of Floating Land. The panel will be drawn from the following artists and projects: Kabi Kabi elder Beverley Hand (on collaborating with country), musician Linsey Pollak (new birdsong improvisations with percussionist Tunji Beier and vocalist Kacey Patrick-Bare), soundscape artist Leah Barclay (soundscapes for the sound garden as an app and performance piece and birdsong research), musician Vanessa Tomlinson with Catherine Clover (birdsong music of the urban), ceramicist Stephen Roberts (using rock as evolution of birdsong library, clay as recording device, and sticks as the prosody of birdsong), ceremonial artist Kari in partnership with writer Maya Ward (celebrating the ritual and migration of the Sacred Kingfisher and conducting a Kingfisher wedding), glassworker Rob Fleming (making beads of birds and nests as currency), dancer and movement philosopher ZsuZsi Soboslay, furniture artist Ross Annels (bowerbird entryway and birdsong furniture), composer and performer Ros Bandt (Magpie piece in audio and hand written and bound score and performance), Maori artist Jo Tito, Kamileroi artist Mayrah Dreise, woodturner Graeme Priddle, furniture maker Pajda Perina, painter Sue McLean, natural craftsworker Anne Harris, visual artist and sculptor Rex Kalehoff, designer Miriam Carpenter, writer and radio producer Hamish Sewell (recording word responses to bird sounds) as well as writings from John Danalis (children's book), Stephen Muecke (academic poetics), and Tamsin Kerr (overall artistic research and text for printed and online catalogue).

Noosa Regional Gallery Performances

Sunday June 2, 2013, 5.30pm

'Matto, Na Mao, and Nelang' Traditional Music and Dance from Vanuatu

Leweton Cultural Group

The Leweton Cultural Group are a group of men, women and children from the remote northern tropical islands of Vanuatu and will perform a traditional dance and song from Na Mao and Nelang (respectively, men's and women's kastom dances). They dress in traditional costumes of Gaua and Mere Lava made from flowers and leaves, coconuts and pandanus.

The Leweton Cultural Group would like to acknowledge additional project support from Further Arts, Centre for Tourism Leisure and Work, Koko Entertainment, The Planet Spins, BEMAC and Canal Studio.

Out Hear and West Head Project

Jim Denley, Monika Brooks and Dale Gorfinkel

Out Hear was started by musician/artist Dale Gorfinkel to encourage a culture of music, sound & listening experiences in Australia's special outdoor spaces. Outdoor performances & soundwalks provide a fresh context for engagement with sound & place. Outdoor events occur in bush settings, urban settings, and all the odd in-between spaces eg National parks, mountain tops, islands, caves & city streets & stairwells.

For this performance Dale will work in collaboration with improvising musicians Jim Denley and Monika Brooks (accordian) to create a music that resonates in the specific environments around Noosa. Together these three musicians have presented many special sonic events around Australia including on the top of Mount Wellington in Hobart (Mona Foma Festival 2012), Maria Island National Park (Ten Days on the Island Festival 2009), Blue Mountains National Park (the NOW now Festival). Previous recordings have been published on their CD 'The West Head Project' and featured on ABC Radio National.

For 2013, they have been awarded an Australia Council for The Arts Grant to further develop their connections with making music outdoors and understanding our place within the larger ecosystem.

Perambulatory Performances

Garth Paine

These guerrilla style performances involve a set of Tibetan singing bowl robots, each carrying 2 singing bowls, producing pure sustained tones and percussive struck sounds. Participants carry the robots along a walking score while the composer performs the robots over a wireless network. The effect is a rich musical performance outside the concert hall, where sounds are dispersed through the space by the walking action of the participants.