

IMAGE FROM: THERE ONCE WAS AN ISLAND / BRIAR MARCH

Dreadlocks

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Oceans, Islands and Skies — Proceedings of the "Oceanic Conference on Creativity and Climate Change"

This special issue of *Dreadlocks* publishes the proceedings of the "Oceans, Islands and Skies - Oceanic Conference on Creativity and Climate Change – The Role of Writers, Artists and the Media on Environmental Challenges in the Pacific." The OIS-OCCCC was held from 13th - 17th September, 2010 at the University of the South Pacific, Laucala Campus in Suva. The conference proceedings attest to the multidisciplinary achievements of the gathering of academics, writers, artists, performers and the general community in putting forward creative solutions, advocacy and awareness programs on climate change.

PACIFIC MELIA CENTRE



Oceans, Islands and Skies

EDITOR: MOHIT PRASAD

Dreadlocks

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"Oceanic Conference on Creativity and Climate Change

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EDITOR: MOHIT PRASAD

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> Editor Mohit Prasad

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Dreadlocks

Oceans, Islands and Skies Volume 6/7: 2010-11

Special Issue Proceedings of Oceans, Islands and Skies - Oceanic Conference on Creativity and Climate Change

Introduction

This special issue of *Dreadlocks* publishes the proceedings of "Oceans, Islands and Skies - Oceanic Conference on Creativity and Climate Change – The Role of Writers, Artists and the Media in Environmental Challenges in the Pacific." The OIS-OCCCC was held from 13th - 17th September, 2010 at the Laucala Campus of the University of the South Pacific (USP) in Suva. The publication of the proceedings of the conference has been made possible by a generous grant from the Pacific Media Centre at the Auckland University of Technology (AUT). This continues the long tradition of cooperation and assistance between these institutional bodies in areas of mutual interest.

The proceedings from the conference reflects the rationale that Oceania has always had at its core traditions creative expression that empowered us in our relationship with the environment. The conference papers, along with reports from the community events and the artists and writers' festival are included in the proceedings. In sum, provide an alternative culture of determination of responses to issues like climate change.

This was in line with local and global trends in incorporating traditional sustainable values on the environment, as an interface with modern awareness programs and activism on the subject. The conference proceedings included in this publication exemplifies the synergy of creative spirits in addressing environmental issues like climate change. It includes academic papers and reports from across the humanities, social sciences and scientific and

associated areas of environmental knowledge to better serve the Pacific as they face coming climate challenges.

This special edition of *Dreadlocks*, once again, acknowledges the funding from the Pacific Media Centre at the Auckland Institute of Technology. It acknowledges the valued contributions of Associate Editor, Professor David Robie, in making this edition possible. Vinaka. Supplementary funding and editorial support for this publication was provided by the Faculty of Arts, Law and Education (FALE) at the University of the South Pacific. Our Oceans, Islands and Skies, can only benefit from this publication spurring on further contributions from the creative arts to the ongoing issues that challenge our fragile environment in Oceania.

Vinaka

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KEY NOTE SPEECH

Dr Cathie Koa Dunsford

KAITIAKITANGA Protecting our Oceans, Islands and Skies by Inspiring a Climate Change of Consciousness

I n Maori culture, it is traditional to begin with a conch shell greeting and powhiri or welcome to invite you all in to share this korero together. [Play conch shell and deliver powhiri: Toia Mai]

Ni sa bula, Talofa lava, Kia orana, Aloha, Namaste, Ni Hao, No mai, haere mai...[please call out any other greetings from your islands] – Tena rawa atu koutou, thanks to the people of Fiji for inviting us to participate in this ground breaking conference which is the first time in the Pacific that we, as tangata whenua of the Pacific, have been invited to bring all our creative expression and traditions to korero or talkstory about the impact of climate change on our islands, oceans and skies. Mahalo also to Dr. Mohit Prasad and the Pacific Writing Forum for initiating this creative response to climate change and to the Vice Chancellor of the University of the South Pacific, Professor Rajesh Chandra, for supporting this initiative with resources and funding.

Despite our vital and exciting differences, we are all one people on this planet and we need to return to our traditions, our korero, our mo'olelo or talkstory and our art forms to find ways in which we may all survive on this planet together. Never has this been more urgent than with the huge impact of climate change we face today. What we are needing to evoke at this conference is a climate change of consciousness, of Pacific initiatives, ideas and actions that have global impact. We cannot continue to survive together on this planet if we follow the rampant consumerism that has pulled many of our own people away from local, sustainable lifestyles which contained systems that prevented exploitation of resources. For instance, in Maori culture we have a rahui or ban on collecting shellfish once the resources show signs of becoming diminished. Throughout our indigenous Pacific systems, there were kaupapa in place that protected the environment in which we live. To destroy that kaupapa is to destroy the world for future generations.

Collectively, we in the Pacific have all the tools from our various cultures to show the way forward in dealing with many of the problems that cause climate change. We need to return to study, implement and adapt these methods for use in contemporary life. Kaitiakitanga is the guardianship of the land, sea, skies and all resources. If we practise kaitiakitanga whole-heartedly, then we have a blueprint for our future survival together on this earth. Indigenous Pacific cultures have access to this knowledge and we need to bring this forward to apply to current problems so that our resources are protected and the balance is brought back to the planet. Living sustainably, as our ancestors did, meant living in tune with nature in all respects. Much of the modern permaculture movement is built on this indigenous knowledge and framed in the colonial mindset to fit the contemporary westernised world. It is then sold back to indigenous cultures, often at high cost. We need to reclaim this knowledge and use it to educate others in sustainable living so that we can enjoy the benefits of sharing our kaupapa, our crops, our resources. We know already that we produce enough food on this earth to feed all people. Yet the dictates of a capitalist culture, which ensures the wealth of some at the expense of the majority and endorses consumerism as if it was a religion that we must all follow, deny food to people who are considered "surplus to requirements".

We have come to a time when we need to support a climate change of consciousness, where the rich are not adored for stealing and exploiting the poor for industrial profit. Where sustainable systems are implemented for the benefit of all. Where richness is described in terms of a shared lifestyle and spirit rather than accumulated wealth. Dispirited people all over the world are hungry for a new vision, hungry to find life that has meaning beyond working in empty jobs that make a few people wealthy at the expense of the masses. Capitalism is not the answer. Nor is communism.

Sustainable living is the only way we can share resources with all people and return to our roots as tangata whenua, people of the earth, the sky, the sea. This is not a philosophy that has national borders or languages. It is one that potentially can be shared by all people on this earth if implemented communally. Many of our youth feel alienated from modern life because they feel no connection with their roots or the land and they do not see the sense in work for the sake of making a few people rich. Can we blame them? Our ancestors have known better ways of surviving and put in place systems that protected the earth's resources.

The significance of reconnecting with our whenua, our land, sea and sky, and our tipuna, our ancestors, is so clearly shown in the waiata, Ehara i te Mea.

> **Ehara i te Mea** Ehara i te mea

No Naianei te aroha No nga tipuna I tuku iho I tuku iho

Te whenua te whenua Hei oranga mo nga iwi No nga tipuna I tuku iho I tuku iho

Love is not a thing of the present It is from the ancestors Handed down Handed down

The land the land Is the sustenance of the people It is from the ancestors Handed down Handed down.

[This waiata was originally written as a whakatauki. The rangi [tune] was composed by Eru Timoko Ihaka [father to Sir Kingi Ihaka].

The clues for combating climate change lie in our past ancestral wisdom.We cannot look at climate change as an isolated issue. We need to examine the lifestyles that have resulted in this depletion of our resources and adapt to new ways of living that better serve us as a world community. If we honour our Pacific traditions and carry our ancestors forward with us, then we will honour

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their systems of sustainability in order to provide an abundant future for our young. Instead of fighting their rejection of our destructive world, we need to listen to their voices to help find a better way forward. None of us has all the answers. The wonder of this Oceanic Conference on Creativity and Climate Change is that we know that it is creativity that will help pull us out from this mode of destruction and find alternative solutions. One of the ways to do this is to look to the past and learn from our ancestors as we move forward into a more healthy future for our children.

Originally, we all come from the same root stock and share the same centre shoot, te rito. This is very significant for the survival of the planet today.

In Maori culture, the indigenous people of Aotearoa, we have a whakatauki or proverb that aptly describes this interdependance and the vital importance of us all working with each other and the planet for a sustainable future: Hutia Te Rito.

Hutia te rito o te harakeke/Kei whea te komako e ko/Ki mai koe ki ahau/He aha te mea nui o te ao/Maku e ki atu/He tangata, he tangata, he tangata.

This translates: If the centre shoot [te rito] of the flax [harakeke] were plucked/Where would the bellbird sing?/ You ask me/ What is the most important thing in the world/ I would say/ It is people. It is people.

For me, this is an important whakatauki to remember and I hope it will be a symbol for this conference on creativity and climate change. On the literal level, when you harvest harakeke or flax, you always harvest from the outside in, leaving the grandparents, parents and child intact. The outer twinned leaves are the grandparents, the next are the parents and the centre shoot, the child. If you tear away the whanau, the child is also lost and the plant dies. When you harvest, you must always return unused parts of the flax to the plant to sustain and nurture her. All this is consistent with basic organic principles.

On a wider level, this whakatauki is symbolic of our world today and how we treat each other and planet earth. If we do not respect the message of the whakatauki and nurture te rito, the heart of our existence, we will have no centre shoot [or child] symbolising our future. If we hurt a plant, or pollute our land or rivers or oceans or hurt each other, we destroy the balance and can rip away the shoots that provide sustenance for future generations.

At this time of an urgent need to address climate change issues, we must all become tangata whenua, people of the land. We must become and teach others to be kaitiaki or guardians of the land and sea and skies and of our shared future on this planet. But how do we do this?

The root meaning of Pacific as an adjective is to make peace; to be conciliatory; peaceable and not warlike, to be peaceful and at peace [*Penguin Tasman Dictionary*, 440]. We have all experienced non-peaceful ways of trying to get our visions implemented. Now is the time to return to our roots and put into practice the vision that allows us all to move forward in peace. But at the same time, we need to assert the wisdom of our ancestors, those who shared, all over the Pacific, sustainable ways of living on this planet, from ancient talkstory through to today, ways that protected our resources of the sea, land and sky, so that all could be nourished by our plentiful sustenance.

We need to restore that balance which prevailed in the wisdom of our ancestors or tipuna. One way that has worked to empower our people in negotiating with the colonial justice systems in Aotearoa might provide the blueprint for a proven path forward. It is a way that honours our traditions yet makes sure that those who offend against the earth, sea and sky, those who pollute our planet, are brought to account peacefully. It involves introducing an idea Dr Meissenburg and I have coined as Environmental Restorative Justice [ERJ] to the debate on climate change. Instead of buying and selling carbon credits, which allows polluters to remain at a distance from their pollution and which is modelled on the consumer culture that has resulted in this dilemma in the first place, we need to ensure that polluters have to face the true consequences of their actions and make due reparation to the sea, sky, land and people whom they have defaced through their pollution. When faced with their offending, they need to be open to a wide range of creative solutions to make reparation for this. The system must work in such a way that it ensures that people do not offend against nature and people in the future.

My colleague and environmentalist, Dr. Karin Meissenburg, in her final keynote speech for this conference, will korero further about sustainable solutions and seek your feedback on these options also. She has lived in Aotearoa and seen first hand how restorative justice has worked in peacefully allowing people to come to terms with their crimes against nature and people and considers ERJ one of the many possible solutions that offer us great hope at this Oceania Conference on Creativity and Climate Change. Karin comes from the Orkney Islands north of Scotland, where they are facing many of the same issues as those of us in the Pacific, such as flat, no more than a few metres high, islands being invaded by salt water. As translator of my Cowrie eco-novel series [www.spinifexpress.com. au], she has worked internationally on the indigenous ecological issues raised in the novels, has studied Mauri Ora with me at Te Wananga O Aotearoa and has the mana to carry these proposals forward into the world of light: unuhia ki te ao marama.

In the conference schedule today we'd like to approach some of the issues raised by the conference kaupapa in a creative way by performing extracts from the Cowrie novels, which address some of the concerns about the way we treat the environment and the consequent climate change. The most recent novel, Pele's Tsunami [www.uspbookcentre.com] deals specifically with indigenous responses to climate change and Dr Mohit Prasad, Dr Susan Hawthorne and Dr Karin Meissenburg will be launching this today, 3.00 pm-4.30 pm in the AusAID Performance Space, followed by a performance with traditional waiata and taonga puoro and book signing. I'd also like to draw on another part of my Pacific heritage, which is Hawai'ian. In Hawai'i, we have a term that embraces the importance of this kind of talkstory: mo'olelo, which literally means "to cause the spirit to fly between people". The conference organisers invited me to develop an art exhibition along the themes of this korero - Kaitiakitanga, The Hawai'i-Aotearoa Mandalas and A Celebration of the Foreshore which visually endorses my kaupapa in this korero. I hope with the book launch of Pele's Tsunami and this art exhibition that we reach you more deeply than just on an intellectual level by allowing the spirit to fly between us all, so that by the plenary session and the final keynote speech, we have together created some possible solutions to the climate change debate from our shared creative energy. Kia ora.

This is a conference that embraces and honours all our contributions and no one person is any more important than another in this process. Let us remember the true meaning of Pacific as we strive towards expressing ourselves and finding global solutions that are in tune with our Pacific belief systems in navigating a path through the issues of climate change.

Throughout the Cowrie novel series, I have envisioned a group of indigenous Pacific eco-activists who travel the globe with their

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mo'olelo or talkstory, inspiring and being inspired by the stories of indigenous people from Aotearoa to Tahiti to Hawai'i and throughout the Pacific to Inuit territory and the islands of Orkney. They challenge multinational companies that pillage and pollute the planet, build nuclear power plants, rape the earth by drilling into islands to do nuclear underwater tests or destroy the oceans with oil spills or through the use of chemical fertilisers to feed their farmed fish. They challenge those who create climate change and show the effects of this on their island and local communities.

Dr Karin Meissenburg and I have been travelling the globe and performing from these novels over the past twelve years, bringing Pacific cultures and perspectives to wider audiences whether at the Frankfurt, Leipzig or Istanbul Bookfairs or within small local communities, at bookstores, art galleries, on farms, marae, at conferences and anywhere we have been invited. We also run organic permaculture gardens in Aotearoa and in the Orkney Islands and do free workshops for local people which empower them to go out and share these ideas. So we are not just talking heads! We grow our own food and harvest from the sea so we do not need much money to survive.

It is vital that we as writers, artists, scientists and environmentalists find creative ways to raise awareness about the specific issues of climate change in the Pacific. There are already many creative solutions being implemented. I'd like to mention two of these in particular which have been inspirational. Faced with serious issues of salt water inundating their islands at king tides and living on islands no higher than a few metres above sea level with nowhere to escape to when a tsunami hits, Tuvalu has created the King Tides Festival, "Tuvalu E! The Tide is High!" to raise awareness of their plight and invite outsiders to come and see for themselves the situation, and share in their unique cultural activities while bringing in much needed funds to help their cause. The inaugural festival was held earlier this year. As one of the first sovereign nations faced with becoming uninhabitable due to climate change, Tuvalu has shown enormous courage in addressing these issues of survival with creativity. Kia kaha, Tuvalu. I know that Professor Vilsoni Hereniko will be addressing these issues further in his korero: 'The Human Face of Climate Change: Notes from Rotuma and Tuvalu' at 11.30 am today. As with all his mahi, this will be a stunning presentation, not to be missed. A film on the impact of climate change in Taku'u Island, *There Once Was An Island, Te Henua e Nnoho* [director: Briar March] invited to be shown at this conference, powerfully documents the issues also.

More recently, a fleet of double hulled waka Hine Moana, Te Matau a Maui, Uto Ni Yalo and Maramaru Atu, built in Tamaki Makaurau, Aotearoa set sail under the auspices of Pacific voyaging societies to raise awareness of environmental issues threatening the Pacific, including climate change, overfishing, habitat destruction, acidification and pollution. Hoturoa Barclay-Kerr of Te Wananga o Aotearoa said the voyage was also about Pacific cultures reconnecting with one another and young people rediscovering ocean-going traditions. 'There's nothing like being out on the water to learn about the ocean, to reconnect us to the environment, to our tupuna like Tangaroa [God of the Sea] and Tawhirimatea [God of Weather].' [NZ Herald]. The canoes carry up to 16 crew and are based on a traditional Tahitian design, although the hulls are made from E-Glass and foam that are lashed together using wooden beams and rope. Solar panels feed an electric engine to provide auxiliary propulsion but the vaka, which average 7 knots, rely on the wind for the most part. This is a stunning example of diving back into our Pacific traditions and adapting them to find creative solutions and raise awareness about climate change. Later in this conference Fijian Studies [USP] will be honouring the Fijian Voyaging Society as taking a key role in reviving the traditions of navigation and seafaring.

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Since being invited to be keynote speakers at this Oceanic Conference on Climate Change, Dr Karin Meissenburg and I decided it was not enough to just korero about the issues and teach sustainability in our workshops. We needed to take up the wero, the challenge, ourselves to create an integrated indigenous programme of sustainability in all areas of life - one that drew on ancestral knowledge and could also embrace the new ideas of our mokopuna so that we could then offer this to you all at this conference and hand it to younger ones to carry this forward. One that faced issues of climate change by addressing the need for a change of consciousness and that could bring our rangatahi back into balance so that they again had the choice to live sustainably and return to their ancestral papa kainga [marae based homes] or invent new ecological papa kainga on whenua kainga [shared Maori land]. We also wanted to tune this into a certified teaching programme so that each participant would emerge from the intense courses qualified to take these ideas and practices out to their iwi or tribes. The idea was to teach the programme for free so that it was attainable for all people and for each participant to teach another ten tangata whenua, thus rapidly increasing the knowledge base.

So, in preparation for this conference, we designed an innovative Pacific permaculture course, free of the colonial mindset, by and for indigenous people to apply to their own communities: Kaitiakitanga Island Permaculture Design Courses. We wanted to bring to this conference not only inspiration and ideas but the outline of an indigenous programme that could be adapted for all the Pacific Islands and for use in all cultural settings. I'd like to describe the kaupapa for this course in more detail here so that you get a sense of our creative response to climate change issues with this course in sustainability based on ancestral knowledge and practices. The courses are designed to work in tune with the core principles of Kaitiakitanga, which have been implemented on marae throughout the Pacific and Aotearoa for centuries. The kaupapa guiding the courses follows the central principles of Te Arahia, The Pathway. Te Arahia comprises: Aroha, Love; Pono, Truth; Mana, Integrity; Tika: Right Living; Wairua: Spirit, Kaha: Strength and Mauri, the Sacred Life Force. All of these are important for a sustainable organic and holistic approach to permaculture. The course is also based on around the key principles of Hau Ora or good health, where we need a balance between: Tinana [body], Wairua [soul] Hinengaro [emotions] and Whanau [family].

While traditional permaculture courses work mainly with the land, we work with the land, sea and sky. We have incorporated principles of sustainable harvesting and gathering from the sea and foreshore, the kaupapa pertaining to this, identifying wild coastal edible plants and learning to use seaweed for nourishment of the land, in our kai [food] and as a resource when creating garden beds as well as a binder in creating adobe clay structures. Participants learn how to design by working in tune with nature rather than imposing a design upon nature, the latter being an essentially colonial way of operating, which participants in Kaitiakitanga IPDC courses learn to question.

I'll describe here the key kaupapa for the courses. Full outlines will be available after the first course has been implemented. One of the key elements of KIPDC is learning to observe nature, the land, the sea, the sky very closely before working with any of these elements. Careful and sensitive observation is vital to designing and working with the land, sea and sky. Knowing how the sky works, as our Maori and Pacific ancestors did with their celestial navigation, allows us to follow the Maori Moon Calendar with our planting and observe essential rituals such as karakia before working with the land, sea or sky and to celebrate the seasons appropriately, such as acknowledging Matariki as the beginning of the New Year.

Students learn the basic KIPDC principles and are encouraged to follow their own creativity in developing gardens and papa kainga that suit their current needs. We examine traditional papa kainga and explore new ways of adapting this model for contemporary sustainable living. We also study and learn how to make traditional Maori garden tools such as the ko [digging stick] and peruperu [or pere] for planting and learn about the heritage of and seed/plant saving for traditional Maori vegetables such as the many forms of Maori potatoes including whataroa, nga oti oti, karuparera, raupi, huakororo, peruperu and urenika, etc. Local knowledge from tangata whenua in the region where the course is situated is accessed so that the work of the KIPDC is appropriate for their needs and so students learn about the stories and knowledge from the past.

The KAITIAKITANGA ISLAND PERMACULTURE DESIGN COURSE includes all the essential ingredients of any permaculture design course but is adapted to fit kaupapa Maori. This course deconstructs the jargon of permaculture to make it more accessible to a much wider range of participants. We envisage this course being easily adapted by any Pacific Island culture. The emphasis is on observation and involvement in building gardens, earth ovens or earth barbeques, whare, garden beds using natural and found building materials for local structures and working in tune with the marae so that the outcome produces shared gardens and facilities that are marae or community based and that the marae or local community wants.

Like many people coming into the pakeha or palangi world of sustainability, you might well ask what the word permaculture means and why we'd use this. Permaculture combines two words: Permanent Agriculture or Permanent Culture. The word was coined by Australians Bill Mollison and David Holmgren in the 1970s. The underlying ideas can be found in most indigenous cultures and in Masanobu Fukuoka's natural farming and gardening. It is the harmonious integration of land, water, sky and people providing food, energy, shelter and other necessities without diminishing the natural world. Maori always had a system of permaculture described as Kaitiakitanga and we use this as a basis for the course. This is a system shared in different formats throughout the Pacific Islands.

Permaculture Design is a comprehensive design methodology. Its five building blocks resonating kaitiakitanga are:

Ethics with its components: care for the land, sea and sky; care for the people; share the resources; and reduce consumption.

Principles of ecology

Patterns: observing and understanding the patterns inherent in our environment, as a basis for living in harmony with them

Strategies: general methods for achieving desired goals, e.g. sector analysis/location, zoning/placement within location. That is, making sure your plan fits the needs of the whanau and the community.

Techniques: specific detailed methods for achieving desired goals, e.g. techniques for building houses, earth ovens, earth barbeques, garden beds, techniques for accessing water (rain, bore, spring) for humans and land; designing grey water systems; looking after our rivers, lakes and sea.

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Permaculture is a process of looking at the whole, at the interplay of what is at work. To be able to do this, we observe patterns and listen to the rhythms of nature of which we are a part. It is about caring cooperation, caring cooperation with nature, caring cooperation with each other, community building—involving tangata, whenua, moana and working with the hau ora principles of achieving balance and good health in our lives. We have adapted this to work specifically with island cultures, taking in not just the land but the resources of the sea and sky as well.

We took up the challenge initiated by Dr Mohit Prasad and his team in inviting us to be keynote speakers at this Oceania Conference on Creativity and Climate Change to come up with a practical and creative response to climate change. This is the Kaitiakitanga Island Permaculture Design Course, described above, which will be taught for the first time next year at the invitation of rangatahi from Te Rarawa iwi [tribe] based on the northern shores of the Hokianga Harbour, utilising ancestral knowledge by involving elders to contribute to the teaching units alongside practical growers like Te Waka Kai Ora, the association of Maori Organic Growers. In each place this course is taught, the surrounding community is involved and the course participants will build resources that will be left with that community-such as earth ovens or earth bbqs, earth whare or houses, raised garden beds full of vegetables, banana beds, compost toilets [compost used on non-edible beds], and ongoing teaching resources that all the community can access for free.

Once the KIPDC has been rolled out and tested within Maori communities throughout Aotearoa, we hope to use this as a base for developing materials and a KIPDC for teaching through Te Wananga O Aotearoa, our largest university in New Zealand, which is run by tangata whenua. We feel the model has potential to be used throughout all the Pacific Islands and to be adapted to the specific needs of tangata whenua. It draws on knowledge that is within all our communities but is in danger of being lost to colonial and post colonial ways of living if we do not address the issues and honour the ancestral knowledge of our elders now. It is also a model that can work in bicultural and multicultural contexts, so long as all participants respect the kaupapa.

Already, Women in Business, Samoa have made massive inroads in supporting families to get organic certification and create businesses that return resources to the land and the people. By aiming towards families producing high–range organic products, they gain a better income for the families while also protecting our islands for future generations. We tautoko and support their amazing work and see this as one of many models that can bring much needed change and also help bring our planet back into balance. These are perfect examples of the kind of climate change of consciousness I referred to at the beginning of this keynote speech, which also has a vital impact on climate change itself.

Another empowering blueprint for our sustainable future as Pacific Islanders and as global tangata whenua is the recently published *Me'a Kai* [www.randomhouse.co.nz] which celebrates our healthy food origins in the Pacific and shows us how to return to enjoying these ancestral taonga. This reminds me of the Maori whakatauki:

Nau te rourou, maku te rourou, ka ora te manuwhiri With your food basket and my food basket, everyone has enough to eat.

This Maori proverb, in international chef Robert Oliver's tongue, would read, with your food basket and my food basket, everyone has enough for a feast! Robert Oliver was deeply influenced by his upbringing in Fiji. *Me'a Kai* is a feast for the palette in every sense of the word. The palette of the tongue, the palette for the canvas, food as an art form, food as survival, food as nutrition, food as

KAITIAKITANGA:

celebration. By re-discovering South Pacific food from the past, this team of Robert Oliver, Tracy Berno and Fiji photographer Shiri Ram, have also provided us all with a blueprint for our future health.

As an author of 23 Pacific books, a chef at the Commonwealth Games and the co-director of Mohala Organic Gardens, specialising in Pacific fruits and herbs, I always knew that our traditional South Pacific kai was healthy, abundant and nourishing. Yet the stereotype of Pacific food and Pacific Islanders is of islanders eating corned beef, fatty mutton flaps and chicken and reaping the terrifying results of this postcolonial diet with diabetes and other serious health problems. Because it is exactly that-a diet formed after colonials arrived and decided that it would be a clever idea to foist unwanted leftover fatty meats onto island nations because they would be cheap and a great way to get rid of food that first nations people no longer wanted-we need to see this stereotype for exactly what it represents - food colonisation, along the same lines as all other forms of colonisation, for the betterment of the colonial group at the expense of those colonised. Islanders took to these replacement foods, often because they had moved away from their traditional diets and settled for the easier fast-food diets of modern civilisation. That was the price of moving from a healthy subsistence lifestyle into a colonial co-dependent lifestyle.

Instead of bemoaning the terrible price of colonisation, chef Robert Oliver, researcher Tracy Berno and photographer Shiri Ram decided to do something about this that would challenge existing stereotypes and have a lasting impact on present and future generations of islanders, as well as those visiting our South Pacific islands. We all have a part to play in ensuring that the exquisite food of our ancestors is revived, shared and demanded by visitors rather than settling for the tasteless, unethical, international supermarket food that so often finds its way onto menus in hotels and motels. Why not use delicious island vegetables, fruit and kai moana [seafood] that is native to the islands?

The result of this research is *MEA KAI. MEA KAI* celebrates food in its context, from the growers at local markets, like the magnificent Suva Market here in Fiji, to the cooks who gather and prepare the food to the actual experience of eating such delicious kai. Every page exudes colour, taste and beauty. The ancient rituals of food as thanks and in gratitude are revived, supporting the slow food philosophy throughout the book. Beyond all else, *MEA KAI* provides a blueprint for our shared past and future survival in the South Pacific. The vision is to bring together growers, fishers, food providers, cooks, chefs and the eco tourist industry so that the very best of delicious locally grown food contributes to a sustainable tourist industry that can provide an income for the growers and fishers, market stall communities, the cooks, chefs and owners of tourist facilities that are so important to the income of all our Pacific islands.

The book convinces even the most sceptical observer that this is indeed the only way to go to provide a sustainable future income for Pacific Islanders that leaves our land organic and nourished for future generations to live on and benefit from. In the process, we address issues of climate change that can, like the Kaitiakitanga model I mentioned earlier, become an example that can be followed globally. Imagine if the massive wealth of companies like BP that feed off colonial greed and destruction of the planet were channelled into these sustainable ways of living. We'd alter climate change overnight. It would take a mass change in consciousness to achieve this and anything we can do towards affecting that is useful.

It is empowering to find such positive creative solutions to the challenges of climate change and its impact on the Pacific.

KAITIAKITANGA:

Returning to our definition of Pacific as peaceful and conciliatory, we can be inspired by a Maori whakatauki or proverb that is very simple in nature: Aroha mai, aroha atu...love received, love returned. This may seem difficult when faced with sinking islands due to western lifestyles of rampant consumerism. But as our ancestors have so clearly shown, this is the way forward if we are to achieve a peaceful solution to these problems. One critic described *Me'a Ka*i as a love letter to the Pacific and indeed it is this aroha that is needed to create such a global change in consciousness.

If we also assert the vital importance of Environmental Restorative Justice and roll out programmes like the KIPDC and those suggested in *Me'a Kai* and by Women in Business in Samoa, the King Tides Festival in Tuvalu, the environmental waka expedition throughout the Pacific Islands, then we may have some creative, peaceful solutions that most of the world might willingly and happily agree with. Without such inspiration, we will surely reach a stalemate as at the Copenhagen Conference on Climate Change. This way, we can apply Pacific solutions in the very deepest meaning of this word, and help the world out of this crisis and into a more stable future that values people before profit. This is in tune with the whakatauki I described at the beginning of this korero. What is the most important thing in the world: he tangata, he tangata, he tangata: it is people, it is people.

In this spirit, we need to join together as Pacific people to find creative solutions to the problems raised by climate change. As with the waiata I sang earlier, Ehara i te Mea, we need to employ the gifts from our Pacific ancestors and honour this wisdom as we move forward in dealing with these issues. We need to return to our ancestral knowledge of Kaitiakitanga and find creative ways to adapt this to live more sustainably on our islands, as indeed our ancestors did. For instance, imagine if we, as Pacific Island nations, claimed back our traditional navigational and fishing grounds. Imagine if we drew a circle around the entire Pacific Basin, a thousand miles out from the perimeter of our islands and declared half of this a marine sanctuary to regenerate fish and seaweed around our coasts and the other half for fishing and collecting kai moana? Imagine the vast implications of this both for our own islands and also for the world's fish stocks? In Aotearoa, Maori are now in negotiation to reclaim the foreshore and seabed, which has always been traditionally owned by tangata whenua. The government has agreed to repeal the Foreshore and Seabed Act under which the crown owns this resource. We are currently debating the finer issues. We will not give up until this resource is under Maori customary care where it will remain for future generations just as it has sustained us all in the past.

This is just one of many radical ideas that could help feed and nourish our people and also help reduce climate change pressure on so many fronts. I have no doubt that the talent here at this conference will discover a range of other vibrant creative responses that will inspire further awareness and possible solutions to the urgent issues of climate change affecting our Pacific people.

In this korero I have urged us to create, nurture and encourage a climate change of consciousness to get to the real issues behind climate change rather than arguing the statistics of whether or not climate change is happening, which simply gives fuel, quite literally, to the climate change deniers. I have suggested that one of the crucial ways we can move forward in this is by going back to the wisdom of our ancestors to learn how they lived sustainably on our islands without depleting our shared resources. Pacific Island Kaitiakitanga already shows us the way forward. I'd like us to consider the Indigenous Peoples' Declaration on Kaitiakitanga and Climate Change originated at the Indigenous Global Summit in Anchorage, 2009 and developed further at the later conference in Bolivia, and endorse this with our Pacific kaupapa at this fono

for the upcoming conference in Mexico. This will be raised in the closing keynote speech. Kia kaha!

Let us end with an inspirational Pacific waiata, Nga Iwi E, written by Hirini Melbourne, which celebrates our Pacific tino rangatiratanga and asks us to work together to achieve this. Hirini Melbourne took a kapa haka group to the Festival of the South Pacific in New Caledonia. He wrote the first two verses and asked the other countries attending to add on their own verses. It was later adopted by Greenpeace, who sang it on board the *Rainbow Warrior* while protesting French nuclear testing at Moruroa Atoll in Tahiti. Nga Iwi E has historical significance as a uniting protest song that encourages us all as Pacific people to work together. I hope it may become an important waiata in our creative approach to challenging climate change at this conference. [see words in programme]

The Kaitiakitanga Island Permaculture Design Course © Global Dialogues, 2010, was designed by bicultural team, Dr Cath Koa Dunsford and Dr. Karin Meissenburg, who between them have over sixty years of experience in organic gardening and teaching, have written 26 books in print and translation on ecological themes and have adapted the core essence of permaculture to make it more accessible and practical to course participants and relevant to marae based permaculture courses. Cath Koa was Kaitiaki and Kaupapa Consultant to Rainbow Valley Farm [2005–2010] and Karin completed her PDC at Rainbow Valley Farm before teaching courses in Orkney. Both have taught modules in the RVF International Permaculture Courses.

Environmental Restorative Justice © Global Dialogues, 2010, is a term coined and developed by Dr Cathie Koa Dunsford and Dr Karin Meissenburg for the Oceania Conference on Creativity and Climate Change at the University of the South Pacific, Suva, Fiji and is suggested for global implementation. It is based on programmes for restorative justice already proven to be successful in the Aotearoa/New Zealand Justice System and on Maori marae. The notion is present throughout the Cowrie eco–novel series: www.spinifexpress.com.au HYPERLINK "http://www. spinifexpress.com.au/" and www.uspbookcentre.com

If you wish to see the Kaitiakitanga work of Cath Koa Dunsford and Karin Meissenburg in context, please watch an excerpt from the documentary on their work by director Makerita Urale made for Maori Television and first screened in July, 2010. Google "Maori Television", click on "shows", click on "WERO" and choose #04 which features the book cover of Cath Koa's first Cowrie novel painted by Hawai'ian artist and voyager, Herb Kawainui Kane. For global documentation of her books and performances, google "Cathie Dunsford".

Please feel free to quote from and discuss and share all the ideas and kaupapa represented in this Opening Keynote Speech for the Oceania Conference on Creativity and Climate Change at the University of the South Pacific, Fiji, 3–17 September, 2010, so long as the author is acknowledged and the article is quoted in context. The entire speech may be reproduced so long as all details are preserved as above and notification of its use is emailed: dunsford.publishing@xtra.co.nz. Mahalo, Cath Koa Dunsford, Dunsford Publishing Consultants/Mohala Organic Gardens, Matakana, Aotearoa.

David Robie

Iconic media environmental images of Oceania Challenging corporate news for solutions

Abstract:

The fate of 2700 islanders from the Carteret Islands off the north-eastern coast of Bougainville has become an icon for the future of many communities on low-lying small states globally and especially in the Pacific-the so-called 'climate change refugees' or 'environmental migrants'. They are a controversial casualty of the failure of developed nations to deal decisively with the global warming crisis. Iconic images of islanders leaving their ancestral homeland and relocating also resonate with earlier environmental parallels in the Pacific such as the evacuation of Rongelapese and other Marshall Islanders in the wake of US nuclear testing in the 1950s and the forced shift of Banaban Islanders to Rabi in the Fiji Islands from 1945 because of phosphate mining. Despite an inspired and colourful campaign by Pacific Island delegates at the United Nations Climate Change Conference in Copenhagen in December 2009, global geopolitics stifled the outcome to the disadvantage of Oceania. This article examines how the emergence of internet-based and innovative news services has challenged corporate media in the public right to know, explores strategies to communicate over climate change in both mainstream and alternative public spheres and also challenges the news media to lift its environmental reporting efforts.



THIS MORNING—after the church service—one of the elders, John Salik, stood at the northern tip of Han Island [and] whispered sacred words into a handful of stones and cast them out to sea.

Nicholas, the youth tour leader, told us later that John inherited an ancestral power to control the sea, though John wouldn't admit [it]. He definitely seemed concerned; repeating to us throughout the morning that he hoped we would have a safe trip. His fears are justified. The community called on its strongest youth to represent them on the climate change awareness tour. If anything happens to the boat, the community will lose its family and its future leaders (Redfearn, 2009)

By the end of the first decade of the 21st century, images of the Carteret Islands off Bougainville had become iconic of an emerging age of so-called 'climate change refugees' or 'environmental migrants'. The above comments were excerpted from a daily blog written by Jennifer Redfearn for the Pulitzer Centre about the

plight of the Carteret Islanders and their flight to the unknown:

The banana boats, small single-engined motorboats, left the atoll mid-morning carrying 17 young Carteret Islanders. We travelled in a boat with 10 islanders and [more than] 12 bags. The open ocean no longer resembled a smooth expanse of glass. Instead, wind swept across the ocean creating ripples along the surface and swells that surged toward the front of the boat (ibid.)

The more than 2700 islanders from this doomed group of seven tiny atolls off the coast of Papua New Guinea have become an icon for the fate of many communities globally threatened by climate change. Although they have struggled hard to stem the rising seawater, the islanders expect their atolls to be underwater by 2015. The Pulitzer Centre considers the Carteret Islands may become the first island chain to disappear in the impending decade, but other islands and coastal shores in other nations face a similar fate. According to statistics cited by the centre, one-tenth of the global population–634 million people–live in low-lying coastal areas; 75 per cent of these people live in Asia, in the poorest pockets of the globe with limited resources.

Early in 2009, the Carteret Islanders embarked on the first forays of what has become a major evacuation to Bougainville, about 80 km to the south. The decision to move has been forced on them because of worsening storm surges and king tides over recent years. These have contaminated the fresh water supplies and ruined the islanders' staple banana and taro crops.

As Adam Morton in the *Sydney Morning Herald* (29 July 2009) described their impending migration: "Fearing worse is to comemore frequent floods are expected to be the most visible signs of rising sea levels due to global warming-the islanders secured three blocks of coastal land. Some 1700 people are expected to relocate



Figure 1: THERE ONCE WAS AN ISLAND: An iconic film of our climatic times. (Photo: Briar March) Source: Takuu village girls who may be forced to abandon their homes in a still from the award-winning 2010 documentary film screened at the Creativity and Climate Change conference in Suva.

in the Tinputz area on mainland Bougainville over a five-year period from 2009.

The story of our millennium

This remarkable operation has been spearheaded by Ursula Rakova, an islander who pulled out of her job with Oxfam in Bougainville in 2006 to establish Tulele Peisa, an organisation that raises money and campaigns for social justice on behalf of her people. She was quoted by Morton, saying: "We have a feeling of anxiety, a feeling of uncertainty because we know that we will be losing our homes. It is our identity. It is our whole future at stake." (Morton, 29 July 2009). A spate of emotive print, online, video, films and other media reports began to chronicle the first so-called climate change refugees. Among the many Fleet Street newspapers in Britain to devote resources to the coverage was the *Daily Telegraph*, whose online display featured staff writer Neil Tweddie (Hancock & Tweddie, 2009) and a series of reports proclaiming: "The sea is killing our island paradise". The coverage featured stories, pictures, and interviews with Islanders, videos and a blog diary as people left their ancestral islands. There were indications of a media "feeding frenzy" over the plight of the climate change refugees.

Ironically, *The Telegraph* and other media were beaten on the issue by almost two years by an earlier report by Australianbased journalist Richard Shears (*Daily Mail*, 18 December 2007) about the world's first climate change refugees. He noted then: "The Carteret Islanders have made what is possibly the smallest carbon footprint on the planet, yet they are the first to suffer the devastating effects of a wider, polluted world they know nothing about." Heralding the end of the Carterets, Kevin Drum, writing in *Mother Jones* (9 May 2009), said:

Life, the [Carteret Islanders] hope, will be better for them here. On the Carterets, king tides have washed away their crops and rising sea levels poisoned those that remain with salt. The people have been forced to move.

Perhaps even more evocative is the documentary film *There Once was an Island: Te Henua e Noho* (director Briar March, 2010), about an even more remote Polynesian atoll near Bougainville, which was screened at the Creativity and Climate Change conference in Suva. Like the Carterets, remote Takuu atoll is part of the Autonomous Region of Bougainville and is located about 250 km north-east. This is a film that portrays the "human face" of climate change in the Pacific. As the producers describe it: In this *verité-style* film, three intrepid characters, Teloo, Endar and Satty, allow us into their lives and culture and show us first hand the human impact of an environmental crisis. Two scientists, oceanographer John Hunter and geomorphologist Scott Smithers, investigate the situation with our characters and consider the impact of climate change on communities without access to resources or support. (March, 2010).

For me personally, although my role as the Pacific Media Centre director in recent years has been far more focused on coordinating independent online media coverage and research projects than frontline environmental coverage—as I had done in the 1980s and 90s as an independent journalist—the Carteret and Takuu islanders' experiences strike a strong resonance.

Twenty-six years ago in May 1985, I was on board the environmental flagship *Rainbow Warrior* that was later bombed by French secret agents in a vain attempt to derail protests against French nuclear testing in the South Pacific. I had been on board for more than 10 weeks and had joined the ship in Hawai'i to cover a humanitarian voyage to the idyllic Rongelap atoll in the Marshall Islands and transport the entire population to another barren, windswept island on Kwajalein atoll, infamous for testing missiles as part of the so-called Star Wars strategy of the United States.

Nuclear refugees in the Pacific

The islanders were fleeing the demoralising health and social legacy of American nuclear testing on nearby Bikini atoll. My coverage of this momentous and emotional event was documented in my 1986 book *Eyes of Fire: The Last Voyage of the Rainbow Warrior*, and again in a later edition published in 2005 to mark the 20th anniversary of the bombing (Robie, 1986, 2005). It also featured in a photographic exhibition and a short documentary that I made with colleague Michael Fleck and Television New Zealand, entitled *Nuclear Exodus: The Evacuation of Rongelap* (Robie, 1987).

The people of Rongelap were dusted with radioactive fallout from a thermonuclear fireball codenamed Bravo that drifted across the atoll on 1 March 1954. Since then the people had felt jinxed and their health had been contaminated by the radiation. As innovative Australian filmmaker Dennis O'Rourke described it (cited in Robie, 2005, p. 19):

In a sense the Marshall Islanders are the first victims of the Third World War: They are the first culture in the history of [literal] which has been effectively destroyed by radiation.



Figure 2: Rongelap islanders leaving their atoll for Mejato, May 1985. (Photo: David Robie) Source: The 1986 documentary Nuclear Exodus: The Evacuation of Rongelap.

On that fateful day in 1954, 64 Rongelap people were contaminated, as were another 18 Rongelapese on nearby Ailingnae atoll, where they were cutting copra and catching fish. The death of Lekoj Anjain at the age of 18 was the first radiation linked death.

During the *Rainbow Warrior* evacuation from Rongelap in May 1985, four voyages were made to move the entire community almost 400 people—to Mejato, Kwajalein (Figures 2, 3 and 4). The United States did make some attempts at making amends for the tests. It provided some \$150 million as part of the socalled Compact of Free Association to establish a nuclear claims tribunal to consider Marshallese claims over nuclear testing in the islands (McDiarmid, 2005, p. ix). It also gave the Rongelap people \$60 million for cleaning up their atoll and resettlement. Then the Rongelapese petitioned the US to adjust the compensation package.



Figure 3: Demolished Rongelap Elementary School, May 1985. (Photo: David Robie) Source: Headmaster Aisen Tima with some of his pupils awaiting evacuation. (Eyes of Fire, p. 49.)



Figure 4: Islanders with their belongings approach the Rainbow Warrior, May 1985. (Photo: David Robie) Source: Eyes of Fire, p.54).

Now Tahitians today face a similar struggle to the Marshallese in gaining access to information, justice, recognition and compensation for the impacts of the French nuclear testing programme, especially the "dirty" atmospheric tests in the Gambiers between 1966 and 1974. Altogether France detonated 193 of a total 210 nuclear tests in the South Pacific, 46 of them dumping more than nine megatonnes of explosive energy in the atmosphere—42 tests over Moruroa and four over Fangataufa atolls. However, since France halted nuclear tests in 1996, it continued to respond to veteran Tahitian worker claims for compensation with disdain in an attitude compared by critics to the secretive and arrogant approach of China and Russia. This contrasted with the British and US which had reluctantly "recognised the consequences of nuclear tests on the populations" in Australia, Christmas Island, the Marshall Islands and Rongelap.



Figure 5: The bombed Rainbow Warrior in Auckland Harbour, 10 July 1985. (Photo: John Miller) Source: Half of the iconic diptych front and back images for the original book Eyes of Fire.

When a French compensation bill did finally come late in 2009, it was far too little and too late (Figure 5). A new office was opened to evaluate claims by people affected by the tests carried out between 1960 and 1996. Compensation is decided on a case by case basis, but victims now say the criteria set out by the French government rule out many people who should qualify for financial recompense. The Association of Veterans of Nuclear Tests and an association of Polynesian workers affected by the tests, Moruroa e Tatou, says the government does not recognise all the different types of cancers caused by radiation exposure. The victims' associations also say the geographical restrictions for compensation are too narrow (French nuclear test victims say, Radio Australia, 1 July 2010). Just as the Rongelap evacuation became a tragic icon of the nuclear age migration, the Carteret Islanders' enforced move to Bougainville has become a symbol of the global warming age. Just as had been the relocation of Banaban Islanders from their guanorich island in Kiribati, or as it was then, the Gilberts, with the first 703 islanders going to Rabi in Fiji after the Second World War in 1945. The climate change refugees or environmental migrants are likely to become an increasingly common story over the unfolding decades.

Climate change could produce eight million refugees in the Pacific Islands alone, along with 75 million refugees in the Asia-Pacific region within the next four decades, warned a report last year by the aid agency Oxfam Australia (Maclellan et al., 2009). The report pointed out that "for countries like Kiribati, Tuvalu, Tokelau, the Marshall Islands, Fiji, Vanuatu, Papua New Guinea and the Federated States of Micronesia, climate change is not something that could happen in the future but something they are experiencing now". The Oxfam report documents how people are coping with more frequent flooding and storm surges, losing land and being forced from their homes, facing increased food and water shortages, and dealing with rising incidence of malaria and dengue fever. The Inter Press Service cited Pelenise Alofa Pilitati, chair of the Church Education Director's Association in Kiribati, about the impact on one nation comprising 33 atolls:

First, we were refugees of World War Two, then phosphate mining pushed us out. We can't be displaced a third time because of climate change, This time if we lose our home, we will lose our identity, our culture. It is unacceptable. (ibid.)

Impacts in the Pacific media

So where does the mainstream media fit in the middle of this complex scenario and the digital technologies revolution? Is the media part of the problem, or part of a solution?

Unfortunately, for the most part, corporate media in Australasia and the Pacific is probably part of the problem. The relentless pursuit of ratings, short-term circulation spin-offs, the dumbing down of content and ruthless cutting back of staff are examples of this. And there are many instances of poor editorial judgment, or downright sensationalist opportunism that accentuates this problem. These frequently overshadow the times when the news media does a credible job and puts in considerable effort at publishing social justice issues and other agenda-setting investigative reports. However, this is balanced by many promising initiatives such as global collaborative projects between journalism schools. A good example of this is *Reportage-Enviro* (www.reportage-enviro. com), an environmental publication published by students at the University of Technology, Sydney, which has a strong Pacific focus and is linked to the Global Environmental Journalism Initiative (GEJI) www.gejiweb.org. Other examples include Pacific Media Centre Online www.pmc.aut.ac.nz and Pacific Scoop www.pacific. scoop.co.nz

Enviro-strategies for the news media

The power of journalism to mobilise societies towards action has been recognised for centuries. Napoleon Bonaparte once said: "A journalist is a grumbler, a censurer, a giver of advice, a regent of sovereigns, a tutor of nations. Four hostile newspapers are more to be feared than a thousand bayonets" (cited by Randall, 2000: 72). A conventional view of journalism involves descriptions such as a watchdog on power, bringing facts to light, uncovering abuses, and the maxim such as "afflict the comfortable, comfort the afflicted" (often attributed to *Baltimore Sun* columnist H. L. Mencken, but sometimes to independent journalist I. F. Stone)—in other words, the journalist is by definition the champion of the underdog.

While this may be so, such definitions of the media are no longer enough to make a "successful democracy". The Fourth Estate role has become muted in recent years as the corporate industry nature of the news media has become dominant. Society needs more from the media. Citizens must also deliberate about policy. In other words, an informed citizen is not necessarily an empowered and active citizen (Levine, 1996: 1). And journalists must play an important role in helping communities creating a "healthy public climate" (Romano, 2010: 17).

In a remarkable book about environmental and development journalism, *Dateline Earth: Journalism as if the Planet Mattered* (2010), updated and republished recently after the 13-year-old original edition from Interpress in Manila rapidly became out of print, *Nepalese Times* editor-in-chief Kunda Dixit warned of the many consequences of globalisation in the media:

Everything we used to say about flashy multinational media a decade ago, the concentration of their ownership and the uniformity they propagated, is still true. But it has been overlaid by the acceleration of time itself and the disappearance of space. There may be a diversity of voices and images, but it is a cacophony where the thoughtful, meaningful and relevant is drowned out. Our personal blogs are lost in the informationsphere's long tail that trails into infinity.

So, the media juggernaut rumbles on, squishing everything in its path. It tramples everything into uniformity—native wisdom becomes extinct, languages disappear, And the media's globalness pushes fragile cultures to the edge of time. Reality is replaced in a virtual planet. The instruments are all merging: your phone is not not just a phone but your newspaper, your computer, your television, your radio, your music system, your camera and your internet. And the content is the same everywhere you go. (Dixit: 14)

In contrast, deliberative journalism is increasingly regarded as "a beacon" for social service in response to corporate journalism, globalisation and the profit motive and appropriate in a climate change context. News media has played a substantive role in public deliberation and has done so for centuries. This is exemplified by the role played by news media in independence movements and nation-building. As Gandhi once said: "I believe that a struggle which chiefly relies on internal strength cannot be wholly carried out without a newspaper" (http://dhvani.co.in/neelimap.html). He founded three newspapers in defiance of India's *Press Act* in the 1920s to further social struggle. However, deliberative journalism takes several forms. Some examples:

Public journalism—US-style

Public journalism is a "philosophy, set of practices and a movement" to cultivate deliberative democracy. It is also called "civic journalism" or "communitarian journalism" (see Figure 6). Critical to this approach is the notion of "technology of community rather than technology of tutelage" and throw off the notion of public "guardians". Instead, the philosophy is more about generating "public knowledge" and is a challenge to mainstream media (C. Campbell, cited in Romano, 2010: 10).

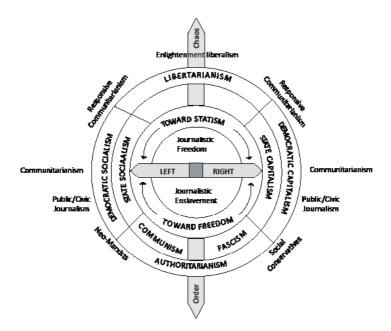


Figure 6: Freedom and authoritarianism: A circular model. Source: Global Journalism: Topical Issues and Media Systems, de Beer & Merrill, 2004 (p. 4)

Cole Campbell's five-point Public Knowledge tabs

- 1. Myths and meanings—citizens' capacity to act.
- 2. Surveillance and assessment—how citizens and communities develop their own "SWOT" analysis.
- 3. Public discourse—how communities talk about opportunities/challenges
- 4. Public judgment—working through "consciousness raising".
- 5. Public work—translating their judgments into action (C. Campbell, cited in Romano, 2010: 17).

Citizen journalism

This field of "journalism" or alternative media addresses concerns about media ownership, public participation and the reform of media traditions. Participatory journalism involves citizens using the internet to play a role in collecting, reporting, analysing and disseminating news and information. It involves "independent, reliable, accurate, wide-ranging and relevant info needed for democracy" (Bowman & Willis, cited in Romano, 2010: 20). Examples of this are blogs and social media such as YouTube, Facebook, Twitter. An "explosive growth" in users of social networking and citizen video sharing platforms has meant that these outlets have evolved into important means of distributing news. Activist media such as www.indymedia.org have also been critically important to environmental journalism.

Community/alternative media

Citizen media existed long before internet. Examples have included *Green-Left* in Australia and *Rolling Stone* and *Slate* in the U.S. along with Indigenous minority media. Key characteristics of these media include: 1. Small-scale, serve distinct "disadvantaged" groups—respect diversity; 2. Independent of state, market; 3. Horizontal/non-hierarchical structures, support democracy; 4. Offer non-dominant, counter-hegemonic discourses; 5. "Weapons of the weak" (Bailey et al, cited in Romano, 2010: 20).

Indigenous community media

Indigenous communities in Australia and New Zealand are at the forefront of a growing community media. Examples abound such as *Koori Mail*, Koori Radio 93.7FM, *Indigenous Voices* in Australia; and Māori, Pasifika broadcasters in NZ such as Māori Television, Pacific Media Network (NiuFM and 531pi), and *Tagata Pasifika* (TVNZ). According to Bailey et al. (2010: 20): "Societal groups that are represented one-sidedly, disadvantaged, stigmatised, or even repressed can benefit ... from alternative media ...", and they

ICONIC MEDIA ENVIRONMENTAL IMAGES OF OCEANIA

FIRST WORLD	SECOND WORLD	THIRD WORLD	FOURTH WORLD
Objectivity <i>Examples</i> : Australia, New Zealand, Canada, European nations, UK, USA	Collective agitator <i>Examples</i> : China, Cuba, Vietnam	Nation-building Examples: Cook Islands, Fiji, India, Papua New Guinea, Philippines	Self-determination Examples: Koori, Māori iwi, First nations, Cordillera, Sami, Lumad peoples
1. Timeliness News is now	1. Ideological significance News is politically correct ideology	1. Development News is progress, news is growth, news is new dams, news is new buildings	1. Independent voice News spearheads a political view challeng- ing the mainstream media perspective
2. Proximity News is near	2. Party concerns 'The state one party (ie. communist) is news what it does, what it thinks and what it does not think.'	2. National integration 'News is positive achievement, pride and unity.'	2. Language News is in the first language of the cultural minority
3. Personality News is prominent or interesting people: politicians, royalty, sports heroes and heroines, hip hop art- ists and movie stars	3. Social responsibility News is responsible to society in the 'Second World'	3. Social responsibility News is responsible	3. Culture News is reaffirming a distinct cultural identity
4. Unusual, odd events News is quirky, weird, bizarre oddities out- side the norm	4. Education News is instruction, news teaches, news preaches	4. Education News teaches, news passes on knowledge	4. Education News is teaching in own language 'nests' Example: te reo Māori, Maohi, Bislama, Tok Pisin
5. Human interest	5. Human interest Similar to First World but with an ideological touch	5. Other values News similar to First World, human interest, people, etc.	5. Solidarity News supports other indigenous minorities
6. Conflict	6. Disaster	6. Conflict	6. Conflict Crises interpreted through an indigenous prism
7. Disaster		7. Disaster	7. Disaster
			8. Environment News reaffirms cultural and traditional values

Figure 7: Four Worlds' news values: A contemporary model Source: The Pacific Journalist: A Practical Guide, Robie, D., 2001 (p. 13)

can also establish an influential market base. Characteristic of this form of media is my "Fourth World" news values model (Figure 7).

Development Journalism

Development journalism places more emphasis on the news "process" rather than simply the event as Western corporate journalism tends to do. Five different interpretations, at least, are involved, depending on varying assumptions in countries: 1. Interactive, advocative and educational—community self-reliance; 2. Deliberative development journalism puts communication "at service of development" for people it seeks to serve. (Examples include: Inter Press Service (IPS), One.World.net, DEPTHnews, TVE, Gemini News-although once widely popular in the Pacific, this is now defunct); 3. "Giving voice to the voiceless" (Dixit, 1994, 2010)-outside centres of business, political and mainstream political power; 4. More emphasis in news on "process" analysis rather than "event" reporting alone; 5. Examining causesand seeking solutions. Dixit (2010: 52-53) describes the new reporting and the implications for economic, environmental and health journalism thus:

Today traditional economic thinking is being revised to take into account ecological realities, social justice and equity. Like economists, journalists need new parameters. Present rules dictate that stories on the rich and powerful are hard news for page one and articles on landless peasants and the reasons for their plight are for the weekend section. Old-fashioned journalism that reduced everything to event-oriented spots needs to be replaced by contextualised coverage that looks at the linkages and true nature of change. Like the New Economist, the New Journalist is starting from square one, reinventing everything and questioning assumptions long held as given ...

By the end of the next century, one-third of Bangladesh's low delta country may be under water as greenhouse gases build up in the atmosphere and warm the Earth. It will make up to 70 million people homeless—hardest hit will be the poorest who live along the coast or on floodplains and have nowhere else to go. As the Earth warms, diseases like malaria and dengue could spread and more than half the world's population may find itself living in disease-prone areas.

Peace journalism

Mass media alone are not "prime instigators of peace or violence" in communities. But it is a powerful force in determining how publics identify and deal with disagreements and tension. Journalists' "objectivity" conventions serve to marginalise voices calling for peace, restraint and dialogue. The notion of peace journalism does not involve radical change—but subtle shifts in "seeing, thinking" the news (Keeble et al., 2010: 50).

One of the most innovative thinkers about deliberative journalism in the Asia-Pacific region is Kunda Dixit, former Inter Press Service bureau chief and roving correspondent in Manila, Philippines. His 1997 and 2010 books *Dateline Earth: Journalism as if the Planet Mattered* are a classic in environmental and development journalism and has already been cited for its resonance today. He offered this "simple eco journalism code" as a benchmark for journalists in developing countries:

- 1. Discard the myth that reporting on development/ environment must always be positive
- 2. Find a fresh news angle
- 3. Lively, eyewitness reporting talk to the grassroots
- 4. Don't exaggerate. Don't cry wolf
- 5. Zoom out so we get the larger picture

- 6. Cover the underdog
- 7. Don't preach, don't wave flag, don't moralise
- 8. Report coups and earthquakes (and all other natural disasters)—"be there after the parachute journalists have gone"
- 9. Take a "video", not a snapshot. The environment and climate change is in a constant state of flux
- 10. Follow the money. "Investigative journalism takes the conscience of a missionary and the heart of the revolutionary".

Finally, a message as an antidote to corporate journalism. Empower citizens through all means at your disposal—digital media, social media, cartoons, videos, blogs for the "journalism of outrage".

- 1. Stick to the environmental facts.
- 2. Be scrupulously fair.
- 3. Report with responsibility.
- 4. Maintain personal honesty.
- 5. Report with vision.
- 6. Uphold your independence.
- 7. Listen to your conscience.

Conclusion

Pacific perspectives have helped contribute to a wider global understanding of the risk climate change poses to traditional indigenous cultures in the region. Many Pacific governments have worked strategically for the betterment of vulnerable island states and in spite of the ultimate failure of the United Nations Climate Change Conference in Copenhagen in December 2009 from the region's point of view (Ryan, 2010), there were some positive signs about Pacific collaboration. Australia and New Zealand policies have often been at variance with Pacific Islands objectives. Papua New Guinea, for example, sent a delegation of 63 that 'dwarfed even that of New Zealand and included international celebrities Vivienne Westwood and Bianca Jagger' (p. 199) but tended to a play a lone game based on the potential emission credits of its vast rainforests.

The Pacific is unwilling to simply be cast aside as stateless 'climate refugees', as portrayed by the Western media, particularly in Kiribati, Tuvalu and many isolated low-lying atolls in several countries. Journalists and news media need to develop solid foundations for reporting climate change issues and adaptation, including the impact of new research and policy, development, and the diffusion of new technologies. The Pacific took a strong step forward with the 2008 Niue Declaration, which set an initial framework as;

A long-term international challenge requiring a resolute and concerted international effort, and stressing the need for urgent action by the world's major greenhouse gas emitting countries to set targets and make commitments to significantly reduce their emissions, and to support the most vulnerable countries to adapt to and address the impacts of climate change. (PIFS, 2009)

The vital strategic importance of climate change for the region was underscored with the visit of the United Nations Secretary-General, Ban Ki-moon, to Kiribati and Solomon Islands before the Pacific Islands Forum leaders summit in Auckland in early September 2011. After the Forum, he also visited Australia where he called on nations during an address at the University of Sydney to "connect the dots" between issues such as climate change, food insecurity and water scarcity, and work towards sustainable development (Ban Ki-moon, 12 September 2011). The message to the media is also clear: Pacific journalists and news organisations need to improve sharply their dot-connecting capacity and strategies.

Digital tools such as blogging, wikis, listserve and social media sites such as Facebook, YouTube and Twitter are vital for the media to work more collaboratively with Pacific governments to achieve this goal. Iconic environmental imagery is also important. Journalists need a better understanding of their governments' and Pacific regional climate change policy and to be more critical and sceptical about the corporate media influence from developed countries such as Australia and New Zealand. Sustainable fish resources and other food supplies and health issues are posing a fresh challenge related to climate change (Bell, 2011).

A major problem is the media mindset focused on "compulsive reporting of events", however trivial, at the expense of more comprehensive process journalism, which is what is needed in climate change journalism. An intricate environmental web is carved by mainstream media into segments and treated in isolation. As Kunda Dixit argues (2010: 110): "No wonder then that the media's portrayal of the world is as fragmented and mechanical as the mainstream economist's."

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IN THE ABSENCE OF LAND, ALL WE HAVE IS EACH OTHER²

Art, Culture and Climate Change in the Pacific Global Movements | Local Initiatives

Pacific Climate Crisis and ESD

Imate change is an inevitable reality in the Pacific region. The resulting climate crisis extends beyond the primary concern of environmental impact. Loss of physical space has multiple implications for social, cultural, economic, political and spiritual dimensions of Pacific communities. This paper examines the potential of Art and Culture as an Education for Sustainable Development (ESD) effort to address these issues.

In the Pacific, the 2006 Pacific ESD Framework articulated the goal of ESD as a means "...to empower Pacific peoples, through all forms of locally relevant and culturally appropriate education...to make decisions and to take actions to meet current and future social,

^{2.} Title of a quadriptych painting by the author in 2009.

cultural, environmental and economic needs and aspirations" (PEDF, 2006:23). As such, ESD offers a transformative approach to progressive education that is premised on the pedagogy of HOPE (Holistic/Ownership/Partnership/Empowerment). ESD furthers the basic environmental education by providing opportunities for holistic learning about changing climates and realities that local communities in transition are facing in a globalised world order.

This paper presents a number of Pacific art and culture initiatives including festivals, collectives and individuals employing ESD principles and philosophies in their efforts towards raising awareness about changing climates and climate change in the region. The end is the beginning and in the spirit of *continuity and survival* as a shared Pacific notion of being, these examples show that the arts are creative forms of cultural expression creating possibilities for wider social discourse on society and the environment.

In Pacific oral tradition, I begin with a chant in the form of a poem entitled *Tuli*, the dreamer. In Samoan and Tongan cosmology, *Tuli*, a golden lover bird, is sometimes characterised as Tangaloa the creator and at others, a daughter or sister of Tangaloa. The Tuli is said to have flown about the early creation exploring what was. S/he is attributed with asking for a place to rest. This resulted in the creation of the first island. S/he then ask for a shelter from the sun, resulting in the first tree. Then when s/he pecks on this vine, it rots, creating a worm. Tuli is then instructed to divide the worm, which then forms the first three inhabitants of the earth. The Tuli features as a traditional motif in both Samoan siapo and Tongan ngatu. In the case of Samoan the most common Tuli motif is an artistic representation of the footprint of Tuli (Fa'avae Tuli), sometimes mistaken for a four–petalled flower.

IN THE ABSENCE OF LAND, ALL WE HAVE IS EACH OTHER

Tuli the dreamer Plucks feathers from women Carved into stone Words That reside in yesterdays In which I will rest

one day perhaps I will show you the heavens

People move the sky like cloudlines On mountain tops Ancient chants Of histories almost forgotten Women birth The gods into existence Who become men That conquer the world With words Filling empty spaces with dreams black and green trees

brushing the earth from our faces dousing the ocean on our brow the moon Rests in the curl of lips and gritted teeth

Tuli, the dreamer Plucks feathers from women Carved into stone Words residing in tommorow In which I will rest

one day perhaps I will show you the heavens

©Koya, 2008

A REGION IN TRANSITION: PACIFIC REALITIES Multiple Realities Agendas Tensions

The Pacific is in crisis. Crises exist in all spheres of life from social, economic and political to environmental. These crises are imminent and multifaceted and have become a beast, growing in magnitude exacerbated by both ignorance and a general lack of political will. Historically, Christianity and colonialism; and the education and development that followed these early periods of growth, in the region, changed the worldview of Pacific peoples. The shift from valuing and practising indigenous knowledge and ways of being in harmony with the environment, to formal education resulted in a prioritization of individual success and personal gain. Furthering the 'civilisation' process advocated by the missionaries and the colonial masters, western models of government and economies were also adopted. The global trend to indiscriminate exploitation of the world environment for human progress has been attributed to the last of these in particular.

Although most Pacific Island Countries (PICs) have gained independence, they have struggled towards stable economic growth and development and autonomy. One of the problems PICs face is, as articulated in Lamour and Barcham, is that although the achievement of independence across the region spanned the "...1962 – 1983 *period ...the majority maintain donor relationship ties with former colonial powers* (Lamour, and Barcham, 2006: ????). Additionally, modernisation and globalisation place a strain on local communities, leading to changes in lifestyle, values, beliefs, behaviours and practices. All of these are driven by consumerism and commodification, process that are notoriously inconsiderate of resource depletion and or socio-cultural and socio-ecological costs.

The outcome of this is societies that are constantly in transition trying to keep up with the rest of the world; societies of people struggling between the reality of small economies and fragile environments and their desire for the luxuries of the developed world, which are marketed as *easier*, *faster and better*. Pacific leaders are aware that developmental models used in the region have not been and are not now premised on sustainable consumption. Leaders in the region note the need for stable political economies but at the same time, the dual need for sustainable socio-cultural development that nurtures and replenishes communities and environments . Additionally, there is growing concern that whilst climate crisis is a Pacific reality as it is in other island nations worldwide, resilience, or the ability to 'bounce back' through adaptive measures (Hilderbrand, Watts and A. M. Randle, 2005) is dependent on proactive commitment from the developed world.

SNAPSHOT:

The Pacific Ocean, which spans about a third of the earth's surface, is home to a scattering of around 25,000 countries covering "a land area of only 550, 073 km³ "(Chandra, 1995). The reality of these island nations is one of instability caused by "small size, scattered nature, remoteness from major centres of production and consumption, and ecological and economic vulnerability" (ibid).

In response to the low economic growth recorded in the region, over the 1983–1993 decade, the World Bank (WB) coined the phrase 'the Pacific Paradox'. This was in direct reference to economic and political instability, donor dependency, limited resources and population growth. This reality remains true, with many common challenges shared by PIC, such as smallness, isolation, dependence, ecological frailty, and vulnerability to external economic shocks, population sizes, policies and infrastructure in place since independence, health, environment, low economic growth, and political issues (Chandra, 1995; Maiava, 2006). Today this analogy holds true with the addition of social instability, health security and climate crisis thrown into the mix.

^{3.} See Pacific Plan http://www.forumsec.org.fj/pages.cfm/about-us/the-pacific-plan/.

CLIMATE CHANGE

The most widely known impending crisis facing small island nations is that of climate change and rising sea levels. It is a known fact that the nature of Pacific Islands is such that climate change poses a real and imminent cause for concern. Conservation issues, loss of land, enforced relocation and culture loss are a few of the related worries of low lying island communities. In Tuvalu, half the population is said to live just three metres above sea level and in Kiribati, two islands in the Kiribati chain are already lost to the sea. For the most part, environmentalists raise their concerns about the physical degradation of these island homes, but within the island communities themselves, where culture is so closely intertwined with the natural environment, concerns about loss of place and space, and displacement are of paramount concern.

According to UNEP, (the United Nations Environment Programme News, 2006) the picture does not improve.

Studies, announced today by the United Nations Environment Programme (UNEP), indicate that some islands in the region could see over half of the mangroves steadily lost by the end of the century, with the worst hit being American Samoa, Fiji, Tuvalu, and the Federated States of Micronesia. The study, which has assessed the vulnerability of the 16 Pacific Island countries and territories that have native mangroves, finds that overall as much as 13 per cent of the mangrove area may be lost.

Fig 1. Sea Levels are rising

January 12, 2001. Tuvalu's 10,500 people live on nine tiny atolls. They are densely packed; 403 people per square kilometer; Australia has 2.4, New Zealand just under one. Kiribati has 111 people per square kilometer

In places like Kiribati and Majuro (Marshall Islands), for example, the highest point above sea level is on bridges 11 feet and 20 feet high, respectively; virtually everyone lives about five feet above sea level.

One of the major concerns for indigenous communities is that loss of land raises the issue of relocation, which has a series of sociocultural implications. Loss of physical space and place for many will ultimately lead to culture and language loss. Inherent cultural beliefs and practices tied to the land, sea and its flora and fauna, as well as the language and skills attached to these are potentially endangered. For those in lower–lying atolls and smaller and or more isolated Pacific Island Nations are now finding themselves in this position of crisis and the ensuing short-term and long-term psychosocial effects of imposed migration and diaspora.

Moreover, the tsunami experience of 2009 demonstrated again the need to maintain mangrove sanctuaries, as environmentalists found that areas in Samoa that were protected by mangrove were said to have been the least damaged areas within the ocean's path (R. Thaman, 2010). Other concerns include over-fishing, excessive logging and rapid clearing of forests to allow for urban development and growth..

ART, CULTURE AND ESD

ESD as a global movement has come about as a result of a rude awakening to the fact that continuous exploitation of the earth's resources cannot sustain life on the planet. ESD is a call for the rethinking of education and for social reform. It recognises that in order "to achieve sustainable development, we also need to cultivate the right kinds of values, attitudes and behavior which often defy our traditional social and cultural contexts" (Soetaert and Mottart 2004, cited in Lauman 2007, p.1).

The internationally accepted model of ESD is derived from the Sustainable Development Model, which emphasises three pillars: *Society, Environment and Economy.* The ESD model, however, advocates that culture underpins and connects these pillars to form a model that is cohesive and holistic.

Despite the diversity of heritage arts in the region, for the most part the arts have been defined by Eurocentric notions of high art with heritage art forms often considered crafts or expressions of culture distinct from high art in the form of paintings, sculpture, music and dance introduced from the outside. Additionally, the arts are relegated to the periphery of formal education with its temporal inclusion in the PEMAC subject comprising Physical Education, Music, Art and Culture. In the early years of schooling, art classes in the form of crafts, dancing and singing are deemed relevant and are commonplace. In upper primary, however, it is interesting to note the shift in focus towards 'serious study', with art classes reduced to 'science' model making and or the creativity of subject teachers (Koya, 2008, p 17).

Constructively, however, this is changing both regionally and nationally. Particularly noteworthy are the efforts of the Pacific Islands Forum Secretariat (PIFS), in specific relation to the *Pacific ESD Framework*, 2006 and the Secretariat of the Pacific Community (SPC) which facilitated the development of the *Culture and Education Strategy*, 2009 and the *Regional Cultural Strategy*, 2010. Nationally, Pacific Island Nations are also recognising the significance of the arts.

National efforts in education are also worth mentioning here. Using the subject approach, Tongan Studies offers students the opportunity to learn about Tongan Culture, including an examination of various heritage art forms such as oratory, poetry, and dance, weaving and tapa motifs including meaning and history of these designs. Samoa offers students the arts: visual, graphic and performing, at secondary level. In Fiji, a review of the art curriculum is currently underway.

In the area of ESD, the *power of the arts* is recognised as a mechanism by which non-formal and informal learning opportunities exist. In this light, the arts are recognised as a social learning tool as well as valid forms of cultural expression. The arts provide a space for open dialogue on social commentary, with a wide inclusive outreach extending beyond the confines of the school.

The convergence of the arts and ESD occurs in two main areas; *life learning* and *spirit-learning*. *ESD as Life-learning* encapsulates ideas about education for behaviour change and encompasses discussions about beliefs, attitudes and values. Here, the arts are seen as a means by which to develop and re-awaken notions of living in balance within the wider context of a highly commercialised, 'selfish' and 'convenience first' lifestyle of the globalised user-pay society we live in and the economic and political 'power' (Foucault, 1980) structures that support this. Complementarily, *ESD as spirit-learning* draws the arts into a personal, spiritual and emotional dialogue that touches the heart and mind.

ART FOR AWARENESS, ADVOCACY AND EDUCATION ON CLIMATE CRISIS IN THE PACIFIC

This section provides an overview of activities taking place in the Pacific islands, excluding Australia and New Zealand. The discussion is by no means complete and simply offers examples of Pacific initiatives in the Arts premised on the philosophy of ESD as Life-learning and Spirit-learning.

Pacific Arts Festivals

The role of Art Festivals has been modelled from the Festival of Pacific Arts, which was launched as the "South Pacific Arts Festival" in 1972. The roving festival, held every four (4) years in different locations across the Pacific, provides a platform for Pacific Island communities to participate in cultural and art displays, both heritage and contemporary. More recent festival developments, however, fall within the area of advocacy and awareness. Examples of this include the Kava Kuo Heka Festival, Tonga; King Tide Festival, Tuvalu and the Wasawasa Festival, Fiji.

Kava Kuo Heka, an annual festival celebrated with the Kings' birthday week in Tonga was launched in 2008. The festival is described as a *cultural exhibition* organised by the Ministry of Education, Women Affairs and Culture (MEWAC) to *"protect and promote cultural diversity in Tonga and to celebrate the UN year of rapprochement of cultures"*. Festival highlights include seminars and symposiums in the Tongan language on various cultural issues and the arts, art exhibitions and workshops.

Speaking at the opening of Kava Kuo Heka, 2010 entitled "Au Mei Moana" (Returning Tides), the Honourable Minister of MEWAC, Tevita Hala Palefau, affirmed that *"culture is not a hindrance to economic development but is in fact the foundation for the cultivation*

and nurturing of sustainable economic development". The Director of Education, Dr Viliamu Fukofuka, in his key note also spoke at length on the cognizance between art and science. "reject[ing] the artificial dichotomy between the arts and sciences [and]...recogniz[ing] the complementary roles that each plays in enriching the other, to provide a platform for the most dynamic economic development in the world" (MEWAC, 2010).

Tuvalu, which is globally used as the poster nation for climate change, devised the idea of the *King Tide Festival* as a cultural festival celebrating the cultural heritage of the indigenous people, including dancing, singing, story-telling, dramas, traditional games, food and heritage arts/crafts. The 2010 festival "*Tuvalu E! The Tide is High*!" aimed at raising awareness about what would be lost if Tuvalu were submerged by the rising sea level. Activities for adults and children included raising awareness about climate change and its impact in the Pacific and specifically to Tuvalu (Tangata Pasifika, 2010).

In Fiji, the annual *Wasawasa Festival* "Festival of Oceans" was launched in 2008 as a means to use art and culture to raise awareness about protecting the environment and strengthening communities through the arts. Engaging in all forms of the arts, the program includes contemporary arts from poetry, music, dance, visual arts, sculpture and installations, and competitions in the arts, story-telling for children, mural painting, tree-huggers and other activities. Wasawasa engages collaborations between environmental, community and art groups with NGOs, regional and international agencies and organisations, including Worldwide Wildlife Fund (WWF), Fiji Museum, Fiji Arts Council, Laje Rotuma, Live and Learn Fiji, Pacific Voyaging Society, Mama Hanua, Kalanwasa Writing festival Fiji and Ocean Noise Initiative. The second *Pacific Youth Festival*, 2009 supported by SPC and the Pacific Youth Council, which was held in Suva at the University of the South Pacific (USP), also identified climate change, and the arts as areas of interest alongside youth mobilisation in the region, identity and leadership. The art component of the festival included workshops and skills for life sessions in the areas of poetry, hip hop, dance and art and activism, including t-shirt art and poetry recordings as a means of dissemination of creative ideas and expression.

Art Communities

Art collectives are also emerging as ways by which interest communities may engage in the arts, culture and environment conversation. An example of this is '*On-the-spot*' a Nuku'alofa based Tongan group of artists led by Ebonnie Fifita, a Tonga youth advocate. The forty member group comprises 15 - 40 year old artists who organise themselves into small interest-based clusters in the areas of dance, film, visual arts, literary arts and music. With an emphasis on youth issues and artistic expression, on-the-spot, the group manages a Facebook Community page enabling members to share their works with other Pacific artists and similar art communities worldwide.

Mama Hanua (Mothers of the land) is a five-member women's art group comprising four Fiji-based and one New Zealand-based professional with an interest and expertise in one or more art forms. The group, which was established in 2008, currently comprises an educator, an art administrator, an environmentalist, a professional fashion designer and a writer, and maintains an interest in the role of Pacific women in the community in direct relation to traditional knowledge with regard to the environment and the arts.

As part of the Wasawasa Festival of Oceans 2008, the *Mama Hanua* initiative organised a mural project involving the participation of over fifty members of the community, including artists and environmentalists and their children. The Embassy of the United States of America assisted this initiative by providing funding for established mural artist Michelle Gortez to facilitate the mural project. The completed mural was gifted to the School of Nursing at the Fiji National University (FNU) at the 2010 International Women's Day Celebrations.



Mama Hanua Mural, 2008.

Environmental youth groups form an integral part of the art dialogue forum in the Pacific. *Laje Rotuma*, a Fiji-based NGO, has grown from a group of concerned youth aiming to raise awareness on the island of Rotuma on climate change, sustainable practice and biodiversity. They began work in 2002 monitoring coral reefs around Rotuma. As part of their advocacy and awareness programs targeting young people at school, Laje Rotuma uses posters, storytelling and mural arts to disseminate their messages.

*The Econesian Society*⁴ began as a group of Youth Environmental Student Leaders enrolled in Undergraduate Studies at USP. The group, which is mentored by Professor of Biodiversity, Randolph Thaman, engages in environmental activities such as tree-planting and youth participation in local and international forums on the environment. The group has chosen music as a tool by which to disseminate environmental awareness to the wider public.

Art Initiatives

Numerous art initiatives have emerged as the result of collaborative efforts. A handful of samplings of the most recent initiatives are discussed here. USP as the UNESCO Regional Centre of Expertise (RCE) and ACCU-UNESCO Centre of Excellence (COE) in ESD has through its sections engaged in a number of activities supported by various international agencies, some of which have actively engaged the arts and culture in ESD.

The Pacific Centre for the Environment and Sustainable Development (PACE-SD) is the coordinating section of ESD initiatives at USP. Through the centre, a number of youth leadership workshops have been facilitated to provide a holistic learning experience to Pacific students enrolled at the University. At an *NZAID/USP ESD Youth Forum on Leadership and Governance* held in September 2009, participants were introduced to the use of antagonist art or art for advocacy, including rock art, t-shirt art and a poetry CD entitled "The Power of Words". In December that same year, at the *UNEP/USP Pacific Youth Environment Network Forum (PYEN) on Pacific Youth Climate Leaders–Learning, Creating and ACTING*, art practitioners shared their skills and experiences

^{4.} See Econesian Society at http://econesian.multiply.com/.

in the use of visual, performing arts, music, poetry and recyclable arts to create environmental awareness in the Pacific.

Youth Workshops at PACE-SD, USP 2009

The Oceania Centre for Arts, Culture and Pacific Studies (OCACPS) has participated in a number of focused Art and ESD initiatives over the 2009 – 2010 period. In collaboration with the Fiji Arts Council and supported by the French Embassy, Suva, the centre coordinated a "Turtles and Birds" exhibition in conjunction with a "Lavalava Poetry" night held during the Pacific Youth Festival at the University. While the exhibition featured artists' ideas about climate change, the poetry event featured Pacific writers sharing poetry and stories related to culture, youth, and the environment.



Youth attending workshops at PACE-SD

Art as a response to climate crisis in the form of natural disasters also featured in the work of the centre and in response to the September 2009 tsunami, OCACPS facilitated the Tsunami Feather Appeal. This initiative brought together over one hundred members of the art community in Fiji and at USP to participate in sei⁵ making (Sei's of Hope), an art auction, and a night of entertainment. The Feather Appeal raised close to \$23,000 over a one-week period, demonstrating the potential of the arts in raising awareness and as a means by which to respond to community crisis.

In April 2010, OCACPS launched *Tangata Fenua; Tangata Moana–People of the Land; People of the Sea*, in celebration of Earth Day. The centre used this opportunity to facilitate an art response to Earth Day and Earth Hour, as a proactive way of engaging with the corporate community on the implications of climate change. The event was seen as a means by which to promote contemporary Pacific art and culture by localising internationally recognised events.

As part of its 2010 Tonga Outreach program, in collaboration with the Kava Kuo Heka 2010, OCACPS focused on the use of the arts as an advocacy tool and included skills for life workshops in the arts including basic skills in dance, music and poetry. The climax of the Tonga outreach was the re-staging of "Silence and HIV: A Love for Life" supported in part by the UNAIDS, UNFPA, USP, SPC and PCC as well as local sponsors from Fiji and Tonga. The stage production, which featured actors and dancers from Fiji, engaged over seventy secondary school students from Tonga High School and thirty students from the University of the South Pacific Tonga Campus. These students participated as actors and the bulk of them comprised the backdrop choir.

^{5.} Feathered head pieces common in Samoan and Tongan dance.

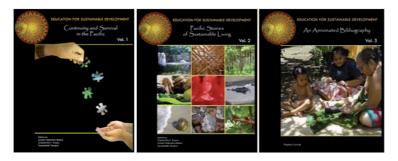
The Tonga production was the second restaging of a commissioned work for the Pacific Youth Festival in July 2009. The first Pacific restaging took place in September 2009 in Suva, Fiji. In conjunction with the performance, a curriculum-skills teacher workshop was also facilitated to assist local teachers in the development of culture-sensitive and faith-based approaches in the teaching of sexual and reproductive health. The Visual Arts component of this program included a workshop and an art exhibition entitled "*Environmental Change: The work of man and the assault of nature*". It included over twenty beginner and emerging artists, aged sixteen to forty, many of whom had never participated in a program of this kind.

The School of Education (SOED) as part of a USP–Asia Pacific Centre for UNESCO funded project has produced a three-volume series on ESD in the Pacific. Volume one features academic works examining cultural notions of ESD; volume two uses story-telling, photography, visual arts, poetry, music and dance as creative cultural expressions of ESD and volume three comprises an



Princess Fatafehi 'o Lapaha Tuita with the cast and crew of 'A Love for Life', Tonga, 2010.

annotated bibliography on ESD works. These works were released in March 2010.



Three-volume series by SOED, USP, 2010.

A wider regional project worth particular mention is the Ocean Noise Initiative (ONI) in conjunction with the Pacific Voyaging Societies in the region. ONI is advocated by Maori actor, director, writer and activist Rawiri Parate who is currently working on a film "Cry from the Deep". The film highlights the goal of ONI, which is to create awareness about the effects of the United States 'Green Navy' project, which uses sonar to detect enemy vessels

underwater. According to Paratere at the launch of the Wasawasa Festival, 2009, "The tests cause massive stranding [beaching] of whales and dolphins that have exploded ear drums or suffered bleeding from their eyes".



Paratere shares the Ocean Noise Initiative at the Festival of Pacific Arts, 2008.



Launch of Fiji Ocean Vessel Uto ni Yalo, Heart of the Spirit at Wasawasa 2009.

The Ocean Voyaging Society has launched a series of traditional vaka with the intention of creating a flotilla of ocean vessels which will present a petition to the US Base in Hawai'i in 2011. In addition to raising awareness about human impact on the ocean environment, this initiative has enabled the reconstruction of traditional ocean vessels and marks the

revival of traditional skills and arts associated with navigation in the Pacific.

Individual Artists

There is a plethora of Pacific artists who use art to share cultural and personal ideas about cultural and environmental issues. In the interest of brevity, a selection of artists from Fiji, Kiribati, Tonga and Papua New Guinea is provided to show the diversity of art forms and highlighted issues.

In Fiji, environmental art and, in particular, recyclable art is almost synonymous with well known artist *Craig Marlow*. Marlow's work centres on the environment a focus on recycling and reuse of predominantly found materials. Additionally, his paintings depict various cultural and environmental



Jewellery made from plastic sprite bottle and seeds, Lambert Ho 2008.

scenes, in particular the ocean and marine life. Similarly, wellknown Fiji artist *Lambert Ho* uses his visual arts for social commentary and employs plastic materials and seeds in jewellery making.

Fiji-based Tongan artist *Lingikoni Vaka'uta* choses to reaffirm man's relationship with the environment through the use of traditional metaphors, myths and legends in visual arts and installations and PNG Visual Artist *Daniel Waswas* uses cultural themes to depict the resilience of various PNG cultural groups by painting individual and collective figures in traditional dress. Two other artists worth noting are Kiribati visual artist and poet, *Teweiariki Teaero* and Indigenous Fijian artist *Anare Somumu*, who both feature culture and the environment prominently in their works.



Pukepuke'a Fonua (Holding the Land) Mona Lisa Lingikoni Vaka'uta, 2006

Split face of Moana Teweiariki Teaero, 2009

My Fiji Anare Somumu, 2009

Ann Tarte and Marie Koya, both Fiji artists, represent the small but growing number of female artists exhibiting at the national level. Koya's works in photography, poetry, painting and graphic art depict a youth perspective of socio-cultural and environmental concerns. Her recent work featured at the Climate Change and





Liku 2, Ann Tarte, 2009

How do we protect our Children? Marie Koya, 2010

Creativity Conference questioned the issue of climate change and impact on bio-diversity. Tarte's ongoing work on traditional tattooing in Fiji turns the question of climate change to culture loss as the loss of a people and their ways of life.

Individually and collectively, these artists and communities represent a small fraction of the diversity of work taking place in the region engaging in conversations about art as creative cultural expressions within the climate change discussion.

CONCLUSION

Despite a general lack of artistic encouragement in the formal schooling experience in the Pacific, individual and collective recognition of its potential role in ESD as a means of promoting greater awareness and advocacy is apparent. This paper has shown that with institutional support and individual perseverance, a collaborative approach to the effective use of the arts and culture within the wider climate change and crisis discussion is both useful and necessary.

The arts provide a culturally relevant, social avenue for commentary and education in various art genres. Whether the message is in the medium used or in the subject matter depicted, these art initiatives demonstrate the resilience of the Pacific spirit to capture the essence of the holistic view of "Land, Sky and Sea" so clearly articulated in indigenous cosmology and stories of creation.

Through the arts, the oral traditions of story-telling continue with a purposeful effort to engage dialogue within the wider Pacific community. The message is clear – climate crisis is a shared Pacific reality that threatens the very foundations of island life. As the King Tide Festival reminds us: *The Tide is High*!

IN THE ABSENCE OF LAND, ALL WE HAVE IS EACH OTHER

swim the sky in feathered dreams and black ink little sister.

let the moon cover your skin with her wet scales

the songs of trees on your tongue little brother

dream of love in feathers and ink, my daughter

yes, even in bones and sweat

touch the hills with your palms gently, my son

and learn to sing the song that is yours alone

learn to move the dance that is the blood of father sky, the voice of sister ocean, and the heartbeat of mother earth.

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Keron Niles

Resilience Amidst Rising Tides: Climate Change, Trade and the Competitiveness of the Tourism Sector in Small Island Developing States: the Case of the Caribbean⁶

Caribbean Tourism

Tourism constitutes a major source of revenue and employment in Small Island Developing States. The role of the tourism sector in the region is critical as the sector represents the largest export of CARICOM⁷ when compared to other forms of economic activity (see Figure 1).

^{6.} This paper is largely based on the research published by the International Centre for Trade and Sustainable Development (ICTSD) and written by the same author in a more detailed paper entitled "Resilience Amidst Rising Tides: An Issue Paper on Trade, Climate Change and Competitiveness in the Tourism Sector in the Caribbea."

^{7.} According to Article 3 of the Revised Treaty of Chaguaramas, 2001 (establishing the Caribbean Community including the CARICOM Single Market and Economy), the Caribbean Community (CARICOM) comprises Antigua and Barbuda, The Bahamas, Barbados, Belize, Dominica, Grenada, Guyana, Jamaica, Montserrat, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Suriname and Trinidad and Tobago. Haiti later gained membership in 2002

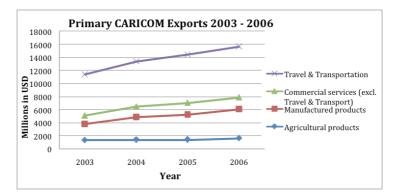


Figure 1: Primary CARICOM Exports: 2003–2006

Source: World Trade Organization.

In 2007, in the nations that comprise the Organization of Eastern Caribbean States (OECS), the tourism sector accounted for an "estimated 45 percent of GDP, and around 60 percent of foreign exchange earnings, as a result of the more than 2.6 million tourists that visited these islands" (World Bank 2008). Across the region, as illustrated in Figure 2, the travel and tourism industry has contributed well over 10 per cent of regional GDP since the turn of the millennium (and prior to that period as well). It is noteworthy to highlight at this point, that the primary difference between direct tourism-based services and supporting or indirect tourist services is that the latter do not usually require the tourist market to be viable. Instead, tourism simply provides an added source of revenue for firms. For example, this group would include construction companies, wine retailers and furniture manufacturing companies. Similarly, tourism is said to provide for direct and indirect employment. Thus, the individuals employed directly by a hotel would be said to be directly employed by the sector, while the construction worker who is employed by a firm

RESILIENCE AMIDST RISING TIDES

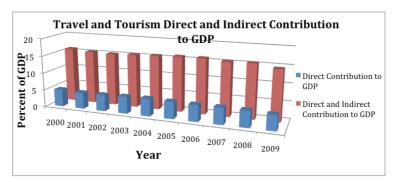


Figure 2: Travel and Tourism Direct and Indirect Contribution to GDP in Caribbean region

Source: World Travel and Tourism Council.

to conduct repairs and renovations on the same hotel would be seen as an example of indirect employment. Nevertheless, both variables (direct and indirect) should be measured to capture accurately the total contribution of tourism to employment and other socio-economic indicators.

The economic reliance of the Caribbean on the tourism sector therefore points to the need for economic diversification. Even further, not only is the region overly reliant on tourism exports for revenue, but it is heavily dependent on tourists from a handful of tourist markets. As illustrated in Figure 3, in 2008, 57 per cent of tourist arrivals into the Caribbean emanated from the United States alone, while arrivals from Canada and Europe accounted for 10 and 19 per cent of arrivals respectively. Only about 14 per cent of arrivals into the region were from other markets. Thus, quite apart from the need to diversify into new economic activities (to ease dependence on the tourism sector), it is imperative for the Caribbean to target travellers from other (perhaps emerging) tourist markets as well.

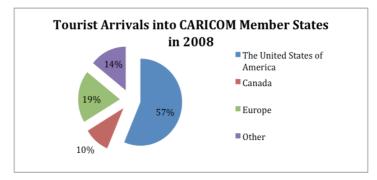


Figure 3: Tourist Arrivals into CARICOM Member States in 2008

Source: Caribbean Tourism Organization

Caribbean Tourism and Climate Change

According to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC), small islands, akin to those found in the Caribbean, have specific "characteristics which make them especially vulnerable to the effects of climate change" (Mimura, Nurse et al. 2007). The report indicates that small islands are likely to face, *inter alia*, sea-level rise (which can bring about greater floods and coastal erosion) and more extreme and intense natural disasters, such as hurricanes, that can damage vital infrastructure.

Thus, in the face of eroding beaches (which represent a major recreational tourist attraction in the Caribbean) and greater coastal hazards, the development of tourism linkages, which can serve to create new or alternative tourism products (such as agro-tourism, heritage tourism and community tourism) is critical to adaptation efforts within Small Island Developing States (SIDS) threatened by climate change impacts. Alternative tourism products help to diversify the tourism sector and reduce vulnerability to climate change impacts, particularly through developing new products in locations less susceptible to the aforementioned effects of a warming planet. Even further, diversification of the sector also serves to differentiate the Caribbean tourism product from that of competing destinations, thereby enhancing the 'unique selling points' (USP) of Caribbean tourism.

Opportunities for new tourism products

The advent of climate change and other threats to the tourism sector has therefore led nations within the Caribbean to explore alternatives to more traditional tourism products (sun, sea and sand) with which the region has become closely associated. As mentioned earlier, in the face of climate change impacts, such as beach loss due to coastal erosion, new tourism products help to boost the competitiveness and resilience of the sector. The following provides a brief synopsis of a few examples of such alternative or new tourism products. It should, however, be noted that these categories of tourism products need not be (and are quite often not) mutually exclusive.

Ecotourism

Ecotourism often refers to travel to areas where people can observe, and even help to conserve, indigenous flora and fauna. The Caribbean region is home to a very diverse, serene and somewhat unexplored (particularly as it pertains to visitors) natural environment that ranges from one of the world's tallest waterfalls, to lush rainforests to volcanic plateaus. Increasing media attention and international awareness of environmental degradation and the threat of climate change, therefore, creates real opportunities to expand ecotourism within the Caribbean. Moreover, as the Caribbean region currently contributes less than 1 per cent to global greenhouse gas emissions, it can be marketed as a 'carbon neutral or perhaps climate-friendly zone', which could help make the region more attractive to potential ecotourists. Becoming a 'carbon neutral zone' can be particularly useful as there are concerns among tourism authorities within the Caribbean that as the climate change agenda becomes more accepted by the general public, this might result in potential travellers from tourist markets choosing to remain within their own countries or regions during vacation periods, in lieu of travelling across the Atlantic to the Caribbean (in order to decrease their own carbon footprints).

Heritage Tourism

Heritage tourism refers to tourist-based activities that promote an improved understanding of local history, culture and traditions. Such activities tend to afford visitors the opportunity to witness, experience and sometimes even participate in exercises performed or designed to recapture historical traditions and events. In the Caribbean, greater emphasis can be placed on promoting visits to historically significant communities, where ancient lifestyles and traditions have been preserved. In this regard, visits to Maroon communities in Jamaica and Native Amerindian tribes in Guyana and Suriname definitely provide examples of opportunities for heritage tourism in the Caribbean that can be further developed. This alternative to more conventional tourist activities is particularly useful, as it often facilitates the restoration and preservation of heritage sites and the natural environment. Heritage tourism may also be a particularly useful component of climate change adaptation planning, since the aforementioned sites tend to be situated within the hinterlands of Caribbean tourist destinations. As a result, this form of tourism may represent an opportunity for tourist activities to be located some distance away from lowlying coastal areas that may be adversely affected by climate change threats, such as sea-level rise.

Community Tourism

Community tourism refers to the involvement of a community in the offering and presentation of tourism products to visitors. The development of community tourism can afford members of the specific district in question (usually in rural areas), the opportunity to earn income directly through locally–owned enterprises and activities that can range from nature trail guides to the sale of artefacts and souvenirs. In this regard, this tourism product also has the potential to be used as a tool geared towards social empowerment. It is perhaps for this reason that the Tourism Development Act (TDA) of Barbados makes specific mention of the development of community tourism. The legislation offers a 150 per cent tax rebate for *inter alia*:

developing and operating nature trails throughout rural areas of Barbados to be used as tourist attractions, acquiring Green Globe or similar certification; developing linkages between the tourism sector and other economic sectors; developing community tourism programmes, [or for] developing visitor exchange programmes between Barbados and other Caribbean countries.

Thus, whether realised through community festivals or through giving visitors the opportunity to stay with local families, community tourism presents an opportunity to offer unique indigenous experiences to visitors. It also provides natural incentives to preserve community traditions and to emphasise the development and promotion of community enterprises. Specific mention of developing tourist activities in rural areas also serves as a useful tool for climate change adaptation as it encourages movement away from low-lying coastal areas (as mentioned above). It is within this context of adapting to more intense and frequent climate change impacts in the Caribbean along with growing concerns about climate change (particularly within tourist markets) that the role of strategic trade policy becomes evident. Trade policy accompanied by appropriate government incentives (including capacity building initiatives as well as fiscal and investment incentives) can serve to facilitate the increased acquisition and application of adaptation and mitigation technologies within the region.

Strategic Trade Responses to the threat of Climate Change

It is essential to have a clear understanding of the role of trade policy in building a resilient and more competitive tourism sector in the Caribbean. Increased energy efficiency can reduce costs and help to make the sector more attractive to environmentallyconscious travellers. In addition, augmented usage of energyconserving technologies not only strengthens efforts to promote the region as a carbon neutral zone, but it also helps to develop the enabling environment necessary to boost adaptation to climate change. Reduced or eliminated-tariffs can help to reduce the cost of environmentally-friendly goods and improve access to mitigation and adaptation technologies.

Ideally, removing or reducing tariffs and other barriers on specific energy-conserving technologies can help to foster the growth of locally produced climate-friendly products (as inputs necessary for manufacturing may become more accessible and affordable). On the other hand, it should be noted that lowering import duties can serve to attract a level of external competition that may harm local production. It may, therefore, be appropriate to exclude certain items from liberalisation or to gradually lower tariffs on specific products so that local manufacturers have a greater length of time to grow and become competitive. Conversely, particularly long exclusion or protection (via high tariffs for example) can also be harmful to the region's economies as this may promote the existence of local monopolies and may remove the incentive for local manufacturers to become globally competitive. In addition, protectionist policies can incubate poor-quality technologies or products for an extended period (until competitors are afforded the opportunity to supply superior alternatives). That said, it should be noted that trade policy should also be complemented by policies aimed at building the capacity of local producers. This includes human resource development initiatives, such as training programmes and scholarships in order to boost the acquisition of skills and expertise in applying and maintaining energy-conserving and adaptation technologies. Financial injections through industrial development corporations may also be necessary along with efforts to facilitate technology transfers from developed nations.

Partnerships between local manufacturers of energy-conserving technologies, the tourism sector and state agencies are critical, as they can help to craft a liberalisation regime that facilitates easier importation of inputs necessary to manufacture climatefriendly technologies domestically. A trade regime that promotes local production of such technologies not only helps to support activities like the Caribbean Hotel Energy Efficiency Action Programme (CHENACT) - where the tourism sector actively seeks to enhance the usage of environmentally-friendly goods within hotels - but also increases the accessibility of climatefriendly goods and services to other sectors in the economy. It can also act as a platform for the development, growth and integration of Small and Medium sized Enterprises (SMEs) engaged in the diffusion of appliances of this nature. In this regard, boosting local production may create new avenues for employment and enhance the export potential of such goods and services. This is of particular

economic interest, as niche market opportunities may indeed be available internationally. According to a recent study conducted by the World Trade Organization (WTO) and the United Nations Environment Programme (UNEP):

the trade of climate-friendly goods has seen a considerable increase in the past few years....between 1997 and 2007 exports of goods contained in the product lines listed in the renewable energy category grew by 598 percent in developing countries and by 179 percent in developed countries, representing 62 percent and 29 percent of annual average growth respectively. (World Trade Organisation and the United Nations Environment Programme 2009)

Notwithstanding this, the acquisition and diffusion of climatefriendly goods and services is influenced by factors other than border tariffs, including the political will to promote energy conservation, the existing regulatory framework (for such products) as well as fiscal and other incentives available to households and companies that desire to utilise adaptation technologies. In the case of Barbados, fiscal incentives were made available to households and members of the private sector that wanted to acquire solar water heaters. Similarly, in order to enhance the use of climate-friendly technologies across the Caribbean (and particularly in the tourism sector), policy instruments must go beyond trade regulations. It is crucial that strategic industrial policy that addresses investment, innovation and intellectual property be deployed to boost local capacity to acquire energy conserving technologies and to support domestic production where possible. This may be accomplished by, inter alia, making venture capital available to support the growth of SMEs, the development of innovation grants and perhaps even through offering tax holidays and rebates for firms that integrate mitigation and adaptation technologies into their existing infrastructure and plans for operational expansion.

Strategic Responses within the context of Global Policy: the UNFCCC

As it pertains to the threat that increasing greenhouse gases (GHGs) such as carbon dioxide (CO2) emissions pose to the global environment, the United Nations Framework Convention on Climate Change (UNFCCC) aims to stabilise "greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system"(United Nations Framework Convention on Climate Change 1992). In so doing, the convention lays the basic foundation, not for the reversal, but the stabilisation of greenhouse gases (GHGs) over a prolonged period - in this case, a number of decades. The treaty aims to do this through the commitment of each signatory to "adopt national policies and take corresponding measures on the mitigation of climate change, by limiting its anthropogenic emissions of greenhouse gases and protecting and enhancing its greenhouse gas sinks and reservoirs."(United Nations Framework Convention on Climate Change 1992). The convention also creates a reporting mechanism, under which parties to the treaty, developed and developing, communicate measures they have adopted to reduce GHG emissions from within their borders. In addition, the UNFCCC requires signatory states, inter alia, to maintain inventories of anthropogenic emissions and to "formulate, implement, publish and regularly update national and where appropriate, regional programmes containing measures to mitigate climate change" (United Nations Framework Convention on Climate Change 1992). Article 4 (1), paragraph (c) seeks to promote the "development, application and diffusion, including transfer, of technologies, practices and processes that control, reduce or prevent anthropogenic emissions of greenhouse gases" (United Nations Framework Convention on Climate Change 1992).

In seeking to achieve these objectives, the treaty asserts that nations have a common, but differentiated responsibility (based on different levels of development) to abate the effects of climate change. More specifically, Article 4(2) paragraph (a) of the UNFCCC makes it clear that developed nations should take the lead in mitigating climate change impacts by reducing their emissions. Even further, the treaty explicitly indicates that "the extent to which developing country Parties will effectively implement their commitments under the Convention will depend on the effective implementation by developed country Parties of their commitments under the Convention" (United Nations Framework Convention on Climate Change 1992). Thus, while the legal framework does aim to facilitate global action to mitigate climate change (including the mobilisation of resources necessary to so do), it is clear that developed nations are meant to lead such efforts.

The treaty is also particularly useful in building a common understanding of what is meant by the term climate change. For the purposes of the Convention it is defined as "a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods" (United Nations Framework Convention on Climate Change 1992). Consensus on the nature of a problem is often invaluable in international negotiations when seeking to find mutually beneficial solutions.

The Kyoto Protocol to the UNFCCC is an optional Protocol to the treaty that affords its signatories the opportunity to make specific commitments to reduce their emissions of GHGs by a specific time. The Protocol broke new ground in international climate policy by establishing quantitative emission restrictions for industrial countries (listed in Annex B of the Protocol). This is attempted primarily through Article 3 (1) which seeks to

ensure that emissions of greenhouse gases (listed in Annex A of the Protocol) from industrial countries are reduced to at least 5 per cent below 1990 levels between 2008 and 2012. Once again, in congruence with the principle of common but differentiated responsibilities, developed countries are meant to take the lead in mitigating climate change and as such, the Kyoto Protocol does not require developing countries to make any binding commitments to reduce harmful emissions.

In sum, the UNFCCC, along with the Kyoto Protocol, helps to build solidarity and consensus as it pertains to the nature of the threat of climate change. The treaty does provide a general framework within which international efforts to mitigate and abate the effects of climate change can take place. More importantly, the agreements (the Kyoto Protocol in particular in this regard) represent a crucial step toward international, concerted action to stabilise emissions of GHGs in order to slow or halt global climate change.

Notwithstanding the above, even though the treaty does establish the principle of 'common but differentiated responsibilities', it stops short of assigning specific and sole responsibility to any country or group of countries for decreasing global GHG emissions. As mentioned earlier, the UNFCCC and the Kyoto Protocol articulate this principle by underlining that industrial nations should lead in reducing harmful emissions. Nevertheless, the Kyoto Protocol contains no stipulations for developing countries to make any commitments to reduce their emissions. When applied, therefore, rather than 'leading the way' for developing nations to reduce their emissions, due to the nature of the legal framework, industrial countries may indeed find themselves 'alone in the race' to lower emissions. That said, while seeking to safeguard economic growth in burgeoning economies (by not requiring developing countries to commit to emission reductions) may be a noble objective, the complete exclusion of developing country commitments is one of the greatest shortcomings of the climate change regime in its current incarnation.

In practice, the absence of developing country obligations allows firms based in developed countries to outsource industrial processes and production to countries not subject to binding Kyoto emission reduction targets. This has the overall effect of shifting the source of emissions, instead of decreasing them (an occurrence often referred to as carbon leakage). As propounded by Catton, "the successful avoidance of binding commitments by the developing countries has virtually guaranteed *carbon leakage*, with larger than [business-as-usual] emissions in unregulated economies" (Catton 2009). The result of this is that the environmental effectiveness of the UNFCCC and the Kyoto Protocol is greatly weakened. Without binding commitments on the part of developing countries to prevent carbon leakage, global emissions are likely to continue to increase. Even if the Kyoto protocol were to be fully implemented (with developed countries leading the way and decreasing their emissions) den Elzen and Höhne note that "the approximate stabilisation of emissions by Annex I countries will be more than counterbalanced by an ongoing and strong rise in emissions in non-Annex 1 countries" (2008). Reducing GHG emissions from emerging economies should therefore be viewed as a priority in negotiating a new climate change agreement.

Nonetheless, in spite of the unwillingness of developing countries to make binding commitments to reduce emissions, the absence of mechanisms geared toward small and vulnerable economies (such as SIDS) along with the withdrawal of the United States from the Kyoto Protocol, the imperative for urgent action to mitigate climate change is growing. Regardless of existing divergent perspectives on the issue, "the reality is that science is telling us that we are running out of time to save the planet from irreversible harm" (Doelle 2005). At present, "the UNFCCC is neither a comprehensive 'law of the atmosphere' nor a fully formed and detailed regulatory regime, but a framework convention establishing a process for reaching further agreement on policies and specific measures to deal with climate change" (Birnie, Boyle et al. 2009). The present pace of mitigation and adaption activities via the UNFCCC and the Kyoto Protocol does not reflect the urgent need for global action. Therefore, adopting the view that the current climate regime is a building block toward a more robust, legally-binding framework may be an appropriate and fair assessment of the UNFCCC at present.

Negotiations at Copenhagen in December 2009 did vield some progress toward new mechanisms along with a new agreement. The Copenhagen Accord preserves the legal status of the Kyoto Protocol and supports "the scientific view that the increase in global temperature should be [kept] below 2 degrees Celsius". (United Nations Framework Convention on Climate Change 2009). It also stresses the need for "a comprehensive adaptation programme," inclusive of international support. In addition, it promises "scaled up, new and additional, predictable and adequate funding" (United Nations Framework Convention on Climate Change 2009) for developing countries. In so doing the Accord establishes a Copenhagen Green Climate Fund and prioritises financial support for climate change adaptation activities in vulnerable developing countries (including SIDS and those in Africa). Quite notably, the Copenhagen Accord also underlines the decision to establish a "Technology Mechanism to accelerate technology development and transfer" (United Nations Framework Convention on Climate Change 2009).

That said, the Copenhagen Accord is not legally-binding. Moreover, it sets no specific time for the peaking of global emissions and does not contain emission reduction commitments by developing countries. Instead, it only creates a facility for developing countries to list the actions taken to reduce CO₂ output. Yet, as mentioned earlier, legally-binding commitments to lower GHG emissions from developed and developing nations is an essential component of any future climate change regime, if it is to be effective. Thus, while the Copenhagen Accord represents yet another building block in the progression toward a more robust legal framework to address the threat of climate change, there is a need for a greater sense of urgency to advance to an international agreement with binding commitments from developed and developing nations to reduce their emissions.

With regard to small island developing states (many of which are dependent on tourism earnings), the UNFCCC recognises that small island countries and countries with low-lying coastal areas, among others, (United Nations Framework Convention on Climate Change 1992) are particularly vulnerable to the adverse effects of climate change, but stops short of establishing any mechanisms specifically geared toward such countries. In fact, the Clean Development Mechanism (CDM) is the only apparatus created by the Kyoto Protocol that is geared primarily toward mitigation in developing countries.

The CDM affords industrial nations the opportunity to honour their commitments (to lower their emissions of GHGs) under the Protocol by supporting or investing in projects that reduce emissions in developing countries (as an alternative to more expensive emission reductions in their own countries). The mechanism is meant to serve as a win–win system, where industrial nations enjoy savings from investing in cheaper projects in developing economies, which benefit from being able to attract investors to environmentally-friendly projects.

Unfortunately, however, the CDM does not focus on adaptation to climate change impacts (a major concern to small island states). In addition, CDM project developers are compensated on the basis of the amount or degree of emissions avoided as a result of the project activity. For this reason, CDM projects must result in measurable and verifiable emission reductions, referred to as Certified Emission Reductions (CERs). These CERs can then be converted into carbon credits and placed on the carbon market and sold. In practice therefore, projects that result in larger emission reductions are likely to result in greater revenue or profit for developers (as a greater number of CERs can be sold on the carbon market as carbon credits). This market based system, by its very nature, favours larger developing countries that are greater emitters (and as a result can offer greater potential reductions, i.e. greater CERs). Additionally, as submitted by Lloyd and Subbarao;

There are several arguments indicating that the high transaction costs involved are making [the] CDM market increasingly favour large, high CER volume projects. Small community-based projects, on the other hand are often not economically viable under the CDM, due to high transaction costs and complex bureaucratic procedures. (Lloyd and Subbarao 2009)

It is equally important to acknowledge that there is a greater need for unified action and technical cooperation within the Caribbean in order to attract more CDM project activities to the region. As of 19 May 2010, Dominica, Haiti, Montserrat⁸, St Kitts and Nevis and St Vincent and the Grenadines still did not have a Designated

^{8.} Montserrat is mentioned here solely due to the fact that it is a full member of the Caribbean Community (CARICOM). That said, as a British Overseas Territory, it is possible and conceivable that CDM project activities may be administered through the central government in the United Kingdom.

National Authority (DNA) to register or administer CDM project activities. If these nations are desirous of hosting CDM project activities, this situation will have to be rectified with urgency. Until then, however, having 5 Caribbean territories without a DNA effectively limits the scope of regional cooperation and makes it virtually impossible to have CARICOM-wide projects. Among the countries that have set up such bodies – Antigua and Barbuda, Belize, The Bahamas, Barbados, Grenada, Jamaica, Guyana, St. Lucia, Suriname and Trinidad and Tobago – efforts to initiate CDM project activities have been disjointed and based only on national renewable energy objectives and programmes. There have been no explicit indications that a region-wide CDM project is even being considered. At present therefore, the Caribbean is not strategically positioned to take advantage of the CDM.

Concluding Remarks and Recommendations

Tourism represents the largest, most diverse economic activity in the Caribbean region. The sector stimulates other segments of the economy and is the largest employer and the greatest contributor to GDP (directly and indirectly). Therefore, the viability of the sector is critical to the development of the archipelago of SIDS. The region is not only highly dependent on the tourism sector (which is already sensitive to climate change impacts), but also on tourists from a limited number of countries, thus identifying the need for diversification.

Projected and current climate change impacts (including beach erosion), are expected to curtail the region's ability to offer traditional tourism products (associated with sun, sea and sand). Thus, in addition to the need to boost the demand for domestic vacations (also referred to as 'staycations'), to encourage greater intra-regional travel and to seek new tourism markets, Caribbean nations must delve into opportunities to develop new or alternative tourism products in ways that will boost the sector's resilience to climate change.

Increased use of energy-conserving technologies not only strengthens efforts to promote the region as a carbon neutral zone, but also helps to develop an enabling environment necessary to boost adaptation to climate change. Trade policies should therefore serve to support the local manufacture of energy-conserving technologies by decreasing or removing tariffs on inputs necessary for production and by shielding such goods from external competition, for a measured period of time. While fiscal incentives and trade policy - to support the acquisition and application of climate-friendly technologies - may be helpful in increasing energy efficiency and reducing the energy demand of the tourism sector, such policies are not (in and of themselves) likely to be effective if applied in a vacuum. Tourists and proprietors need to be engaged and informed (through education and re-training) about the importance of decreasing their carbon footprint in order to bring about the behavioural changes needed to reduce the sector's energy demand.

The threat of climate change is global. Therefore, national policy responses, however aggressive, will be insufficient. As a result, the Caribbean must play its role in contributing to a stronger, legallybinding international climate change agreement. Even beyond this, though the region currently accounts for less than 1 per cent of (absolute) global emissions, the Caribbean can do its part to avoid increasing its CO₂ output in the future by committing to a lowcarbon development path. Larger developing countries, along with developed nations need to do the same. Current scientific evidence makes it clear that "a future [climate change] regime which does not engage the major developing states in GHG reductions will not be successful" (Birnie, Boyle et al. 2009). The UNFCCC is a useful building block, upon which specific instruments (such as the CDM under the Kyoto Protocol and the Copenhagen Accord) have been developed. It is through this framework convention, that new mechanisms and a more robust and legally-binding agreement are now needed to ensure urgent global action is taken to mitigate climate change. While it is important that the principle of 'common but differentiated responsibilities' be left intact, (thus requiring industrial nations once again to 'take the lead'), any new agreement should ideally require emission reduction commitments from both developed and developing countries. A comprehensive approach toward addressing mitigation in developing countries is particularly important as such countries possess great potential for mitigation activities in terms of not only lowering current emissions but also avoiding future emissions through low carbon, energy efficient economic growth. That said, a new climate change regime should do more than limit CO₂ emissions, it should ultimately provide appropriate incentives for low-carbon economic growth, so as not to stifle development in the non-Annex 1 parties to the UNFCCC.

The UNFCCC "has the potential to raise the bar in terms of the level of cooperation within the international community on environmental issues" (Birnie, Boyle et al. 2009). However, for this to occur, binding commitments need to be made and adhered to by developed and developing countries. In addition, the CDM, as the only mechanism formed by the Protocol that is geared towards developing countries, may need to be revised or refined, in order to attract more small-scale projects. The United States also needs to be fully re-engaged in the continued development and implementation of existing and future agreements and mechanisms under the UNFCCC. Even further, full compliance with the first commitment targets set under the Kyoto Protocol is necessary. Most important, a new international and legally binding climate treaty should ultimately, restrict or at the very least discourage increases in emissions while simultaneously providing incentives for low-carbon economic growth.

For the Caribbean, as nations already inhibited by small size, associated with limited financial, human and natural resources, regional cooperation is perhaps the archipelago's greatest asset. This needs to be capitalised upon to a greater extent through the development of projects that can attract investment via the CDM. Currently, efforts to attract CDM projects to the region are still disjointed. Regional projects can offer greater benefits to industrial nations utilising the CDM. In tandem therefore, the Caribbean Hotel Energy Efficiency Action Programme (CHENACT)⁹ initiative (especially as it is specifically relevant to the tourism sector) may be a useful gauge of the ability of a region-wide energy efficiency and conservation project to attract funding under the CDM. Regardless of its ability to do so, however, a greater degree of regional cooperation is imperative in order to safeguard the long-term viability of the tourism sector amidst a warming planet.

^{9.} CHENACT is a region–wide initiative aimed at improving the competitiveness of small and medium-sized hotels (any hotel with fewer than four hundred rooms) in the Caribbean, by enhancing their use of available energy sources.

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Susan Hawthorne

ECOLOGY IN POETRY / POETRY IN ECOLOGY

Bula and Namaste. And thank you for the invitation to speak at this conference. In Australia we acknowledge the traditional owners of the land and thank them for their guardianship of the land and all its beings. So my thanks go to the people of these islands; may we approach the future with hope and creativity.

Poetry has always been the song that is imprinted in human culture, and equally importantly the song that we learn from the natural world. What can happen to poetry, what might happen to poetry, where are poetry's songs, in a world where nature could be overwhelmed by levels of consumption by a minority of people on the planet, and where nature itself might become unrecognisable through the effects of our inventiveness on its integrity? Is ecopoetry a form of elegy or a vision into the future?

The earliest human literature is in poetic form: it is orature. Poetry has metre, form, metaphor, rhythm and meaning – although not all poems will have all these features.

Let me read you a song from an Australian epic cycle of Arnhem Land that describes the travels of the Djanggawul – two sisters and a brother. We Djanggawul saw the Morning Star shining ..., Saw its shine on the Green-backed turtle, lighting up its throat ...! Paddling, we saw that turtle: saw its eyes open, its flippers outstretched as it floated. Sea Water lapped at its shell, spreading across its back, Making a sound as it rose above the surface, see the dilly bag at its back! It swam through the sea, with shell like a rock, hiding the bag under its flipper. "I have another basket" (the turtle says). "It is the cuttle fish."ⁱ

This is an extract from Song 2 of the Djanggawul cycle, and like other ancient epic cycles it includes information about travelling by canoe from place to place, about the environment, animals and astronomical events. We know from the poem that the people in it are travelling at dawn, and we also find out about the artefacts of the culture: dilly bags and baskets are mentioned here, and elsewhere canoes, paddles, mats and poles are mentioned.

Poetry is often very dense, conveying large amounts of information quite briefly. In a period when all cultural information had to be memorised in order to pass it on to the next generation, brevity and density, as well as certain formulaic utterances were important. Similarly, rhythm and metre assist the memory, so song, music and poetry often came together in oral traditions of poetry. Alongside this, dance and drama also developed. As an aerialist and performance poet as well as an on-the-page poet I have found myself exploring these forms in work arising from my experience of the natural world. The land, waterways, the rhythm of seasons, of excess and depletion have always been an integral part of my intellectual and creative life. On 20 March 2006, in Far North Queensland, I sat through the blasts of Category-5 Cyclone Larry. My meditations on the experience of Cyclone Larry took me to the Ancient Indian texts of the Rg Veda, to Tamil poetry and Sanskrit language, to Greek and Biblical stories and to a feminist dream of a world without war and violence and exploitation. The *Harivamsa*ⁱⁱ includes the following description of monsoonal storms.

16. The sun seemed to be sinking into the belly of the new clouds where the deep waters hang, gushing and bellowing.

17. The Earth, turbid by the press of waters, whose paths are yet to be found, is garlanded with grass bursting from her.

18. And the mountains, their peaks full of trees splintered by a thunderbolt, fall, cut off by the raging streams.

19. Just as rain falling from clouds courses along a depression, so with earth's blood, spouting from ponds, fills the forest tracks.

20. The forest elephants mimic the roaring clouds, their trunks and faces uplifted appear in the violent rain like clouds reaching for Earth.

21. Having closely watched the beginning of the rains and seen the dense clouds, Rohinī's son spoke to Krsna privately at the appropriate time.

22. Look, Krsna, at the black clouds with portentous cranes emerging suddenly rising up in the sky, they have stolen the colour of your limbs.ⁱⁱⁱ

Well before reading the *Harivamsa*, I found myself using similar imagery. The Indian text and my own were written many generations apart in different parts of the world. We are not the first generation to have to deal with "the dark hurlings of nature" although we may be the first to have brought it upon ourselves.

Wind's rasp

1. The wind never splinters at the edge never

yesterday and the days before were perfect still as the butterflies zoned in on the depression

on this day a dying bird with no call left shattered by the wind's antics

2.

How does a pelican know when it's safe to fly in fly over in solitary silence bringing hope?

Can seven frigatebirds calculate a week, a day each?

Can infinity be eclipsed or pain recalculated by the Vedic mathematician?

3. How will the winds tell us the future?

•••

4.

The dark hurlings of nature are terror enough for our reptile brains. When man-made horrors occur will the albatross fly in to watch the carnage?

I don't recall birds on the day the towers fell

but here on the beach after the wind's ripping rasp are ten black cockatoos calmly eating the spilt seed^{iv}

It is no accident that time and again earth is compared to the human body. Our planet like us is a living system – its ecosystems, like our circulatory and endocrinal systems, rise and fall responding to the events taking place on its surface and in its interior spaces. This is not a romantic idea of mine, it is metaphoric, but no less real for being so.

Our human experience suggests such metaphors to us as we grapple with ways of understanding our selves and our relationship to the world whether it be earth as body, wind as breath, the great flows of rivers, oceans and lava as tears and blood, grass and trees as hair and limbs.

In Tamil Nadu, the Sangam tradition includes a wealth of poems about the natural world in which landscape and the stages of love are intimately entwined. Here is a poem by Cittalai Cattanar,^v a work from the sixth century, entitled Akananuru 134.

Rains in season, forests grow beautiful. Black pregnant clouds bring the monsoon, and stay. Between flower and blue-gem flower on the bilberry tree the red-backed moths multiply and fallen jasmines cover the ground.^{vi}

One of the challenges for a poet is the struggle to be taken seriously, because poetry is regarded as soft, full of emotion and very individual. But when you look at the mythic tradition you see just how accurate are the descriptions (for example, they accord with the descriptions of different wind strengths in the Beaufort scale), how important it was for community safety for people to know this information (the Indigenous people of the Andaman and Nicobar Islands apparently moved to higher ground, on the basis of their traditional sea knowledge and therefore survived the devastation wreaked by the tsunami better than Western observers had expected; see http://zunia.org/post/bindigenous-knowledgeof-the-sea-protectsbrandaman-island-tribes-from-tsunami/). These literatures (some based on earlier oral traditions) are a record of a whole people. We individual poets also collectively contribute to that knowledge. Until the last few years there was no such thing as ecopoetry, but now there are journals and conferences and courses. As for emotion, when you are faced with life-threatening events, with ecodisaster, then to deny the emotion is simply to prolong the trauma. Post–Cyclone Larry, we all talked endlessly about our particular experiences. Language, storytelling and poetry are the human response to such experiences. And my response was to document what happened through writing poetry.

Forest

no wabu, no wuju, no gunduy no forest, no food, no cassowary –Djiru saying

There is a forest and a young girl the girl goes into the forest the forest is a rainforest her guide is a cassowary the cassowary knows her way through the forest she knows all the fruits of the forest she is mistress of the forest the fruits are red blue orange green and yellow the girl must collect the fruit

But along comes the big wind a wind that lifts her twists the trees round and round so that their trunks are spiralled the wind hauls trees out of the earth and throws them every which way the girl shelters under the heavy black feathers of the cassowary which pin her to the ground When the big wind has passed nothing is left the girl is disoriented she no longer knows which way is up she hardly knows which is east or west which is sun which is moon clouds scud across the sky but they have lost their shapes no longer are there stories in the clouds just loss

The cassowary tries to comfort the girl at first there is plenty of fruit fallen fruit mango lilly pilly quandong the girl wanders behind disconsolately from time to time she nibbles at the rotting flesh but it soon sours the bitter seed takes over from the soft flesh

As the days pass the cassowary must wand

the cassowary must wander further and further afield she ventures into places she's never been to before followed by the forlorn rag worn girl soon the fruit is nowhere to be found the two sit down to wait for wind fall quietly they drop into sleep quietly they die^{vii}

In this poem I have tried to capture a mythic or elegiac quality. That quality of sadness that pervades the whole body after such an experience. Larry was bigger than Hurricane Katrina in terms of its wind strength. Where we were, the winds came in at around 300 kph. The roar is deafening. The trees were all stripped of leaves. Every bit of leaf matter was then pasted on to the walls. Huge trees were uprooted, rooves flipped over like a tin can opening. Guttering, pipes, corrugated iron, glass were scattered through the bush. Even now, the rainforest has not really recovered. Bare branches remain like a classroom of children their petrified arms in the air.

My writing about the environment spans a number of very different ecosystems. There are the drylands where I grew up – these worlds infuse much of my poetry. It's my ecological home base. You can find references to it in the work that forms the bedrock of my collection, *Unsettling the Land* (Bellamy and Hawthorne 2008). This is an extract from my poem 'Drought'.

There is something about

the air, the layering of dust, the loss of grass, the particular sway of old

eucalypt branches and their browning leaves. I feel my chest fill to breaking

I'd like to ask if you too think it's worse this time – How long for recovery?

Every grief is simply layered on top of the last. And the last.

Does the earth feel that way too? How many griefs must we ply and

plough? How many layers before the sadness breaks the earth's heart?^{viii} Our world is a matrix of systems. The natural world, the world of plants, of ecosystems, of geological time, of changing temperatures and weather patterns are autopoetic systems. That is, they are self-creating systems. These systems, when in balance, lead to biodiversity.

Poetry, too, is autopoetic in a way. In situations of extremis, the poet starts creating. Poetry is a way of making sense of the world and because a poem concentrates words, symbols, metaphors, images, whole histories even, it is possible for poetry to hold these large events or if small, to focus our attention on the tiny, the barely visible.

For example, in the title poem to my collection, *Earth's Breath*, I set the character Larrikin Larry against the rampages of Heracles. When I first wrote the poem, a couple of days after the cyclone, it was all Larrikin Larry – but even then, he had something of the character of Heracles. Somehow, in linking Larry to Heracles I was able to capture the power of the cyclone, the recklessness of it all.

In the same poem, and this only came more than twelve months after the cyclone, I brought in the story of the Biblical Samson and Delilah, wishing for a scissor-wielding woman to come along, cut his hair and disempower him. This is, of course, also a metaphor for the ways in which the masculine systems of global capitalism and militarism have not only contributed to, but created the ideal conditions for, climate change.^{ix}

The poem also contains a reference to a poem in the final section of the collection, which draws on the idea of the *yuga* – the manymillennia stretches of time that the Indian tradition refers to. And then, a little later, to the fragility represented by the sneezing Larry of nursery rhyme and people falling down (the original nursery rhyme, *ah-tishu ah-tishu, we all fall down*, is a reference to the spread of the pneumonic plague).^x

Earth's breath

Summer has been long its breath has spanned millennia and now comes the rain the storm, the raging rotten breath of cyclonic winds

Myths are made of such noise the rampages of Heracles have filled our childhood ears the violence of men and gods he sneezes and we all fall down

Who will be Delilah, brave enough to calm Samson with a pair of scissors, his long hair fallen trampled like old vines that strangle the biggest trees?

We were not so lucky with Larrikin Larry, no shears large enough to make his pate shine but as we watch, the ground turns bald while he blunders through the undergrowth

A shredder over his shoulder, Larry larked about turning bark and leaves into confetti and in his next breath the graffiti artist is pasting every wall door and window

But even wind needs to draw breath a moment's stillness, earth's smoko –

then we heard the trampling across the roof the flue knocked off, the guttering torn ripped and discarded

as Larry changed direction, running rings widdershins, bellowing earth's grief no longer at play, this brat is serious his blood has curdled, our souls are rattled as summer retreats and silence falls^{xi}

In India, the god Indra is personified as a cyclone. He is also the god of the monsoon, the rainy season. We do the same. Even in this scientific and rationalist era we name each and every cyclone. Whether it is Indra or Larry or Katrina, these names carry poetic weight.

EJ Banfield, a journalist, lived on Dunk Island for many years, wrote about his life as a beachcomber. He also wrote about the devastating cyclone of 1918 in a book called *Last Leaves of Dunk* (1925). He has mythic stature in Far North Queensland, and so I have taken some of his words as the opening quote for Part 1. He writes of the period before the big cyclone in 1918:

During a breathless calm a mysterious northerly swell sets in. -E.J. Banfield, Last Leaves of Dunk^{xii}

The *breathless calm* to which Banfield refers remains with me. The day before the cyclone was one of the most beautiful of days I have ever experienced. Calm. Clear. And truly breathless, even in the midst of frenetic tidying and tying down of anything that might move in wind. Late in the day, my partner and I walked around the garden with the video camera and everything on that day shone.

Part II of the collection, that is entitled Earth's Breath begins with a quote from Monique Wittig's, *The Guérillères. They say that a great wind is sweeping the earth. They say that the sun is about to rise.*^{xiii} I chose this because *The Guérilléres* is a marvellous novel by French writer Monique Wittig in which she dreams of a world without war. For me, her wind has the same mythical stature of that which gave the book its title, namely, *Where is the earth's breath, and blood, and soul?* (*Rg Veda* 1. 164. 6c).^{xiv} Here is the contest between vision and elegy, creation and decreation.

Sometimes, in all our talk of climate change and environmental crisis, we talk politics, economics and science. But the greatest thing that Cyclone Larry left me with was an emotional response. It was both physical and psychic. The psychic response played itself out in dreams – or rather nightmares. It was as if the cyclone were inside me.

The cyclone inside

Are we ready for the wind?... Will this wind come inside us? Susan Griffin, Woman and Nature, 1978

the wind – the wind is inside me

I am not ready for this cave in

on the gallery floor as the installation rolls on

earth roaring, water roaring and this – this – cyclone inside^{xv}

These are not irrelevancies. When the body and the psyche are in shock, it is difficult to function. Imagine all the individuals of the world reacting to these climactic changes. We will not only need to write a lot of poetry, we will need to listen again to the myths that have sustained us. It's all already there, if only we would listen.

The following poem resulted from a mix of dictionary trawling where I found the word *yugantameghaha* and a quotation from the *Bhagavad Gita: Moths rushing full tilt to their ruin / fly right into an inferno (Bhagavad Gita 11.29).*^{xvi} The Sanskrit word *yugantameghaha* means: A gathering of clouds at the end of an era (Monier Wililams Dictionary of the Sanskrit Language) meghaha – clouds; anta – end; yuga – era.

Yugantameghaha

At the end of every cosmic cycle at the end of a generation–*yugantameghaha* – clouds congregate gathering souls for the next *yuga*

cloud breath, soul mist rasping winds, rattling bones here come the galloping horses humans astride their flanks

here come the thundering clouds breaking the world apart the Hercules moth climbs every building rising upwards through 110 floors

scaling the earth to find the moon that light in the sky through which he might escape earth's pull and melt into the inferno of light.^{xvii}

My niece has lived and worked in Samoa for some years and her life was changed with the Samoan tsunami. In response, I wrote a poem called 'earth bones' in which I found myself comparing the human body with the earth once again:

> in one ocean an elbow in another a knee and breath takes the wave shoreward (DP296)

In addition to my poetic escapades, I do also write essays, activist speeches and submissions to government on ecological matters. The two are important bookends in my political and poetic life.

One of my recent concerns has been the way in which the term 'climate change' has been co-opted; more worrying though is the way in which it has been distorted. This is a common event: the co-option and distortion of marginal language and terminology. Climate change is a real phenomenon and one with which we must all grapple – but its marginal status since the 1960s followed by the sudden political fervour of 2009 and then its shift off the agenda following Copenhagen is my concern.

Here is how it works with climate change. A theory is presented in the scientific and social literature around the mid-60s (1967 is the date in my head for when I first heard about greenhouse gases). There is initial great excitement but then the daggers are drawn and the scientists are told by big business and big politics that it's all a figment of their imagination. Over the years the evidence grows and grows – some small changes are wrought – banning the

use of chloroflurocarbons – but business and politics and war go on as usual. At some point these players realise that they may lose big money and big power if the growing theory gains widespread public acceptance. At THAT point a reversal kicks in. Some, such as Toyota, jump onto the bandwagon of buying up plantation forests and replacing them with genetically modified fast-growing trees, therefore increasing monocultures (always bad for environments and societies) and wanting double payment because the trees grow (allegedly) at twice the rate. Some companies, Monsanto among them, get themselves in public-private partnerships with governments - Monsanto is doing this in Western Australia where they have announced a pro-GM "education program". xviii Another tack is for major corporations to say 'we won't play ball unless you compensate us for all our losses'. And that is where Emissions Trading Schemes (ETS) come in. The polluters keep polluting, governments pay them to trade their carbon - in particular to dump carbon on poor nations (this is comparable to dumping test drugs on the bodies of the world's poor). Climate change is blamed for ecological disaster when the real culprit has been a long history of bad government policies and other political shenanigans perpetrated on people. In Australia this is best exemplified by the total disaster of water usage in the Murray-Darling River system. Instead of recognising bad political judgement, the disaster is blamed on sudden climate change. This just adds to the quilt of lies. In North Queensland developers would like to 'contain' the endangered southern cassowary population so that they can build bigger and completely unnecessary resorts. The outcome has been disaster for the cassowary because of high fences, impossibly narrow so-called 'wildlife corridors' and increased road and human traffic. The icon that draws people to live in such developments is, ironically, further endangered by the presence of out-of-control development.

For me there is no division in my writing life between political analysis and poetry. I have written about the co-option of ecology in poetry as well.

They gather us two by two these men and women in polished green who pray to Saint Larry the razer, the clearer the saviour who needs pay no tithe to the people.^{xix}

I cannot say it more clearly in prose, Emissions Trading Schemes will not fix the problem of climate change. So what will? My proposal is for a complete overhaul of our economic systems so that we move from a society inspired by money and profit-for-profit's sake to a world inspired by biodiversity, that is a wild politics.^{xx} The inspiration of biodiversity is a key element in changing social and ecological structures. Multiversity works analogously between human cultures and groups. Putting biodiversity at the centre makes a number of behaviours become anomalous. War and biodiversity do not mix: bombing of any kind destroys human and natural communities. Industrial and digital farming don't work: industrial farming relies on a factory model of monocultures; digital farming attempts to remake nature in genetically engineered organisms, GM crops, terminator seeds and boundary-crossing practices in animal husbandry. Biotechnology, including experimental drugs used on women, the poor, the chronically ill, would be unimaginable in this society. Furthermore, the theft of intellectual property from Indigenous peoples would be unthinkable. In terms of multiversity, education, social, health, political and economic systems would be respected. How should we do this? The Quit Smoking campaigns in Australia are a successful model because they are based on shifting attitudes. It is slow; such changes do

not happen overnight or in a single decade, but every person who attempts to move in this direction brings along others.

It is time that we take up acts of earth kindness to the planet on which we live. We should also give more space to poetic knowledge because poetic knowledge is memorable – we only have to consider the long traditions of oral literature with which I started this paper to see that. Poetry is elegy. Elegy for the past, for a world that no longer exists. Poetry is also visionary, a way of imagining a different future for our planet.

As Canadian poet, Betsy Warland, writes: "It is about looking at the page as an ecological system".xxi That means taking account of context, the balance between words and space. Just as in an ecological system everything matters, so too in writing – the play of memory, its transformation into text and narrative. And then there is the literary and ecosocial culture of bibliodiversity^{xxii} which is comparable to the role of biodiversity in a biological ecosystem. Vandana Shiva points out that we no more need a monoculture of the mind than we need agricultural and ecological monocultures.xxiii Interlaced with this is the need for important legislation around protecting traditional intellectual property. Cultural resources are just as important as the resources of the land, the seas, the skies. As we move more and more into digital spaces we need to make efforts to resist recolonisation through theft of knowledge and cultural resources – that includes traditional medicinal knowledge, spiritual knowledge and poetry (among other things).

But let me return to the concept of ecology in poetry and poetry in ecology. I have shown how ecology operates in poetry but what about the other way round? The above theory, which I began thinking about in Bangladesh in late 1993, came about after four days of conferencing. I sat down under a tree and wrote in semi-poetic form a three-page manifesto called 'Wild Politics'. Somehow, the words almost wrote themselves as I drew together the ideas of the preceding days. It took me eight years to fill out those three pages of insight; it was definitely case of poetry informing ecology. In addition to this, our ways of understanding ecology are improved through the use of metaphor; our ability to remember ecological insights is improved through the use of rhythm, music and dance; our ability to tell important stories is intensified through drama.

Just as much poetry is concerned with ecology, our ability for non-finned humans to live into far futures will depend on the interactions between nature (ecology) and culture (poetry). The human being is the interface in this relationship. It is up to us how we live and how in future we will eat.

Coda

In the aftermath of Cyclone Larry, I look around and see the need to write more and more. The following poem came about after watching a TV program about the Liverpool Plains in my home state of New South Wales, a rich agricultural centre threatened by coal mining.

armour

she dreams of making armour for the earth a helmet to prevent the drillers from beginning a breastplate so they cannot cut open her heart greaves to stop the underground lines breaking through to the watertable it confounds her that anyone would want to mine Liverpool Plains to make the earth a corpse to strip back the muscle layer by layer to let light in under all that rich deep earth to groom her for profit burn coal embers in the asthmatic air the heat increasing to burn away everything for the emptiness of waterdrained lungdrained flatlands

Let them eat coal not food.xxiv

Vinaka vaka levu, dhanyavat, thank you.

Addendum Principles of Bibliodiversity: Patterns and processes^{xxv}

Networks

All cultural artefacts in an eco-social system are interconnected through networks of relationship. In order for cultures to thrive, networks must exist. For example, a poem can result in other works of art such as a musical composition, a painting, a dance or an opera. Arts works cross-pollinate. Traditional knowledges pollinate contemporary artworks while contemporary work feeds back into cultural knowledge.

Nested systems

Culture is comprised of systems nested within other systems. While each system is complete in itself, it is also part of a larger system. Changes in one part of the system can effect other nested systems as well has having an affect on the larger system. Publishing houses are nested within the larger system of writing, storytelling and literature, which in turn is nested inside the specific culture and again inside the global system of story telling (which includes poetry, film, journalism, live performance etc.)

Cycles

Members of an eco-social system – a culture – depend on the continuous exchange of energy through ideas and story telling. Cycles intersect within and between local, regional and global systems. A story about relationship exists on local and global levels. Song and poem cycles are important artefacts of human history.

Flows

Every culture – however small or large – needs a continual flow of ideational energy to thrive. The flow of energy from the natural world to the human world creates and sustains initial ideational and psychological forces resulting in language. For example, adults (mostly mothers) sing to their children, tell stories, recite poems and indulge in nonsense talk. Children learn to speak and tell their own stories.

Development

All culture – from the child's story to the global cultural industries – changes with the passage of time (or place). Stories build by accretion and variation and new interpretation as well as new media for representation, for example, from orature to literature to the printed book to the digital book.

Dynamic balance

Eco-social communities become dynamic feedback loops, so that while there is continuous fluctuation a bibliodiverse and multiverse community maintains a reasonably steady state. Dynamic balance is the basis of cultural resilience. For example, when large publishers cease to publish poetry, a host of small DIY and independent outlets open up until the large publisher thinks this must be profitable and so for a while, once again they publish poetry. Banfield, EJ. 1925. *Last Leaves of Dunk*. A Project Gutenberg of Australia eBook.

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Notes

¹¹ Berndt, Ronald. 1952. Djanggawul: An Aboriginal Religious Cult of North Eastern Arnhem Land. Melbourne: F.W. Cheshire.

ⁱⁱ The Harivamsa, an ancient Indian text related to the Mahabharata, dates to around the second century BCE.

ⁱⁱⁱ I read this for the first time in a Sanskrit class in 2009. As I translated my excitement built. I recognised the emotion behind this text because it reflected my experience following the rampages of Cyclone Larry. *Harivamsa 54 16–24 (2nd century BCE)*

^{iv} Hawthorne 2009 *Earth's Breath*, pp. 64–66.

"This name is sometimes spelt, Seethalai Saathanar.

vi Ramanujan, AK 2008 Poems of Love and War, New Delhi: Oxford University Press, p. 76.

vii Hawthorne 2009 Earth's Breath, pp. 56–57.

viii Bellamy and Hawthorne 2008 Unsettling the Land, ('Drought', 1967) p. 5.

^{ix} Patrick Jones (2010) makes an interesting connection between the food we eat and the "quality of the fuel we use for poesis, for making meaning". He makes an analogy between highly processed food and highly processed writing.

^x Hawthorne 2005 The Butterfly Effect. pp. 38 and 39.

xi Hawthorne 2009 Earth's Breath pp. 22–3.

xii Banfield 1925 p. 5 .

^{xiii} Wittig 1970 p. 70.

^{xiv} Doniger O'Flaherty 1980 p. 19.

^{xv} Hawthorne 2009 *Earth's Breath* p. 51.

^{xvi} For a very fine translation of the Bhagavad Gita see Barbara Stoler Miller 1986. For this verse see p. 102.

xvii Hawthorne 2009 Earth's Breath, p. 67.

^{xviii} For details on how Monsanto has made the most of the 'revolving door' system between government institutions (public) and corporations (private) see Robin (2010).

xix Hawthorne 2009 Earth's Breath p. 59.

^{xx} Hawthorne 2002 Wild Politics.

^{xxi} Warland 2010 p. 22.

^{xxii} Hawthorne (2010a).

^{xxiii} Shiva 1993.

^{xiv} Hawthorne. (2010b).

^{xxv} See Meadows 2008 for another list of Systems Principles (especially pp 188-191). This list has been adapted from: http://www.ecoliteracy.org/nature-our-teacher/ecologicalprinciples

Elizabeth M. DeLoughrey

Pacific Literature and the Environment: Nuclear Fallout as Climate Change¹

Ur global warming crisis has increased our solar consciousness. The solar radiation that determines life on earth has become part of our conversation about a planetary greenhouse whose temperatures are rising. To address the energy crisis and increasing planetary irradiation, we turn to solar solutions, such as solar panels, wind farms, and hydrogen fuel. Physicist David Whitehouse has observed that the sun "is everywhere; in our past, present, and future" (5).Yet for a figure so determinative, the solar is rarely considered when discussing concepts of the globe, which understandably take on a decidedly earthly tenor. The increased consciousness of the globe as an interconnected whole has been tied to increased ecological awareness. Here I argue that the concept of global ecology derives from the literal fallout of the Cold War, and position solar and military forms of radiation as key traces of globalisation.

The fifty-year history of nuclear testing in the Pacific increased radiation levels in humans around the globe, catalysing the concept of a unified global ecology and a body of literature that examined the relationship between ecology and colonialism. This body of work might be seen as an important precedent to current discussions about how to address the social, political, and environmental impacts of climate change. Here I draw from a number of writers to suggest that literature from Oceania has contributed a vital critique of global environmental devastation and that these works offer important visions for our ecological futures.

In American Cold War propaganda, nuclear weapons of mass destruction were naturalised by likening them to harnessing the power of the sun, and their radioactive by-products were depicted as no less dangerous than our daily sunshine. The militarisation of the environment became so naturalised that the American public casually blamed any inclement weather on the atomic bomb.² Reporters suggested that the military change the globe by setting off nuclear weapons in the Arctic to melt the ice caps and thereby "give the entire world a moister, warmer climate" (quoted in Boyer, 111). This request went unheeded, but the two thousand and more nuclear weapons detonated on earth have changed our planet by radically increasing our levels of militarised radiation. In invisible ways, the history of this irradiation has been an important precursor of our current articulations of global warming. Moreover, Teresia Teaiwa has tied the erasure of this military violence to the process of "militourism" in which the nuclear violence at Bikini Atoll is mystified by the two-piece bathing suit.

The Manhattan Project reporter William Laurence described atomic energy in 1946 as a "promise" to "bring the sun down to earth as its gift to man" ("Atomic Energy" 90), a promethean metaphor that echoed President Truman's announcement of the atomic bombing of Hiroshima as a mere harnessing of solar power.³ When nuclear radiation became a global concern, the Atomic Energy Commission (AEC) and its allies utilised solar analogies to conflate man-made weapons with natural energy from the sun. In 1947 AEC Chair David E. Lilienthal likened atomic energy to solar energy, declaring nothing "is more friendly to man, or more necessary to his well-being than the sun. From the sun you and I get . . . the energy that gives life and sustains life, the energy that builds skyscrapers and churches, that writes poems and symphonies" (335). These metaphors invoked the sun's power in a way that deliberately "confused" the public, as President Eisenhower demanded, about different types of radiation and their risks.⁴

In response to the militarisation of the region, Pacific Island writers have reconfigured an alternative vision of what I call solar ecopoetics. The texts explored here have inscribed what Paul Virilio calls the "wars of light" as a desacralisation of Pacific cosmologies. This concern might be traced back to the work of Maori poet Hone Tuwhare, whose earliest poems sought to denaturalise the heliocentrism of military "nukespeak". Here I turn to the grammar of solar ecologies, placing indigenous writers of the Pacific at the forefront in questioning the military logic of heliocentric metaphors.

II. Pacific Literatures of Light

Since World War II, Pacific writers have engaged with the legacies of the wars of light, critiquing the militarisation of regional ecologies. For instance, in *The Whale Rider*, Witi Ihimaera inscribes a pod of ancestor whales, disoriented and beaching themselves after the French nuclear detonations in Tahiti. In Ihimaera's novel, the whales are the first to notice the marine "contamination seeping from Moruroa," the increasing radiation which brings fearful "genetic effects" on their pod. The whales perceive a "net of radioactive death" and alter their course, ultimately beaching themselves. Although the ancients followed the pathway of the sun to settle Aotearoa (30), the generative movement into Te Ao Marama, the world of light, has been appropriated by the militarisation of light. In the novel, the next generation is encouraged to continue the decolonisation process by turning to ancestral models of ecological "interlock" (Ihimaera 40).

Albert Wendt has inscribed the legacy of the wars of light in his dystopian novel *Black Rainbow* (1992), which depicts a nuclear doomsday clock that is to touchstone for the protagonist and determines the apocalyptic temporality of the text and the Pacific as a region. The novel's title is adapted from Maori artist Ralph

Hotere's paintings about French nuclear testing in Moruroa, artworks that the protagonist transports with him in his flight from agents of the corporate state.⁵ The concept of the "black rainbow" in both Hotere's and Wendt's work nicely demonstrates the paradox of representing nuclear radiation and the annihilation of the normative visual spectrum of light. This connection between artistic production and the history of light is evoked in Wendt's subsequent publication, an anthology described as a "rainbow of poetry and prose" (1) entitled Nuanua, the term in many Oceanic languages for the rainbow. While Wendt emphasises the rainbow's definition as a symbol of Pacific diversity, one could also foreground its role as a figure for the mediation between the earthly and the divine. This relationship between the material and supernatural has been explored by other Pacific writers and has been an important historic component of American nuclear discourse, beginning with naming the first atomic detonation "Trinity".

Pacific writers have configured the regional shift to atomic modernity in terms of the desacralisation of light and land. In her depiction of the French wars of light in Tahiti, Chantal Spitz opens her novel Island of Shattered Dreams with two heliocentric cosmologies. The first, written in Tahitian, inscribes the separation of the earth and sky to create Te Ao Marama, the world of light, a genealogy linking humans with the divine. This is followed by a passage from Christian genesis of the divine creation of light and its separation from darkness, including man's decree of dominion "over all the earth" (10). Like Polynesian accounts, the Biblical genesis replicates the movement of formlessness to form, the construction of earthly temporality, and the association of light as a legacy of knowledge of the divine. In juxtaposing these two cosmologies, Spitz highlights the remarkable difference in how this shift of form produces different ecological results: the Tahitian positions the human as a genealogical product of divine nature, while the Christian narrative positions the natural world as a place

of human dominion. This shift from cosmological knowledge of light to man's dominion over nature is visible in the language of the novel. It moves from an epic language, the world of Ra, "the majestic lord of light" (80), toward the language of progress and nuclear colonialism. A novel that begins with lyrical inscriptions of its characters as "children of light" shifts to inscribe light in terms of fears that Tahitians will be "burned to a crisp" (85) by nuclear missiles. Tahitians are displaced from a sacred discourse of genealogy into a consumerist "light-filled city" (148) that produces cancer, alienation from ancestral language, and a legacy of nuclear dependents.

More recent texts have emphasised the destructive heliocentrism of the nuclear age. James George's novel Ocean Roads depicts the flight of nuclear physicist Isaac Simeon to New Zealand after his work for the Manhattan Project. In coming to understand his responsibility for the irradiation of Nagasaki, Hiroshima and the Bikini Atoll, he describes himself as a "disciple [..]. of light" (61), a creator of the scorched earth, an unconscious participant in a modernity where, as Virilio protests, "nothing is sacred . . . because nothing is . . . meant to be inviolable. This is the tracking down of darkness, the tragedy brought about by an exaggerated love of light" (Vision Machine 35). Isaac disobeys his father's orders not "to look into the sun" (73) and recognises himself as "more a child of the sun than the earth" (340). The novel inscribes how diverse figures of light such as nuclear radiation, radiation therapy, and photography have all helped to constitute the bodies of history in the Cold War Pacific.6

Like Spitz, George inscribes the nuclear desacralisation of space and how it produces a shift in narrative time. He opens his novel with a description of the Trinity site, a space that signifies the commencement of the Atomic Age and a new way of reckoning time. The AEC's decision to name a weapon of mass destruction "Trinity" suggests the desacralisation of space and time: the apocalyptic powers of militarised light are mystified by reference to Christian frameworks for the mediation between the human and the divine (Weart 101). In sum, these Pacific texts have turned to light, radiation and the sun as elements of a new ecology of modernity, a shift away from cosmological narratives into the secular wars of light.

III. No Ordinary Sun

The detonation of the fifteen-megaton thermonuclear (hydrogen) bomb Bravo at Bikini Atoll (1954) catalysed global consciousness about the dangers of radioactivity.⁷ By the 1950s every person on the planet was globally connected thanks to the absorption of the radioactive fallout from hydrogen weapons detonated at Bikini and Enewetok. Bravo and the subsequent 2,000 or so nuclear tests on this planet, Eileen Welsome observes, "split the world into 'preatomic' and 'postatomic' species" (299). Fallout from these weapons spread through the atmosphere, was deposited into water supplies and soils, absorbed by plants and thus into the bone tissue of humans all over the globe. The body of every human on the planet now contains strontium-90, a man-made by-product of nuclear detonations (Caufield 132), and forensic scientists use the traces of militarised radioactive carbon in our teeth to date human remains.8 Radioactive fallout presents us with the most invisible yet pernicious form of the wars of light, one directly tied to the transformation of the human body, and a disturbing sign of our true merger with the environment.

Why is this global fallout so invisible to history? I suggest that its erasure occurs through dual processes of language—first, the naturalisation of nuclear radiation as solar energy, and second, the process of diversion and substitution made possible by metaphor itself. Metaphor has been described as a form of displacement, a move from one object to another that foregrounds resemblance and renders the invisible visible (Ricoeur 34), just as much as it "eclipses" other possible modes of relation (Ricoeur 110). Tuwhare's "No Ordinary Sun," a five-stanza poem written in the late 1950s on the heels of British and American nuclear tests throughout the Pacific, repeatedly negates the solar metaphors accorded to the nuclear bomb that so successfully naturalised American colonialism. Before turning to Tuwhare's poem, allow me to briefly summarise the context in which he was writing.

Famously, Robert Oppenheimer, director of the Manhattan Project and so-called father of the atomic bomb, borrowed from the *Bhagavad-Gita* to describe the Trinity explosion (1945) as "the radiance of a thousand suns" (quoted in Jungk 201). Nuclear weapons are often described as harnessing the power of the sun, or of releasing the universal power of the Big Bang and therefore replicating the origin of our universe. Much of the language that connected the nuclear bomb with the power of the sun can be attributed to the *New York Times* journalist William Laurence, whose consistent cosmic hyperbole about the power of atomic explosions was copied, often verbatim, by countless other reporters and politicians (Weart 104). Laurence wrote President Truman's speech which likened the bombing of Hiroshima to "harnessing . . . the basic power" (quoted in Weart 103).

Atomic Age discourse consistently aligned the bomb with the trope of a new dawn, a rising sun, and the birth of a new world.⁹ Similarly the nuclear cloud became rendered as a tree of knowledge. Observing Test Baker, Laurence famously described the cloud as "a giant tree, spreading out in all directions, bearing many invisible fruits deadly to man—alpha particles, electrons . . . gamma rays . . . fruits of the tree of knowledge, which man must eat only at his peril" (*Dawn* 280). As with the analogy to the Big Bang, American nuclearisation of the globe seems predestined: ordained by nature, the cosmos, and divinity.

This association of the sun with cosmic metaphors of radiance and (nuclear) radiation is vital to understanding Tuwhare's poem, which pairs it with the tree, a natural metaphor of human presence on the planet.

No Ordinary Sun

Tree let your arms fall: raise them not sharply in supplication to the bright enhaloed cloud. Let your arms lack toughness and resilience for this is no mere axe to blunt nor fire to smother.

Your sap shall not rise again to the moon's pull. No more incline a deferential head to the wind's talk, or stir to the tickle of coursing rain.

Your former shagginess shall not be wreathed with the delightful flight of birds nor shield nor cool the ardour of unheeding lovers from the monstrous sun.

Tree let your naked arms fall nor extend vain entreaties to the radiant ball. This is no gallant monsoon's flash, no dashing trade wind's blast. The fading green of your magic emanations shall not make pure again these polluted skies . . . for this is no ordinary sun.

O tree in the shadowless mountains the white plains and the drab sea floor your end at last is written. (23)¹⁰

The title, "No Ordinary Sun," frames the poem with the creation and destruction of metaphor. On the one hand, the sun can never be "ordinary" because it is our source of life. There is no such thing as an "ordinary sun", and it negates any discourse that would normalise it. To make the life-generating centre of our system an "ordinary sun" demands a comparison—it exists only in relation. The process of comparison demands two moves. First, a sun can become "ordinary" by comparing it with other stars and galaxies. The second comparison is from within our planet, turning to that figure so often depicted as the sun on earth: the nuclear bomb. The opening "no", the negation of the ordinariness that naturalises the bomb, is rejected even as the poet relies on the metaphor of the bomb to establish an allegory about the sun and tree.

The unnamed speaker begins with an imperative: "tree let your arms fall". The personification of the tree's limbs doubles the manmade military "arms" that make this metaphor possible (23). The rest of the opening stanza develops the anthropocentrism of the tree and the supernaturalism of the sun, placing the two in unequal relation. The speaker presumes intimacy with the tree and warns it not to raise its arms "in supplication / to the bright enhaloed cloud", foregrounding a spatial hierarchy between earth and sky. Tuwhare's emphasis that this is not the well-known violence of the "axe" or "fire" suggests a historic break. The poem identifies an interpretive gap between the natural earth and the cosmic sun and reveals a rupture in history and nature, even as this gap is mediated by metaphor, the poet and language.

The second and third stanzas again signal a break in the meditative function between the natural and the supernatural, between the microcosm and the macrocosm. The tree's "sap shall not rise again/ to the moon's pull", marking the end of the gravitational relation between the earth and the cosmos. Gravity is the curvature of space–time, a nonnarrative marker of cosmic history. Yet the heliocentrism signalled by gravity is arrested by the poet's voice. Developing the analogy of the tree as human body, the speaker advises against turning to the sun: we should let our "arms fall". Moreover, the figures that mediate between the strata, such as gravity, the wind and birds, are "no more", called to a halt by the poet's voice.

In this third stanza, the life-ending cause, "the monstrous sun", is finally named. This key figure of alterity is placed in the centre of the poem, deemed "monstrous", a word closely associated with irregularity of form, with the unnatural, and often with the unacceptable product of the merger between humans and nature. This introduction of the sun generates a new role for the tree, which now shifts from the anthropomorphic to the arboreal, a (failed) but protective intermediary between the sun and the "unheeding" human "lovers" below whose "ardour", literally, a term for burning, needs cooling. The poet makes an interesting choice here, and perhaps a critique, of the failure of these "unheeding" humans to apprehend their own demise. In this failure of communication between poet and human lovers, it may be that the tree is no longer a trope for the human, but, simply, a tree. To trope is to turn, and

these unheeding human figures are heliotropic, oblivious to their burning under the monstrous sun.

The introduction of these unheeding lovers marks a shift in the following stanza where the diction becomes archaic. This stanza undermines the kind of Romantic nature poetry that draws upon natural tropes for representing the organic development of human illumination. Tuwhare's use of adjectives such as "gallant" and "dashing" to personify nature calls attention to their artifice. Thus a "gallant monsoon" is as incongruous as the nuclear metaphor it is made to bear, its "flash". Similarly, the antiquated language of the "dashing trade wind" jars against the modern warfare "blast". This calls attention to the unnaturalness of the nuclear as well as the failure of language to represent natural phenomena. The "magic emanations" of the tree will no longer "make pure again / these polluted skies", a figural juxtaposition of utopian metaphors of nature alongside a dystopian modernity that calls attention to the uneven process by which metaphor transmutes meaning. The repeated negations of this stanza-"nor extend entreaties", "no dashing trade wind", "not make pure again" (my emphasis 23)suggest the metaphor-negating title of the poem and indeed this particular stanza ends, "this / is no ordinary sun".

The final stanza of the poem literally destroys its own metaphors and leaves the poet with no earthly landscape to transform beyond language. As such, the very process by which human language gains its meaning—through its rootedness in natural, earthly metaphor—is eradicated. The speaker turns to the mountains, but finds they are now "shadowless" (23). Similarly, the "plains" are now "white" and the sea floor is "drab". Here nuclearisation leads not to a planet determined by darkness, a lack of light, but total light. The sea floor, is not "illuminated" by the atomic sun, it is simply "drab". These last five lines of the poem also lack colour, contrast and personification of nature, the vehicles that kept this poem in narrative tension. Given its nuclear topic, the structure of Tuwhare's poem is oddly antiapocalyptic. Unlike almost every other account of nuclear detonations, which capitalise on the stunning visual effects of nuclear explosions and produce an aesthetic of violence, Tuwhare recounts a nuclear apocalypse in which the actual detonation is not inscribed. This is a poem of witness that does not inscribe the act of violence itself. The poem uses the very figures most associated with apocalypse, yet this is not a narrative of sacrifice or renewal, as accounts of destruction often suggest in Maori and Christian traditions. This is a world of total light, but illumination does not follow—this world is "shadowless" and "drab" (23). He shifts our attention away from the blast toward what Fernand Braudel would call the *longue durée* of radiation. Thus Tuwhare ends his poem with total radiation, an unrecognisable landscape suffused by the violence of our total illumination.

V. Pacific Heliotropes

Tuwhare grew up speaking Maori and was exposed to a formal oratory in which one addresses so-called inanimate beings such as trees, animals and features of the landscape, utilising language to establish genealogical connections to the earth. His father read the Bible to him as a child to help develop his English. Given Tuwhare's concern with the meditative function of language and light, we might read this poem as an allegory of Christ and his failures to protect humanity from the hubris of instrumental rationality. To position this work in a Maori cosmology, we might consider this poem in relation to the genealogies of light that inform much of Tuwhare's poetry. Tane-Mahuta, the deity of the forest represented by the tree, creates Te Ao Marama, the world of light, by separating the sky deity and the earth mother, bringing light (and life) to the earth. Tane is an emissary between earth and sky. The poet's call to cease this intermediary function thus focuses on the failure of mediation itself. The "wa"-the space between-represents the

potent space of becoming, the space of language, the mediating function of metaphor, as Otto Heim describes in this volume and elsewhere.¹¹ As such, the poet inscribes a rupture in the mediating role of light in both indigenous and Christian cosmologies.

The tree's "magic / emanations shall not make pure again/these polluted skies"; the power of transmutation that lies in both the natural and figurative use of the tree has failed, just as the poet's ability to illuminate the earth after nuclear devastation results in merely a "drab" and "shadowless" landscape. The last words of the poem, the staccato, "your end at last is written", represents one of the few lines that do not assert a negation; it's a positive assertion as well as epitaph. The doubling of the "end at last" underlines the circumscribed powers of the poet and the process of inscription itself. In other words, the demise of the tree is simultaneous with the emergence of writing. The poet's elegiac powers emerge, only through the loss of the landscape from which language gains meaning. This is a small triumph of metaphor in the wake of our planetary irradiation.

¹ A longer version of this essay, "Heliotropes: Solar Ecologies and Pacific Radiations" was published in *Postcolonial Ecologies: Literatures of the Environment*, Oxford UP, 2011.

² Smith, H. Alley. "Where's That Crazy Weather Coming From?" Saturday Evening Post 226.5 (August 1, 1953): 30, 89–90.

^{3.} Truman announced the bombing of Hiroshima "as a harnessing of the basic power of the universe. The force from which the sun draws its power has been loosed against those who brought war to the Far East" (quoted in Weart 103).

⁴ See Boyer 188.

^{5.} See also the collection edited by Hall, *Below the Surface: Words and Images in Protest at French Nuclear Testing on Moruroa.* Cathie Koa Dunsford has explored this topic in her novels *Manawa Toa-Heart Warrior* and *Ao Toa—Earth Warriors.* Robert Barclay's *Melal: A Novel of the Pacific* (2002) depicts the American militarization of Kwajalein in particular.

^{6.} This discussion of George's novel is developed in my article "Radiation Ecologies."

^{7.} For more on the tests at Bikini see Weisgall, Firth, Half-Life, and Teaiwa.

^{8.} See "Forensics: Age Written in Teeth by Nuclear Tests."

9. Weart describes radiation's association with the rays of life associated with life force, the growth of crops, sexuality, and divine illumination (41). See also Rosenthal.

 Kia ora to Robert Tuwhare for allowing me to reproduce his father's poem in its entirety.
 See Otto Heim's "Breath as Metaphor of Sovereignty and Connectedness in Pacific Island Poetry," in this volume and in *New Literatures Review*. http://www.islandstudies.ca/NLR2011.

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Otto Heim

Breathing space: Ecology and Sovereignty in Pacific Island poetry¹

Abstract

This paper addresses the need to rethink notions of sovereignty and national self-determination in relation to ecology and place-based development. It argues that this requires an imaginative reconceptualisation of established institutional spaces to make them answerable to the places they represent and open them to cross-cultural engagement. It highlights the importance of creativity, specifically poetry, in this regard and suggests the relevance of Oceanian traditions to institutional innovation. Recognising the paradigmatic status of the canoe as a space-building and knowledge-organising metaphor, the paper shows, in a reading of poems by Caroline Sinavaiana, Robert Sullivan, and Teweiariki Teaero, how the metaphorical association of the canoe with the bodily image of breathing enables an imaginative connection between sovereignty and ecology that is also informed by Pacific epistemologies. It ends by suggesting how this vision could be relevant to conceptualisations of space, the negotiation of boundaries and cross-cultural action in globalised institutional contexts.

Terence Wesley-Smith, in a recent article on 'Self-determination in Oceania', discusses the problems attending the process of decolonisation in Oceania since the 1960s. Not only has the

internationally recognised principle of self-determination been unevenly applied, reflecting continuing colonial interests in the region, but where political independence has been achieved, it has largely relied on 'alien institutions, notably the western-style nation state' (33). According to Wesley-Smith, this is consistent with the way decolonisation has happened around the globe, which 'was neither rehabilitative nor particularly innovative [but guided by norms that] were essentially imitative of European models of economic and political development' (34). He points out the high financial and social costs of establishing and maintaining national sovereignty within the boundaries of former colonies that 'were established with scant regard for the traditional cultural and political features of Oceania' (34) and the damage done to local communities and ecosystems by efforts to make these political entities economically viable. Wesley-Smith cautions against both diagnosing the failure of states, which would justify international encroachment on sovereign rights, and 'derid[ing] the intrinsic value of sovereign independence' itself (42).² Instead, he calls for a strengthening of existing institutions that is consistent with indigenous practices and forms that have proved sustainable, and he points out that the main challenge here is not the design of institutions or even the availability of resources but 'to change the wider political culture in which western-style state institutions must operate over the longer term' (41). This is less a matter of management or regulation than of creativity, leadership and education toward a genuinely cross-cultural institutional engagement.

In as much as it calls for a critical rethinking and reimagining of the potential of existing political institutions, Wesley-Smith's argument is echoed by literary scholars like Diana Brydon, for instance, who, writing about the institutional place and role of literature in Canada, urges a rethinking of the space for action afforded by the structures of the nation state that is not determined by a national(ist) imaginary. Such rethinking, Brydon notes, must do more than critique narratives of originary subjectivities or examine the production of cultural difference, by imagining and concretising '[n]ew modes of connectivity and [...] ways of being and working together [that] seem increasingly urgent at a time when our planetary interconnectedness becomes more obvious every day' (2007b:6). For this, she suggests, there is no need to abandon 'terms such as representation, sovereignty, and citizenship' and 'more may be gained by reclaiming and reshaping some of these old terms' (2007a:14). Quoting Donna Pennee, Brydon calls for ways of 'doing the national differently,' which 'will involve greater attention to institutions' (2007a:10) and forms of citizenship such as are represented in literary engagements with the terms that connect and mobilise people within national frameworks and beyond.

Such rethinking may have particular relevance to Oceania, where the transplantation of western political institutions has often proved divisive or disempowering and where the economic and ecological impacts of global interconnectedness are perhaps felt more urgently than elsewhere. Teresia Teaiwa offers examples of the kind of literary engagement Brydon suggests in a discussion of 'patriotic literature from post-coup(s) Fiji' (2004:82), where she shows 'how [...] particular representations of identity interrupt and intervene on a nationalist imaginary, and assist in the patriotic project of nation-building' (2004:85). For Teaiwa, too, doing the national differently requires nurturing 'the power of the imagination' and recognising that '[l]iterature and the arts are the cornerstones of a nation's imagination' (2004:92-3). This is not an argument for the instrumentalisation of the arts but a call for opening institutional spaces to the 'creative disturbance', as Sudesh Mishra described poetry at the OIS conference at USP in September 2010, which undoes the metaphors we live by, challenging the way we look at things and encouraging us to try

out other metaphors that might make a difference, when acted on. In this regard, I think Oceania also has a particular relevance to such institutional rethinking and reimagining elsewhere, because its long histories of settlement and connectedness across long distances provide alternative terms or imaginaries for working and living together in globalised institutional contexts.

The problem of modern western institutions is that they derive much of their global power from a claim to universality, their apparent indifference to cultural difference. Yet the very abstraction that underpins this indifference is an expression of a distinct cultural attitude: the spectral logic of representation that characterises the political and economic system based on commodity circulation, which encourages a buying into ideas whose material foundations are obscure. The nation is such an idea, or, in Ernest Renan's words from 1882, 'a soul, a spiritual principle' (19) that is not defined by race, language, religion, material interest or geography but nevertheless binds people as a 'spiritual family' (19).³ The development of the dense institutional network of modern western states is an effect of transformations of sovereignty in the context of European modernity of which James Sheehan highlights two important aspects. One is what could be called the bureaucratisation of sovereignty, the replacement of monarchical and religious authority by a legal and procedural order: 'By the middle of the nineteenth century, codes and constitutions, administrative regulations, and judicial decisions had turned the making of sovereign claims into a legal process' (8). The other is 'the association of sovereignty and national selfdetermination' (10), the vesting of sovereign authority in a state representing a more or less arbitrary territorial entity. According to Sheehan, this association 'heightened [the] persistent tension between sovereign theory and practice' (10): while sovereignty in principle (and outwardly) is indivisible, in practice (and internally) it is always contested and subject to compromise. Modern nation

states not only had to establish their sovereign claims among their peers but also negotiate rivalling sovereign claims within their territorial boundaries. The contemporary framework of national and international institutions, while stabilising this tension, according to Marc Weller, also essentially 'disenfranchises populations' (5) because it in effect neutralises and mystifies their connections to particular territories. The major beneficiary of this has been globally organised capital, resulting in still increasing densities of development with low attention to sustainability and conglomerations of transnational finance and business interests ever more dictating the focus and scope of (sovereign) states' actions and their ability to deliver basic public services. Meanwhile, locally, in many places the 'positive' impact of state institutions manifests itself primarily in investment in infrastructure and what Marc Augé has called 'non-places' and in the enforcement of regulatory frameworks that are not easy to fill with what Renan referred to as a soul or a spiritual principle. The resurgence of nationalist sentiment, flag waving and the defence of blood or ethnicity, in many parts of the world is an indication of both a widespread alienation facing political institutions and the inadequacy of the prevailing symbols of sovereignty - inherited from monarchy and aristocracy – as beacons for institutional action.

In order to counter the present development that benefits global capital at the expense of local communities and the environment, it is necessary to make (state) institutions as spaces answerable to the places they represent, in ways that abstract universalism fails to do. Arif Dirlik sees this as the challenge of a place-based imagination: 'the projection of places into spaces to create new structures of power, which may provide protection to places, because, rather than repudiate places in the name of abstractions, they incorporate places into their very constitution' (39). This isn't a question of prescribing the terms for a new global order but of formulating working principles for cross-cultural institutional

action and such a project, as Dirlik suggests, 'may have much to learn from indigenous paradigms of the relationship between nature and society as well as from indigenous forms of social and political organization' (39).

Learning from Oceania seems important in this connection because, as many scholars of the region have pointed out, indigenous epistemologies and social organisations of Oceania derive their concepts and terms from concrete locations and yet have an elasticity that permits them to encompass and connect distant island worlds on a global scale. Emphasising the anchoring of indigenous development in a given natural and cultural environment, Hawaiian scholar, Manulani Aluli Meyer, for instance, explains: 'Our cultural as well as physical geography is the foundation of our creativity, of our problem solving, of our knowledge building. [...] Land, sky, and ocean [are] the home of metaphors that [people] continually draw on' (129). Similarly, David Welchman Gegeo explains that in the epistemology of the Kwara'ae on Malaita in Solomon Islands the concept of place evokes a complex sense of source grounded in a specific location and integrating notions of place of origin, genealogy, right of access, social standing, rhetorical competency, cultural knowledge, kinship obligations, world view and a learning model (493-4). According to Gegeo, this concept of place is 'portable' (495) and can be stretched to encompass new situations, without therefore relinquishing its home in a particular physical and cultural location. These explanations are echoed by the French geographer, Joël Bonnemaison, who observes that in the societies of Western Oceania it is from a concrete place that 'space is shaped and, through it, a web of values and meanings is organized' (2), resulting in 'a vision [that] is not expressed by means of a constructed discourse or ideology but through images and metaphors that give rise to thoughts and representations' (2).

The continuity of this metaphorical expansion or stretching in Oceanian worldviews lends them a particular temporal dimension, which grounds the 'mapping' of islands in cultural histories of settlement. Epeli Hau'ofa has described this time/space continuum as 'ecological time' (2000:459f), which situates human activities in a cyclical relationship with a natural environment that also bears the mnemonic imprints of ancestral activities. The ecological orientation toward land, sky and ocean therefore acknowledges indebtedness to the gifts of nature as well as to genealogy and an expectation of human activities to cultivate the physical environment as both a natural and a cultural resource. This cultural attitude is expressed, as Hau'ofa has put it, in the way in which Oceanian languages 'locate the past as ahead or in front of us [...] on our landscapes in front of our very eyes' (2000:466); more generally, it is expressed in a metaphorical view of language as a cultural resource itself, which, according to Teresia Teaiwa, characterises 'many of the native linguistic traditions of Oceania' (2005:29).4

One of the most prominent space-building and knowledgeorganising metaphors in Oceania is what Polynesian languages variously call *vaka*, *waa*, *waka*, and English translates as 'canoe', as indeed the organisers of the OIS conference reminded us by including the special issue of *Dreadlocks* with the proceedings of the 2006 'Vaka Vuku' conference on Pacific epistemologies in our conference pack.⁵ Recognising the paradigmatic place of voyaging in Oceanian histories and traditions, Vicente M. Diaz and J. Kēhaulani Kauanui in their introduction to a special issue of *The Contemporary Pacific* likewise identify the canoe as the basis for triangulations in a comprehensive sense and 'suggest that it might serve as a tactical figure for indigenous political and cultural struggles' (317), perhaps not unlike the metaphor of a field in Western traditions.⁶ With its connotations of genealogy, way-finding and settlement, the canoe offers itself as a powerful symbol, indeed one that, according to Liz DeLoughrey, 'has been utilised by agents of colonialism *and* indigenous sovereignty' (99) alike, promoting 'contiguous forms of Pacific regionalism' (100). In her analysis, these competing discourses overlap in the use of the image of the voyaging vessel to connect the idea of ocean-going craft conquering a feminised water-body and the idea of male bloodstreams circulating through the vessels of an expanding yet closed ethnic body. DeLoughrey shows how the notion of Anglo-Saxon seafaring blood, which served to naturalize and legitimise an imperialist enterprise of colonisation (117-18), has been appropriated by Pacific Islanders to reclaim suppressed indigenous histories of voyaging and regional kinship and how the image of '(blood) vessels of sovereignty ha[s] been used to signify an indigenous regionalism in contemporary literary texts' (127). Its compatibility with the symbolism of blood thus suggests the crosscultural potential of the mobilizing metaphor of the canoe, but as DeLoughrey points out, this also tends to 'reiterate the gendered logic of national belonging' (98) and to privilege 'metaphors of movement and fluidity that ultimately are embedded in the etymology and semantics of the term diaspora itself: sperm and blood' (100).

If, as Diaz and Kauanui argue, notions of 'race and blood' should be considered as 'imposed categories' (318) in discourses of Pacific indigeneity, it is interesting that in some Oceanian poetry the conceptual importance of the canoe is associated with another bodily image, that of breathing, which perhaps figures more prominently in indigenous epistemologies. Indeed, the image of breathing, in conjunction with the canoe, renders a different spatial or regional imaginary and correspondingly a different notion of sovereignty than the image of bodily fluids, which tends to emphasise circulation within (and between) ethnically circumscribed social bodies. I would like to argue that the recognition of the literal and metaphorical importance of breathing in Oceanian worldviews underpins the use of the canoe metaphor to promote the value of an island-based concept of breathing space in three contemporary collections of Oceanian poetry: Caroline Sinavaiana's *Alchemies of Distance*, Robert Sullivan's *Star Waka*, and Teweiariki Teaero's *Waa in Storms*.

Breathing forms part of the phenomenology of a Hawaiian conceptualisation of knowledge, according to Manulani Aluli Meyer, who in her chart of Hawaiian perceptual terminology associates the sense of smell with the activity of 'breath[ing] in' (131). By including in the relevant vocabulary words referring to breathing in, both through the nose and the mouth, Meyer suggests that the sense of smell may itself be part of a more encompassing sensory experience and that breathing as such may be a mode of perception mediating knowledge. Accordingly, Meyer points out, '[b]reathing into [a person's] mouth is one way knowledge was given and is a metaphor for how Hawaiians engage in knowledge maintenance' (132). Attention to breathing thus concretises a conceptualisation of knowledge that emphasises awareness of a relationship with a living environment, interdependence and causation. As such, it is also associated with the location of understanding or intelligence in the centre of the body, in the stomach region Hawaiians, according to Meyer, call na'au, which - similar to the Maori word ngākau, according to Anne Salmond (240-41) - refers to both the intestines and the heart (Meyer 143). As Meyer explains, this location of intelligence in the viscera expresses an understanding that effective knowledge involves awareness of feelings and affective responses, such as being at ease, apprehensive or fearful, which also make themselves felt as qualities of the experience of breathing.

Albert Wendt has related this sense of awareness to an Oceanian concept of space, va, which emphasises connectedness that may not be evident to the eye but may manifest itself among other ways

in the experience of breathing. Wendt paraphrases the meaning of the Samoan concept va as 'the Space-Between-All-Things which defines us and makes us part of the Unity-that-is-All' (181), and as Paul Sharrad, quoting Wendt, indicates, this concept of space has a perceptual basis in the epigastrial area of the body that is also the centre of breathing: 'Va is relationship, not objects, it is the spirit core (moa, centre) of our body that lies in the space between: "not quite in the heart and it's not quite in the belly either"' (Sharrad 193). Designating a centre in a bodily as well as a broader spatial sense, the meaning of moa in connection with the concept of va seems similar to the Hawaiian 'idea of na'auao (enlightened stomach)', which, according to Meyer, refers to 'a cosmic center point' (144) in the form of centred relationships, including ancestral relationships. In an interview with Juniper Ellis, Wendt explains that 'Va and Gafa [genealogies] express the same connections: people and space and time. [...] The space between us is not empty; it forms relationships. Genealogies, gafa, convey the same thing' (Ellis 55). Meyer's observation that the use of breathing as a metaphor for knowledge maintenance 'is deeply embedded in other, in elder, in spirit' (132) suggests that breath concretises this dynamic sense of connection. As such, it may also lend itself as a metaphor to express the circular time/space continuum that, according to Hau'ofa, characterises the ecological worldviews of Oceania. Breathing, in this sense, is associated with an acknowledgment of the presence and precedence of other life and recognition of its influence on one's own. This sense of breath as something to be respected as also a property of others, and in some situations a sign of their authority, may explain its association with ideas of sovereignty in Hawaiian, where ea, according to Mary Kawena Pukui and Samuel Elbert's dictionary, means 'sovereignty, rule, independence' as well as 'life, breath, vapor, gas, breeze, spirit' (34). Sovereignty, in this understanding, seems to imply mutuality and its preservation to require the cultivation or protection of breathing space in an encompassing sense.

Π

Caroline Sinavaiana emphasises the importance of breath as a guiding metaphor in Alchemies of Distance, where it provides the connecting line throughout the introductory essay that she calls 'a kind of genealogy' (11). Associating poetry with the need to breathe, 'underst[anding] poetry as oxygen' (11), she explains the cultural significance of breath in relation to a concept of space embedded in 'Polynesian creation narratives, [where] breath (or fragrance, its cousin) precedes the creation of light' (18) and thus the visible world, and to the Samoan concept of va (20), space constituted by relationships. For Sinavaiana, poetry is an art of creating and cultivating breathing space, a way of responding to stifling situations and of transforming 'distance(s) - of space, time or the heart - [...] into deeper proximities, other ways of being connected' (12). As a metaphor for poetry, breath thus also concretises the metaphorical view of language Teaiwa associates with 'native linguistic traditions of Oceania' (2005:29), which takes and transforms meanings from language in place while remaining mindful of its sustainability as a cultural resource. Sinavaiana relates this to a more conventional association of poetry with orality but particularises this notion by referring it to Polynesian oral traditions of 'talking story, fragrance, and breath – transmigrating [...] onto the printed page' (15) and by linking it with the image of the canoe as connecting and worldenlarging vehicle, carried by 'the moving line of breath – of poetry' (12). The twenty poems of her collection thus metaphorically appear as canoes, sailing on the poet's breath, and the variable placement and length of lines throughout, giving each poem a different spatial appearance on the page, draws attention to the connecting space, as each poem responds to the presence or precedence of a relationship.

Alchemies of Distance is organised in four sequences according to the metaphor of a journey with 'departure', 'traveling party', 'lament', and 'reunion', emphasising a cycle of separation and (re) connection, imaginatively forging new relationships and bringing them back to the fabric of old ones. The metaphor of breath allows the poet to make connections with distant places and to relate poetry to the capability of cross-cultural communication of music, as in the poem 'adobe duet', which evokes an encounter situated in a landscape reminiscent of the American Southwest. Dedicated to the deceased son of a musician, the poem joins a mother in

> her grief/ a firey stream poured into the ear of a small clay flute/ her breath swirling there/ ocarina exhaling (63),

and in departing transforms the experience into a memory sustained by the image of a canoe:

we hasten to follow this melody home/ we climb into mist & the breathing of streams we climb onto feathers/ on the back of her song/ then rise from deep canyon sailing out above trees. (64)

Teweiariki Teaero likewise organises his collection, *Waa in Storms*, on a spatial metaphor, a cycle of 'waves' entitled 'Pond Storms', 'Lagoon Storms', 'Ocean Storms', and 'Calm Again', emphasising the importance of centred relationships. The sequence evokes the value of breathing space, as Teaero uses the metaphor of storms to refer to problems weighing down on relationships at family, local, and regional levels, resulting in separation, isolation and anguish. Like Sinavaiana, Teaero points out that he wrote his poems during

'a particularly difficult period of [his] life' (x) in response to which the poems express his feelings and concern and particularly the value of relationships. The central importance of valuing and cultivating relationships is emphasised at the beginning of the collection in the image of a formal garlanding of its readers and invoked in many poems that acknowledge the presence or precedence of someone familiar, a member of the family but often also a mentor, to whom the poet pays his respects. It is as vehicles for the cultivation of relationships as well as in their design to weather metaphorical storms, that Teaero's poems are also likened to canoes (*waa*), suggesting a conceptual affinity between the canoe as connecting vehicle propelled by wind and the poem as vehicle for the poet's voice carried on the breath.

Canoe and voice themselves figuratively represent connections that are not directly visible but nevertheless have a distinct spatial shape. Both Teaero and Sinavaiana foreground specific connections in many of their poems. Both date their poems, without arranging them chronologically, and indicate for most of them the place where they were composed. This precise location is coupled in many poems with a specific address or dedication. Reading the poems thus becomes a movement back and forth between different (island) locations, imaginatively following each poem as it establishes or acknowledges a relationship, and the collections as a whole constitute a space made up of many intersecting pathways. Both poets, but Teaero in particular, furthermore use the graphic arrangement of their poems to indicate that connections, although invisible, are not to be imagined as abstract lines connecting dots but have a spatial extension and shape that changes, similar to the pathway of a canoe negotiating wind and currents or the quality of a voice modulated by changes in breathing. In the final section of his collection, 'Calm Again', Teaero includes a rare undated poem entitled 'steady waa', which sums up the value of centred relationships captured in the metaphorical coming together of poem, canoe and voice:

this my waa of learning it is strong truly balanced as it should be it is anchored so very strongly very firmly to the sky the land the sea all (89)

The canoe looks stationary, symmetrically balancing learning, associated with ancestral and mentor relationships, and relationships with sky, land and sea. At the same time, reading orients it in space, with sky, land and sea 'firmly' in front.

The metaphorical cluster of poem, canoe and voice also centres the relational worldview of Robert Sullivan's collection, *Star Waka*, but while the underlying principle is similar, Sullivan's exploration of the metaphorical possibilities of sustaining an all-encompassing worldview by way of the canoe (*waka*) metaphor is more ambitious and far-reaching than Sinavaiana's and Teaero's, especially in its eventual association of the reclamation of sovereignty with the

BREATHING SPACE

restoration and cultivation of breathing space. Assembled in a numbered sequence, Sullivan's 100 poems, likened to *waka*, evoke connotations of a giant fleet, but in its metaphorical operation, the *waka* also brings to mind the image of a shuttle in a loom, weaving the ramifying connections that hold together an Oceanian worldview into an intricate tapestry. Still, the image of a tapestry with its connotations of flatness and covering does not quite fit the spatial imaginary Sullivan evokes, which celebrates the spacebetween constituted by a myriad relationships and is therefore more aptly described in terms that Joël Bonnemaison derived from his studies of Oceanian canoe societies: 'a complex network, a flexible and reticulated system of places and roads of alliance, weaving nexus upon nexus around various places of confluence, which themselves are connected with spatial configurations farther away' (8).

Sullivan's collection can be read as a single poem, charting the voyage of the eponymous 'star waka' past 2000 lines, and as such it represents a space/time continuum held together by the constant renewal of connections. The 2000 lines of the poem signify spatial extension as well as time, referring to both years and genealogies. Star Waka thus recreates the 'Pacific [as] a far-flung society' (70), reaching into the past of navigational histories as far as Hawaiki and out to an imagined future of 'spacecraft waka' (50), bringing oral traditions as well as textual and electronic archives into a vast and at the same time intimate conversational space. Significanty, while taking part of his inspiration from Western literature, Sullivan does not organise his poem on the model of an epic, with a single narrative voice and hero: 'There is no Odysseus to lead this fleet - / not even Maui who sent waka to their petrification' (70). Instead, like Sinavaiana and Teaero, he gives each poem a different shape, mirroring the distinct and dynamic spatial nature of individual relationships that fill and animate the vastness that Wendt describes as 'the Space-Between-All-Things which defines us and makes us part of the Unity-that-is-All' (181). As a vehicle that holds together a decentralised and localised space of constantly moving relationships, the canoe therefore appears in many guises, including Sullivan's old car in 'Honda Waka' (8), computers in 'waka rorohiko' (59), a TV program, '*waka huia*' (63), the Civic cinema in Auckland (49), books, and of course the vessels that brought Sullivan's Maori and European ancestors to Aotearoa (89). Anything can become a *waka* that connects, down to 'molecules of waka, powered by breeze' (62), and *waka* can be found everywhere: a milk carton, for instance, becomes a *waka* by virtue of its Waitangi Day expiry date (65). In effect, *waka* becomes an 'attitude' (85), an expression of 'the psyche of [Pacific] cultures, [their] closeness' (46), which in Sullivan's collection permeates every aspect of everyday life, like breathing.

Indeed, the spatial imaginary that nourishes the metaphorical attitude at work in Star Waka may be described by the image of space itself as breathing. This space refuses to submit to any contour but constantly shifts, expands, contracts, and always connects, as Sullivan suggests, with startling effect, by moving from a vision of 'spacecraft waka [...] singing waiata to the spheres' (50) to a picture of the 'emanations from the breathing of [his] daughter' (51), sleeping in the intimacy of the family bedroom. Breathing freely as a sign of empowering connectedness thus ultimately appears as a metaphor of sovereignty in Star Waka, expressed both in the celebration of the poet's sense of connectedness and capability, manifest in the sustained power of his voice, and in the imaginative commitment to the restoration of an indigenous universe in the form of relationships concretised in the image of the breath and sustained by the metaphor of the canoe. This association of sovereignty with breath becomes increasingly explicit toward the end of Star Waka, for instance in 'Waka 78 An historical line', which represents the onslaught of colonisation on the Maori in a single sentence of the form, 'In the

New Zealand Wars [...] the Empire took the waka' (87), which is twenty-five lines long and literally leaves the reader out of breath while metaphorically expressing the destruction of indigenous sovereignty associated with the loss of ancestral *waka*. The last three lines of the poem metaphorically acknowledge the resulting marginalisation but also express the resilience of the indigenous worldview that also underpins Sullivan's imagination: 'The iwi hid the old ones / we have today. Or built them again. / They had the psychological template' (87). 'Waka 100', the last poem, finally brings the collection to the threshold of a 'New World' (110) and the recovery of 'a culture / that has held its breath / through the age of Dominion' (111), captured in the resurrection of *waka* that 'rise – rise into the air – rise to the breath – / rise above valleys into light and recognition' (111) and invoking breath as a cosmic gift associated with divinity:

> holder of the compasses – wind compass, solar compass, compass encompassing known currents, breather of the first breath in every breathing creature, guide the waka between islands, between years and eyes of the Pacific out of mythologies to consciousness. (111)

III

The metaphorical association of sovereignty with breathing and with what Samoans call 'nurtur[ing] the *va*' (Sharrad 248) has particular significance to Oceania, where, as the three poets suggest, it resonates with deep cultural attitudes toward family and elders as well as the environment and the past. But it is also relevant to a

globalising world, in that it can influence our imaginative attitude toward islands (and by extension, toward other places as well) and assist us in rethinking priorities that guide us in the institutional spaces in which we work. Indeed, I consider this one of the strengths of the metaphor of breathing, that it has the capacity to articulate a value that is at once shareable and particular and even personal, reflecting the dual nature of 'sovereignty as both a doctrine and a set of activities', as James Sheehan puts it: 'As a doctrine, sovereignty is usually regarded as unified and inseparable; as an activity, however, it is plural and divisible' (2). As a metaphor grounded in concrete experience, the image of breathing can acknowledge both the value of self-definition, to which everyone may lay claim, and the value of negotiating difference, without recourse to abstract universalism.

To people whose livelihood depends on the sea, islands may quite literally represent breathing space in the sense of a place to call home, as Epeli Hau'ofa suggests when he notes that '[o] ur' natural landscapes [...] are maps of movements, pauses, and more movements' (2000:466).⁷ The presence of the sea indeed accentuates the value of breathing space insofar as it reminds us of the fact that the ocean not only sustains the atmosphere and photosynthesising environment that is a condition of terrestrial life, but in its very vastness and perpetual motion also naturally limits and potentially threatens breathing space as a resource. Islanders everywhere (even in Hong Kong) are accustomed to the periodic visitation by storms, which temporarily force them to seek shelter and to emerge to inspect the damage done to their homes. At the same time, the limited space for settlement on islands imposes natural limitations on the space anyone can claim for their home and obliges people to accommodate the potentially contesting claims of their neighbours. As Vilsoni Hereniko pointedly observes: 'The sea of Oceania may be vast, but no one I know is fighting for a piece of the ocean to build a house on'

(167–68). As is well known, colonialism and its lasting (global) effects have severely exacerbated the pressures on the ecological and political equilibrium in Oceania in the form of military and commercial encroachment, pollution, rising water levels, and what David Gegeo calls the 'implosion of place' and a concomitant tendency of 'space [...] to explode' (498, italics removed), as a result of over-crowding and the disruption of customary mobility. Such problems accentuate the focus of indigenous struggles for sovereignty on the protection of breathing space, as Meyer suggests when she describes the effects of colonial education in Hawai'i as a form of 'carbon monocultural poisoning' (125). At the same time they emphasise the inextricable association of these struggles with respect for the incontestable sovereignty of the natural environment and the need to strengthen cooperative bonds across regional boundaries.

The three poets likewise address these pressures and thereby indicate the relevance of the restoration of a relational space concretised by the metaphor of breathing to global issues. Thus Sinavaiana associates her poetic quest for breathing space with her actual relocation from Samoa to Honolulu, 'away from the toxic milieu of colonial isolation', emphasising the importance of regional connectedness that provides '[s]aving distance, perspective, breath' (12). Sullivan laments the destruction of the global environment, which threatens to devastate island worlds most directly, in 'Waka 57 El Nino Waka': 'El Nino is blood from our mother. She bleeds / internally; then from ocean into air in a maelstrom' (64). And in the poem '49 (environment I)', he asks, 'will the next makers of waka / live in submarines [...]?' (53), suggesting that global warming may eventually not leave any place to fight for to build a house on. Similarly, Teaero, in 'natural meal' (62-63), denounces corporate greed that gobbles up the island world, cyclone and all, and in the poem, 'What is...', he pithily lists the effects of global development on island settlement:

rising rising rising? global warming population cost of living expectations blood pressure unemployment inflation stress temper (69).

In 'Storms,' Teaero acknowledges the visitation by storms as an ordinary aspect of island life, a confrontation of the always longer breath of the natural environment, 'bursting into our pacific lives / from across the eternal ocean / breathing restless hurricanes' (4). But the metaphor cuts both ways, also likening visitors to unwelcome storms and perhaps urging them to pause and reflect, as does the poem, 'Un-beatitudes,' which calls attention to the pollution of oceans, islands and skies and ends with a plea:

Spare a thought for ourselves All tense and taut Tightly wound up Ready to explode or is it implode? Upon ourselves or is it others? In a stormy mess (61).

Perhaps the most important implication of the association of sovereignty with breathing, however, is its emphasis on the cultivation of connections and the negotiation of political and cultural boundaries that this involves. Herein lies the principal difference between conceptualisations of sovereignty in terms of blood and conceptualisations in terms of breath, for while the metaphor of blood tends to emphasise interiority, incorporation and sameness, the metaphor of breath puts the emphasis on kinship as always also a relationship to others, implying recognition of and respect for difference. The image of breathing allows us to rethink what constitutes a people as the bearer of sovereignty, for what ensured the peopling of the Pacific Islands over centuries by what Epeli Hau'ofa has called 'ocean peoples' (1993:7) is not primarily the protection of bloodlines but the ability to settle differences. As a metaphor for sovereignty in a sea of islands, attention to breathing thus concretises an 'ethos of engagement' (Connolly 2192ff) rather than regulation, a reckoning with the presence and precedence of other, often invisible, agents, and an awareness of the need to negotiate boundaries.⁸ To say that such an attitude underpins the writing of the three poets is not to deny that the image of blood also forms part of their metaphorical repertoire, which it does, but to suggest that the relational values associated with the image of breath take precedence and in some ways even express themselves in a reconceptualisation of the connectedness evoked by the image of blood. Robert Sullivan conveys this most strikingly when he turns the idea of 'blood relations' into an image of exteriority and articulation, of 'veins touch[ing] veins' (109). Speaking of sovereignty, Sullivan exclaims, 'we are peoples united by more / than genes, by more than the tongues / of our ancestors reciting names / of great ones' (46), pointing to a psychic closeness, which he elsewhere (in 'Waka 76') punningly refers to as 'a waka attitude' (85).

As a metaphor of sovereignty encompassing the cultivation of connections, the image of breathing thus also highlights the cultural ability to negotiate boundaries, a point Joakim Peter emphasises in his study of Chuukese travels, where he notes that 'strong clan connections and trade partnerships must be maintained for basic life support' (263) and that this involves attention to 'boundaries [that] require negotiation' (262). Travels, in his analysis, 'can be

seen as a series of purposeful negotiations and conversions of unfamiliar and unfriendly forces to serve a defined purpose or a set of purposes' (262). Peter criticises the ways in which the arbitrary drawing of political boundaries between parts of Micronesia variously administered in association with the USA has hindered the provision of and access to vital services such as health care in the region and suggests the importance of finding ways of working within and across institutional boundaries, based on principles such as might be formulated via the image of breathing.⁹

Peter's observations on the negotiation of boundaries also apply to the metaphorical itineraries charted by the three poets, which foreground cultural boundaries with an invitation to familiarisation, notably by including words in indigenous languages and providing assistance to the non-native reader in the form of glossaries or reference to available resources. Including twelve poems in Kiribatese among the 64 of his collection, Teaero evokes the familiarity of boundaries and the experience of communicating across linguistic and ethnic differences most compellingly in 'Wordless games', watching a Tuvaluan and an I-Kiribati-Fijian boy at play: 'You do not know / Each other's language / Yet you talk together / Communicate nicely / Understand each other / So well' (93). His question, 'What connects you so?' (ibid.), draws attention to a relatedness concretiszed by the image of breathing and its grounding in histories of Pacific settlement and migration whose patterns of relatedness, similarity and difference, as John Terrell (122–51) has shown, are not explicable in terms of models based on hegemonic assumptions of assimilation or diffusion, underpinned by images of flow or circulation.

The affirmation of the possibility of non-hegemonic dialogue distinguishes the metaphorical experiments of all three of these poets. This possibility is based on the metaphorical grounding of language itself in particular islands worlds, which supports its

conceptualisation as a shareable resource, a conceptualisation that links these poems to indigenous epistemologies and linguistic traditions. Metaphor in this view does not lead to abstraction but expresses an attitude that recognises its constitutive relationship to other, potentially rivalling, claims; thus also an attitude that can creatively enable cross-cultural (institutional) engagement. In the final section of Star Waka, Sullivan offers an image of the emergence of such an attitude in a sequence of poems (Waka 84-90 and 92-96), most of which begin with 'I am'. Successively, a series of speakers (including the ancestral navigator Kupe, an anonymous English settler, Odysseus, Maui, Hawaiki, Tanemahuta, and Tangaroa) step forth and each make a bold claim of sovereignty. Individually, these claims contest one another, but as Sullivan steers his Star Waka past them, they emerge, to borrow Diaz's and Kauanui's metaphor, as 'moving islands', in view of which the poet triangulates his own location, challenging us to do likewise.

Notes

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² This contrasts with other critics of the concept of sovereignty who liken it to a disease. Anthony Burke, for instance, in an article entitled 'The Perverse Perseverance of Sovereignty,' speaks of 'its malign, suffocating ontology', and Michael Brown, in 'Sovereignty's Betrayals,' deplores 'the viral spread of the idiom of sovereignty' (185). A more nuanced critique is offered by Marc Weller in 'The Self-determination Trap,' analyzing the effects of the narrow definition of sovereignty in international law, which either tend to make the concept meaningless or violent conflict seem inevitable. ³ It may be worth remembering that the bond, which Renan identified as a shared pride in having done great things and a wish to achieve still more together, essentially depends on the work of a collective imagination.

⁴ Teaiwa writes: 'One word can have many layers of meaning: the Hawaiians call this *kaona*. Thus, a limited vocabulary does not constitute a limited worldview; the *kaona* principle enriches, makes complex and versatile a limited vocabulary. No word is disposable – if the singular referent it 'originally' represented is no longer, then the word is recycled to represent a new referent. But more often than not, words will have multiple significations in a single enunciation' (2005:29).

⁵ 'Vaka Vuku: Navigating Knowledge,' Pacific Epistemologies Conference, Suva, Fiji (3-7 July, 2006). See Prasad (2006) and conference website at http://www. usp.ac.fj/index.php?id=1351.

⁶ Thus, according to Diaz and Kauanui, 'Pacific studies [too] can be likened to a canoe' (322).

 7 I think Pio Manoa made a similar point at the OIS conference when he associated the land, *vanua*, with the values of leisure, peace and stillness as the basis of culture.

⁸ In his critique of the identity claims underpinning the image of the nation, Connolly calls for an ethos of engagement that recognizes 'multi-dimensional pluralism' as the objective of institutional innovation. In his view, such an ethos becomes negotiable 'when each constituency, first, honours the moral source that inspires it, second, acknowledges the contestability of the source it honours the most, and, third, addresses the history of violences enacted to universalize the source it honours' (194). Connolly, too, sees this as primarily an imaginative challenge and calls for 'new improvisations today, those that rework received representations of majority rule, minorities, progress, dissent, rights, sympathy, property, tolerance, secularism and creative dissidence' (195). While his position is opposed to the nation state as such, I think a genuine ethos of engagement might also open the institutional spaces of the nation to new ways of doing the national differently.

⁹ Peter uses the conventional metaphor of blood when criticizing the constricting effects of boundaries on traditional mobility, but the value of purposeful negotiation and engaging with unseen forces, which he promotes, seems equally (if not better) expressed by the metaphor of breathing.

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Nilesh Bilimoria

'Sustainable Development' is an ethical and moral ideal but does it have in essence practical legal effect?

Introduction

The first part of this paper investigates the concept of sustainable development (SD), its emergence and definition. The second part identifies some of the principles of SD, its incorporation in domestic policy and legislation followed by its application by decision-makers who seek to apply the principles. The reader will be better placed to determine whether SD in effect is a moral ideal for inspiring and transforming all levels of decision making or does it have in essence practical legal effect.

Part One

Understanding the concept of SD requires an appreciation of the emergence of the Report by the Council of the Club of Rome, *'The Limits to Growth'*, issued in 1972.¹ The Report marked the

^{1.} Karen Marrow and Sean Coyle, *The Philosophical Foundations of Environmental Laws: Property Rights and Nature* (2004) 202 and 210; See also UNCED Doc A/Conf/151/5, fn 180, as cited in Karen Marrow and Sean Coyle, 209; See also the first international conference on global environmental issues held in Stockholm, Sweden in 1972 '*The Stockholm Conference*' as cited in Justine Thornton and Silas Beckwith, *Environmental Law* (2nd ed, 2006) 34-35 *http://www.unep.org/Documents.Multilingual/Default.asp?DocumentID=97&ArticleID=1503* (Accessed 23/9/08).

beginning of new ways in thinking about the relationship between survival and human kind. It recognised "the complexity and interrelated nature of the global system, and highlighted the impact of industrialisation, population growth, resource depletion and environmental deterioration".² It embarked on "establishing a condition of ecological stability that was sustainable far into the future by developing a state of equilibrium meeting human needs within the global limits".³ Simultaneously, in the same year, the United Nations Conference on the Human Environment held in Stockholm, formulated the *Stockholm Declaration*, which set the platform for addressing global environmental issues including *sustainability*.⁴ Important themes emanated from the *Club of Rome* and the *Stockholm Declaration*. One of them being, what has become to be known as *sustainable development*.

A guiding policy principle that continues to inform current debate. Sadly, the *Club of Rome* model did not prominently figure in the international agenda because it "required a true paradigm shift in how we regard our relationship with the world of which we form a part".⁵

However, SD to provide the impetus for such a transformation gained momentum and importance by making entry in the "publication of the Brundtland Report '*Our Common Future*' by the World Commission on Environment and Development (WCED) in 1987".⁶

^{2.} See above.

^{3.} Karen Morrow and Sean Coyle, above n 1.

^{4.} Justine Thornton and Silas Beckwith, above n 1, 35.

^{5.} Karen Morrow and Sean Coyle, above n 1, 210.

Karoline Van den Brande, Sander Happaerts and Hans Bruyninckx, The role of the subnational level of government in decision-making for sustainable development: A multi-level governance perspective (2008)
 http://www.staupound.eb.ac/apager Karoling The% 20role, fobruari% 2021

¹ http://www.steunpuntdo.be/papers/Paper_Karoline.The%20role_februari%202008.pdf (Accessed17/09/08); See also Karen Morrow and Sean Coyle, above n 1, 202.

I now turn to consider some of the definitions of SD. As a starting point the *Brundtland Report* (1987) defined SD as:

"development that meets the needs of the present without compromising the ability of future generations to meet their own needs. It contains within it two key concepts: the concept of 'needs', in particular the essential needs of the world's poor, to which overriding priority should be given; and the idea of limitations imposed by the state of technology and social organization on the environment's ability to meet present and future needs".⁷

According to Professors Morrow and Coyle:

SD as defined by the *Brundtland* synthesizes social economic and environmental concerns in a way that is essentially anthropocentric in its orientation, employing a dual focus in looking at human priorities and human interaction with the environment.⁸

In my view, in defining SD, our current lifestyles and the impact it will have on the environment will need to change. The onus rests on us, our attitudes and our moral values, perceptions and obligations as individuals towards nature and our environment. It is self drive and self motivation that will lead to unfolding the definition.

Other versions of the concept of SD by various scholars and organisations merit examination, despite the most commonly accepted and used definition being the one of the *Brundtland Report*.

See also Report of the World Commission on Environment and Development, (WCED) (1987) Our Common Future as cited in Karoline Van den Brande, Sander Happaerts and Hans Brunyninckx above n 6, 18.

^{8.} Karen Morrow and Sean Coyle, above n 1, 203.

Professor Munasinghe, the receiver of the co-laureate 2007 Nobel Peace Prize and the Vice Chairman for the Intergovernmental Plan on Climate Change⁹ remarked that SD is:

"a process for improving the range of opportunities that will enable individual human beings and communities to achieve their aspirations and full potential over a sustained period of time, while maintaining the resilience of economic, social and environmental systems"."

In the view of the Pacific Centre for Environment and Sustainable Development (PACE-SD), sustainable development is in essence about:

"ensuring better quality of life for everyone, now and for generations to come. It is a multi-dimensional (society and nature), multi-temporal (short and long term horizons), multi-geographical (covers all regions of the world) and multi-scale (micro and macro levels) and invokes intra and inter-generational equity".¹¹

(Koshy, lal & Maraki, 2005)

Likewise, for *Small Island Developing States* (SIDs) in the Pacific Island Countries (PICs), the findings by the South Pacific Applied Geoscience Commission (SOPAC) Report reveal that SD means:

"a process of development which ensures that *quality of life*, and *quality of growth* are achieved, through good governance, within the limits of acceptable change to

http://www.lankanewspapers.com/news%5C2007%5C12%5C22593_image_headline.html (Accessed 7/10/08).

^{10.} Kanayathu Koshy, Mohan Lal and Melchior Mataki, Sustainable Development and the Pacific Island Countries, PACE-SD, (2005) 4.

^{11.} See above.

these communities, *their islands and their large ocean*, without compromising the opportunities available to their future generations".¹² (*Simpson, 2002*)

Professor Handl, recipient of the 1997 Elisabeth Haub Prize in the field of international environmental law,¹³ identifies a definitional problem and states that:

"existing general rules do not necessarily provide the basis from which specific obligations could be tested. Rather, 'general rules' and 'specific obligations' relating to 'SD' are mutually inter-dependent on the sense of a dialectic relationship; only as specific normative implications are defined for an ever larger number of contexts and actors, will the ambiguity inherent in the Rio formulations diminish over time".¹⁴

Professors Morrow and Coyle share similar sentiments and state that:

"SD is certainly not a value neutral concept, and has been criticized as supplying the basis for developing a global framework that, far from changing the way in which all human relate to their environment, simply represents a new means whereby the developed world can impose its will on less developed countries".¹⁵

In my view, to get an ever-better handle on the definition, we cannot treat sustainable development in *isolation* because it will

¹² Alfred Simpson, SOPAC Sustainable Development Strategy, SOPAC Miscellaneous Report 471 (2002), 13.

^{13.} http://www.law.tulane.edu/tlsfaculty/profiles.aspx?id=426 (Accessed 7/10/08).

^{14.} Ben Boer, Ross Ramsay and Donald R Rothwell, International Environmental Law in the Asia Pacific, (1998) 13.

^{15.} Karen Morrow and Sean Coyle, above n 1, 210.

mean different things in terms of different needs for development, which brings me now to familiarise ourselves with the *dimensions* of sustainable development.

SD rests on three dimensions, namely "economic security, social equity and environmental integrity".¹⁶ As recognised at the *World Summit on Sustainable Development* (WSSD) held in Johannesburg in 2002, States assumed:

"... a collective responsibility to advance and strengthen the interdependent and mutually reinforcing pillars of SD *economic development, social development* and *environmental protection* at the local, national, regional and global levels".¹⁷

The economic dimension "assured a decent quality of life through access to basic necessities and a secure and acceptable source of livelihoods to the community as a whole".¹⁸ The social dimension "placed the basic needs of people, especially the poor, as the supreme goal of development".¹⁹ *Principle 1 of Agenda 21* (Agenda 21 is discussed below) running parallel to the quest for social equity stipulated that "*Human beings are at the centre of concerns for sustainable development. They are entitled to a healthy and productive life in harmony with nature*".²⁰ This closely fits into the social dimension. The environmental dimension was

^{16.} Alfred Simpson, above n 12, 3; See also United Nations Development Programme, 2002. Environmental Governance for Sustainable Development in Asia and the Pacific Handbook (ST/ESCAP/2218) New York 3; See also Karoline Van den Brande, Sander Happaerts and Hans Bruyninckx, Karoline Van den Brande, above n 6, 18.

Johannesburg Declaration on Sustainable Development 2002 para 5 http://www. bnpparibas.com/en/sustainable-development/text/Johannesburg-Declaration.pdf (Accessed 1/10/08).

^{18.} Alfred Simpson, above n 12, 3.

^{19.} See above..

^{20.} Rio Declaration on Environment and Development 1992 http://habitat.igc.org/agenda21/ rio-dec.htm (Accessed 24/09/08).

concerned with the "preservation of natural ecosystems not only for their productive, absorptive and carrying capacities but also for their biodiversity and natural processes that are critical to the sustenance of life".²¹ Other scholars have also introduced a fourth dimension that is *institutional*, as it featured prominently "in the context of the operationalization of *Agenda 21*, in particular for the development of indicators for measuring its implementation".²² This dimension related to the "institutions of society and indicated human interaction and the rules by which society is guided".²³

It gives some satisfaction to note that the economic, social and environmental dimensions rest on the *three pillars of sustainable development* but it still leaves open for the reader to debate that the definition of SD is not exhaustive. From some of the definitions viewed earlier, it can be recognised that the precise meaning of the *concept of sustainable development* is unclear. It is true to state that the concept means different things to different people, including societies, and it can be interpreted to suit the ends of whoever is trying to call the concept in aid.

Part Two

In this part, I make reference to a recent Constitutional Court of Southern Africa case, which has taken into account not only the provisions of the domestic legislation but has also tied them with the *right to environment* provision of the Constitution, which a decision-maker is required to realise, in order to give practical legal effect. I then move onto identifying what strides if any, have

^{21.} Alfred Simpson, above n 12, 3; See also United Nations Development Programme, above n 16, 4.

^{22.} Karoline Van den Brande, Sander Happaerts and Hans Bruyninckx, above n 6, 18.

^{23.} See above.

been taken by decision-makers to embrace the application of the principles of SD for Small Island Developing States.

Before proceeding to visit the position in Southern Africa, let me return to the Brundtland definition, of SD, which was found to be of assistance in contemporary environmental thinking by providing "a framework for the integration of environment policies and strategies".24 The policy shaping process was received at the United Nations Conference on Environment and Development (UNCED or the 'Earth Summit') held in Brazil in 1992 and ten years later at the WSSD.²⁵ In a nutshell the Rio Earth Summit was a statement about "achieving sustainable development".²⁶ It declared that "the right to development must be fulfilled so as to equitably meet developmental and environmental needs of present and future generations".²⁷ In addition, it introduced five broad international agreements²⁸ "to develop policies and mechanisms for SD"29 of which the Rio Declaration on Environment and Development and Agenda 21 "attempted to take sustainable development from the realm of theory into the real legal and political world".³⁰ "The idea that development and environmental protection must be reconciled was central to the concept of SD".³¹

^{24.} See above n 7; See also *Report of the World Commission on Environment and Development* as cited in Karen Marrow and Sean Coyle above n 1, 200.

^{25.} United Nations Conference on Environment and Development 1992, Rio Declaration on Environment and Development, Agenda 21, the Convention on Biodiversity, the Convention on Climate Change, the Convention on Desertification and the Declaration on Sustainable Forest Management as cited in Karoline Van den Brande, Sander Happaerts and Hans Bruyninckx above n 6, 21; See also Justine Thornton and Silas Beckwith Justine, above n 1, 36-37; See also http://bch.minambiente.it/EN/Documents/RioDecl.pdf (Accessed 24/09/08).

^{26.} Karoline Van den Brande, Sander Happaerts and Hans Bruyninckx, above n 6, 20.

Rio Earth Summit 1992 http://www.ace.mmu.ac.uk/eae/Sustainability/Older/Earth_ Summit.html (Accessed 24/09/08).

^{28.} See above n 27; See also LA 450 Course Materials for Week 6, Topic 6, Principles of Sustainable Development as a focus of Environmental Management (2008) 6.5. http://elearn.usp.ac.fj/mod/resource/view.php?id=23365 (Accessed 05/09/08).

^{29.} See above.

^{30.} Karen Marrow and Sean Coyle, above n 1, 209; See also Justine Thornton and Silas Beckwith Justine, above n 1, 36.

Principle 3 of the *Rio Declaration* provided that the "right to development must be fulfilled so as to equitably meet development and environmental needs of present and future generations."³² The *Rio Declaration* was about "commitment to integrating environmental considerations with development issues" as stipulated in *Principle 4.*³³ The evolving elements or components of the concept of sustainable development, have taken inspiration from the *Rio Declaration*, can be identified as follows:

"the integration of environmental protection and economic development (*the principle of integration*); sustainable utilization of natural resources (*the principle of sustainable use and exploitation of natural resources*); the right to development; the pursuit of equity in the use and allocation of natural resources (*the principle of intra-generational equity*); the need to preserve natural resources for the benefit of present and future generations (the principle of inter-generational and intra-generational equity); and the need to interpret and apply rules of international law in an integrated systematic manner".³⁴

I have drawn out the principle of integration, the most practical of these principles as revealed by commentators,³⁵ and the principle of inter-generational and intra-generational equity to illustrate its practical legal significance. They were welcomed

^{31.} Fuel Retailers Association of Southern Africa v Director-General Environmental Management, Department of Agriculture, Conservation and Environment, Mpumalanga Province and Others Case (FRASA's case) CCT 67/06 [2007] ZACC 13 2007 (10) BCLR 1059 (CC) (7 June 2007) http://www.saflii.org/za/cases/ZACC/2007/13.pdf (Accessed 1/10/08) para 55.

World Bank, Making Sustainable Commitments: An Environment Strategy for the World Bank, (2002) Washington, D.C.: World Bank 3.

^{33.} Karen Morrow and Sean Coyle, above n 1, 209; See also Rio Declaration, Principle 4.

^{34.} FRASA's case, above n 33, para 51.

³⁵ See above; See also FRASA's case, 29.

in a recent 2007 Constitutional Court of South Africa case of Fuel Retailers Association of Southern Africa (FRASA) v Director-General: Environmental Management, Department of Agriculture, Conservation and Environment, Mpumalanga Province (the Department) and Others.³⁶

This decision in essence "assesses the statutory framework that governs the environment and complements and gives content to right to environment" ³⁷ provided by the Bill of Rights in section 24(b)(iii) which states:

"Everyone has the right to have the environment proteted, for the benefit of present and future generations, through reasonable legislative and other measures that secure ecologically sustainable development and the use of natural resources while promoting justifiable economic and social development".³⁸

This case concerned a review of a decision of the Minister exercising powers under section 22(1) Environment Conservation Act 1989 (ECA) and in light of the provisions of the National Environment Management Act 1998 (NEMA) to authorise the construction of a filling station on a property in White River, Mpumalanga.³⁹ FRASA challenged the decisions handed down by

^{36.} See FRASA's case; See also MEC Department of Agriculture, Conservation & Environment and Another v HTF Developers (Proprietary) Limited (Case CCT32/07, decided on 6 December 2007) http://www.saflii.org//cgi-bin/disp.pl/za/cases/ZACC/2007/25. html?query=MEC%20v%20 HTF(Accessed 3/10/08).

^{37.} Neil Kirby, Press Office Feature-If you destroy the woods today, you are in for a big surprise, Werksmans Attorneys, South African Insurance Times and Investment News (2008) http:// www.itinews.co.za/companyview.aspx?companyid=21842&itemid=9FCFF4E4-2555-46FCA752-224619BD91D9 (Accessed 3/10/08).

See section 24 Constitution of South Africa 1996 http://en.wikipedia.org/wiki/Constitution_ of_South_Africa_Chapter_2:_Bill_of_Rights Accessed 26/08/08) as cited in FRASA's case, para 43.

^{39.} FRASA's case, para 1.

the High Court and Supreme Court of Appeal.⁴⁰ On appeal to the Constitutional Court, FRASA argued that the "environmental authorities in Mpumalanga had not considered the socio-economic and environmental impact of constructing the proposed filling station", a matter which expressly was required to be complied by the environment authorities pursuant to the provisions of NEMA.⁴¹

Here, I have intentionally extracted paragraphs of the judgment at some length to give the reader an appreciation of the Court's "proactive approach that was based less on technical jurisprudential and legal points and more on an equitable approach to the interpretation of NEMA"⁴² thus giving rise to the principles of integration and inter-generational and intra-generational equity. The so called 'three layers' of NEMA from the judgment or as earlier highlighted the statutory framework that governs the environment support the positive aspects of the statement for my paper. How? The principles of SD appear in the legislation (see NEMA below) and the Constitutional Court is guided by NEMA to give practical legal effect to the concept of SD. The Court goes on to further identify what the decision-maker is expected to do by NEMA.

Firstly, the national environmental management principles in NEMA, "primarily in sections 2(2), 2(3), 2(4)(g) and 2(4)(i)2, inform directly the manner in which decision making processes should be made in respect of issues that deal, directly or indirectly, with the environment".⁴³ These, the Court stated, applied:

^{40.} FRASA's case, paras 1, 24, 25 and 26.

^{41.} FRASA's case, paras 5 and 85.

^{42.} Neil Kirby, above n 37.

^{43.} See above.

"... to the actions of all organs of state that may significantly affect the environment. They provide the ... general framework within which environmental management and implementation decisions must be formulated ... guidelines that should guide state organs in the exercise of their functions that may affect the environment...these principles provide guidance for the interpretation and implementation of NEMA and any other legislation that is concerned with the protection and management of the environment"⁴⁴

Next, the Court directed itself to the *general objectives of integrated environmental management* in section 23, which included the:

"... integration of NEAM principles into decisions... that may affect the environment and to identify, predict and evaluate actual and potential impact on the environment, socio-economic conditions and cultural heritage".⁴⁵

Finally, the Court stated that the *procedures for the implementation* of the NEMA principles pursuant to section 24 required that the:

"potential impact on the environment, socio-economic conditions and cultural heritage of activities that require authorization under section 22(1) of ECA and which may significantly affect the environment 'must be considered, investigated and assessed prior to their implementation and reported upon to the organ of state charged by law with authorizing....the implementation of an activity"."

^{44.} FRASA's case, para 67.

^{45.} FRASA's case, para 68.

^{46 .}FRASA's case, para 69.

Ngcobo J found that:

"The nature and the scope of the obligation to consider the socio-economic development and the protection of the environment are interlinked. The need for development must now be determined by its impact on the environment, sustainable development and social and economic interests. The duty of environmental authorities is to integrate these factors into decisionmaking and make decisions that are informed by these considerations. This process requires a decision-maker to consider the impact of the proposed development on the environment and socio-economic conditions. The local authority is not required to consider the social, economic and environmental impact of a proposed development as the environmental authorities are required to do so by the provisions of NEMA. They misconstrued the nature of their obligations under NEMA and as a consequence failed to apply their minds to the socioeconomic impact of the proposed filling station"47

In relation to the principles of inter-generational and intragenerational equity, Ngcobo J found that these principles mirror the NEMA principles in section 2 (as seen above) and his Lordship went onto to state that the:

"... continued existence of development is essential to the needs of the population, whose needs a development must serve. This can be achieved if a development is sustainable. The collapse of a development may have an adverse impact on socio-economic interests such as the loss of employment. The very idea of sustainability implies continuity. It reflects a concern for *social and*

^{47.} FRASA's case, paras 70, 71, 79, 85 and 86.

developmental equity between generations, a concern that must logically be extended to equity within each generation."⁴⁸

And finally, section 24 of the Constitution, as earlier mentioned, "recognizes the interrelationships between the environment and development and what NEMA and section 24 gives effect to, is that socio-economic development must be justifiable in the light of the need to protect the environment".⁴⁹

By this case, the Constitutional Court has not only taken into account the provisions of NEMA but has also tied the provisions with the *right to environment* provision of the Constitution of which a decision-maker is required to take full account in order to give practical legal effect to the principles of SD.

I now turn to the situation in *SIDs*, with particular focus on the statutory framework in Fiji.

In 1994, Agenda 21 was elevated to another level recognising a special case both for environment and development for *SIDS*. A global action programme was formulated and "recognised internationally through the Barbados Programme of Action (BPoA)".⁵⁰ It was a "fundamental framework for SIDS sustainable development with further support given by introducing five and ten year progress reviews".⁵¹

In my view the BPoA, has been phenomenal for driving the concept of SD as a guiding policy principle particularly in PICs. It is commendable that PICs have taken positive steps to introduce

^{48.} FFRASA's case, para 75.

^{49.} FRASA's case, paras 45 and 79.

^{50.} Kanayathu Koshy, Mohan Lal and Melchior Mataki, above n 10, 10.

^{51.} See above, 2 and 10.

the concept of SD into their national law making apparatus appearing in their respective domestic spheres for policies and legislation. To name a few, this is confirmed by the formulation of the Environment Management Act 2005 in Fiji, Environment Act 1999 in Kiribati, Environment Act 2003 in Cook Islands and the Environment Act 1998 in Solomon Islands.⁵²

In drawing out the Environment Management Act (EMA) 2005 of Fiji, the definition of sustainable development is provided by section 2 in the interpretation section, which mirrors the definition provided in the Brundtland Report (as discussed earlier). Section 2 offers a reasonable starting point on the concept of sustainable development in Fiji. However, section 3 requires the 'application of the principles of sustainable use and development of natural resources and identifying matters of national importance' when giving meaning to the purpose of the EMA. It is this section that I find troublesome because the EMA in its entirety is silent on the principles of sustainable use/development. This piece of legislation came into force on 1 January 2008 and at the time of writing, the provisions remain to be practically tested before the Courts.

Section 8 establishes a National Environment Council ('the Council') 'to provide effective and coordinated decision-making on sustainable development planning, policies and implementation programs, and where necessary to provide for environmentally sound and sustainable resource use and allocation'.⁵³ By this provision, it demonstrates Fiji's willingness to ensure its international obligation in seriously fulfilling its promise.

The incorporation of SD principles in domestic policies—to name just a few, Policy on Sustainable Coastal Management, Sustainable

^{52.} LA 450 Course Materials for Week 6, Topic 6, above n 28, 6.9.

^{53.} Part 2, 3 & 4; See also sections 8,11, EMA.

Fisheries Development Policy, Policy on Integrated Waste Management'—is a further reflection of Fiji's preparedness to give meaning to its international commitments, one such example being the BPoA.

In the context of resource management and environment impact assessment decision-makers such as the Ministry, Department or Statutory Authority are required by statute to engage in the broadest possible dialogue, consultation and participation with the public.⁵⁴ By this provision, it demonstrates the application of one of the principles of SD, participatory policy-making, which can be inferred from the *Brundtland Report* and *Agenda 21*.

Another useful analysis running parallel to the BPoA for PICS merits account by initiatives formulated by the essential intergovernmental, regional organisation, SOPAC. The initial emerging stride taken by SOPAC was the initiation of the Sustainable Development Strategy (SDS) establishing Guiding Principles and Work Programme Strategies (WPSs).⁵⁵ These strategic directions led to the formation of SOPAC's Corporate Plan (2002–2004) which set:

"a medium-term development framework aimed at supporting national and regional initiatives and actions towards sustainable development through integrated solutions in three key programme areas: Oceans and Islands management, Community Risk management and developing Community Lifelines".⁵⁶

⁵⁴ See above; See also section 13 EMA.

⁵⁵ Alfred Simpson, above n 12, 1-2.

⁵⁶ SOPAC Corporate Plan 2002-2004 (December 2001) insert provided in Alfred Simpson, above n 12.

Two of its three-year strategies are noteworthy focusing on:

developing an integrated framework and building capacity in the key programme areas addressing priorities to enhance sustainable development in Pacific communities; and adopting a participatory approach to the identification, design and implementation of development programmes taking into account Millennium Development Goals (MDG's).⁵⁷

In the absence of case law, here, the initiatives by SIDs through the BPoA and the JPoI establishes another level to the decisionmaking process, which gives weight to the concept of SD. Though these initiatives do not directly address or demonstrate a practical legal effect, it however shows the level of commitment by SIDs in 'realising' the concept of SD.

Conclusion

The tide for decision-making in giving practical legal effect to the principles of SD has been moderately swift at the international level. The example taken particularly from Southern Africa confirms the move towards a direct and appropriate application of the principles of SD, more in line with what decision-makers are instructed or required to do under a statute (Southern Africa).

The difficulty in realising or giving thrust to the principles of SD arises when the statute is silent. The decision-maker then has a vague direction on deliberating on the consequences of principles of SD (commonly arising under the precautionary principle). It is here that the principles of SD become merely inspirational without having any legal effect. Such attempts in decision-making affirm a

^{57.} See above.

loose appreciation and understanding of the principles of SD, resulting in a continual divide in their application and interpretation.

The momentum by SIDs has been more in the form of incorporating international agreements (BPoA, JPoI) which consists of provisions on the principle of SD. This reflects a gradual acceptance through effective initiatives introduced, undertaken and committed by SIDs in policy documents in PICs.

Some States have been instrumental in seriously facilitating the decision-making process to achieve and give meaning to the principles of SD. States have either responded progressively, moderately or immediately to the principles of SD while other States have yet to do a lot more work.

It would be premature to bundle all States together and bundle all the principles of SD and confirm that practical legal effect has been satisfied in the form of a package. I will have to admit that despite attempts to materialise the principles of SD, a long journey still awaits for its accurate and precise application to give it practical legal effect. Thus SD in effect has a moral effect for inspiring and transforming all levels of decision-making.

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Manoranjan Mohanty

Human Dimension, Creativity and Environmental (Climate) Change: Implications for the Pacific

Abstract

uman societies are at a crossroads today in the face of global environmental (climate) change. There exists a wide knowledge gap in understanding man-environment relationships, environmental ethical values and the human dimensions in environmental changes. Creativity has a crucial role in the face of climate change. Creative expressions through art, song, dance, drama, paint, street play and stories can clearly express the environmental relationships and values. The artists, writers, painters and poets manifest society's values and relationships with the environment through their visual arts, plays, songs and writings. The purpose of this paper is to explore the potential role of creativity in the face of climate change, especially in the Pacific. The paper also examines the man-environment relationships, environmental ethics and values, and the human dimensions in driving climate change and how creative expressions can help promoting environmental values, changing human dynamics and environmental behaviour.

Key words: Climate change, creativity, environmental change, environmental ethics, PICs.

Introduction

Human societies are at a crossroads today in the face of global environmental (climate) change. The global environmental change is a consequence of rapid bio-physical modifications. Human dimensions are the critical determinants causing climate change and can help in minimising its impact. As more scientific discoveries explore the centrality of human dimensions in climate change the social science fields of inquiry quest for their potential roles in helping societies in minimising the impact of change. Manenvironment is in a symbiotic relationship. There exists, however, a wide gap in understanding the man-environment relationships, the environmental ethical values, and human dimensions of environmental changes. Creativity has a great potential in bridging this gap. The artists, writers, painters and poets manifest society's values and relationships with the environment through their visual arts, plays, songs and writings. They have indeed played a crucial role, inculcating environmental ethical values through their creative expressions and raising awareness about the impacts and adaptation to climate change. Art, song, dance, drama, painting, street plays and stories can clearly express environmental relationships and values. Themes such as conservation of water, energy and environment, global warming, pollution, sustainable energy resources and climate change are taken on board through creative expressions. Oceania has a great tradition of creative expression and has potential not only in changing people's attitudes and environmental behaviour but also mitigating and adapting to environmental circumstances. The questions arise: What are the human dimensions in environmental (climate) change? What values does the creativity carry in the face of climate change? What environmental ethical values need to be reflected through creativity? How can creative expression help the Pacific societies that are most immediately facing the challenges of climate change?

Man–Environment Relationships

Planet earth is a single, interconnected and interdependent whole. The whole universe is called the Void (Brahman) and there has been inherent unity of the Void including man (Misra, 1992). Energy, space–time, causality and synchronicity are the four principles of the universe (Misra, 1992). Matter or energy flows at different rates in different parts of the universe. Any change to any of its part affects the other parts in this interconnected earth system. The entire universe appears as a complicated web of relations between the various parts of the Void. This represents the concept of 'holism', which Aristotle summarized as 'the whole is more than the sum of its parts'.

Gokak (1992: 20) noted that 'man is in a web of life. Man did not weave this web of life, he is merely a strand in it, whatever he does to the web, he does to himself'. He further says, 'the earth does not belong to man; man belongs to the earth. Man is the son of mother earth. Whatever befalls the earth befalls on sons of the earth'.

The man–environment relationship is two directional: environment affects and influences man and in turn, man influences and modifies the environment. There exists thus a symbiotic relationship between man and environment. Both are created for each other and they are inseparable. If both man and environment live in harmony, they mutually grow. If environment is stable, man lives in peace, when environment destroys, man destroys.

The concept of 'man' has undergone transformation through a 'physical man' to a 'social man' and 'economic man' and then to 'technological man'. Man has modified the environment through creativity and technological innovation. The power and means of man, however, are limited and will always be conditioned by the environment. The earliest work, *Civilization and Climate* by Huntington (1924) demonstrates the influence of climate and environmental changes on man. The concept of 'human ecology' (Barrow, 1923; Young, 1974) explains human societies in relation to their environment and environmental adaptation.

The equilibrium models (DeAngelis and Waterhouse, 1987) state that ecosystem always tends towards stability but to a certain limit. This limit has been exceeded due to anthropogenicity and thus the result is a deep environmental crisis. Douglas, 1992 (cited in Meyer and Turner, 1995: 313) identified four 'nature myths' and sees natural systems as: (a) resilient, little affected even by powerful shocks; (b) resilient within limits but vulnerable when those limits are exceeded; (c) inherently fragile and likely to react sharply even to a mild pressure; and (d) capricious and largely unpredictable.

Environmental Ethics and Values

Environmental philosophy includes both environmental theology, and ethics and values. Environmental theology focuses on the interrelationships of religion and nature and explores interaction between ecological values (sustainability) and human domination of nature. Environmental ethics is the relationship between human beings and the environment in which they live (Marshal, 2009). One of the earliest papers, Garrett Hardin's (1968) 'The Tragedy of the Commons', discussed resource use and environmental degradation and ways to live in balance with the environment. The debate over the concepts of 'deep ecology' and 'shallow ecology' continues. Arnne Naess's 'Deep ecology' (1973) considers human kind as an integral part of its environment. The 'deep ecology' concept seeking a more holistic world view has its core principle that like humanity, the living creatures have the same right to live and flourish. Brennan's (1988) 'ecohumanism' and Smith's 'eco-holism' argue for the intrinsic values or worth of the environment inherent in ecosystems or the global environment as a whole entity. Marshall (2002) categorised three approaches to environmental ethics as: libertarian extension (deep ecology), ecologic extension (eco-humanism) and conservation ethics (shallow ecology). The libertarian extension echoes a civil liberties approach (i.e. a commitment to extend equal rights to all members of a community). Ecologic extension places emphasis not on human rights but on the recognition of the fundamental interdependence of all biological and abiological entities and their essential diversity (Marshall, 2009).

Marshall's conservation ethics argues the inherent worth of the environment in terms of its utility or usefulness to humans. It is the opposite of deep ecology, and often referred to as shallow ecology. It sees the preservation of the environment on the basis of its extrinsic value as instrumental to the welfare of human beings. Conservation is a means to an end and purely concerned with mankind and intergenerational considerations. Such conservation ethics formed the underlying arguments proposed by governments at the Kyoto Summit in 1997 (Wikipedia, 2010a).

Some environmental ethics and values are: (a) environment has 'intrinsic values' to human beings; (b) environment provides resources for survival of humankind so man should protect nature; (c) natural environment and/or its various contents have certain values in their own right so that these values ought to be respected and protected; (d) each individual living creature in nature (animal or plant) is a 'teleological-centre-of-life' thus they have equal intrinsic value ('inherent worth') which entitles them to moral respect; (e) the ethics of animal rights and 'biocentrism' are both individualistic in that their various moral concerns are directed towards individuals only not ecological wholes; (f) cruel treatment of animals and plants may lead to bad consequences for human beings; and (g) human beings have no moral superiority to other species in nature.

Aristotle in his writing observed that 'what is common to the greatest number has the least care bestowed upon it' (UNDP, 2008: 58). Human-induced climate change raises profound ethical questions such as 'eco-justice' and 'eco-equity'.

Human Dimensions in Global Environmental (Climate) Change

Global climate change is a challenge to humankind today. Climate change is a part of total global environmental changes which in turn, are part of total global change. The environmental change and human relationships are multidimensional, dynamic and complex. Environmental and climate change finds expression at global both (macro) and local (micro) scales. Global climate change is primarily a human-induced natural phenomenon affecting not only the health of life support systems but also human health, the basic foundation of development and sustainability. Climate change threatens development and undermines human freedom and choice (UNDP, 2008: 1).

Emission of greenhouse gases (GHGs) such as carbon dioxide is the prime cause of global warming and associated climate change, hydro-meteorological events and sea-level rise. The IPCC says that 'most observed warming of the last 50 years is likely to have been due to the increase in greenhouse gas concentration due to human activity' (Lal, 2004: 17). Human induced warming and associated sea level rises are expected to continue through the 21st century (ibid.).

Both natural and social forces are at work in shaping the physical environment in bringing environmental and climate changes.

However, man is an active agent in this change. Human activities are comparable to or even greater than natural forces as drivers of environmental and climate change (Meyer and Turner, 1995: 307). The human and social behaviour and attitude towards the environment are crucial and have many intended and unintended consequences. Human impacts on the physical form and functioning of the earth have reached a global scale at an escalating speed (Meyer and Turner, 1995: 302). The interconnectedness in a single earth system has the potential to have global effects. The systemic impacts of human activity - notably, greenhouse gasses (GHGs), climate change and ozone depletion are central to current scientific and popular interest in global environmental change (Meyer and Turner, 1995: 305). The global environmental change is complicated by its unprecedented scale, rates and uncertainties of the physical changes as well as environmental distributive issues (Meyer and Turner, 1995: 312). The human causes of physical changes and the consequences are space and time specific and vary widely between regions and localities.

Environmental change is affecting food, water and environmental security. Global temperature increases of 3-4 degrees could result in 330 million people being permanently or temporarily displaced through flooding and about 1.8 billion people could be living in a water scarce environment by 2080 (UNDP, 2008: 9).

The global climate system is under pressure from intense human activities. The International Panel on Climate Change (IPCC) has now established the scientific consensus of climate change as a largely human-induced phenomenon. The changing man-nature relationships have brought in unprecedented environmental and climate change. The impact of environmental change on human lives and livelihoods and the economy is more often owing to concentration of human activities in limited space. Anthropocentrism has led humans to place themselves at the centre of the universe. The anthropogenic factors have greatly affected homeostatic mechanisms of the natural ecosystem, leading to ecological instability. The speeds of demographic and global environmental changes are much faster than the speed of development and mitigation. As Mahatma Gandhi once said, 'speed is irrelevant if you are going in the wrong direction' (UNDP, 2008: 110).

Global Warming: Some facts and trends

The following are some global warming related facts and trends:

- World energy consumption and cumulative human activities are the main determinants of global warming and consequent climate change and sea level rise.
- Fossil fuel burning (oil, coal and natural gas) and land use changes both contribute significantly to the emission of greenhouse gasses (GHGs) such as CO₂.
- Oil accounts for about forty per cent and coal twentyeight per cent of the world's energy consumption.
- Annual global emission of CO₂ was twenty-eight million metric tons in 2006.
- A mere thirty five countries produce ninety per cent of the world's CO₂ emissions.
- Industrialised countries contribute the largest share to GHG emissions. The USA alone contributes about one-fifth of total GHG emissions.

- World average temperature increased by approx. 0.6 degree centigrade and about two-thirds of this warming occurred since 1975.
- Eleven of the twelve warmest years since 1850 occurred between 1995 and 2006 (UNDP, 2008).

Some Established Facts about Climate Change

Some known facts regarding climate change are firstly, that an ecological interdependence between countries is driving climate change. Secondly, climate change is part of total global environmental change. Thirdly, observed global warming is real. Fourthly, climate change is largely a human-induced phenomenon. Fifthly, climate change is a predictable crisis with a high degree of uncertainty. Sixthly, the causes of global warming and climate change are irreversible. Finally, climate change is global or universal in scale.

Creativity and Innovation

Creativity is defined as the ability to generate innovative ideas and manifest them from thought into reality. Creativity is not imitation. It creates something new in the world of literature and the fine arts (Misra, 1992:11). Creativity is thus the ability to produce work that is both novel (i.e. original and unexpected) and appropriate (Sternberg, 1999; Sternberg and Lubert, 1999: 3). Creativity includes artistic expressions, written, verbal, visual, kinetic, plastic, pictorial, and aural and so on. At a societal level, creativity can lead to 'new scientific findings, new movements in arts, new inventions, and new social programs' (Sternberg, 1999: 3). Creativity and innovation are closely intertwined concepts but of different meaning. Creativity is the 'act of producing new ideas, approaches, or actions, while innovation is the process of both generating and applying such creative ideas in some specific context' (Wikipedia, 2010b). Society evolves through innovation. Creativity is the 'starting point of innovation' (Amabile et al., 1996).

The perspective of 'social ecology' (Bookchin, 1982, 1996) provides explanation for ecological and social diversity, creativity and innovation linkages. Bookchin (1982) says that social ecology integrates 'the human and natural ecosystems through understanding the interrelationships of culture and nature'. Bookchin (1982) stresses the value of ecological and social diversity and complexity, which creates multiple sites for creativity and innovation, which in turn increase the sum of potential choices available to a system (cited in Barnett, 2001:985).

As Katherine Giuffre (2009) argues, creativity is a 'social phenomenon and it 'happens at many levels: at the level of the culture, at the level of the subculture, at the level of the group, and at the level of the individual. At each of these levels, it is the social dynamic of lived relationships within structures that plays a key role in facilitating (or inhibiting) creativity' (Giuffre, 2009:1). Social systems allow and encourage individual artist's development and enhance creativity. Creativity is socially and culturally determined (ibid.).

Creativity enhances human and cultural development and human freedom. According to Bookchin (1982) freedom is a function of diversity. Freedom can enhance human capacity to adapt or adjust to environmental and climate change. Diversity–creativity linkages can provide explanation for theorising adaptability and resilience to climate change. Globally, creative production, and exports of creative services, are on the rise. Creative products are, however, dominated by developed countries which account for about eighty-two per cent of exports of creative services, while developing economies and economies in transition account respectively for eleven per cent and seven per cent (UNCTAD, 2008).

Creativity and Environment

Creation is an act of intervention in the Void. Every creative writer or every artist is deeply concerned how to interact with his her environment, natural, cultural and socio-political (Gokak, 1992: 13). Artiste comes with his literature of environmental protection, satire and advocacy of change. Environment provides inputs to creativity. Can there be any creativity without environment? Creativity expresses the man–environment reality in space–time continuum. Sun, ocean, sky, rock, flora and fauna are the common environmental inputs in creative expression. Man is at centre stage in this expression. Man, creativity and environment are in triangular relationships.

Environment has different meanings from the differing viewpoints of creativity and humanism (Gokak, 1992:12). Firstly, it denotes 'circumstances, objects or conditions by which one is surrounded', secondly, the 'complex climatic, edaphic or biotic features that act upon an organism or ecological community' and thirdly, 'the aggregate of social and cultural conditions that influence the life of an individual or community'. Another environment is the 'cosmic environment' of the space and time continuum (Gokak, 1992:12).

Environment provides input to cultural and intellectual development of individuals and communities. All great writers, like Shakespeare and Goethe, found the environment in which they lived helped them to grow. Various types of social assets and capital provide resources for individuals' cultural and intellectual development and creativity. These include 'social capital', 'cultural capital' and 'symbolic capital'. Social capital refers to networking, trust and safety net. Cultural capital includes ideas, knowledge, attitudes and tastes. The symbolic capital refers to resources available to an individual on the basis of honour, or recognition and functions as an authoritative embodiment of cultural value (Bourdieu, 1986).

Bourdieu (1986:47) identified three types of cultural capital as: embodied, objectified and institutionalised. The embodied type consists of both the consciously acquired and the passively 'inherited' cultural values of one's self. Objectified cultural capital on the other hand consists of physical objects that are owned, such as for example, works of art. The institutionalised type consists of institutional recognition. According to Giuffre (2009: 51) cultural capital is inevitably tied to symbolic capital.

Creativity in the face of Environmental/ Climate Change

Forms of Creativity

Various forms of creative expression include literary writings: short stories and poetry; storytelling, exhibition, dance, drama, sculptures (metal/wood), music, painting, street plays, art work (weaving, stone and wood carving), architectural design and others such as slogans, talanoa, tattooing, pottery, photography, stickers and so on.

Role of Creativity

Creativity can play a critical role in the face of climate change, especially in the processes of mitigation, adaptation and resiliencebuilding and generating public awareness and influencing upon human environmental behaviour. It can create conditions for a directional change. Specifically, creativity in all forms can play a critical role in the face of climate change. These include: building cultural solidarity and identity; upholding environmental values and ethics; enlarging social and cultural diversity, and social choices; providing education, knowledge, and building capacity; promoting human values and changing human perceptions; generating awareness about environmental and climate change impacts; changing human and cultural environmental behaviour and attitudes; creating public opinion as a force of change; becoming a basis of various environmental movement; generating dialogue and action; building a resilient community and society and building capacity to adapt, respond or adjust to environmental and climate change.

Creativity and Climate Change Mitigation

We live in the midst of unknowns and uncertainties. Climate change reminds us that we all share one sky, one ocean, one atmosphere, and live on one planet earth and thus have one 'ecological identity'. Climate change is a human-induced problem and has human dimensions in its roots and therefore, the solutions to these problems largely lie in social and human dynamics. Climate change mitigation is closely intertwined with human development, which in turn can be enhanced through creativity and innovation. The linkages between creativity and climate change can be established through human and cultural development, and human freedom. The greater the human freedom, the more will be the potential for creativity, which in turn, can enlarge social diversities and choices. All efforts therefore should be made in the direction of enlarging the ecological and social diversities and choices that can greatly help adapting to changing environmental circumstances.

Climate change mitigation calls for transforming society, and economy based on a low carbon energy development and 'green development' through 'green housing', 'green roofing', 'green building', 'green cities' and so on. This can be achieved through architectural designs, planning sound art, and promoting various creative activities and innovation. Visual expressions such as painting, performances: dance, drama, and street plays can generate environmental awareness and can help promoting the theme of 'green development' and sustainability.

Efforts can be made to transform the constraints to opportunities. Human development is the central issue that can be achieved through creative expression, innovation and media advocacy. Public awareness and education are of more critical concern in making a healthy living environment and reversing the trends in climatic events. Attitudinal and behavioural changes and human dimensions are the critical determinants. Creativity has a potential role to play in this regard. Media has a vital role in improving quality of environment and environmental justice, and promoting climate change mitigation.

The battle against climate change is a fight for humanity. The principle of 'common but differentiated responsibility' is the foundation of the Kyoto framework and thus calls for human solidarity (UNDP, 2008:5). It cannot be mitigated by individual action alone but must be addressed by ethical thinking and collective activity. It is said that 'collective action is not an option but an imperative' (ibid.).

Creativity for Adaptation and Resilience-building

Coping with global environmental and climate change is one of humankind's most pressing problems. It is not only the magnitude of environmental change but its variety that presents formidable challenges to societies' abilities to adapt to the consequences (Meyer and Turner, 1995: 311). Adaptation means 'modification' or 'fitting to suit' (Barnett, 2001: 980). Campbell and de Wet (1999: v) defined adaptation as 'those actions or activities that people, individually or in groups, take in order to accommodate, cope with or benefit from the effects of climate change'. Changes needed to improve adaptive capacity are similar to those necessary for resilience (Barnett, 2001: 980). Successful adaptation to a climate change requires understanding and enhancement of people's strategies to prepare for, respond to and recover from extreme events (Barnett, 2001: 986).

Pacific Islands Context

Environmentally, the Pacific Island countries are located in a highly dynamic ocean–atmosphere interface with limited ecological carrying capacity, and are scattered over a vast ocean area (Barnett, 2001: 978). The climate of Oceania is influenced by both atmospheric and oceanic circulation systems and a number of wind systems operate in the Pacific (D' Arcy, 2006: 14). Pacific Islands have a high ratio of shoreline to land area, they are highly susceptible to damage from climate change and rising sea levels, especially the four low lying-atoll states of Kiribati, the Marshall Islands, Tokelau and Tuvalu and the low-lying areas of larger countries such as PNG Fiji and Solomon Islands. Oceania faces unprecedented threats to the well-being of its people and environment in the face of climate change. Some islands in the Pacific region face threat of extinction. The annual damage from climate change disasters for Fiji, Samoa and Vanuatu is estimated at 2–7 per cent of GDP (UNDP, 2008: 101). In Kiribati, the annual damage bill from climate change and sea-level rise in the absence of adaptation is estimated between 17 and 34 per cent of GDP (ibid).

The projected sea-level rise is a potential threat to low lying atoll states. Hay (2000) finds that average sea level across the Pacific region has been rising at 2 mm per year for the last 50 years (cited in Barnett, 2010:978). PICs contribute only 0.01–0.03 per cent of global carbon dioxide emissions but are among the nations most vulnerable to climate-related natural disasters. Apart from the global (macro) climate change and associated natural disasters, PICs are affected by local (micro) climatic variability and environmental changes that have various ramifications: social, economic, environmental, and health (Mohanty, 2005, 2006 and 2009). PICs are thus doubly burdened with environmental and climate change. Pacific Islanders are the 'innocent victims' of global warming (Hay et al. 2004: 38). As Kofi Annan once said:

'the countries most vulnerable are least able to protect themselves. They also contribute least to the global emissions of green house gases. Without action they will pay a high price for the actions of others'. (UNDP, 2008).

Creativity in the Pacific

Oceania is a hub of creativity. The PICs are rich in social resources: 'social capital', 'cultural capital' and 'symbolic capital'. Apart from social networking, the Pacific societies are rich in cultural capital such as ideas, knowledge, attitudes and tastes. In the Pacific societies, 'collectivity', is a social norm, as Crocombe (1976: 24) pointed out in the 'Pacific way' or 'Island way'. He says the key feature of the 'Pacific Way' is the 'acceptance of multiple languages and cultures of diverse local societies' (Crocombe, 1976: 39). Pacific way is 'in part a product of common environmental and cultural experience' (ibid.). Pacific Island societies are 'characterized by intense sociality' and 'they are the kind of environment upon which orality thrives' (Hau'ofa, 1996:207). According to Hau'ofa 'traditions of orality exist in literate cultures', 'dramatic performances and poetry reading, are based on written works' (ibid.). In recent years, 'the (creative) writing programs have become more formal' (Prasad, 2008: 5).

Oceania also has decorative traditions, including body decoration such as tattooing especially in the Polynesian countries. As Mason (2003) points out, 'while body decoration has been a phenomenon of many societies, the art of tattooing ... reached its zenith in Polynesian societies' (cited in Giuffre, 2009: 25). Abstracted natural forms of humans, animals and plants may have some basis in the decorative traditions of Lapita earthenware (Mason, 2003: 60 cited in Giuffre, 2009: 25). High symbolic status is attached to various objects and visual culture that pervades daily life. For example, 'tapa' is used extensively for ceremonial and ritual purposes in Fiji. Gerbrands studied the Asmat people of south western New Guinea, whose wood carvings have become world famous because of their profusion and fine artistry (Oliver, 1989:141). Besides weaving, stone and wood carving, various types of artwork that are common reflect the cultural creativity and identity. Oceania has a rich tradition in arts, crafts, dance, and music. As Oliver (1989: 141) writes 'music and dancing accompanies pubic occasions in every island society. Moreover the playing of flutes or panpipes or drums was central in religious rites of many island peoples (ibid.). Only through 'creative originality in all fields of endeavor can the people of Oceania hope to strengthen their capacity to engage the forces of globalization' (Hau'ofa, 2008).

The Pacific depicts a high degree of unity in diversity. Island environments have their own legends, and myths. As Giuffre (2009: 44) points out, 'the ethos expressed through myths, story-telling are distinctive to each island, of course, and often express the individual challenges and stresses imposed upon the cultures by the particular local environments'. Individual islands produce distinctive artistic styles. Story telling is 'a powerful tool, a creative device that can increase social capital by building resilience, validating identity and creating bridging and bonding in integration' (Howard, 2010:3). Talanoa is an Oceanian word of telling stories (Halapua, 2008: 9). It involves the sharing of diverse stories from the heart and from life experience. It 'underlines interconnectedness of the mind, heart, body and the environment. It is a dynamic process of discovery' (ibid.).

The Pacific Ocean is the largest and oldest ocean. It was named Pacific because of its perceived peacefulness (Halapua, 2008: 4). 'Moana', a metaphor that is used as a theological tool, and is an identity for people in Oceania (ibid. 5). According to Halapua (2008) the multi-island states of 'Moana' (Oceania) are unique not in terms of smallness, scatteredness, but rather in their interconnectedness. Epeli Hau'ofa said 'the Pacific Ocean as a physical fact and a cultural reality is what all of us peoples of Oceania have in common'. In the most tangible way, the Ocean unites us and is our common heritage (Hau'ofa, 1993: 130).

Oceania is 'an area with great linguistic, historical and cultural diversity (Strathern et al. 2002:4). Oceania has people with common heritage, shared beliefs, customs and values. Increasingly the South Pacific region is culturally homogeneous: Islandness is the common identity (Hau'ofa, 1993: 130). The 'family and kinship relations are still very strong, and there is a strong moral code' (Chandra, 1993: 78).

We are part of an ecologically interdependent world. Climate and environmental security are a collective effort. As an African proverb (cited in Halapua, 2008: 9) says: 'if you want to walk fast, walk alone. But if you want to go far, walk together with others'.

Hau'ofa (1994) in 'Our Sea of Islands' argued that the sea must be seen as a 'cultural space in the worldview of the inhabitants of the islands. The ocean is the unifying element of the Pacific peoples. He says 'for us in Oceania, the sea defines us, what we are and have always been' (cited in D'Arcy, 2006: 8). 'Our Sea of Island's subscribes to a 'common value system' (Waddell, Naidu and Hau'ofa, 1993: xiii).

'It is probable that in many parts of the Pacific, art, song, dance, and drama have flourished as result of festivals in which national and regional identities are show-cased' (Giuffre, 2009: xiv). 'Individuals may exert great influence and help to bring artistic works into being'. Hastrup (2007: 204) in a discussion on 'Agency, Anticipation and Creativity' refers to 'experience which is not captured by current categories and which potentially points to alternative ways of seeing things and acting on them'.

Relatively little scientific research on environmental problems in Oceania has been published (Dahl, 1984:296). The 'Pacific environment changed much more than what the earlier generation of scholars ever suspected. The main cause was climate change' (Nunn, 1993: 113–14). Oceania provides the first evidence of sea-level rise and climate change and displacement, e. g, Carteret Island in PNG. Some 3,500 Carteret Islanders and another 2,500 island dwellers from three nearby atolls (Mortlock, Tasman and Nuguria Islands) needed resettlement to Bougainville due to increasing land loss, salt water inundation and growing food insecurity. The resettlement process from Carteret Islands is one of the first organised resettlement movements of climate change anywhere in the World in recent history. However, scientific studies seeking to anticipate the impacts of climate change in PICs generally acknowledge uncertainties (Barnett, 2001: 981). As the Director of the South Pacific Regional Environment Programme (SPREP) expressed it, 'uncertainty about results is unlikely to be reduced in the near future and government will be very reluctant to develop policies based on uncertain results' (Barnett, 2001: 977).

Diversity across space emerges as a key theme of resilience (Barnett, 2001: 986). 'Social interaction across space, at a variety of scales, is integral to past and present coping strategies in Pacific Islands' (ibid.). The socio-ecological systems of the Pacific Islands have historically been able to adapt to environmental change (Barnett, 2001: 985). Pacific people adapted in the past to environmental changes (Nunn, 1993, 1999 and 2007). Communities over time, developed ways to cope with weather and climate extremes (Hay et al., 2004: 40). Traditional knowledge provides the foundation and practices that can often form the basis of appropriate responses to climate change and its impacts (ibid.). The traditional forms of environmental adaptation according to Hay et al. (2004: 40) include (a) settlements: building materials, building designs, and construction methods; (b) knowledge system: agriculture, building, fishing; (c) cooperation among communities: exchange networks, kinship network etc.; and (d) within communities: rationing, rebuilding and resource sharing.

Constraints and Opportunities

PICs face many constraints in promoting creativity. A lack of adequate human skills, geographic isolation and dispersed locations, lack of networks among artists, rapid cultural transformations, lack of scientific studies on Oceanian ecosystems and inadequate financial base are some of the constraints to creative expression. PICs are at the crossroads of social transformation and cultural change. In the event of globalisation and urbanisation, Pacific societies are undergoing rapid and dramatic social and cultural transformations that pose enormous challenges.

However, the Pacific is a boundless sea of possibilities and opportunities (D' Arcy, 2006). Oceania is a closed cultural system. Turning the constraints into opportunities calls for scholarship that is rigorous, innovative, thoughtful and engaging. An ability to learn is central to responding and adapting to change and broadly educated societies seem to be more resilient to environmental change (Barnett, 2001: 988). Creativity in this regard provides opportunities to learn and widen the horizon of knowledge. As Naidu points out (1993:51) 'if there were greater appreciation of Island people's creativity and capacity to meet the challenges that confront them, then not only would the belittlement of Islanders wane but more independent forms of development may proceed'.

There is a need for more regional perspectives instead of isolated island or single community studies, and more focus on humanenvironment relations (Howe, 2000 cited in D'Arcy, 2006:5). The University of the South Pacific's Oceania Centre is an innovative centre for creativity. The arts emerging from the Centre reflect the process of creation and also reflect the cultural, historical, social and political conditions that affect Oceania (Higgins, 2008: 1). The Centre offers Pacific peoples a space and process for creativity and expression that encourages intuition and experimentation (Higgins, 2008: 3). The process of creative exchange among artists at the Centre is integrated throughout its painting, sculpture, dance and music programs to produce expressions that move like waves with the fortitude and force of the ocean. The 'contemporary Oceanic or Pacific art demonstrates the vast array of creative expressions in the region' (Higgins, 2008: 2). As Sven Lindqvist said,

you already know enough. So do I. It is not knowledge we lack. What is missing is the courage to understand what we know and to draw conclusions'. (UNDP, 2008:21)

Conclusions

Climate change is the greatest challenge to humankind. It undermines human development and sustainability. Enhancing human development is one of the greatest challenges in the face of climate change. Creativity in PICs has potential for promoting human values and changing human perceptions and behaviours. It has a potential role in enhancing knowledge, creating public awareness and building capacity, enlarging ecological & social choices and building resilient community in the face of climate change. Environmental sustainability cannot be achieved only through technological and economic change: social and cultural attitudinal changes and change in human dimensions in environmental interaction are most needed. Oceania is a hub of creativity and has great potential in generating awareness, changing people's perceptions and building resilient community in the face of climate change. There is need for collaboration and freedom of creative expression. As in the following words:

We cannot depend primarily on revenues generated from the natural resources, but must rely on the efforts of human beings in coexistence with nature. To achieve this it is necessary to expand social capacities, starting by recovering and strengthening multiculturality as an essential element of change' - Rodrigo Nunez. Amabile, T. M. et al. (1996) *Creativity in Context*, London: Westview Press.

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Jeremy Dorovolomo

Children's Writing, Drawing, Sport and Play: Making Sense of Natural Disasters

Introduction

hildren are most vulnerable during natural disasters. Those who suffered most in the Asian tsunami were children and women (Mangkusubroto, 2005). About 67 million children were affected by natural disasters in every year of the previous decade, considerably more than in the decade before (Penrose and Takaki, 2006). The plight of children is no different when an earthquake followed by a tsunami hit the Choiseul and Western Provinces of the Solomon Islands on April 2 2007 (SIBC, 2007a). 18, 300 children in these affected provinces had been significantly disrupted and 56 per cent of students in the affected areas did not have permanent schools until full or partial rehabilitation were to take place (UNICEF, 2007).

Children not only lose their physical properties such as their homes and schools, but are also traumatised and affected emotionally and psychologically. This paper takes a teacher and her primary school class at a school in Choiseul, Solomon Islands, to discuss how children are making sense of the disaster through their writing, drawings and play. There are two observations in these children's writings. Firstly, children expressed how they feared the tsunami, and secondly, on how very poor they are now. The psychological trauma and losing their families' physical properties had instilled in children a huge sense of deficiency. This in turn affects their efforts at school. Teachers recognise children's inner feelings from their writings and would attempt to provide an environment in which they can be happy. Not only evident in children's writing but also in their drawings. Children's drawings commonly include the approaching tsunami and what they would do if it happens. For example, they would draw big waves coming in and a drawing of themselves running up a hill. Alat (2002) stresses that coloring and drawing activities gets children to express their experiences and cope with the trauma. Alat also encourages teachers to use books to help children see how others in similar situation overcome the negative effects, and storytelling so that children express their fears and thoughts. In addition, the importance of play and sport in children's recovery process will be made.

Tsunami, children and schools

In the December 26 2004 Asian tsunami children and women were the ones who suffered the most (Mangkusubroto, 2005). In Aceh Province 20 to 25 per cent of children were in need of professional treatment for psychosocial problems, in Indonesia over 8,300 children were orphaned, while in Thailand 25 per cent of children in the country had been unable to attend school because of fear of a second tsunami. Children experience eating and sleep disorders. Moreover, the tsunami was a major blow to family continuity (Carballo, Heal and Horbaty, 2006). There is disruption to family continuity because children's social support was destroyed by their homes, schools, and communities ruined. Many lost adults that cared for them, adding threats to sexual exploitation, trafficking, and dangerous labour. Therefore, most of these children would not need therapy but community-based activities to assist restoring a sense of safety, connection to caring adults, and hope for the future. The Christian Children's Fund, for example, established

240 child-centred spaces in tsunami-affected areas of Sri Lanka, India, and Indonesia, involving 38,000 children up to 18 years to help in the normalising process and foster psychosocial health. The Asian tsunami certainly had profound effects on children, who have unique vulnerabilities, needs, and strengths. (Kostelny and Wessells, 2005).

Since children constitute a large proportion of the affected population in disasters, ignoring their capacities means undermining that of the community as a whole to cope with the situation. We need to see children both as beneficiaries – their basic rights to survival, development, and protection must be fulfilled and as actors - providing useful knowledge of their communities and actively contributing to disaster relief and recovery efforts (Penrose and Takaki, 2006). Furthermore, teachers can function as a good resource for care of tsunami affected families and children. At Andaman and Nicobar Islands 291 teachers were trained in the basic principles of counseling and disaster mental health. It appeared to be a success, where teachers were giving informal education to children by engaging them in drawing, sketching, singing, miming and getting adults involved in meaningful activities such as cooking and assisting in relief work (Math, Girimaji, Benegal, Kumar, Hamza & Nagaraja, 2006).

In the Solomon Islands, more than 11, 000 students out of 18, 000 in the Western Province have education setbacks after the tsunami in 2007 (SIBC, 2007b). According to UNICEF (2007) 18,300 children have been significantly disrupted and 56 per cent of students in the affected areas of both Western and Choiseul Provinces will not have permanent schools until full or partial rehabilitation takes place. In addition, 44 per cent of school staff housing in affected areas have suffered complete destruction or major damage (UNICEF, 2007). In Choiseul Province the affected schools are on the southern region of the island such as Sasamunga

primary school, after consulting the Ministry of Education, halted classes while rebuilding of classrooms were done (Inifiri, 2007a). In the Western Province twenty-two schools needed urgent attention while in Choiseul seven schools were identified as requiring urgent attention. The affected schools in the Western Province are on the islands of Gizo, Kolobangara, Rendova, Ranonga, Vella, Simbo, and the Shortlands (SIG, 2007).

Children have to be protected because of their vulnerability, which triggered the Social Welfare Division, UNICEF, and Save the Children to train 70 local volunteers in welfare and child protection held in Gizo, Western Province (SIBC, 2007b). Children not are faced not only with psychosocial drawbacks, but can also lag educationally. Some schools such as grade 6 students of Voza primary school have gone out against all odds by sitting the nationwide secondary school entrance examinations, even though traumatised after the earthquake and tsunami (Inifiri, 2007). Despite that, school children in the affected regions have been negatively done with. The Solomon Islands Secondary Entrance Examination (SISEE) statistics released in November for 2007 showed a drop of 5 per cent from last year's enrolment. This was attributed to the earthquake and tsunami in Western and Choiseul Provinces which affected a considerable number of grade six candidates (Pipol Fastaem, 2007).

It is imperative therefore to explore the effects of the tsunami on school children and how they are coping a natural disaster such as a tsunami, ensuring that maximal instruction and learning are key to rehabilitation activities.

Methodology

A Case Study research was conducted. 'Case study research is a form of qualitative research that endeavors to discover meaning, to investigate processes, and to gain insight into and in-depth understanding of an individual, group, or situation' (Lodico, Spaulding and Voegtle, 2006:269). The case will allow a richer description of a teacher and her class that had suffered a tsunami and how they are recovering from the disaster. The teacher is a female and teaches class fours.

The case school, hereafter called Komala, is located in Choiseul Province, Solomon Islands, Komala School takes enrolment from kindergarten to form five. The primary school has an enrolment of about 300 pupils and the high school 200. This school is chosen because it is one of the worst hit schools where almost all were swept away by the tsunami. It is a day school and located in a rural, remote setting, in South Choiseul. As I arrived at Komala on an outboard motor powered fibreglass boat, I could see that all the primary school buildings are not there. I had to travel by boat because there are no roads linking Choiseul Bay airport to Komala. I was a class three student at Komala in 1977 and was saddened to see that there are no more classrooms left. The tsunami occurred in 2007 so by the time of this study a variety of plants have grown on the area. There is none standing near the stream where my classroom used to be. Spaces we used to play dodge ball, skip, and chase each other during recess are not recognisable. The beaches we used to play bunibuni are all deserted. Bunibuni is a game where you would attempt to crack your opponents' special nut from a local tree by throwing yours on theirs' placed on the sand. UNICEF tents are a visible temporary replacement for the lost buildings. The high school, taking forms one to five, has its buildings still standing because it is slightly inland. However, teaching and learning materials were all destroyed. The primary

school, on the other hand, lost both their buildings, and teaching and learning materials. Virtually all were lost.

The Methodist Church first arrived at Komala village in the early 1900s and as a result was also the location of the first school established in Choiseul Island. Komala village today has about 3,000 people and is one of the biggest in Choiseul. Choiseul is one of nine provinces of Solomon Islands. It has a population of about 20,000 people and make up 7.5 per cent of the population of the country.



Choiseul is in the far west.

Map source: www.peoplefirst.net.sb.general/provinces.htm

Methods

A semi-structured interview (Lodico et al., 2006) was administered. The interviews were semi-structured because questions were prepared but still allowed the opportunity to probe beyond the protocol. The length of the interview was about an hour and a half. The teacher was interviewed at her village, as it was school holidays when the research was conducted. The interview was done in *pidgin*, the Solomon Islands *lingua franca*. The author transcribed all interviews and translated them into English for analysis.

Data Analysis

The project used Lodico et al.'s (2006) list of steps to analyse qualitative data. The first step involved *preparing and organising the data*. This required ensuring that the data is in a form that can be easily analysed. This was achieved by translating interviews that were done in Pidgin into English ready for analysis. The second step was reviewing and exploring the data. At this stage, it involved examining data to get an overall sense of what was in them. Interviews and documents were read through. Transcribing the interview has also allowed further pondering.

Coding data into categories was the third step. This involved identifying different segments of the data that described related phenomena and labeling these parts using broad categories. It required reading, rereading, and reexamining all of the data to ensure none is missed or coded in a way not meant by participants. The fourth step ensured *constructing descriptions of people, places, and activities.* After being coded, descriptions of the people, places, and events in the research were made, providing rich accounts often referred to as thick descriptions. *Building themes* was the

fifth step, which entailed identifying major and minor themes in the coded data. In other words, themes are "big ideas" combining several coded materials in a way that allowed explaining what had been learned from the study. These included various commentaries the author did as thick description. Data were often moved to other themes or sub-themes as seen fit. The final step according to Lodico et al. (2006) was *reporting and interpreting data*, one of which is the actual writing of the research report, which follows.

Discussions

Curriculum, Teaching and Learning

There are two observations in *Komala* School children's writings. Firstly, children expressed how they feared the tsunami, and secondly, on how very poor they are now. The psychological trauma and losing their families' physical properties had instilled in children a huge sense of deficiency. This affected student learning:

'It is physically too, you see, affects students. Their body too seemed to be affected because they don't sleep properly and stayed with fear. Some of them come with their trousers only, no shirt. We see that this lowers the interests of children'

With the loss of their physical possessions and comfort students are feeling and experiencing a deep sense of deficiency. This in turn affects their efforts at school. Their teacher recognises her children's inner feelings from their writings and drawing and would attempt to provide an environment in which they can be happy. Not only evident in children's writing but in the drawings as well. Children's drawings often include the approaching tsunami and what they would do if it happens. For example, they would draw big waves coming in and a drawing of themselves running up a hill. Alat (2002) stresses that coloring and drawing activities gets children to express their experiences and cope with the trauma. Alat also encourages teachers to use books to help children see how others in similar situation overcome the negative effects, and storytelling so that children express their fears and thoughts. Manifold (2007) further stresses that school children who are grieving may suffer from an inability to focus attention on instruction and retain learning. Picture books of familiar beauty may be particularly helpful resources for reassuring emotionally distressed children and redirecting their attentions back to classroom instruction. Carefully constructed picture books may guide and comfort the suffering student to understandings of emotionally painful experiences.

The best location to gauge whether required curriculum materials have reached Komala School is asking the teachers on the ground. This is what the class teacher has to say:

'What I see is, the response of the ministry of education and on what we approached them for is not a hundred per cent, I would say. Because what we require from them for our pupils is not met. Everything is delayed'

It is more than a year at the time of the study and if teachers on the ground are saying that various important curriculum documents are not received is a massive concern. Pupils' curriculum materials should have all been urgently sent to schools that are affected such as *Komala*. It is unacceptable that the Government does not see it as important, it seems, to send required and correct curriculum materials to these schools. Wherever the delay was, it has to be more efficient and effective. Such lacklustre response has teachers' delivery admittedly below par.

The Schoolteacher in this case study agrees and supports the insertion of Disaster or Emergency Education (EE) to the national curricula. It can suitably be inserted into the Solomon Islands Social Studies curriculum both in the primary and secondary schools. She also emphasised the need for EE to be included in Teacher Education as well. This is important so that there is preparation of teachers to teach EE when they graduate. Chandra et al. (2006) wrote that teaching about psychological distress in schools and colleges provides a long-term investment that will be worthwhile in the long run. The UNICEF is keen in supporting the inclusion of disaster preparedness in curricula reform and development in the Pacific and had included this in their collaborative plans with Solomon Islands, Vanuatu, and Kiribati (N. Shameem, personal communication, April 10, 2008). Emergency situations as a result of man-made or natural disasters do deprive children from quality educational opportunities and access to schooling. This calls for national Education For All (EFA) plans to include provision for education in emergency situations (Kagawa, 2005).

80 per cent of tsunamis occur in the Pacific Ocean. Three tsunamis hit Papua New Guinea in 1998 (Horton, 2005). This means education about tsunami and natural disasters is important. Only 239 people, for example, died when a 30 metres high tsunami smashed into the Japanese Island of Hokkaido in 1993. In marked contrast to the December 26 2004 event, experience and education led Hokkaido residents to self-evacuate to higher ground immediately after feeling the ground shaking, despite the very short time between the earthquake and the tsunami's arrival. Whether there is early warning system or not, education could have saved thousands of lives in the recent Asian tragedy (Bird and Lubkowski, 2005). Emergency education, that is, education in emergency situations, is crucial and increasingly recognised as the 'fourth pillar' of humanitarian aid along with food and water, shelter and health care. Moreover, education in emergency situations is emphasised as one of the nine EFA flagship programmes (Kagawa, 2005). Risk-management experts predict that a tsunami of the December 26 2004 scale is likely to happen only once every 500 years (Schiermeier, 2005) but natural disasters are varied and are becoming more frequent, requiring education. Children need to be empowered for emergency situations (Penman, 2006).

Psychological Impact

It will take time for students to recover from the trauma of experiencing a major earthquake and tsunami. Children are still bothered remembering what had happened, and fear of what might happen again. Alat (2002) examined that these are cognitive effects of children's response to a traumatic event, believing that the disaster will happen again, or even feel they are responsible for the disaster. Thus, the teacher noted that:

'The children, since the disaster struck us, it affected their minds, and their schooling. We have started this year but we have not come back to normal, mentally, and the minds of children. Compared to before the tsunami came, children's learning was good. This time, how I see it, children aren't able to concentrate. They lack concentration and easily forget as well. That's what we saw'

If teachers see and note children's psychological struggle and quest for recovery, it has to be believed. They spend considerable time with children. Teachers' professional understanding of their school children in their classes is unparalleled. Consequently, it is imperative that teachers are equipped with capabilities to continually help children's psychological recovery. In Indonesia, for example, a programme initiated was entitled 'Tsunami Operation Teachers Training Programme' in which one teacher from each inhabited island was trained to provide psychological support to students (Chandra et al., 2006).

Teachers are also affected psychologically by the disaster. It would be a fallacy to think that only students are affected psychologically. A married couple teaching at Komala School ran up the nearby hill when the tsunami hit. They saw the destruction of the school below and cried. They stood in disbelief and thanked God that school children were not in, because it was still early in the morning and are with their parents. It could have been catastrophic if students were at school. The class teacher said:

'I have also been affected just like the children, because the sea reached me. I felt the earthquake and saw the tsunami as well. For me, I've been affected just like the kids. It's very hard. Sometimes I forget about everything. In my teaching, I saw, it's not like before. I get nervous quickly when I hear something. I get frightened quickly as well'

These are not words that should be taken lightly. Teachers are traumatised by such natural disaster. This makes special programs and support for teachers of affected schools pertinent as well. Teachers may feel inadequate as a result of their traumatic experiences, but many are determined to put in their best for their students and stay resolved not to abandon them when they need them the most. Fernando (2005) stresses, however, that any psychosocial teams from outside the local community that are to work with survivors of disasters should be part of some degree of cross-cultural training. Furthermore, Math et al. (2006) state that to respond to a high magnitude natural disaster like a tsunami, the disaster team must be able to understand the local culture, traditions, languages, belief systems and local livelihood patterns.

Children and their community

School children are intricately part of affected communities. The quicker these communities are fully up on their feet, the quicker school children will also be on their feet. Therefore, empowering the grassroots has to be a high priority. The nature of global disaster response is ad hoc, neither rigorously pursued nor consistently funded. Givers tend to suffer from attention deficit and 'donor fatigue'. The international community's attention span is often limited. Therefore, disaster protection and relief must be applied at the grassroots level of local communities and administration, enabling them to achieve resilience autonomously. The processes of recovery and reconstruction needs the global community but patient long-term work must involve and prepare local communities for sustainability over generations (Alexander, 2006; Tolentino, 2007).

Indian Ocean nations continued to mourn the thousands dead in the tsunami of 2004 but the long and hard process of rebuilding shattered lives and communities has to continue. People have to eventually attempt building their lives again. Support for tsunami victims, however, had to be appropriate and culturally sensitive. People may not believe in mental health services but prefer a traditional healer. Or lack of cultural knowledge may mean that individuals may be branded mentally ill when they were grieving as normal. There are also contextual barriers such as in Sri Lanka where many of the affected areas were in conflict zones, which hampered relief efforts. The same applies for the Acehnese who were already in a long civil conflict further inflicted by the tsunami (Chandra et al., 2006). Komala students, being remotely located, need as much help from necessary stakeholders such the national and provincial government, non-governmental organisations and others.

Children fear and worry about what might happen to them. They have a general apprehension of the future. Children's situation would improve but it should be noted that the deepest scars are the least visible. Children and teachers will, to varying extents, struggle to overcome much more than the physical loss. Student's academic support at Komala needs to be ongoing and performances tracked for decision making. The government promised fee exemptions for students in affected schools. However, the press release and form for this reached the province more than a year after. There is overtly a lack of political will to progress this idea. The form that parents would fill is flawed. It is only parents who lost their income generating sources that can apply for fee exemption. The fact is that a disaster is a disaster. Many families might still have coconut plantations intact, as source for income generation, but their homes and properties have been destroyed. Unless they are comfortable there will be no income generation. All parents are affected to a certain extent albeit at varying degrees. If this is recognised, all students of Komala school, for example, should be granted fee exemption until parents have recovered their livelihoods. The Government or the Province should pay for these school fees until they have recovered.

Parents are genuinely worried about school fees and nationwide exams that their children will sit. Teachers are equally aware that parents are finding difficulty trying to provide for their children as it used to be:

'What we see in this community is that, everyone has been affected so it is a little bit hard for them to respond to school requests. It is not like previous years where if we don't have enough books, parents pay the books, ruler and so forth. This time it is quite hard'

If parents are struggling to buy simple school items unlike they used to, paying school fees will obviously be even harder. What

the Government should be investigating is how it could help re-establish peoples' economic foundations. Alexander (2006) emphasised that failure to re-launch the economy of an area affected by calamity could lead to a delayed disaster – in terms of stagnation and lagging economic contribution – two or three years after the event that caused the destruction.

Sport and Play

Parents appreciated the United Nations Children's Fund (UNICEF) injection of school-in-a-box and recreational kits to Komala School. UNICEF's intervention got the children engaged in organised educational activities. Instead of going to where the destroyed school is children were organised into safe play and learning sites in communities that make up the Komalavillage and school. Each of these sites has these kits. Having gone through sock and fear, this arrangement is found to be suitable for parents and children, instead of having children go away too far from their parents. Children were at these play and learning sites for four months before going to the original school site. UNICEF and New Zealand's International Aid and Development Agency (NZAID) coordinated the distribution of more than 200 school-in-a-box kits and 200 recreational kits to allow Western and Choiseul Province teachers and children to resume educational activities. Each of the kits contains educational resources for 80 students, and 27 teacher items. The recreational kit contains teacher and student items that can cater for up to 90 children playing simultaneously. Safe play and learning sites were established to attract school age children in the camps to begin an educational routine and it was advisable for teachers to include recreation and play into their weekly teaching plans. Disastrous events such as the tsunami can leave significant gaps in the education of children unless dealt with deliberately (Hoerder, 2007). These kits help in the psychological recovery of children from the trauma they had experienced. The class teacher at *Komala* School said:

'These kits have helped bring back children's minds. Many things are inside it including volleyball. We have in them uniforms for sport as well. We used these in each community before we made them come here [original school area]. They enjoyed sport than learning in classroom, so we make them play. When we see them ready we return back in class, because what we see is that they write, they are interested, but not that much. So we made two days per week for sport'

Sport and play are being used as vehicles for the return of children's psychological preparedness for classroom activities. In the primary level of *Komala* School they have established two days for sport, than the usual once a week. Play engages children and helps them return to normalcy. Children were organised into age groups with a bit of writing and classroom work introduced slowly. *Leke* is a class one student and apparently the top student in his class. He said that he enjoyed spending lots of time playing soccer, playing with toy trucks, sand, draw turtles, fish, birds and trees. He talked about telling stories in class and starting to enjoy school again after the tsunami. Sport is increasingly used as a method of trauma relief in disaster-affected populations. Sport and play activities help in enhancing resilience and facilitate emotional and social stability (Kunz, 2006).

The educational processes initiated by the UNICEF is consistent with the United Nations phases of responses in such emergency situations (Kagawa, 2005). Play-based physical activities are effective coping strategies to restore children's functioning after a trauma (Alat, 2002). These children's Centres were also prevalent in tsunami affected areas of Sri Lanka, India, and Indonesia after the 2004 tsunami. The aim is to restore children's sense of safety, normalcy and predictability through structured activities such as art, storytelling, drama, and play (Kostelny and Wessells, 2005). Play and games reflect children's strategies for making sense with nonsense. To avoid trauma, we must allow children the opportunity to turn painful images into playful and artistic symbols for their release (Beresin, 2002).

Conclusion

About 67 million children were affected by natural disasters in every year of the previous decade, considerably more than in the decade before; while 10 million children were affected by conflict (Penrose and Takaki). There is evidently increasing number of children affected by natural disasters and children, as a vulnerable group, require coordinated and sustained assistance. Komala School suffered enormously from the earthquake and tsunami. The primary school was destroyed completely while the high school significantly disturbed. Each stakeholder; the Ministry of Education, Choiseul Province, Members of Parliament, Aid Organisations, and the affected community will need to ensure that children and schools return to normalcy as quickly as is possible. Students, their parents and teachers need support. There is a lot of feeling of inadequacy in children as a result of their losses. These losses are not only physical and material belongings, but includes the psychosocial recovery and health of children and teachers. Children should be given opportunity to express themselves in their writings, drawings, storytelling, play and sport, as instruments to psychosocial recovery. Teachers can see their pupils' feelings and state through their classroom writing and drawings. Sport and play too have been used to help recover psychologically. It is also valuable to note that disasters are not static phenomenon and that the psychosocial needs and capabilities of children in disaster settings can evolve quickly. Therefore, recovery strategies must be based on victims' opinion, weaknesses and strengths, and contexts, over

the period of recovery. Agencies will come and go but eventually recovery strategies are ultimately the task of local communities and local authorities. These makes preparing and empowering affected communities, including children, for sustainability crucial and consequently allows them to achieve resilience autonomously. Alat, K. (2002). 'Traumatic events and children'. *Childhood Education*. 79(1), 2–8.

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Briar Wood

Science in the Poetry of Oceania

uestions raised in a 1987 paper on 'Novelists and Historians and the Art of Remembering' by Albert Wendt, where he declared his disagreement with Western rationalism, reason and science at the same time as he declared his belief in the importance of scientific discoveries (DNA, new physics) and the outdatedness of the two cultures debate, have long formed the background to this paper. These questions became focused more clearly for me in a way that is relevant to ecocritical debates through a recent article in New Scientist by Wendy Zukerman entitled 'Pacific Islands defy sea-level rise' in which it is argued that the continual and ongoing growth of island land mass can act as a bulwark against rising seas, though not if climate change continues to accelerate. Where, I wondered, when such (unusually optimistic, though not climate change denying) articles offer positive possibilities and potential rewards for the effort to reduce climate change might the sources of the rejection of scientific methodology lie? How have poets writing in Oceania subsequently engaged with ideas about science in their work?

Of course though the two cultures debate may no longer be relevant in historical or regional terms, science and poetry in general do draw on different techniques, histories and discourses. It is significant that Wendt's statement comes in a paper about history and fiction. In C19th Anglophone traditions of novel writing, realism and naturalism are movements that value and foreground form and technique inspired by a scientific approach - close observation, assessment of evidence, precision of measurement, an assumption that environment and hereditary features have a powerful influence on the formation of identity. It's understandable that modernists, postmodernists and postcolonial writers would want to unpack this tradition and the impact of science upon it, and to have developed a critical appraisal of the possible misapplication of scientific ideas in the interests, for example, of racism and colonialism.

The interweaving of indigenous oral traditions with realist narrative in the fiction of postcolonial writers challenges rational ideas of where the divisions lie between real and imaginary worlds, fact and fantasy, in the interests of promoting intuitive and mythic understandings of the environment as well as those that involve measurement and objectivity. Problematic applications of science in the human sciences necessitated resistance against outside 'experts'. From native informants to indigenous anthropologists (including of course the great Epeli Hau'ofa himself) indigenous people have negotiated and translated the terms of their own discourse and counter discourses, and poetry is a significant genre in these traditions of information trading, history as the art of remembering as Wendt puts it, and translation. The propensity of colonial discourse to collapse ideas about indigenous peoples into nature and therefore identifying people as available for exploitation has of course been challenged and changed through the attention given to continuities in indigenous ways of understanding the world. In more recent times, the exploding of atom bombs in the Pacific as a testing ground can be seen as a neo-colonial continuation of colonialist 'logic', as so much resistance Pacific production, such as Hone Tuwhare's famous protest poem from 1958 'No Ordinary Sun' and many, many poems since, testify.

In his evocation of the ongoing importance of an Oceanic Imaginary (and therefore not a writing that is concerned only with the real and scientific data) Subramani argues in favour of permanent epistemological shifts in the organization and distribution of knowledge in favour of Oceanic ways of understanding, including human sciences.

How such shifts register with people on a populist and individual level will be referenced in literary texts, as will any future shifts in what were called earth and physical sciences.

Already in such texts as Robert Sullivan's millennial *Star Waka*, cars are waka, canoes, traditional vehicles and Māori people are also imagined as the crew of waka ātea/space ships. As the number of neologisms in Pacific languages increases, will words for scientific concepts and elements, for example, be more and more in everyday use? I for one, hope so, since in my view it will continue the role of poetry as both an accurate source of information about the world and a location of pleasure in the inventive possibilities of languages. The circulation of the concept of vā is an example of the way a Pacific language term has enabled the foregrounding of ideas about cultural, linguistic and social interconnectedness compatible with bioregionalism.

In Anglophone Pacific poetic writing, shifts through postmodernism and postcolonialism in fiction and poetry involve the legacy of contact in the period labelled in European histories Romantic, Victorian and modernist. Popular conceptions of Romantic poetry hold it to be opposed to science - Wordsworth's rejection of the impulse to murder in order to dissect being one of the most famous statements of this opposition. Yet the picture is more complex than such a simple binary opposition since both European and Pacific poets have been profoundly influenced by scientific ideas in and since the contact period.

Wordsworth argued that poetry needs to be in everyday language so that everyone can understand it - he wrote of wanting to 'choose incidents and situations from common life, and to relate or describe them, throughout, as far as was possible, in a selection of language really used by men.' (p.7. *Lyrical Ballads*). The statement can be read with reference to poetry and science, since much scientific language is so specific as to be incomprehensible to the reader untrained beyond a popular knowledge of the sciences. Erasmus Darwin's poem "The Loves of the Plants" (1789), popular in its time and republished throughout the 1790s in several editions as "The Botanic Garden", in which plants and parts of plants became metaphors for human sexuality, has been cited as an example of a use of poetic language that was too scientific and specialized for the poem to last as a populist favourite.

This question of language is not only about science but one about access to fluency and accessibility in a language. Poets may foreground directness and plain speaking as an antidote to verbosity and eloquence of poetic language as political or cultural evasion - the deliberate and repeated references to bodily functions for example in Albert Wendt's Adventures of Vela exemplifies the way in which poetry continues to be associated in the Pacific with living oral traditions. This long poem can be read as carnivalesque in some of the ways that novels in the European traditions have been, and it disrupts the genre traditions that maintain a poetic tradition as one that is separate from the body, dealing only with the cerebral and the sacred. Wendt claims for poetry in Anglophone Pacific traditions the right to do what some novels do, though perhaps in a different way. In Huggan and Tiffin's model of postcolonial ecocriticism, Wendt's writing travels the va between the fecund and the faecal. In Paul Sharrad's account of his writing, there is also ambivalent oscillation between signifiers of light and darkness, with a Pacific centered reverse discourse operating against colonial imagery so that darkness can often signify fertility and creativity. Science can be used both destructively - in the terrible effects of atomic testing in the Pacific - and be a force for

positive and constructive action such as that shown in the writing and collective response to resist the continuation of the testing. Imaginary constructions shift across a range of Pacific centered and globalized information networks, texts and conversations.

That Wendt viewed himself in 1987 as a writer and thinker who is part of a global tradition that is scientific is emphasized in the passage which claims that history too, can function in terms of poetic time, stating that:

Before Isaac Newton gravitated into our midst, as it were, we believed that weight had a fixed meaning. Newton showed that weight is affected by gravity, so we used mass as a fixed meaning, but Albert Einstein revealed that mass increases with speed, so we turned to time for a measuring anchor, but Einstein argued that time slows down the faster you travel, and that time and space are meshed, inseparably. Everything is relative, sd Einstein. It depends on where you are viewing something from.

As our ability to measure time in smaller and smaller units develops, the 'now' is getting more difficult to define. The notion of an ever-moving present is becoming more acceptable; and research in sub-atomic physics shows that it is possible for time to become unidirectional. We now talk of space-time and a four dimensional continuum, a unity-that-is-all in which it is impossible to distinguish between the past and the present. Time, like space, is all here and now and everywhere linking everything, and to alter it in one place is to affect the whole, says the new physics.

It is easy to see that time affects matter; we just need to see our bodies aging. But up to now, it was inconceivable to believe that matter affected time. Some astrophyicists, like Nikolai Kozyrev of Russia, are demonstrating experimentally that this may be true. All these revolutionary findings have revolutionary implications concerning how we see and record the stories of ourselves (apart from everything else). Wendt, 1987, p.84.

The date of this essay - 1987 - accords with Ursula Heise's argument about American ecology that 1960s and 70s analytic science was being replaced by a contested holistic globlalism in the 1980s. Various assessments from helpful to harmful emerged of the effects of globalization as both process and aim. Situated knowledge came to be respected over corporate and national planning in which the kind of 'grid' Wendt describes as anathema to his way of thinking could enforce new kinds of conformity irrespective of location specific needs. Bioregionalism came to be perceived as a way of thinking that disrupted some of the manifestations of globalization that allowed a lack of responsibility for decisions taken in one place to be enacted in another, such as was experienced in the Mexican Gulf oil spill recently and the response to it.

Having been an astute and hilarious up close observer of human foibles in the processes of decolonization and nationalism as a satirist, Epeli Hau'ofa became both prophet and critic in his optimistic approach to a bioregionalism that imagined the big picture to offer hope for the independence and continuity in indigenous terms of Pacific cultures through mutual concern. If Epeli Hau'ofa's essay has been one form of creative thinking that supports constructive action, then there are also other texts and performances.

Poems from the Pacific since the 1960s through to the present have expressed many assertions of independence, and rejection of colonial ideas. Ecological awareness forms the thematic content in many of the poems emerging from this period and these themes continue today. Frequent references to flowers and plants in Pacific poetic composition - in contemporary and preceding works, has an interesting relationship to this tradition. When the poems are written in English, they may well have been influenced by the English language tradition since the period of contact in the 1700s, while they certainly draw on Pacific language poetic traditions and ecological knowledge in the region. It is no accident that the writing of one of the most influential of the poets to emerge in the 1970s, Konai Helu Thaman, carefully maps out the importance of indigenous traditions in preserving and caring for varied plant life, of the importance of diverse bioscapes including and especially, those such as for example mangrove tidal areas that are not those to which tourist developers are attracted, and the necessity to pass on customary indigenous knowledge about the role in human health of plants and other life forms. 'Langakali', the title poem of a 1981 collection can be read as both a form of mourning and a call to ecological action and awareness.

'Langakali!
No longer do I se your face
Adorn our roads and roaming grooms
Or perfume the evening sea breeze.
Broken beer bottles
Greet the incoming tides
And gravetalk is no more,
For the unblinking eyes of plastic flowers
Stare away visitors from Pulotu,
Hone of our warriors and conversationalists.' P.16, 1981

Awareness of poetic genres such as laumatanga, associated with event, emotion and specificity of place is part of Konai Helu Thaman's Tongan language heritage. Her books interweave images and text and play extensively on the comparison between poems, words, flowers, garlands, song and dance. Her son's name Batiri (translating as 'mangrove bank') is the title of one poem about growth and independence and is illustrated in the collected poems *Songs of Love* in a drawing by Teweariki Teaero with an eel/seed shaped spiral suggestive of an unfolding into time. Her choice of the heilala flower to replace Wordsworth's daffodils as heliaki and metaphor for the flourishing of Pacific based education is widely known in the Pacific.

Richard Dawkins claims in Unweaving the Rainbow that 'It is my thesis that poets could better use the inspiration provided by science and that at the same time scientists must reach out to the constituency that I am identifying with, for want of a better word, poets.' P.17, 1998. Dawkins' assessment of what constitutes bad poetry is paralleled by his evaluation of bad science - both - bad poetic science - is characterized by a mismatch between the scientific fact and the metaphorical language being used to describe an aspect of the real world. In ecocritical terms in general the concept of good and bad poetry is not linked quite so closely to factuality - ecocritical poetry for example can take on board the concept of the sublime - human feelings, a response of awe to the world or Heideggerian dwelling - a human inhabitation of the earth; for Dawkins the non-human world exists regardless of human feelings about it and presumably - for he does not give many examples of it - good poetry reflects this. Unlike Dawkins, Mary Midgley warns against the propensity in Western cultural history to accept the binarism in which atomist rejection of religion for its worst abuses is installed as the sole reason for a foregrounding of science over poetry. It has been argued that for Midgley, poetry is everything that is not science, which is not how many poets position themselves in this debate.

Robert Crawford writes in the deliberately titled *Contemporary Poetry and Contemporary Science* against the grain, as he sees it, of opposing poetry to science that 'readers.may be challenged to see poetry and science as potently aligned modes of discovery.' P.4.2006. For John Burnside writing on 'Poetry as Ecology' in the same volume, 'this discipline, this 'poetry as ecology' is, for me, a form of scientia, a technique for reclaiming the authentic, a method for reinstating the real, a politics of the actual.' P.95.

Jonathan Bates' *Song of the Earth* is an extended meditation on the history of poetry in Western cultures and ecocritical traditions. Here poetry is foregrounded, though the significance of scientific observation is noted, since for Bates poetry is a grounded, located medium and therefore should not be at odds with scientific factuality. Poetry since the Romantic period is, however, for Bate, at odds with the objectifying world of scientific representation. The inbuilt Cartesian separation of the human world from the natural, he argues, helps to exacerbate environmental problems. Extrapolating through Heidegger and Ricoeur, Bate argues that poetry has a particular relationship to ecological representation because it is the form most licensed to speak about the earth and human relationships with it. He too posits critical regionalism against expansionist nationalism and the imperialist aspects of modernism.

In keeping with Albert Wendt's appeal for locally designed architecture in tune with the local environment, local history and local literature, he writes of the Pacific as one and many bioregions, interlinked and overlapping. In focusing on bioregionalism, Pacific texts are concerned with matters that transcend national or local boundaries, yet recognise the importance of the regional and the local in indigenous and local ways of life. Sudesh Mishra's post-modernist inspired monologue that is the title prose poem of *diaspora and the difficult art of dying* speaks with multiple narrators, into, out of and about an Oceanic imaginary in which identification with the environment and the connection with Fijian language terms for human culture as it interacts with features of landscape, with plants and living creatures, constitutes the assumption of identities that are interdependent. In the colony of our despair, and learning the art of dying i began to live through all my senses, they were the great years of my life because i began to discover what was already discovered, to name things as they were already named, i'd see but not hear a turtle dove until i said kukukuru, then its liquid-glass throat would bubble in the reeds of my soul, i'd smell but not taste an oyster until i said dio, then it would deposit a pearl of flavour on my tongue, i'd hear but not feel the breeze until i said caucau, then it would stroke with a royal plume the castle of my skin. p. 75. 2002

Bioregions are heterotopias, as an awareness of each multiple other's culture, beliefs and relationship to the environment is part of sharing a location. Jonathan Bates Song of the Earth Picador, 2000

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William Wordsworth and Samuel Taylor Coleridge *Lyrical Ballads and Other poems* 1800/1802 Wordsworth Editions, London, 2003

Wendy Zukerman 'Pacific Islands defy sea- level rise' *New Scientist* 5 June, 2010

Shaiza Janif

Narratives of Lost Lands

arratives of Lost Lands' was a project that started off with a question and the need and desire to address that question. It was a project to determine the presence of sorrow for loss of land in the oral histories and narratives of the people of Fiji. It then grew to record the narratives of movement or migration and where possible, the perception of climate change of people around Fiji.

The significance of such research is to understand how memories of the past climate change have altered the perception of future climate events. In this paper I begin with answering why I feel that we need to document oral histories; briefly, how I went about gathering data for the project and then, the results.

Sumathy Ramaswamy in Lost Land of Lemuria writes that "past is brought into existence through the power of imagination", the past is recreated, which means that history itself is the reconstruction of what is no longer. Sumathy writes about the feelings of loss of people of Tamil Nadu regarding Kumari Kandam, a continent that they believe to have existed. The presence of such sympathy for something a people have never seen, never lived upon, led me to ask the question, how do the people who have lived on a piece of land all their lives feel when that land is no longer fertile, when that land is being washed away, when that land no longer exists?

In the Pacific, narratives exist in the form of meke, songs, dances and stories and these narratives have recorded histories of

people and their pasts. These narratives serve an important cultural purpose and the recollection of places where particular groups once lived also has the potential to help environmental historians understand where inhabited land once existed and how it became lost.

Knowledge is power. Knowing what happened in the past enables us to predict the future. The orally recorded versions of the past not only enable us to attain a better understanding of our pasts but also have implications for the future.

Moving on, most of the narratives were gathered through in-depth interviews which took somewhere between an hour to half a day! Most of the interviewees were people past 60 and the reason for this was of course that these are the people who have the largest database of experience and histories.

The best stories come around the kava bowl and were often told with great fondness and were also debated upon by others around.

The results here are divided into 3 categories:

- Narratives of Migration
- Narratives of Land Loss
- Perceptions of Climate–change.

Narratives of Migration

When one moves from one place to another, there is bound to be some form of remorse or sorrow. The project aimed at recording narratives about movement of people to better understand the reasons and also how attached people of Fiji are to their land. The most common reason for movement in the 1900s was the measles outbreak. Before that movement was usually occasioned by tribal wars. The most recent movements, on the other hand, have been due to coastal erosion or salt water inundation, tidal waves and tropical cyclones. All of these recent movements have happened in the last 5 decades. Here, we need to realise that migration as a solution is available only to those who have some place to move to, be it either inland or uphill. We need, though, to keep in mind communities that now have no other place to move to.



This photograph is of the shoreline of Vutia village in Rewa. Their land is almost on the same level as the sea and is constantly being washed away by flooding waters.

Narratives of Land Loss

For the narratives regarding land loss, I wish to share with you a couple of narratives from the people of Rewa, as that is where I found the most narratives.

The Story of Bucona

This story is a narrative from Sakiusa Kete of Lokia village and Makereta Vatuloka of the Ministry of Indigenous Affairs.

Bucona, otherwise known as Rara ni Marau or the Ground of Happiness, was just in front of the Naililili Catholic School and was used as a picnic ground for many. The small island also served as a play ground for children, who would swim across from the school during the evenings. In the 1960s or 1970s, almost half the



island was washed away by a flood. After that, nobody used that island; it was abandoned. Over the next decade or so, the island completely disappeared because of the succeeding floods. Now all that is left of it are memories.

The next narrative is from Nukui Village in Rewa.

This story was narrative by Rusiate Goneva of Nukui village in Rewa.

The Separation of Islands

The people of Nukui lament for their land being cut off by the waters. They recall a time when they were able to cross the distance between Tai Turaga, an off-shore island, and their village. Now even at low tide, they have to swim across. The shorelines on both sides are being eroded and causing the two pieces of land have the appearance of drifting apart.

The plight of Nukui villagers is even more severe as whenever there is a spring tide, the sea water gets dumped into their plantations. They have had to look at new places to plant their crops and unfortunately, they do not have a lot of space left for it.

The people of Nukui are the traditional fishermen to the Roko Tui Dreketi and they cannot leave away from the sea. No one would discard their traditional role, they do not have land elsewhere and these villagers certainly do not have any other place to go.



Perception of Climate Change.

What people believe to be true is just as important as what we know to be the truth.

People who have had their land washed away are more open to the idea of climate change and are therefore trying or beginning to adapt. Since they might have experienced some extreme climate events in the past and have memories of it, they are likely to prepare for the future.

Those who are yet to feel the wrath of climate events fail to see that the environment is changing. A number of people who are not aware of the science of climate change say that nothing is going to happen; the world is not going to end now. Just as Vilsoni Hereniko said on Tuesday (14/09/2010), people believe in God to protect them. People who are not adapting to climate change are praying. They utilise the PUSH Philosophy, which is to Pray Until Something Happens. While we may pray; we also have to keep in mind that we are the ones who need to be doing something about the changes we are facing. Praying may give us hope, but we need to mobilise ourselves.

An important idea is to share what people have faced in their coastal villages or on their islands with the rest of our communities so that climate change does not seem foreign, so that people find it easier to relate to other's hardships and prepare for theirs.

Many communities have their traditional knowledge base that is available only to that particular community. Yet by sharing this information with other vulnerable communities, combating climate change related issues might be made easier and more efficient.

This whole research project points out that even though songs and poems have not been created regarding land loss, the memories exist. Not just faded memories of the past but powerful ones that lead to tears. One of the interviewees claimed "Isa! Why do you want to torment me by arousing such memories in my old mind?!?"

This statement is just a small indication of how powerful memories are as tools of history. This small project emphasised the need to record the memories before they are completely wiped out. The adage remains the same for all of humanity; whoever you are, wherever you may come from or wherever you may go, your land, your histories, stories, dances, your drama and songs are your heritage, and you need to own them.

Pio Manoa

Retrospective

For the honour and privilege of standing (or tottering) here in your presence this evening I thank the gentlepersons – Dr Mohit Prasad and Dr Som Prakash, my not-so-young friends, who insisted on digging me out of the dust of years, and hurling me into the middle of your awesome conversation. I thank them for honouring and inserting this moment of incongruence and irrelevance, and for giving me hope that the "useless" may still have a place in our educational and development projects in recognition of the fact that human persons are being educated and developed.

I have called this presentation "Retrospective", for that is what it is.

So, Do I dare dip my bread in the old, old wine?

Do I dare suck dewdrops out of early dawn?

fill my jar from the old, old well, or run naked in a tropic rain?

Do I dare sail an ancient river, and draw my life from my primal mother,

still shuffling down from dark, dark hills in her native summer?

Do I dare push like ploughshare steel and feel again this earth in me...?

For I have fed on foreign bread, sipped foreign wine; I have sailed a foreign river, felt foreign earth:

I forget my mother...!

Written so long ago, published in *Poetry*, the magazine of the Poetry Society of Australia, in 1968. Two years later the Macquarie University paper published it, and some of my friends felt for me for being homesick. It was true in a way that I was; I'd been in Australia for quite a number of years by then.

But the images in the poem had been cast in the primal mode or the archetypal, and might lend themselves to more than one point of reference evoking senses of a familiar home or mother or some daring for the unfamiliar experience of the primal, and the recovery of the half remembered self or even a sacred other. I still feel that "Recall" was a successful poem, and in retrospect I see it as somewhat programmatic of my subsequent effort and avocation. There was this attempt at a simple definition of home for instance, meant to accompany pictures of places and action, back in 1979. In a way it was describing aspects of the "Vanua": [Read "Home"]

But before I do any further retrospective reading from my slim output, efforts of an occasional scribbler, I'd like to present an idea, a metaphor, a metonym to illustrate an interest I've been toying with for a while.

Years ago, in high school, I came by this word 'hinterland' in Geography class whose sound I particularly liked. I felt the word poetic, not only in terms of the sound but in terms also of the suggestion of something significant lying back there, with which we could have actual and potential connections. Always it would maintain an identity that was unexplored, though perhaps explorable. At times even an air of mystery brooded over it. But always it was something used, useful, exploitable for the life of the city, the coast that had dominion over it. Perhaps mostly for this last.

This last association is written into the very important meaning of the word, as in definitions such as this:

the territory extending inland from a coastal colony as along a river system or to the recognized boundary of another territory) over which the colonial power is sometimes held to possess sovereignty. 1

Or this: a region that provides supplies for the nation controlling it. 2

Or this: the area often including satellites of which a city is the economic or cultural centre: an urban zone of influence. 3

Or, as in this use of it in Britain in the 19th century:

Lord Salisbury even recognizes...the very modern doctrine of the Hinterland, which he expounds as meaning that 'those that possess the coast also possess the plain which is watered by the rivers that run to the coast'. 4

One might construct a history of the imperialist project in terms of how the hinterland was conceived, regarded and treated – in its geographical, political, economic, social and cultural significations. Persisting through all modes of signification is the Project itself, viz. that the hinterland in all of its manifestations exists only insofar as it is deigned to exist. Its very existence depends on the Project. And this as we all know goes by various names – Progress, Civilization, Religion, Science, Education, and the latest one, Development, and combinations of these – which may be claimed as ends in themselves or conceived as instruments for different forms of control or exploitation.

We also know that the Project has been the subject of numerous narratives, but almost entirely from the perspectives of the Project agents. And the manner in which the 'hinterland' is made present would be in many instances the centre of interest. (But I should perhaps warn you here that this notion of hinterland will shift from a geographic/economic/political category to become also a metaphor of the people who may just regard the hinterland as home). The history of the founding or the staking out of hinterlands makes manifest the Project ideology of belittlement and exploitation. I make this shift cautiously, however, for the metonymic exercise can lead to under re-presentation. I don't want to adopt what I oppose.

The division or demarcation of land into back country, hills on the one hand, and coast on the other, might appear neutral enough, but on close observation the delimitation might already be also cultural, with its various categories of relatedness to the people. The 'Kai Colo' might simply mean 'the people who are at home in the interior or the hills', and they are distinguished from people who are at home on the coast, the 'Kai Baravi', or 'Kai Sawana', or even the 'Kai Wai'. As the imperialist Project develops these names take on judgmental categories. The 'Kai Colo' become a derided group, even looked down upon because they do not have the new knowledge and skills of the coastal satellites or allies of the Project. And if the Kai Colo oppose the Project, that is sure sign of their backwardness. Initially of course it's not just the Kai Colo who put up some resistance but the Kai Sawana as well.

Initially also, the cultural relationship of the Colo (or Vanua) people and the Baravi, or Sawana or Wai people was well established. One gave due recognition to the other. Both sides were 'Vakaturaga', meaning they had their proper identities which called for mutual respect, their ritual and ceremonial acknowledgements as well as regular exchanges of their special produce and manufactures.

In this context it will also be important to acknowledge the fact that in the countries of Oceania the hinterland may include bodies of water and parts of other islands. The same kind of relationship of mutual respect would obtain between Centre and people of the hinterland, coming to a climax when the Hinterland visits the Centre for tribute celebrations each year. This was our version of the imperialist project. You have to acknowledge the Hinterland, as you shared the same cultural premises and goals. Subject and object were truly and actually related. It would be a misrepresentation to see the Hinterland in this traditional configuration as simply the others.

If we can agree that what I've called the hinterland is metonymic of the people and their culture then the stage is set for a closer look at the Fijian cultural world and its defining values. The core of this cultural world is called 'vanua'. that typically multivalent hinterland concept. This 'vanua' was never really fully understood or appreciated in the process of subjugation or conversion of the hinterland.

This hinterland, the vanua remains to be explored, to be entered into conversation with. The task remains for the present wave of globalization as for the first, or second.

How then can we define the hinterland or the Vanua? I must admit that this task is not a happy one; it calls for a much longer conversation than what is permissible at this time, and among many observers both from within and from the necessary others. [Note Bakhtin's Creative understanding and exotopy idea]

This multivalent concept denotes first land, plot, space, place, territory, location, area, country. And it also refers to the group of people that belong to the allotted territory, their social structure, their cultural moorings and relational orientations, their locus of significance and identity, their pragmatic socio-economic unit, their territorial ascription, their enabling environment and enabling referent of gifting, their source and focus of obligation, their hope of stable living and rootedness. It may also mean members of the group apart from their head, the chief: *lewenivanua vs turaga*; also the totality of chief and members. It also refers to the group that first inhabited the land as distinct from the overlord and his group who came later.

[Note also Ryle's description:

"Vanua means many things to Fijians. It means land, place, clan, people, tradition and country. To talk of vanua is to talk not only of land in its material form, but land as Place of Being, as Place of Belonging, as spiritual quality. Vanua is both land and sea, the soil, plants, trees, rocks, rivers, reefs; the birds, beasts, fish, gods and spirits that inhabit these places, and the people who belong there, bound to one another and to the land as guardians of this God-given world. Vanua is a relational concept that encompasses all this, paths of relationship, nurture and mutual obligations connecting place and people with past, the present and the future." (Jacqueline Ryle, "Prologue: The Dust of Creation", My God, My Land, xxix.2010)]

A. M. Hocart was an acute observer here around the first decade of the 20th Century. In his The Northern States of Fiji he says

"The term "land" is there [Vanualevu]used in two senses, of a country and of the sacred plot of earth after which that country is named. The plot is the place where the founder-god 'came up'. When a man of Wainunu says 'My land is in X', he does not mean 'X is my country', as anyone might understand who had a superficial knowledge of the customs and beliefs; he means 'X is my holy ground'. It comes to mean more or less the same, since the country is attached to the holy ground, but the point of view is different. A Fijian does not think of himself as belonging within certain frontiers, but as originating from the spot where the founder-god came up, was established'.

["The sacred place was one of the earliest and most ubiquitous symbols of the divine. It was a sacred 'centre' that brought

heaven and earth together and where the divine potency seemed particularly effective. A popular image, found in many cultures, imagined this fructifying, sacred energy welling up like a spring from those focal places and flowing, in four sacred rivers, to the four quarters of the earth. People would settle only in sites where the sacred had once become manifest because they wanted to live as closely as possible to the wellsprings of being and become as whole and complete as they had been before they were ejected from paradise."

(Karen Armstrong, *The Case for God*, New York, Toronto: Alfred A. Knopf 2009, 14-15.)]

The identification of the vanua and its sacred ground is important in understanding how the sense of the sacred imbues the totality of the vanua and its functions, even now.

If the foundation of the Vanua lies in the sacred domain, then we can assume that the socialization of members has been on a religious/spiritual base, a seamless integration of its various functions. Its power base for instance would arise from connection with its sacred ground; so would its economics and medicine, its word arts and communicative events.

The life of the Vanua is regulated by kinship* and by prescriptive means- verbal and structural. The verbal, through song, story, anecdote and proverb, and exhortation, guide the daily behaviour of people. So does physical structures, which communicate the sense of relatedness, and educates the individual to respect. The way the village is set out, the structure of the family abode, or the chiefly bure, engage and transmit the basic sense of the sacred, which is also the basis for respect of others and their spaces.

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*["Kinship is mutuality of being: people who participate in each other's existence. This concept of kinship covers all the ways people locally constitute such mutual relations of being, whether by birth(consanguineally) or performatively(by marriage, commensality, gift exchange, adoption, etc); and whether as hypostasized in common substance or not." Abstract from Marshall Sahlins' lecture, The Social Sciences Faculty, University of Bergen.]

Knowing how to conduct oneself within these parameters is the mark of good breeding.

The life of the community or the Vanua is enhanced in ceremony and ritual, gift-giving and labour. The organisation of exchanges, as Hocart observed, "is not an administration, but a system of services and offerings, a network of paths followed by feasts, kava, and manufactured articles to the central god from the lesser gods, and back again." The cycle of gift-giving, the "economy of dispossession" guarantees the supreme good of the Vanua, *peace*, in Fijian, *Sautu*.

There are negative forces, of course, that threaten and disrupt these structures of equilibrium, that demonstrate the presence and fragility of goodness 28, forces from within and from the outside. This is important to keep in mind if we are to appreciate the vagaries of the Vanua in its historical existence. But what I am trying to draw as its essential features is an interpretation of constants over time, redeemed from the forces of decay.

And it seems to me, to many of us, that the recovery of the positive strengths of the Vanua might still be the way for our communities towards achieving equilibrium.

Perhaps there will be charges of romanticism against this effort. These charges will come from the new ideologies of globalization as well as from the forms of Christianity that assume the argument, once in the light, why return to darkness?

[Note "the dark, dark hills of her native summer" from the opening poem "Recall"]

In this argument our world, our history has only two colours - black and white. It never enters the minds of the pedants of ideology that what they want discarded might be a factor, a crucial factor, in achieving equilibrium in our societies. And I hope I am not too presumptuous by linking or lumping together under *pedants of ideology* the movers of current economic orthodoxy and those who preach a Vanua-less or culture-less Christianity. We know, of course, or at least we suspect, that to say Christianity (and for that matter any of the institutions or projects of our societies) should be free of culture, what is really meant is *free of the local* culture or the indigenous culture - the hinterland, the vanua. And if we realize that Christianity can never really exist without any culture whatsoever, we will immediately see that a choice has been made for the American or the French or the British or the global, or a mix of some sort. Rarely, if ever, in the history of the spread of Christianity and its presences has there been a moment when it was free of one form of culture or another. On the contrary the opposite might be more to the point.

There is perhaps a need to examine our epistemology for the tilt it may have. Each project is its own way of seeing, defining itself by its own or congruent order and design. It is possible that the project masters or carriers look but do not see. And what they find are objects which their own order of discourse defines.

Each project is a value project: Value (and judgement) is already embedded in its order and design. What it sees and knows is what it values and judges as worth seeing and knowing. There is need to explore and reflect on the measure of our seeing. The way we think already presupposes a value project. To say that we approach reality with a scientific objectivity to give the impression of universality and impartiality to our thinking is a flattering illusion, and we are blind to our exclusive, reductive undertaking. The Cartesian thinking project which I believe drives a lot of approaches can never give due recognition to what we know as our society and our lifeworld. It prevents in fact our critical appraisal of the project we invoke, undertake or assume. We must strive to establish our thinking on a broader, more encompassing, more humanising foundation to approach the real and the actual into freedom, and to counteract the forces of diminishment.

What is redeemable and capable of redeeming? The concept of **kalou** was already within the Vanua – spirit, not spirit only but as object of worship. But what were once known as '**kalou**' are now devils and demons. Kalou is now used for God. Was this God completely absent from the hinterland?

To itemize some of the positive features of the hinterland: the sense of the sacred which involves honour and respect of the other in space and time, and implies the recognition of the dignity of the person and the recognition of power that derives from the sacred domain. This will come to the fore in a model of Vanua as the prostrate/supine sacred personhood. The sacred body of the person lies prostrate within the dwelling, within the traditional village, along the geographical domain of the Vanua. From this derive the quality of humility, self-abasement, of 'empowering vulnerability'. [Bruggermann]

There is the sense of community and its "liturgical" 'economy of dispossession' in its understanding of gift and sacrifice. Catherine Pickstock, in her work, *After Writing. On the Liturgical Consummation of Philosophy*, says, "The liturgical gift of being –

like any gift – cannot, according to the dynamics of mundane acquisition, be simply appropriated. At the point when the gift is received, it must be handed on."

This paradigm is so well endorsed by another writer, the Italian anthropologist, Remo Guidieri, who, reflecting on "gift" in archaic society [the Vanua] speaks of "donum as such, not nexum as donum. The gift, in other words, as a non-instrumental act of renunciation; an act of abnegation, without strategy, without compensation or reimbursement, without, that is, the exchangist circularity which, in the Maussian hypothesis, reigns supreme: giving in order to receive."

Which is, I suppose, strange to what we have been led to believe, as the order of the day: the central value of the marketplace with its practices of exploitation, usury and profiteering, acquired by tactics and strategy. Guidieri goes on to develop the logic of pure giving:

Giving without profit is the definition of the gift: alienating something definitively without receiving anything in return except the attained effect: the recognition is not yet a debt. What is essential, in any event, is the renunciation with which the gift takes place.

Whenever I give the gift, I 'bind' him who receives it. The gift 'obligates' the one who receives it. This tie binds in mimetic terms. When I receive, I embrace the same attitude of radical estrangement from possession toward him who gives from which I have benefited, without any request for reciprocity. This type of receiving does not imply a return. I receive and I will attempt to give in the same way: the gift teaches the gift.

And there is the striving for the supreme good of Sautu, of peace.

There is this little Vision of Sautu :

Sautu reflects the encompassing concept of shalom/peace. When it is translated as "vakacegu" (rest) it highlights the aspects of labour and drivenness, oppression, servitude, fear, warfare, envy, greed, hatred, conflict etc that the community has been through. Sautu comes when the principle (spiritual and societal) of order reassert themselves or are aided by acts of reconciliation and love to reassert themselves. Then the human link to the spirit and person of the vanua and that very spirit are in harmony. The **head of the vanua** sits right as the sau, the energy and power of the vanua, courses through the land and the community. Sa tu na sau, sau rabu na vanua. (Tu na Sau, Sautu na Vanua).

Sautu is the supreme good in the Vanua. It is the enabling ground for cultural creativity, the time of plenty, the time when the land smiles on the community, the time of building, the time for the people's humanity to come into flower, when the vanua stands tall and allows the people to worship, to travel, to celebrate community and relatedness without fear.

It is the connection to the source of power, the spirit, that energises and makes the vanua fruitful. Right-connectedness and creative and loving relatedness are the conduit for blessedness –of peace, and all the levels of gift-giving and service. All members of the community share ; each one is called to carry out his /her portion of duties for the common good, and thereby confirm his/her commitment to the welfare of the vanua..

The bond that enables relatedness to come to flower is respect/ honour which is not just the passive deference one shows to a superior, but an active force that creates equilibrium even between unequals. When that respect is threatened, human dignity diminishes, and the sautu of the vanua itself is in question. When we lose respect, when honour fades, then all manner of indignity will flourish and possess the body of the vanua and the principles of order flag and the energies of chaos take over the central hearth, the prostrate sacred personhood is trampled upon, and chiefs forget their source of power in the sacred, and creativity spawns greed, violence and destruction. Then the principle of terror reigns. The totalitarian vision breaks through. And we know the rest of the story.

All this calls for the adoption of several forms of action based on an idea which was expressed in ancient Greece, and in the Upanishads and elsewhere, 47 but which is also recognizably Pacific, which is to say an idea for humanity. It is that leisure (peace, shalom) is the basis of culture. Stillness is the basis of vision. We want to create and express our Pacific humanity in that stillness, in the intimacy and honesty of our ongoing conversation.

The call for this zone of stillness is a call for justice also. Our obligation to account for the existence of our Hinterlands – our people. In that stillness we can recreate our story.

Let me end this part of the presentation with a few lines from 'A Letter to my Storyteller':

My audience at times walks well-trodden ways sharing those images or visions that help us feel the different spheres we traverse; at times it trembles at the edge, not knowing which way the stars (or demons) beckon. These are times when our many worlds collapse, our trivial fancies dislodge, as we resequence time and all our known events,

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and backwards is not always the negative step for a tale that we can all acknowledge, that we must all grow into.

Appendix 1

"Ours is no longer a tidy, hierarchically organized world of form and structure, but an age of fragmentation, bits and pieces, leftovers. Yeats was right; 'the centre cannot hold'. In an age of relentless consumerism and intense competition for scarce resources, polarization among peoples, cultures, and even religious communities escalates. Thus, even though economists and politicians today speak about globalization, and cultural analysts confidently predict a shrinking world in which distance and differences are overcome by the wonders of information technology, real divisions continue to grow, driven sometimes by economic conditions (e.g., the gap between the world's rich and its poor), and at other times by ideological or religious factors (e.g., the impact of fundamentalism in virtually every region of the world..." (p10-11)

"Ours is not a monocultural world that rises, treelike, from a single, unified root, but a multicultural one that erupts everywhere at once, like crabgrass in a lawn. In such a world, unity results not from denying cultural differences, still less from 'homogenizing' them, but from recognizing their importance, their distinctiveness, and their indelibility." (p.11)

Nathan D. Mitchell, *Meeting Mystery*. Liturgy, Worship, Sacraments. Maryknoll. New York: Orbis Books. 2006

Appendix 2

cf. Mikhail Bakhtin on "creative understanding"

"There is an enduring image, that is partial, and therefore false, according to which to better understand a foreign culture one should live in it, and, forgetting one's own, look at the world through the eyes of this culture. As I have said, such an image is partial. To be sure, to enter in some measure into an alien culture and look at the world through its eyes, is a necessary moment in the process of its understanding; but if understanding were exhausted at this moment, it would have been no more than a single duplication, and would have brought nothing new or enriching. Creative understanding does not renounce its self, its place in time, its culture; it does not forget anything. The chief matter of understanding is the exotopy of the one who does the understanding---in time, space, and culture---in relation to that which he wants to understand creatively. Even his own external aspect is not really accessible to man, and he cannot interpret it as a whole; mirrors and photographs prove of no help; a man's real external aspect can be seen and understood only by other persons, thanks to their spatial exotopy, and thanks to the fact that they are other.

In the realm of culture, exotopy is the most powerful lever of understanding. It is only to the eyes of an other culture that the alien culture reveals itself more completely and more deeply (but never exhaustively, because there will come other cultures, that will see and understand even more.)

[Mikhail Bakhtin,(1895-1975) in Tzvetan Todorov, *Mikhail Bakhtin* 1984]

Appendix 3

Models Approach:

- i. Vanua as Locus of Significance and Identity
- ii. Vanua as Pragmatic Socio-economic Unit
- iii. Vanua as Prostrate Sacred Personhood
- iv. Vanua as Vakaturaga Community
- v. Vanua as territorial ascription
- vi. Vanua as Enabling Environment and Enabling Referent of Gifting
- vii. Vanua as Source and Focus of Obligation
- viii. Vanua as Negative Force and Stumbling Block in Contemporary Determinisms
- ix. The Fragility and Delimitations of the Vanua
- x. Vanua as Stumbling Block to Christianity
- xi. Vanua and the Goal of Sautu

Appendix 4

"Christianity in Fiji is highly complex and multi-faceted. It may in fact be more accurate to speak of diverse Christianities... These Christianities are all different, yet historically and culturally interwoven and connected – at deep existential levels, in practice, in rhetoric, ritual and in terms of religious experience – with people's ideals and experience of what is traditional and what role tradition, traditional practice, the past and notions of change and transformation play in contemporary Fiji. These complexities reflect not only the entwining of the past in the present, but also the inevitable entanglement and representation of the local and the global." (Ryle, op. cit.)

Appendix 5

"Higher education is essential for any country to reach the necessary level of economic and social development and social mobility in order to achieve increased living standards and internal and international harmony and peace based on democracy, tolerance and mutual respect. At the end of the century, we reaffirm that the aims of higher education can be summarised as follows:

- to educate responsible and committed citizens, to provide highly trained professionals to meet the needs of industry, government and the professions;
- to provide expertise to assist in economic and social development, and in scientific and technical research;
- to help conserve and disseminate national and regional cultures, drawing on the contributions from each generation;
- to help protect values by addressing moral and ethical issues;
- and to provide critical and detached perspectives to assist in the discussion of strategic options and to contribute to humanistic renewal."

"While recognising that globalization and internalization are irreversible trends, support for these concepts should not lead to dominance or new forms of imperialism by major cultures and value systems from outside the region; rather, it is of vital importance that every effort should be taken to protect and promote the strengths of local cultures and intellectual and scholarly traditions."

(Declaration About Higher Education in Asia and the Pacific, Annex 3 Higher Education in the Twenty-first Century. Vision and

Action. Final Report, World Conference on Higher Education, UNESCO, Paris 5 –9 October 1998 p 57)

In the Preamble to the "World Declaration on Higher Education for the Twenty-first Century: Vision and Action" (1998) there is this statement and urgent call:

Higher education has given ample proof of its viability over the centuries and of its ability to change and to induce change and progress in society. Owing to the scope and pace of change, society has become increasingly **knowledge-based** so that higher learning and research now act as essential components of cultural, socio-economic and environmentally sustainable development of individuals, communities and nations. Higher education itself is confronted therefore with formidable challenges and must proceed to the most radical **change and renewal it has ever been required** to undertake, so that society, which is currently undergoing a profound crisis of values, can **transcend mere economic considerations and incorporate deeper dimensions of morality and spirituality**.

Appendix 6 (From a Silver Jubilee Public Lecture at USP 1993)

Therefore this dream: Of a School of Humanities in a university that is of the South Pacific to become the locus and inspiration for our other compulsions, of our urges 'to be', for significance other than. The University owes it to its Hinterland. Incidentally, the term used in our official documents for our various countries is 'catchment', a term that may tie in with an imperialist percept with its coastal clearing, that filters what comes into it and excludes the rest. I join this dream with Epeli Hau'ofa's which has pleaded for the belittlement of our spaces, our hearts and our minds, to stop. My dream – in fact the dream of many of us – that you have given the opportunity to voice, is that the reverse of belittlement will come about as we are allowed to reconstitute our whole selves, grope towards and celebrate the mystery of our Pacific humanity.

For those who regard us and our world as 'straightforward facts' do not see any mystery. They save themselves by their dedication to 'efficiency' and they want to impart this faith to us, We do not of course belittle this faith, but we have to find a place for it in the greater scheme that challenges us to explore, and celebrate – this Pacific humanity.

The School of Humanities is not itself unless it makes a greater commitment to this humanity, the same here as elsewhere, yet different. This difference is a real difference. It makes all the difference, pardon me. The imperialist project wants to do away with this difference. They do this in the typical Cartesian way. You assert a universal stance (a globalized stance) that we are all the same in order to remove 'incomprehensibility' and uncertainty – which is a threat to your straightforward thinking – and you deny that your stance has a socio-cultural context, which has, of course a history, a place, a language, a metaphysics and so on. That is the difference you denied, suppressed in that first assertion. But you have used all that in making the assertion.

And it is this difference which I regard as our Pacific humanity, and which many of us would want the University to take seriously, and the School of Humanities to realise in its educational program exploring together with the University's people and their Hinterlands. I dream of a greater commitment to the use and study of our languages. This is basic if we are to explore the riches of our humanity. This concern with our languages will go hand in hand with the arts involving language, the oratures, the literatures, the narratives, the poetry and song, the dance that modulates the song, seeking creative expression in old and new instruments of sound and rhythm, and all those strategies for effective, impressive, expressive, and ceremonial, ritual and social communication.

Our concern for literacy will be explored with the conveniently suppressed fact that our humanity has been configured and cadenced by our oral cutures.

We will not assume that we have developed in this area without coming to terms with this fact and its continuing contribution in our lives.

We have our histories, oral in the main, that this institution of learning does not know how to handle or perhaps to value.

We have our metaphysics, which the reductive utilitarian systems have tried to make us forget, which the reductive subject-object metaphysics has tried to supplant. I have heard the greater Cynicons among us deride our world of knowledge, our systems of thought, our cultural concerns, to deny the validity or the usefulness of it all. Derision is the imperialist clearing tool that will do away with uncomfortable incomprehensibilty.

Religion is woven into our systems – as the basis of our seeing, for the skills of living, for social awareness and community responsibility, for making life and the world comprehensible, for a broader referencing and response to the mystery of our being, to the riches of the mystery of our God. This will be crucial in the search and celebration of our humanity.

The fields of knowledge and modes of exploration will be central to a School of Humanities. Thanks to the imperialist expansion of the past we have in many ways assumed the knowledge and uses of other languages, literatures, philosophies, religions, and forms of art. It would be to the University's credit and our growth if our Pacific humanity takes its place in our common exploration.

There will also be the undertaking that we develop a language or languages and a structure for an ongoing conversation. We need to talk to each other in a 'utopia'46 - a free space for making and maintaining our humanity to the next century.

lan Gaskell

Tilting at Windmills

There are a number of ways we can respond to the catastrophe of global warming. We can deny it; we can passively accept it, either as God's will or in a spirit of cynical apathy—as in, 'there's nothing we can do about it'. We can weep or shout. We can come to academic conferences and talk about it. The danger in so much of the strident debate, whether scientific predictions of global catastrophe, scientific rubbishing of alarmist environmentalism, hectoring from the left, denunciation from the right, general admonishments about carbon footprints and the need to recycle and turn off the air conditioning is the danger of generating what has been called 'conservation fatigue' (Ladle, 2005: 238). Like the 'donor fatigue' that became associated with the various campaigns for famine relief, poverty reduction and disease prevention, 'conservation fatigue' is public disengagement based in part on scepticism and information overload. An alternative response to the issue of climate change, one which engages the human spirit and creates both a community of discourse and, perhaps through participation, a community of practice, is with art. One of the ways to counter 'conservation fatigue' is to laugh and have some fun.

In 2006, performance artist Torsten Lauschmann generated an internet hoax called World Jump Day. Adopting the persona of a 'slightly-dishevelled professor' called 'Hans Peter Niesward, from the Department of Gravitationsphysik at the ISA in Munich,' he suggested that 'we can stop global warming in one fell swoop -- or, more accurately, in one big jump' by recruiting '600,000,000 people to jump simultaneously on July 20 at 11:39:13 GMT in an effort to shift Earth's position' (Leo, 2006). With its t-shirts, downloadable 'jump song' and count-down timer, the website was a form of cyber installation that Lauschmann, according to Neil Mulholland, a reader in contemporary art theory at Edinburgh College of Art, 'thought would just circulate among friends, but it quickly seemed to morph. Within weeks it was global -- people in Australia were talking about it on the radio... The more it was discussed, the more people joined the site, and it crashed several times,' (Leo, 2006).

The response to the project took a number of forms. There were those who challenged the 'science'; those who feared the result; those who enthusiastically jumped, and those who, when it clearly emerged as a hoax, felt disillusioned. The project was obviously never conceived as achievable, but rather one that confirmed the value of 'shared experience'. It was 'something that people appeared to want to believe' and which, according to an interviewer, 'Lauschmann, allowing himself a wry smile, describes as "successful" (Peter, 2007). That success surely lies in Lauschmann's exploitation of 'the phenomenal viral capacity of the internet and a global audience's desire to find a common purpose', (Kay, 2008).

As a scientific parody Lauschmann's One World Jump is a carnivalesque response to the issue of climate change. Carnival, Bakhtin's theory, 'is a theatrics of rant and madness seeking to repair felt separation and alienation' (Boje, 2001:437). In the creation of World Jump Day we see the use of theatre (in this case, a form of cyber, street theatre) to parody and resist mainstream spectacle. Here one of the targets is surely a satire on the grand narrative of science. Changing the Earth's orbit, even tilting it slightly, is a pataphysical solution to controlling climate change.

Pataphysics, a word coined by Alfred Jarry, is the 'science of imaginary solutions' (Murphy, 2008:4). Revealed in this absurd, whimsical and comic project is not just 'a doubter's fascination with science's lofty structures' (Peter, 2007), but also a desire to create a sense of solidarity in the face of a seemingly unwinnable struggle.

As a form of resistance the project suggests the four themes associated with carnival (Boje, 2001:438). At the heart of carnival is the theme of 'the tumultuous crowd', represented here by the anarchic image, if not the actuality, of six hundred million people laughing and jumping at the same time. It can be likened to a big party, a happening, a flash mob. The theme of 'the world turned upside down' refers to the inversion of established order as exemplified in the medieval Feast of Fools and the boy-bishop. Here it is figuratively expressed as actually shifting the world a bit. But the idea of getting six hundred million people to do anything in concert seems revolutionary, anti-authoritarian and disruptive. The theme of 'the comic mask' emerges in the obvious humour that lies behind the project, where comedy is seen as a species of the ridiculous. Finally, the theme of 'the grotesque body' is reflected here not as the traditional padded buttocks and donned phallus, but perhaps in the graceless, spastic gyrations of the jumping multitude-Bergson's 'the mechanical encrusted on the living'. Lauschmann's project was clearly transgressive and irreverent. It turned its participant/spectators into spect-actors, Augusto Boal's coinage to describe the audience that participates in the action (Boal, 1992:xxiv).

As a form of virtual street theatre, a theatre without edifice, artistic framing or separation of audience and spectator, it implicated everyone in simultaneous performance, observation and celebration. The project accomplished one of the goals for carnivalesque demonstration, namely to 'open a space for collective and individual Do-It-Yourself creativity' (Bogad, 2006:52), where the space could be both public and private, real and imagined. Although the action produced was obviously futile in terms of global warming, as a form of community creation, it was positive; while it appeared to trivialise the issue, it also, as carnival, had about it a spirit of festival and an element of empowerment.

Inspired by Lauschman, the play, *One, Two Three Jump!*, presented at the OIS Conference was written and first performed in 2006 as part of a course in applied theatre at the University of the South Pacific (Gaskell, 2006). Applied theatre is theatre used for instrumental purposes. These purposes are usually associated with the dissemination of knowledge, and the changing of attitudes and behaviour. Raising awareness about certain social and environmental issues, either in a didactic agit-prop mode or through participatory conscientisation, is central to its operations (Mda, 1993). But actually determining the effectiveness of applied theatre in addressing these issues is problematic.

Obviously, any instrumentalism in the play derives not from presenting any practical solution to the problem of climate change but rather from its attempt to represent the awakening of a sensibility to the issue. Building on Lauschmann's absurd pataphysical premise that we can reverse global warming by moving the earth slightly away from the sun, the play explores the idea from the perspective of two individuals, a Fijian and an Indo-Fijian, who move from apathetic and cynical musings about the problem of climate change to an attempt to do something about it. And it is this reduction of a massive and seemingly insurmountable global problem to an individual level that actually dramatises the potential efficacy of art in addressing environmental issues. The value of art, as opposed to scientific data or government reports, in confronting social problems lies in its capacity to engage on a human and personal level (Miles, 2010:30). As a form of rhetoric, applied theatre is intended to be persuasive. Classically, this involves appeals to logic, character and emotion. Modern rhetoric, like that of Kenneth Burke, is the establishing of identification as a means of symbolic inducement. He calls this the creation of consubstantiality and it has the function of forming a community of belief and action (Burke, 1969:55). Any piece of theatre tends to be community-forming, at least for the duration of the performance. The play attempts to capitalise on this by employing a participatory approach, inviting (or dragging) audience members on to the stage to rehearse the global jump. When, to their astonishment and alarm, the act of jumping in unison actually works, instantly and dramatically causing the temperature to plummet, the same group is called back on stage to correct the problem by collectively pulling up on imaginary trees to restore the Earth to its former orbit. Audience participation does create a sense of consubstantiality and community, which tends to offset a problem inherent in artistic responses to social issues: namely, that art has a tendency to distance its content and thus generate familiarisation toward those issues (Miles, 2010:32).

To call a creative response to the climate change controversy 'tilting at windmills' is to admit to certain ambivalence about it all. If by the phrase we mean fighting a futile or losing battle, then we suggest that the problem of climate change is so enormous that the individual is powerless to effect any kind of positive result. If the two characters in *One, Two, Three, Jump!* learn anything from their encounter with the massive problem of climate change, perhaps it lies in small, incremental solutions like the necessity of recycling.

If by tilting at windmills we mean fighting an imaginary enemy, then we acknowledge the contentiousness of the ongoing politicized debate between the environmentalists and the climate sceptics regarding the scientific legitimacy of climate change (Ladle, 2005). If the pro-business right wing characterises its environmental opponents as 'eco-Nazis', the left-wing environmental activists denounce the corporate world as cynical and hegemonic. But the debate has surely resulted in a changing global sensibility toward environmental concerns (Moriarty, 2004), to the extent that some of the apparently unassailable corporate giants have figuratively disguised themselves, in a Debordian spectacle, as environmentallyfriendly windmills. Ironically, as a creative response to climate change, the cynical, exploitive marketing strategies that employ green-themed advertising are not only highly creative, they might also be more efficacious, not just in reinforcing the change in society's attitudes to environmental concerns, but also in actually reducing our carbon footprint, than painting a picture, writing a poem or performing a play. Boal, A. (1992) *Games for Actors and Non-Actors*, trans. Adrian Jackson, London & New York: Routledge,

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ONE, TWO, THREE, JUMP! (The Global Warming Play) (based on Torsten Lauschmann's World Jump Day) by Ian Gaskell

(A Fijian man, Apete, saunters in SL and stands C staring vaguely out at the view. After a short pause an Indo-Fijian, Shailesh, enters SR. He, too, is in no particular hurry. He joins Apete, looks at the same view.)

(After a longish silence)

Apete: Morning Shailesh

Shailesh: Morning Apete

(Long pause, Shailesh, yawning, running finger around collar, unsticking shirt from back)

Shailesh: It's hot.

Apete: Mm...

(pause)

- Shailesh: Hotter than yesterday
- Apete: Uh, huh.

(pause)

Shailesh And yesterday was hotter than the day before yesterday

Apete: Yep...

(pause)

Shailesh:	The day before yesterday was hotter than the day before that
(pa	use)
Apete:	(looks at Shailesh) So what are you saying?
Shailesh:	I'm detecting a trend
Apete:	(a question, but downward inflection) A trend
Shailesh:	When I was a kid it wasn't this hot
Apete:	(considering) It was cooler
Shailesh:	That's what I'm saying. It was less hot
Apete:	More cool
(<i>a</i> 1	take to each other, pause)
Shailesh:	Global warming
Shailesh: Apete:	Global warming What?
	0
Apete: Shailesh:	What?
Apete: Shailesh:	What? It's the result of global warming
Apete: Shailesh: (pa	What? It's the result of global warming <i>use</i>)
Apete: Shailesh: <i>(pa</i> Apete:	What? It's the result of global warming <i>use)</i> <i>(understanding)</i> AhhhThat's the trend

Apete:	The Americans say global warming hasn't been proved.
Shailesh:	Well, they would wouldn't they. They refused to sign the Kyoto Accord and they were useless at Copenhagen. No, no, it has been proved. The scientists have proved it.
Apete:	Which scientists?
Shailesh:	Lots of them. It's now accepted as a scientific fact.
Apete:	How have they proved it?
(pause	<i>)</i>)
Shailesh:	(<i>making it up</i>) They have instruments scientific instruments
Apete:	Yeah? What kind of instruments
(pause	
Shailesh:	Things that measure the temperature They haveThey have a really big thermometer
Apete:	A thermometer
Shailesh:	Yes, a gigantic thermometerenormous
	(pause) It's a rectal thermometer.
Apete:	A rectal thermometer
Shailesh:	Yes, a rectal thermometer. They're more accurate.
Apete:	More accurate than what?

Shailesh:	More accurate than the regular kind of thermometer They <i>(beat)</i> insert the rectal thermometer into the earth in just the right place <i>(beat)</i> if you get my meaning.
Apete:	Where would that special place be, do you think?
Shailesh:	Probably somewhere near Labasa
(paus	e)
Apete:	That makes sense
Shailesh:	Yeah, have you ever been to Labasa?
Apete:	Yeah
Shailesh:	So, you know what I mean
Apete:	Yeah
(paus	e)
Shailesh:	It's a global problem, the warming
Apete:	RightMelting ice capsoceans rising <i>(gesturing to the ocean)</i> how does it look to you today?
Shailesh:	Higher. <i>(pause)</i> You know in Tuvalu they're all standing waist deep in waterTheir arms are getting tired
(paus	e)
Apete:	Why are their arms getting tired?
Shailesh:	From holding up the picnic baskets

Apete:	Why are they holding up picnic baskets?
Shailesh:	To stop the sandwiches from getting soggy there's nothing worse than a soggy sandwich
Apete:	Yeahso, Tuvalu is a really bad place for a picnic
Shailesh:	Almost as bad as Labasa
(joi	int amused reaction, pause)

Apete:(resigned) Well there's nothing we can do about
it. What can one person...or even two people...
do about global warming?

(pause)

(a look of concentration comes over Shailesh's face. He's thinking Crosses below Apete, looking up at the sun. looking out, thinking hard)

Shailesh: (slowly, deliberately, thinking as he speaks) Wait a second....I have an idea forming in my head. (looks up at sun which is above and slightly to the left and down at the ground, and back again, uses hands, measuring the distance.) Maybe, just maybe. (Reaches into pocket and pulls out lighter, stares at lighter, ignites it and looks up at sun. Staring at the lighter in his left hand, he reaches out with his right hand and says...) Give me your hand. (Apete, somewhat reluctantly holds out his hand. Shailesh grabs his wrist and slowly, very slowly brings Apete's hand and the lighter closer, and closer together. Staring at the diminishing space between the two objects in his hands, he says, with fascinated intensity...) Notice how, as your

hand gets closer to the flame, you start to feel the heat

(fairly alarmed) Yes Apete: Shailesh: (bringing them still closer) And how it gets hotter and hotter the closer you get? Apete: (now, very worried) Yes (moving the hand and the flame further apart) Shailesh: And how, when they move apart it feels cooler? (quite relieved) Yes Apete: Shailesh: (very excited) So, don't you see? The flame is the sun and your hand is the earth. Apete: Umm...no, I don't get it. Shailesh: (not listening, back to the big idea, looking somewhat crazed, staring out at a vision in his head, speaking rapidly) Maybe I'm crazy, but I think this might just work ... Ok, try and keep up with me here.... we can't do anything about the sun... it's hot and too far away...but the earth, we're right here and if we got enough ... (takes out mobile phone) ... calculator, calculator...got it...what's the weight of the average person ...? ... quick, quick... (mystified, but trying to help) Are we including Apete: the Tongans? Shailesh: Yes

Apete: Maybe...I don't know ...about 70 kilos?

Shailesh:	(furiously pressing buttons) Ok, ok and figure
	that each person takes up aboutwhat do
	you think? Two cubic metres?Soif my
	calculations are correct,and we got enough
	peopleand all those people jumped at precisely
	the same time, then maybe, just maybe, we could
	actually change the orbit of the earth a tiny bit
	and move it slightly away from the sun (stops,
	astonished at his own conclusion) making the earth
	a bit cooler

(pause)

Apete:	(slowly, recapitulating in an attempt to grasp the
	idea) Let me get this straight. You want a whole
	bunch of people to jump at the same time, so
	that the earth moves away from the sun a little
	bit

Shailesh: *(still astonished)* Yes

(pause)

Apete:	Sohow many people would that take?	
Shailesh:	<i>(absently, glancing down at the phone calculator)</i> 600 million	
(p	ause)	
Apete:	600 million people?	
Shailesh:	More or less but no one under the age of <i>(makes some calculations)</i> seven	

(pause)

Apete:	(sarcastic) Is there an upper age limit?
Shailesh:	<i>(ignoring him, bubbling with enthusiasm)</i> I can't believe no one has thought of this before. It's so simple. That's it; the really great ideas are all simple
Apete:	<i>(somewhat less enthusiastic)</i> So, getting 600 million people together to jump at the same time is your idea of simple
Shailesh:	<i>(brushing away the difficulties)</i> It would be fantastic; like Live Aid or that other thing that Bob Geldoff did. He got a knighthood. <i>(rhapsodizing, possibly pacing)</i> It would be all the people gathered together in peace and harmony to make the world a better place for you and for me.
Apete:	<i>(more sarcasm)</i> Would you be providing lunch, do you think?
Shailesh:	(to himself) International cooperation!
Apete:	<i>(actually thinking about the details)</i> Toilet facilities
Shailesh:	<i>(to himself)</i> Finally, people making something happen !
Apete:	<i>(to himself)</i> How could they all jump at the same time?

Shailesh:	(to himself) Making a difference!
Apete:	(to himself) A big sound system?
Shailesh:	(to himself) Solidarity !
Apete:	(to himself)) Security !
Shailesh:	Sir Shailesh Lal !
Apete:	(to Shailesh) Excuse me, Sir Shailesh How would you get them to all jump at the same time?
Shailesh:	What?
Apete:	How would you get them to all jump at the same time?
(pause,)
Shailesh:	<i>(dismissive of the irritating details)</i> Well, you know, whatever On a count of three, probably.
Apete:	On a count of three.
Shailesh:	Yes, you know one, two, three, jump!
Apete:	Oh. <i>(pause)</i> Do you think we should practise it before we gather the multitudes?
Shailesh:	<i>(humouring him)</i> Sure (<i>graciously</i>) Hey, would you like to do the count?

Apete:	(quite overcome by the honour) OhwellI
Shailesh:	<i>(gesturing)</i> Imagine them all, the multitudes, all looking at us
	(They get into position side by side. A bit of flexing, deep breathing, voice work from Apete. Shailesh waving to the imagined crowd, picking out a few friends in the multitude like a lounge singer)
Apete:	(stage whisper) I'm a bit nervous
Shailesh:	(stage whisper) You'll be fine
Apete:	OK, Ready?
	(They crouch a bit)
Shailesh:	This is exciting isn't it?
Apete:	One, two (<i>pause</i>) What if we get it wrong, this is a big responsibility.
Shailesh:	How can we possibly get one, two, three, jump wrong?
	(They reassume the crouching position)
Apete	One, two, three, jump!
	(They get it wrong. Apete jumps on "jump"; Shailesh jumps after "jump". They look at each other)
Shailesh:	We're supposed to land together

Apete: *(Trying to work it out)* Was that "one, two, three, jump" and we jump on "jump" or was it "one, two, three, jump" and then we jump?

(They have a bit of a think)

Shailesh:	What do you think?
Apete:	I think we should jump on "jump".
Shailesh:	Right. OK.

(They prepare)

- Apete:One, two, three, jump! (they jump, on "jump",
landing together) Yesss! Okay! Bring on
the multitudes. (wanting to high five or something)
- Shailesh:(who has noticed something) Wait a second. The
sun is actually over there a bit (pointing up and
left) We have to jump a bit to the right. (He
is now gesturing diagonally from sun to ground)
Otherwise we'll be sending the earth in the
wrong direction

(They try it a few times, jumping diagonally on Apete's count. Apete perhaps confused between left and right, bumping into each other, some stepping on feet, etc. gradually moving SR)

Apete: OK, I think we've got it. Hey you know what would be good. Let's try it with a few of these people. *(to the audience)* Hi there. We'd like few volunteers.

Shailesh:	<i>(to the audience)</i> It's for a scientific experiment. You'll be helping to save the world
Apete:	And make it a better place for you and for me
tog de he ga ar oti au di ba (A	With the usual blandishments e.g. we need to work gether on this, stand up, make a difference, everyone's pending on you, you're prepared to talk about it, but rre's a chance to actually do something useful, this isn't a time this is serious, etc., they get some audience members, range them in a line, Apete at one end, Shailesh at the her facing each other, audience members facing rest of udience. They get them jumping in unison somewhat agonally. Lots of coaching, threats to send certain people tack to their seats if they get it wrong, etc.) At an appropriate point after the audience members have one it several times quite well)
Shailesh:	Hold it! (<i>pause</i> , crossing down centre below audience victims, joined by Apete) Have you noticed something? (<i>pause</i>) Is it my imagination, (<i>bea</i> t) or does it feel slightly cooler to you?
Apete:	<i>(alert, aware, testing the air, checking his armpits)</i> You know, it does feel a bit cooler.
Shailesh:	(bewildered) How could that be?
Apete:	(concerned for his sanity) Maybe we're delusional
(st	light pause, small take)

Shailesh:	No, no I sense a change! It's definitely cooler
Apete:	Well <i>(looking back at audience victims, then out)</i> they're a fine bunch, but hardly a multitude. (<i>beat</i>) You said 600 million.
Shailesh:	Well, I've never been good with maths
Apete:	Now you tell me
(They pace back and forth, below the on-stage audience members crossing each other and returning)	
Shailesh:	<i>(thinking, seeking an answer)</i> Perhaps it was done with the right energy, or spirit, or perhaps they're special people, or maybe it happened at just the right, precise moment in Earth's orbit around the sun
Apete:	<i>(thinking)</i> Maybe it's because we did it so many times in succession
Shailesh:	Huh?
Apete:	It could be cumulative
(pause)	
Shailesh:	(triumphant) Eureka! I've got it! It's chaos theory
Apete:	Chaos theory?

Shailesh:	Yes, you know a butterfly flaps its wings in China and three months later there's a cyclone in the Pacific. Tiny cause—big effect. (They each peel up to stand on either side of the jumpers. Pointing to the group on stage) Tiny cause (Pointing at the sun) big effect (Holding hands with the group). Everything's connected.
Apete:	Amazing!
	(They call for a big round of applause, thank the individual audience victims, big handshakes, lots of "you really made a difference, the world owes you big time", etc. sending the victims back to their seats.)
Shailesh:	Wow so, how do you feel now, eh?
	(pause)
Apete:	Actually, I'm feeling a bit chilly
Shailesh:	Now you mention it <i>(small pause)</i> it's actually quite cold. <i>(beat)</i> Talk about a temperature drop.
	(They do a slow take with each other, then out)
	(simultaneously)
Apete &	Shailesh: Uh oh!
	(They look up at the sun)
Shailesh:	Does it look further away to you?

Apete: Yep

Shailesh:	What are we going to do?
Apete:	I'm thinking about going home for a cardigan
Shailesh:	For God's sake, man! We've moved the Earth too far. We're all going to freeze. It'll be another ice age.
Apete:	Well, it was your idea
Shailesh:	We need a solution. This isn't about blame
Apete:	Tell that to the police
Shailesh:	There's got to be something Wait a moment, (<i>the big idea forms</i>) I've got another idea
Apete:	(sarcastically) Ohgood
Shailesh:	Imagine a globe. What's directly opposite to Fiji on the other side of the world? <i>(thinking hard)</i>
Apete:	(elsewhere) I think I just saw a snow flake.
Shailesh:	Got it! I was always good at geography
Apete:	Better than your maths, then
Shailesh:	(pulling out phone) It's got a note pad built in.
Apete:	You're going to take notes?
Shailesh:	<i>(very pleased with himself)</i> I downloaded a list of all the country codes

Apete:	Wow that's really (small take to audience) convenient
Shailesh:	Just for emergencies, you know.
Apete:	This qualifies
	(Shailesh frantically works his phone, while Apete walks around flapping his arms for warmth, blowing on fingers, rubbing arms, etc.)
Shailesh:	Yes there it is Ok international code country code umm operator, I guess
Apete:	Wow I've never seen snow before
Shailesh:	(excited) It's ringing! Yes um (beat) Bonjour! (very broken, anglicised, with explanatory gestures) uh je voudrais que toute la monde là(to Apete) what's jump in French? (getting no help) jumpez à le même temps tout ensemble (pause). They hung up. So much for international cooperation.
Apete:	Maybe they were depressed about the World Cup again Perhaps you should have asked them to all simultaneously boycott each other
Shailesh:	Well, at least we know where the enormous rectal thermometer is.
Apete:	What about the Americans?

Shailesh:	No, they'll be happy because they all secretly own stock in British Petroleum. Even as we speak, oil prices are going up around the world. The Americans won't help unless it's in their interest. They're the chief cause of the problem in the first place—fossil fuel- dependent. Anyway, they're in the wrong place; they'd just push us sideways.
Apete:	We could harpoon a few whales as a good will gesture to the Japanese
Shailesh:	Sideways in the other direction—same with the Chinese. No, it's got to be Europe
(Pa	ause)
Shailesh:	<i>(breakingdownintears, collapsinginaheapofmisery)</i> It's all my fault. I didn't think it through
Apete: (cr	cossing to him, comforting) There, there
Shailesh:	I'm so cold
Apete:	<i>(thinking hard)</i> Wait a second I have an idea forming in my head <i>(suddenly energised)</i> Get everyone back on stage. It's Plan B.
	hey round up the audience victims again, with lines like 's all your fault anyway")

OK, everyone go to a tree

(The audience victims are directed by Apete to imaginary trees, unless, of course, the performance is taking place in a forest clearing with actual trees nearby)

Shailesh:	<i>(manic)</i> Yes, yes, we'll chop down the trees, make a big bonfire, get warm. Maybe we'll produce enough greenhouse gas to start warming the earth again
Apete:	<i>(in passing while he is organising the on stage audience)</i> No, Shailesh. The trees are our friends. They help the environment. <i>(to on-stage audience)</i> OK everyone grab their trees.
Shailesh:	<i>(manic)</i> Yes, yes, that's it. Hug the trees. Hug the trees. The outpouring of love will warm us from within
Apete:	<i>(joining Shailesh DC)</i> No, here's the idea. Maybe we can pull the earth back up to its proper place. (<i>to the on-stage audience</i>) OK, everyone crouch down, all together now, on three. One, two threeLIFT!
Shailesh:	That's brilliant.
Apete:	Well, all the really great ideas are simple
Shailesh:	I'll count. You stay here to see if it's working
(Shailesh runs up stage)	

One, two three LIFT! ... (*shouts to Apete*) Anything?

Apete:	I'm not sure, try it again
Shailesh:	One, two three LIFT!
	(pause, Apete testing the air)
Apete:	I think it's working! <i>(pause)</i> Yes, definitely. I think we're almost there! Try it one more time!
Shailesh:	Ok, everyone together. We can do this. One, two three LIFT!
	(suspenseful pause)
Apete:	YES! YES! We've done it!
	(Much enthusiasm, hugging and congratulating the lifters. Asking for another big round of applause for the lifters. Repeat the thanking routine, e.g. "not often you get to save the world twice" etc. getting audience back to seats)
	(Apete and Shailesh centre)
Shailesh:	Well, it's been an interesting morning.
Apete:	Yes
Shailesh:	Do you think we've learned anything?
	(pause)
Apete:	Climate change is difficult to control?
Shailesh:	Maybe we need to think it through a little better.

Apete:	I liked the bit where everyone worked together
Shailesh:	Yes perhaps if we moved forward together one small step at a time
(slight)	pause)
Apete:	One small step for man—
Shailesh:	—One giant jump for mankind
(pause))
Shailesh:	So, same time tomorrow?
Apete:	Sure
Shailesh	<i>(as he crosses right to exit)</i> What's the topic for tomorrow?
Apete:	(as he crosses left to exit) Recycling
(They e	exit)

THE END

Dr Karin Meissenburg

Performance and Launching of Pele's Tsunami

PELE'S TSUNAMI, [C] CATH KOA DUNSFORD, GLOBAL DIALOGUES PRESS, 2010. ISBN 978-0-9582453-9-5

ula vinaka vaka levu and thanks to the conference director, Dr Mohit Prasad and the previous publisher of the Cowrie novel series, Dr Susan Hawthorne of Spinifex Press. While Cath Koa had written the first draft of Pele's Tsunami before this climate change conference was conceived, it is indeed extraordinary how the themes of the conference echo so creatively the kaupapa of Pele's Tsunami. Cath Koa and I were impressed with the writing and work of Mohit Prasad when lecturing with him at the first ever conference of writers in the Asia Pacific region, where Cath Koa was a keynote speaker. I first met Dr Susan Hawthorne at the Frankfurt Bookfair, where Spinifex Press had amazing success in selling the rights of the Cowrie novel series into both German and Turkish language editions. I was fortunate to be chosen by the first German hardback publisher, Rogner and Bernhard, to be the translator for the Cowrie novel series. When asked to translate the novels, I replied, "It'd be like translating my own books." I felt deeply connected to the books' themes. That began a lifelong relationship with the author Cath Koa and twelve years of travelling and performing from the books globally. Some of this is captured, alongside critical responses to the novels and a German Master of Arts thesis on them, by Nora Neumann, in Talkstory: The Art of *Listening: Indigenous Poetics and Politics in Cathie Dunsford's Books*, also by Global Dialogues Press.

Cath Koa's books are never just about a protagonist's personal journey or an individualistic philosophy. Her themes reflect her passionate commitment to the issues she has covered in the novels, from protesting against nuclear testing in the Pacific, reclaiming land rights for indigenous tangata whenua globally, speaking out against genetic engineering and fish farms that poison the seas, to providing indigenous models for more sustainable lifestyles for us all. Cath does not just write about these issues. She has a history of protesting on the streets and seas and much of her inspiration comes from personal experience combined with visionary politics and ideas.

I think some of this is reflected in her book dedication to *Pele's Tsunami* and I would like to read this today as many of the people to whom the book is dedicated will be here at this vital fono:

Pele's Tsunami is dedicated to all people globally who are working towards solutions for climate change mitigation but in particular to those in the Pacific Islands who are finding creative solutions that help. I'd especially like to thank those in Tuvalu who dreamed up the King Tides Festival to alert the world to the sinking islands in the Pacific, Women in Business in Savai'i, Samoa, who are working towards sustainable solutions for their people, the Pacific Voyaging Society and all the vaka builders who have carved waka for the Pacific voyage to strengthen Pacific alliances and publicise climate change issues in our region. I'd also like to thank Robert Oliver and his team for affirming the importance of returning to our traditional Pacific foods, grown organically, for a sustainable future, Makerita Urale and Anton Carter for Artspeak Pasifika

2010, where these issues could be debated among our Pacific arts communities, and Mohit Prasad and his team at the University of the South Pacific, Suva, Fiji, for organising the Oceanic Conference on Creativity and Climate Change, Sept 2010 and inviting artists as well as scientists to contribute to finding solutions for the impact of climate change on our Pacific Islands and globally. The first edition of *Pele's Tsunami* will be launched at this conference.

I'll give you a brief author biography here and you can later read this in the conference programme: Cathie Koa Dunsford [Te Rarawa/ Ngapuhi/Hawai'ian/Croatian] is author of 23 books in print and translation in USA, Canada, UK, Australia, New Zealand, Germany and Turkey, including the popular Cowrie novel series featuring strong tangata whenua and eco-activists from the Pacific region. She has taught Literature, Creative Writing and Publishing at Auckland University since 1975. Dr Dunsford is director of Dunsford Publishing Consultants, which has brought 197 new and award winning Pacific authors into print internationally: www.dunsfordpublishing.com Cath is recipient of two major literary grants from Creative New Zealand Arts Council and was International Woman of the Year in Publishing in 1997. She is on the Board of the Asia Pacific Writers' Network and recently taught workshops at Artspeak Pasifika, 2010, funded by CNZ, NZ Arts Council. Cath Koa has performed her work at the Frankfurt, Leipzig and Istanbul Bookfairs. A documentary of her work has been directed for Maori Television by Makerita Urale. She tours the world performing from the books with traditional Maori waiata and taonga puoro.

As is traditional at our performance readings, Cath Koa will now begin with a powhiri or welcome and then we'll take you on a journey through the themes of *Pele's Tsunami* we felt most relevant for this conference. While we are concentrating here on the issues, please be assured that the book is spiced with exciting relationships, hidden love affairs, daring and subversive politics, mythology and mo'olelo or storytelling that link us all as tangata whenua on this planet. We do not wish to give away the plot here so will concentrate on the issues so you can read the spicy bits later! However, I will read a brief outline here from the back cover of the book:

Koana has organised a Talkstory, Mo'olelo Festival ["to let the spirit fly between people"] with indigenous storytellers from around the globe meeting in Hawai'i. The theme of the festival is stories that celebrate past wisdom but also preview the effects of climate change on island nations of the Pacific. But they are challenged by US climate change deniers living on Maui. Who will survive Pele's Tsunami when it comes? This empowering novel reinforces the potential of people to find creative solutions to climate change that are in tune with their ancestral beliefs. It is a model for Kaitiakitanga, looking after the land and people and living sustainably so that all benefit from these practices. It is a waiata, a song of redemption.

[Cath Koa plays conch shell and launches into powhiri [Maori welcome]. Performance reading by Cath Koa Dunsford with traditional waiata, karanga, karakia, a karanga composed by Cath Koa and ocarina music composed and played by Karin Meissenburg. See Conference dvd for full performance]

Back Cover of Pele's Tsunami:

Critical responses to previous books in the *Cowrie* novel series [published in USA, UK, NZ, Ireland, Australia, Canada and in translation in Germany and Turkey – www.spinifexpress.com.au]

If *Cowrie* is about discovering personal strength, it is also about strengthening the bonds between Pacific peoples, and so celebrates our lands. Much of the writing describes the power of Hawai'i's volcanoes, the glories of eating fresh fish and fruits, the beauty and bounty of the sea and of course women's generous bodies–Keri Hulme – Booker Prize, *the bone people*.

There is freshness, humour and honesty in the writing. Above all, there is beauty in the sea imagery that permeates the novel. It is related to Cowrie's belonging to a Turtle totem that embraces her Hawai'ian as well as Maori roots – *Canberra Times*.

The magic and spiritualism that Dunsford has woven into her story took over and I was left feeling entranced by the poetry of the book. Keri Hulme obviously loved it - *Sunday Star Times*

To read *Cowrie* is to undergo a psychological process while simultaneously enjoying a superbly crafted work of art. The powerful dialectic between creation and destruction finds expression in the image of the ocean wave and water all the way through the story, bringing a certain rhythm and rising fear to the fiction. The turtle woman who rides the ocean wave is the central mythical figure in the story the symbol of Cowrie's quest for origin and freedom. Pele, the Volcano Goddess, blazes a trail through the fiction. The story is laced with her fiery atmosphere. Questions of personal and cultural identity are couched in the luxuriant narrative, which centres on vivid descriptions of the Big Island of Hawai'i. It is deliciously descriptive, generously concerned with the juice and taste of food and the warm and sensual flesh and muscle of people's body and lives. It is gorgeous to read—UK Literary Critic, Sara Fuller Sessions, US Review of Books, *2SER FM Sydney*. Lingikoni Emelio Vaka'uta

Oceans, Islands and Skies: An Art Exhibition on Creativity and Climate Change

Curatorial Statement.

his exhibition was organised as part of the creative expressions component of the conference on "Oceanic Creativity and Climate Change: Oceans, Islands and Skies", hosted by the Faculty of Arts and Law at the University of the South Pacific, (USP), in September, 2010.

Climate change has been a major debating issue around the world through academia, conferences and political forums, and in the Pacific, around the Kava bowl. Some of those discussions may be limited to what Pacific peoples have seen and experience in their daily lives.

As Island dwellers, we can see the immediate effect of climate change in the ever slow but persistent rising of the sea level that has eroded land on our coasts and low lying atolls. In some instances, communities and villages in Pacific Island Countries have had to be relocated because their land (fonua/fanua/vanua) has either partially or completely submerged or been claimed by the sea.

Few of our people really understand the causes of climate change with some being completely unaware of the risk it poses to their survival and livelihhood. Kava bowl conversations have even been known to attribute these causes to superstitions or an act of god. With most artists in our Islands, art production is their main livelihood, so the challenges was not only curating the Space and artworks but curating the artists as well. Participating artists were left to interpret the theme in their own visual presentations. These visual forms included photography, posters, paintings, drawings and installations.

The installations were exemplified through works such as renowned local artist, Mr Craig Marlow's Tree of Lost Soles; a remembrance and tribute to vanua of Viti and Rotuma, its people and the delicate balance its have with the environment and the consequences of climate change.

The installations by the young artists, Jeke Lagi, Waqa Vuidreketi and Irami Buli and Olando Turner were interactional pieces that recognise the traditional knowledge system as warning signs for on-coming natural catastrophes.

The show also exhibited many emerging artists from Fiji and works from the States by Dan Taulapapa McMullin and Dr. Cath Koa Dunsford from New Zealand. Some of the works shown were from young artists from Tonga who had participated in a similar workshop; Ko e ngaue 'a tangata pea 'oho mai 'a Natula (The Work of man and the assault of nature) in July 2010 as part of the Kava Kuo Heka Festival.

Overall, the creative responses by these artists as part of the conference collectively confront, challenge and ask questions; What is climate change and its effect on us as oceanic people? What do we do? And where do we go from here? The intention is not only engage artists and community but to create conversations, dialogues, awareness, formation of ideas, whether it be a virtual one or reality. In this way perhaps we will find a brighter collective future for our island nations.

AN ART EXHIBITION ON CREATIVITY AND CLIMATE CHANGE

Lingikoni Emelio Vaka'uta Curator

Artist: Pita Waqanui



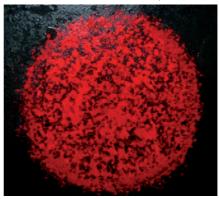
Artist: Tomasi Domomate



Artist: Jeke Lagi



Artist: Waqa Vuidreketi

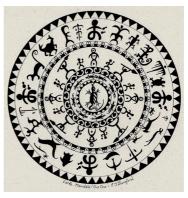


Dr Cathie Koa Dunsford

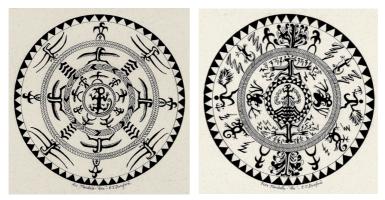
THE EMERGENCE OF THE MANDALAS: HAWAI'I— AOTEAROA



001 Watrer



002 Earth



005 Air



Mandala—Fire Mandala—Earth Mandala—Water ir Mandala Limited Edition hand-numbered prints on Larchival paper—Cath Koa Dunsford. The mandalas were first exhibited in New Zealand at the Ko Ahau Exhibition curated by Marion Evans at the Dunedin City Art Gallery and have since been exhibited and sold on international book tours and in galleries throughout the globe. The Hawai'i-Aotearoa mandalas were conceived on an intense inner journey. I was living on the Big Island of Hawai'i, Pele's home, and went on a vision quest to get beyond the need for words in our communication. As a writer, artist and academic, I wanted to explore the inner images of my ancestral home. Meditating and exploring the wilderness, I discovered ancient rock carvings which reminded me of similar etchings I had seen on cave walls in my native home, Aotearoa. I began sketching the shapes in my dream journal. From that point on, the shapes and figures-often half bird or animal and half human-came to me in dreams and told me of journeys and connexions they had made. I became fascinated in the characters. I discovered more figures and journeys, asked Hanoa where I could find further rock carvings, and tramped miles to get to them. They became a magic story circle - and I slept and meditated at these sites, breathing in their ancient energy. It was a powerful time of inner dreamscape.

Weeks later, back in my retreat amidst the lush tree ferns and aqua waters of Tawharanui, Aotearoa, I again dreamed of these carved figures who took flight and went on journeys, taking me with them.

But now the ancient Hawai'ian figures had reached Aotearoa and were dancing with Maori taniwhas and erupting out of volcanoes like Rangitoto. They moved in a circular motion around the globe from North to East to South to West to North. I awoke from this dream at 4 a.m. and began sketching the scene. For the next fifteen days I worked day and night, with only 4–5 hours sleep, capturing the images that came to me in my dreams with pen and ink. [Survivors: Uberlebende, Dr Cath Koa Dunsford, University of Osnabrueck Press, Germany]

Later, these ki'i pohaku were included in the Cowrie novel series which was launched by Keri Hulme at an international book fair in Melbourne, where she stated:

Throughout Aotearoa, and especially in the South, you find caves, and in the caves, you find marvellous drawings and sometimes petroglyphs. Once you have a cave that has been inscribed, it becomes alive, touched by the human spirit. You all have a special treat in store in reading Cowrie. You will find the petroglyphs and drawings play quite a large part in the book. This novel makes an especial mark on New Zealand writing, and of course, because she has reached much further afield, on South Pacific writing

Cowrie is quite an extraordinary work. There's been nothing like it published in New Zealand before and I deeply suspect not elsewhere. So may the book fare well on the journeys of the world. May it be protected by the turtle spirit that is so openly and magically and poignantly a part of its pages. Kia ora koutou ...

Dr Cathie Koa Dunsford Dr Karin Meissenburg Tatau Oceania Imprints – Global Dialogues Press www.global-dialogues.com

Launching Speech: Songs of the Jahajin

Publisher: Global Dialogues Press – Tatau Oceania Imprints

On behalf of Dr Karin Meissenburg and myself at Global Dialogues Press, we are proud to publish Mohit Prasad's latest book, *Songs of the Jahajin*, in our Oceania Tatau Imprint.

We have already published Dr Prasad's *Kissing Rain* poetry collection, which was well received. However, this book is an epic narrative and protest song against indentured labour and work slavery which colonized and enslaved Indian workers. It is an eloquent & beautifully written poetic, narrative which we are proud to help birth into the world.

In the Foreword to *Songs of the Jahajin*, academic John O'Carroll captures the vibrant language of Mohit's writing.

Mohit Prasad's *Songs of the Jahajin* sings a people in a way that is at once modern in its form and ancient in account of the genesis of a people – hence Piya Chatterjee's contention that this itself is an epic cycle. We do not have to endorse the claim to see what she means – the epic was a form whose sacredness concerned its ability to sing the nature and destiny of a people. Perhaps the power of this collection lies in the fact that it recalls the power of such song, and in place of tales of sacral heroes and invocation to muses, we get glimpses of materiality and evocations of lived worlds.

In her introduction to the work, Assistant Professor Piya Chatterjee sums up the politics and central image that link both the indentured woman slave and the ship that carries to slavery as a symbol of the tale of all indentured labour historically and today. A picture of Ganges, a ship named after the great sacred river of India, inaugurates Mohit Prasad's epic poem which speaks through the voice of Maina, the ancestress of Indo Fijians- and their histories of indenture. That it is this particular image of a ship carrying its equal measure of goods and bodies, which starts the story of Jahajin (a woman "of the ship") is no accident. It, and she, the repository of subterranean and fantastical histories of forced passage, are intimately coupled carrying in flesh, masthead and sail the stories of blood and song, which are rarely remembered in the histories of circumnavigation that made possible the settlement of labour into plantations—and the greatest fortunes of empire. Let us call out—as the jahajin might wish us to do-all the circuitries of commodity and desire and these oceanic journeys made possible: sugar, coffee, tea, rubber, cotton—and again and again, sugar.

You've already heard about the slavery of sugarcane in Hawai'i in my own novel *Pele's Tsunami*. My Hawaiian ancestors also share a history of sugar slavery, which binds us across our cultures.

Later, Piya Chatterjee powerfully states the crucial importance of de-constructing colonial "master-narratives" and the vital necessity of creating a "counter-history", which Mohit Prasad does so effectively in this book:

If the master-narratives of the global plantation only tell tales of heroic maritime discoveries and "pioneering" settlement in so-called savage lands, then Mohit Prasad's *Songs of the Jahajin* offers us a counter-history—giving complex voice to the anonymous women and men who were shipped, unknowing, as slaves and coolies for the ruthless labour regimes of the imperial plantation: east, west, south. If we can occasionally glimpse these lives against the grain of History, we might forget that women's bodies, in particular, are vulnerable to violation in ways that are doubly shrouded within the annals of imperial history – and even in resistance to the plantations regime. Through the Jahajin, Mohit Prasad offers us another kind of illumination and centre, for imagining not only the history of Fiji – but an oceanic history of the global plantation which is brought through, if not birthed, by the enduring, mournful, and resolute body of a woman in desire, in labour.

We, as an indigenous author and publisher whose life work has been dedicated to deconstructing and inventing new narratives from the perspective of those colonised, endorse the kaupapa of Mohit Prasad in daring to write this innovative and empowering work and honouring the body of women and the body of the land, sea and sky – the need for freedom from colonised work-slavery, that is at the heart of the narrative.

As author, Mohit Prasad, himself states:

The poems are dedicated to the women of indenture. Tough, irascible, loving and aware that empowerment came to those women who used eye, mind and sinewy calf muscles and the vagaries of ratios and numerals to control men, other women, children and sugar.

Mohit shows extraordinary skill as an author in the exquisite beauty and power of his language in this book. Reading it is a sensual, evocative, if painful experience, as Karin says 'like a banana flower, splitting open' but one that, like the banana flower brings new life and energy into the world of light. Unuhia ki te ao marama- draw forward into the world of light.

LAUNCHING SPEECH

Vinaka vakalevu, mahalo, Mohit.

Dr Cathie Koa Dunsford September 16th 2010. The University of the South Pacific Suva, Fiji Islands

Dr. Karin Meissenburg

Working Cross-Culturally with Literary and Environmental Activists

(This closing keynote address is interactive, also in its written form, responding to papers presented, ideas discussed. I feel deeply humbled and grateful that Mereisi Kamoe, Zaidy Khan, Rosiana Lagi, Ashwin Raj, Paula Rakabikabi, and Professor Ropate Qalo agreed to share ideas, stories and suggestions we had talked about and present them as vision/action statements, eloquently introduced by Dr. Som Prakash during this closing keynote speech.)

Introductory remarks

Mahalo, vinaka vakalevu, deep gratitude to everybody who envisioned and made this inspiring conference on climate change possible, foremost Dr. Mohit Prasad, the Pacific Writing Forum, and the committed team behind this meeting of so many creative people. Tena rawa atu koe, Dr. Cathie Koa Dunsford for the awesome discussions leading up to this event.

The seven themes of this presentation relate to our cross-cultural work. They reflect my life experiences which have been fed and shaped by so many factors and cultures, among them the Chinese and Chinese American, various African and European cultures. Over the past twelve years Maori culture played a crucial role for me in further understanding the interconnectedness of all being. In this culture based on talkstory (akin to many others where it still plays a central role), the spirit is allowed to fly between the people. There is no hierarchy for insight, ideas and their implementations. Whether young or old, whether coming from a predominantly oral or literary culture, each suggestion is assessed on its own merits.

The themes as they emerged for me in the novels by Cathie Koa Dunsford and relevant for this conference on creativity and climate change are: climate change of consciousness, ways of living, food, shelter and infrastructure, cross-cultural communication, Environmental Restorative Justice on micro- and macro-levels, ideas for island survival in the face of physical climate change.

Climate Change of Consciousness

Dr. Cathie Koa Dunsford has advocated in her opening keynote speech a climate change of consciousness. I will focus on aspects of her eco-novels relevant to the themes I've just introduced. As the German translator of these novels, I found a most intricate multilayered interweaving of themes — the protagonist's cultural, social, individual process of finding her identity; the living role of nature; the subtle correlating of Hawai'ian and Maori myths/ storytelling with undercurrent processes of world consciousness; the multiplicity of societal units which come to life through the interaction of the various persons in her novels; the liberating, life-savouring, peaceful spirit of the actors in her novels who creatively fight against (neo)colonialism, unmask neo-colonial actions (those wolves in sheep clothing), protest for a nuclear-free Pacific; actors who are out to abolish nuclear power and weapons, narrow-minded university systems, an exploitative literary market, and fossilized societal forms and norms. The novels are imbued with that special humour and the groundedness of the narrator together with a spirituality which rather than voiced are suggested.

Kaitiakitanga (guardianship, see comprehensive definition in the opening keynote speech) is the central kaupapa (guiding principle) which underlies all her novels. All of this could only arise out of inspiration and an inner guidance to which the author entrusted herself while writing. Rationally you cannot produce this most intricate interweaving. This is why creativity in addressing climate change is so vital.

Translating these novels meant for me to deeply engage with them to see creativity in action, to see how it translates not only into my mothertongue, but into my own life. The novels challenged me just like this conference to go for a creative response to climate change, a challenge both ingenious and liberating. Most of the participants at this conference journeyed beyond the current media discussion of climate change dominated by two schools: the deniers and the doomsday prophets. They advocated a change in our outlook freeing us to work towards solutions.

All this is linked to my own background: my home in Orkney, a group of 71 islands northeast of Scotland, and Hamburg, Germany. Many of the islands of Orkney are confronted with a similar climate change threat like Tuvalu. In Hamburg we faced the North Sea coming in through the river Elbe in 1962, flooding whole townships and killing thousands, devastating the most fertile land over a 100 km stretch between Cuxhaven and Hamburg. The Frisian islands along the German coastline are not safe either.

Cath Koa has shown through our kaitiakitanga course-description that we have a multitude of options to safeguard our islands. Instead of focussing on the where why when and how of the dangers facing us, the question is: what can we do?

Globally and locally we are faced today, on a grander scale than ever, with conflicting forces: on one side greed and apathy, on the other side a sharing culture and action informed by intuitive intelligence. We need to assess activities and situations, hourly, daily, weekly, monthly, yearly, by decades, centuries, even millenia. And then align and realign ourselves constantly along the peaceful lines, Pacific lines, which involve following our highest vision to the benefit of all, cooperation and a shared joy for living. This way of being comprises our human and natural surroundings. Aroha mai, aroha atu.

All this informs the novels by Cathie Koa Dunsford. That is why I spend so much of my time with them as translator, editor, performer, this is why they play such a big role in this presentation.

These novels speak of a complete turnaround of consciousness in a constructive way. In their unfolding mo'olelo, their talkstory we experience how women and men and children rise to challenges life throws their way. A heiau (temple) destroyed by US military is rebuilt at night by Hawai'ian fishermen, a thesis stifled by fossilized academic rules is turned into an action novel, a French agent helping nuclear testing in Tahiti sees the light, reassesses her life and cooperates with the forces for peace and rebuilding the lives devastated by nuclear fallout.

The consciousness featured and aspired to in these novels comes from a place of aroha. The greed mentality, the what-is-in-itfor-me-thinking, which feeds rampant consumerism is replaced constantly and redeemed through individuals as well as on the communal level by sharing, by cooperation, by feasting together. Manaakitanga, hospitality — it comes from the heart and not from a set of proscriptive regulations, it is life practice. (We have experienced this here at the USP with the warm traditional welcome and sustainable delicious local food, beautifully presented.) One of the underlying reasons for the breakdown of negotiations in Copenhagen was that participants from the Northern and Western neo-colonial mindset got entangled in procedural minutiae, in fine-tuning policies and regulations ignoring delegates from island countries most endangered. Cathie Koa Dunsford's novel, Pele's Tsunami, points a way forward here by indigenous creative responses to climate change.

Way of Life — Ways of Living

The question "What can we do?" is closely linked to "How can we do it?". The answers to these questions are specific to the environment where they are raised. Ecological answers are always locally specific. Just as spiritual answers are always locally specific. This is why it is so paramount to retain local cultures and languages. And yet, there is a common denominator and Cath Koa has talked about this in her keynote speech. The denominator, the basic common ground, was worded according to Te Arahia, the pathway of life, in Maori culture. Just as moana (ocean), motu (islands) and rangi (sky) are common ground in the physical experiences of the continents of our planet, so kaha (strength), wairua (spirit), mauri (sacred life force), mana (integrity), tika (right living), pono (truth), and aroha (love), are common ground in the spiritual foundation of the continents. This is important for the way we determine the required change in consciousness as well as for the call to Environmental Restorative Justice I'll address later.

Each element of Te Arahia defines all the others, thus manifesting a oneness in diversity. Rather than being single entities, they are contributing, as it were, to each other's meaning, they are defining each other, they balance each other out. For example: kaha, strength, without aroha, love, would lead to domination. Mauri, the sacred life force without tika, right living, would not be protected from abuse. Wairua, spirit, without pono, truth, would lack pono's manifesting power. Te Arahia thus supplies us with a tool to assess our actions in the light of these foundational principles. Each time I'm faced with a decision I turn to this sevenfold principle to assess the options.

You will find basic elements of these spiritual traditions in any mo'olelo or talkstory handing on traditions, as well as in any inspired literary and scientific text. Gone are the days in truly progressive science when people advocated "value-free" research. This aberrant science is based on and promotes research in prison and concentration camps, nuclear arms, the poisons of agrochemistry, and genetic engineering. It is a death culture and has nothing in common with the foundation of Te Arahia, the pathway of life.

The sovereignty movements of our Pacific and Orcadian islands and elsewhere are based on this underlying oneness and the consensus on Te Arahia. Unlike autonomy, sovereignty is aware of the interconnectedness of all being, the interconnectedness of whenua (land) and tangata (people). This is such a strong rope, the gathering of many threads, in Cathie Koa Dunsford's novels. Her fifth novel, Ao Toa: Earth Warriors, is standing up for the earth, being strong for the earth. Her seventh novel, Pele's Tsunami, voices it loud and clear. It is the heart and soul of all her work. In this context, being constructive and positive in the face of calamities opens up the creative energy in us and shows the way forward, the groundwork out of which practical, tangible solutions emerge.

The honouring of tradition as manifest in the waiata "Ehara it te mea no naianei te aroha, no nga tipuna i tuku iho …" "… love comes from the ancestors, handed down through the passage of time" is balanced by the whakatauki (proverb) "Ka mahi te tamariki wawahi taha!" "Well done, children who break the calabashes!" (see Dunsford, 2000:181). Te Arahia is a pointer in this direction: the regulations around the tradition are the calabashes which each new generation will have to shatter or tamper with in adapting to new circumstances. The kaupapa, the basic principles, of kaitiakitanga courses follow the central principles of Te Arahia. Frances C. Koya, Rosiana Lagi, Judith Mitoma, Keron Niles, Lingikoni Vaka'uta have shown this constructive adhering to ancestral tradition(s) while breaking the calabashes so clearly in their contributions.

If the focus is on "te rito," the heart of the harakeke, the centre shoot of the flax, as Cath Koa showed, then looking at the longterm future for our children and grandchildren is implied at the outset. It allows for keeping the traditions as well as shattering the calabashes. Here the materialistic growth paradigm is dissolved by the call to action: to evolve, to move forward into the world of light. Tradition as we understand it includes innovative action.

Food

Kaitiakitanga as we see it developed in Cath Koa's novels involves looking after the natural environment as well as people. Ocean and islands, the fruits of the earth and the sea supply food: for the forager and the gardener or farmer alike, the sky supplies water, the light and the air our basic sustenance. Most of us have come a long way from the foraging times. But foraging is still the most health bringing to the planet as well as for humans. Food is our nourishment and food is our medicine. The closer it grows around us naturally, the more it nourishes us, the greater its potential for maintaining and/or restoring health.

Imagine what this entails: by taking our food supply — and with it our seed supply! — into our own hands literally, we disempower the most powerful multinational companies in this world: all mineraloil based companies and their allies, the agro-chemical companies with their seed subdivisions, the pharmaceutical industry, and even Coca Cola (called 'gut-rot' by Mere, Cowrie's mother). We liberate ourselves from their unsustainable, devastating activities against ocean and islands, earth and sky, air and drinking water, and indeed our bodies. At the same time we empower ourselves, our families, our communities. And contribute to the healing of oceans, and islands and skies.

The following quote speaks about a Rongoa Maori hui (workshop on Maori medicine) in Ao Toa which is conducted by Mere.

After the prayers, waiata are sung to thank Mere for her blessing to open the hui. Enticing and earthy aromas are wafting from the basket, and Cowrie is delighted that such a ritual hui will begin with food. What a blessing! Mere carefully opens the flax bag brought over from the hangi and extracts several parcels wrapped in banana and taro leaves from their garden. The steaming leaves are laid down in front of each of the women.

Mere continues. 'I want you to open these taonga one by one, and each person must identify the plant that gave herself up for this feast by holding a leaf of that plant and naming it, thanking her, and sharing the contents around, so that by the end, you have all tasted the fruits of this bountiful land we have been gifted. This way, you will recognise each of the plants and be able to greet them as friends any time you walk into the bush [or onto the foreshore]. You feel connected to them and thus will always appreciate what they have to offer us, as kai and as medicine. It has struck me very forcefully since Cowrie, Irihapeti, Koa and all of you working for an organic future for our land have been very vocal on these issues, that in fact this is exactly what our ancestors would have wanted us to do, and what they themselves knew. We may do this in different ways now, but the ancient knowledge made us intimately connected

with the food we ate - and this is what we must once again do, and teach others to do. Ours will be a long and patient journey. This taonga was gathered over many years and it cannot be taught in one day. It is more a matter of learning to trust your instincts and rely on your inner knowledge. ... You must always only harvest a small and sustainable crop. ... You always plant more than what you take, so that future generations are provided for. If we had all done this globally, we would still be a sustainable planet, but greed took over as some came to control the production of food and profit from it. Strangely enough, it has been our indigenous ancestors and brothers and sisters globally who have held this ancient knowledge, but who have now been edged out of it by the corporate multinationals. Thus it is vital we learn carefully and hand on our knowledge to our mokopuna and tamariki so they can in turn pass it on to future generations. There has never been a more vital time on this planet than now to listen to the plants and learn from their wisdom.' (Ao Toa, 72-74)

A different outlook on what we can eat and how it can be grown, mentioned by Cath Koa, also in her talking about the kaitiakitanga work - actually already practised in many places here in the Pacific - would prove that the food supply is more secure here in the Pacific Islands than in most countries throughout the world. (We learned about this in the brilliant three volumes on Education for Sustainable Development (ESD) — see bibliography.) Sea vegetables forestall malnutrition, as they provide all the nutrients a body needs. More on this later. Adimaimalaga Tafuna'i (of Women in Business Development, Samoa, Me'a Kai, 76) demystifies the organic/permaculture method succinctly when asked about "the differences between organic farming and the traditional Polynesian farming methods. 'There is no difference,' she said. 'By becoming organic, we are staying Samoan.'" (Me'a Kai, 80) Local food is indeed the most nourishing. A mouthwatering and subversive and utterly beautiful book has just come out which underwrites this: Me'a Kai. It celebrates Pacific Island food and recipes and advocates this as a guideline for green tourism and the catering industry. Combine this with the now hyped up thalassotherapy (a therapy using sea water) and you've got a unique package without the necessity for any imports.

One resource from your islands is already marketed successfully overseas: Fiji water. Where groundwater is in short supply, rainwater is the answer. There is an inspiring precedent in rural India where women are the guardians of the water. They gather water in its season in tanks made out of bamboo with its purifying ability or out of wood, harvested and built locally. These tanks supply the villagers throughout the year. (Aithal, 2004)

Growing your own food in a wholesome way and then eating it is a revolutionary act! It indeed lessens the carbon footprint. Now adding sea vegetables wild harvested or from mariculture to your menu, not only for your own food but also for animals, plants and the soil is a way to reduce carbon dioxide in the atmosphere. With great creativity, Alumeci Nakeke from Seaweb has done groundbreaking work with local communities on the manifold uses of seaweed in Fiji.

This multifunctional gift of the sea serves as a bridge between the food-theme and the theme of housing/shelter and infrastructure. The globally most neglected food resources we have and a complete meal in itself and a great healer for humans, animals, plants and the soil are macro-algae, better known as sea vegetables, best known as seaweed. Algae make their own food material using sunlight, water and carbon dioxide. They do this through photosynthesis. The whole process is called photoautotrophic. The word derives from the Greek "photo", light, "auto", self, "trophic", assimilating food, nourishment. Hence, using light, seaweed prepares its own nourishment, nourishes itself. To repeat Cath Koa's karanga: Unuhia ki te ao marama — let us move forward into the world of light.

There are 77 chemical elements in sea water, and those minerals found in sea water are also found in seaweed. Furthermore, it has all the vitamins and proteins in a form easily assimilated by humans.

Seaweed mari- and/or aquaculture is happening in the Pacific, also in the tropical Pacific, in your islands which I recently learned to my delight. We love the taste of nama (Caulerpa racemosa). Nama provides a unique opportunity for marketing this delicious sea vegetable, with its miniature grape- or caviar-like bunches it looks so attractive. This has potential for the up-market catering industry and international food fairs specialising in high quality goods.

I was delighted to hear Professor Ropate Qalo talk about: Small is Beautiful. This book by E.F. Schumacher still holds true and is in line with your own proverbs and sayings. Hand-harvested sea vegetables packaged in small quantities, a maximum of 200g dried goods, organically / wild harvest certified, will bring more revenue in the rapidly growing niche market. Thousands of tons as an export goal for entrepreneurs outside of your islands will mean drudgery. For Orcadians seaweed gathering spells endless drudgery, toil and exploitation for an industry outside their own islands. It spells pressure to meet the required harvesting goals, a modern form of slavery. During my lectures in the islands of Orkney on sea vegetables, their healing and nutritional power, I hold up a packet of 30g sea vegetables, a mix of three different varieties, green, brown, and red. It costs five pounds sterling. That is fifteen Fijian dollars. It is imported from Japan and sold at a local shop. The equivalent of these varieties grows in abundance on the Orcadian shores. They no longer go there to gather it, because it is associated with physical pain, hardship, poverty, powerlessness rather than with a complete meal in itself and healing. The Himalayan sherpas trade a bundle of dried seaweed when they bring their goods to the market. It is their power food on their long walks up the mountains. It was the fourth novel by Cathie Koa Dunsford, Song of the Selkies, which sparked me into action from being a passive eater of imported seaweed to explore and use the sea vegetables of my own islands.

Shelter and Infrastructure

I was fascinated by the inventive ways the people of Te Kotuku Marae and other indigenous places in the Cowrie novel series built their houses and organized their infrastructure. Now, so many uses of sea algae are well documented in books and websites in these mushrooming times of seaweed-usage . I would like to introduce one use of sea algae, which I only know by way of Japanese talkstory, but experimented with the past few weeks in Orkney. Seaweed works as a binder in building, just as it does in your aspics. It is a strong binder, substituting cement - as far as I can assess now. Fijian lumi may work. You would have your building materials right at your doorstep, sadly quite literally as in the case of Tuvalu and the island of Sanday in Orkney. But also fortunately so, as the problem always comes with its solution, a truism which is one of the catch phrases in permaculture.

The Pacific Island dead corals are your natural lime, your seaweed is the binder and fibre, some soil and sand (yes, from the beach, because here, unlike with cement, you don't need to worry about its salt content). Combine them, make bricks or forms, or drench your coconut fibre rolls with this solution and you've got your building material. A community effort not needing outside intervention. Building mounds, walls and dams for protection from the sea (see illustrations in Rising Tides), organoponico beds for raising food crops sensitive to salination, (google Cuban "organoponico" bed and the successful Cuban experiment), lay foundations with this material for your houses on stilts to keep above the king tides' high water mark.

A low-cost hammer machine will pulverize your dead corals and break up the seaweed. Let that machine be gifted to you by one of your cross-cultural partners on the micro-level, as will be explained in the context of the sub-themes: cross-cultural communication and Environmental Restorative Justice.

Building individual whare, bure, dwelling places alongside a community centre with a cooking area and communication (all electronic equipment like laptops, television, etc.), and a wharenui, longhouse or hall for meetings, for assemblies has been the traditional way of the past in many islands. This way has been adapted by ecological builders throughout the globe, as it saves and pools resources on so many levels. For cash-poor villages it is a design which will help to establish an infrastructure where electricity is centralized and more easily equipped with alternative energy devices like: photovoltaic panelling, windpower, tidal energy. (See Keron Niles' contribution here) There is a health advantage in outsourcing electrical goods from the private dwelling areas: it is only now that the dangers of electromagnetic currents and radiation of electronic devices has come to the attention of health professionals, although their adverse effects has been felt by many for a long time. I was quite taken with the way the fictional Te Kotuku Marae of the Cowrie novels was convincingly organized in this wholesome way. It also contributes to a community culture where talkstory, rather than being a superimposed event, happens naturally in the course of the day and meetings can be more easily arranged.

The know-how of building individual dwellings can come from the expertise of the elders and then be combined with some innovative techniques. The building process as such could be a shared activity as well as part of the education of the young ones.

Generating electricity can now become a village affair. The renewable technology is out there and devices can be adapted to the size required. The ugly and dangerous technological infrastructure of the 19th and 20th centuries is no longer needed. The Intermediate Technology Development Group and the Centre for Alternative Technology are just two of many initiatives which have been formed world-wide to facilitate access to materials for sustainable living and respective knowledge. (for windpower by kites see www.kitegen.com/en)

This sustainable way of life has a wonderful side-effect: zero waste at least on the village level. A zero waste initiative in Whaingaroa/ Raglan, Aotearoa, called Para Kore, has in the course of ten years collecting and recycling waste in towns and on Maori marae moved from a subsidized group of volunteers to a non-profit organization employing twentyeight people and with a healthy turnover of a million NZ dollars. (www.parakore.maori.nz)

One innovation coming of age in recent years stems from the coastal region of Germany and the Frisian islands. It might excite other seafaring people: kite-drawn vessels, the kite-like sails fly high up in the air, steered electronically. These vessels now save a minimum of one third of fuel. At present, the company's fishing-trawler is sailing around the world, planning to visit also Pacific Island countries. (see www.skysails.com)

Cross-Cultural Communication

Characteristics of kaitiakitanga are: living in tune with nature, living sustainably, being aware of interconnectedness. All traditional cultures, which I know of, are deeply aware of the fact that all beings of the human and natural world are interconnected. What happens to one will affect all. This is also amply documented in the three ESD-volumes.(cf. also Small is Beautiful, ch. 7)

The struggle for local sovereignty and networking among the Pacific Island nations ultimately freed Tahiti from French nuclear testing in their waters. Manawa Toa exemplifies this in following the Pacific Peace Flotilla with its indigenous and international crew to the protest site at Moruroa Atoll. Before the welcome hakari, the feast, Oscar Temaru, leader of Tavini Huraatira, and other Tahitian elders gave speeches.

The Aotearoan crew respond with waiata and tales of resistance from home, then food is offered. After the feasting, korero stretches long into the night. With bellies full of spit roasted pork and juicy mangoes, Kuini, Iri, Cowrie and Sahara follow the shore line of Fa'a'a, leaving the negotiations for Piripi and the tacticians in the group to resolve. The warm night wind caresses their bodies beneath their lavalava. [Sahara remarks:]

'It's a matter of life and death, and everyone feasts as well as making speeches. This is so different from home.' 'Who knows, Sah. What about your Irish ancestors? Bet they feasted over the odd battle or two.'

I read this passage in its draft stage in 1999. It was a crucial reading. The condensed history lesson I received through Oscar Temaru's speech combined inspiringly with the two preceding novels, Cowrie and Te Haerenga Kainga, The Journey Home. It empowered me to make changes in my own life. It challenged me

into getting the balance right: to engage in a cross-cultural activism and have the feasting, the celebration; to expose exploitative, life abrogating behaviour and sing waiata, give music a place in my life again; to join the hikoi, the march, and go into that still place of karakia. The creative work was sending me onto a pathway of a climate change in my consciousness.

Now from this micro-level of cross-cultural communication to the macro-level: the establishing of trade links to nations outside the Pacific Islands Forum. This Forum (and others like it) would be on the intermediate and the macro-level. It is in place in your free trade agreement. The cross-cultural communication is mirrored in the festival traditions among your island nations.

In these festivals something happens which rarely occurs in the commercial trade fairs: a cross-cultural sharing, a cross-cultural feasting, a celebrating of a community of diverse cultures.

Groups of Pacific Island Nations working for change could send ambassadors to fairtrade networks, where the networks supply the travel costs. The sharing and exchange will benefit both sides, in my view, and be one of the avenues where Environmental Restorative Justice can take place.

Environmental Restorative Justice (Micro- and Macro-Levels)

The following introduces an idea which evolved during the preparation for this conference. Rather than being a fully detailed action plan, it suggests an active way out of the stalemate the dominant political powers have manoeuvered the dialogue on climate change into. Small steps facilitating bigger ones.

The vision of Environmental Restorative Justice was born when translating Te Haerenga Kainga The Journey Home and Manawa Toa, Heart Warrior. Cath Koa, the author, discussed with me the parallels of Environmental Restorative Justice to the Truth and Reconciliation work in South Africa. Several passages in these two books inform us of activities of Te Aroha, a network of local centres for restorative justice for abused women and children in Aotearoa. It is based on Te Arahia and seeks utu, restoring the balance, individually and for the parties concerned. It is embedded in the community structure and based on the uncoerced consent of all participating parties. Utu is often translated as revenge, yet its pre-missionary meaning is to reconstitute the equilibrium, to re-establish a balance where transgression and ab-use have created disorder, disasters, havoc. It brings the foundational components of the sevenfold principle of kaha, wairua, mauri, mana, tika, pono, aroha back into harmony in a specific situation, each component weighing as much as the other. In the readjustment process the inherent mana, integrity, of each party is kept intact.

What if this redeeming work could be instituted on the international level? We have the International Court of The Hague in the Netherlands, but it is working on the punishment paradigm. While this may be a valuable intermediate step, true restorative work according to the Te Aroha model (with its abuse prevention scheme) would involve both abuser and victim. (see The Journey Home, 152, 163-164; Manawa Toa, 7, 64) While the Te Aroha scheme is working on the social level addressing the abuse of women's bodies, Pele's Tsunami indicates that this scheme is applicable to the body of the land, too. (41)

With this in mind I would like to share a passage from The Journey Home:

'We are challenging centuries of mistrust and abuse and we need commitment to developing lasting programmes to deal with offenders and victims. The offenders must be brought before us all, to deal with the problem effectively in our own communities. The Pakeha justice system of throwing offenders in prison to learn new crimes is no use to us. We have to develop our own system of making offenders responsible to their victims and the whole community, facing their crimes and going into training that lasts as long as it takes for them to understand and change their ways. Kia ora. Thank you for listening.' After this speech one of the young iwi negotiators and a scholar, Piripi, rises to speak.

'Kia ora, Irihapeti. I totally support your words. But I suggest that when we make this commitment, it must be made by all of us and that all of us agree to go through the programmes, not just the young, not just the men, and not without the elders. Some elders have been known to rape in this land. They should be stripped of all mana and made to face the consequences like the rest of us. [translate this to environmental crime and to (neo-) colonization] I will give time to help establish this group and make sure we men take responsibility for ourselves in this, so that all the hard work does not return to the women, as so often in the past.' (15-16)

How could this be accomplished on the present international scene in order to restore the abused body of the land, the seas and the skies? We imagine short-term, intermediate and long-term goals. The short-term ones work on the micro-level and create an atmosphere in the socio-economic and political realm for the macro-level. This initial work will have an impact on achieving the intermediate and long-term goals. It will help modify the process. On the micro-level we envisage: Pacific organizations in the north and elsewhere, Bahai, interfaith groups, churches, various environmental networks, fairtrade organizations, other nongovernmental organizations and smaller foundations in the northern hemisphere to act as partners to formal or informal organizations/collectives in Oceania. Another possibility is to establish cross-cultural educational partnerships. (see Judith Mitoma's contribution and also the work of Frances Koya and her colleagues in ESD for further examples and options.)

On the intermediate level, emissaries of multinational or large companies and economic/political advisors of the main polluting nations, aka industrialized countries, who are keen to readjust the balance would be given the chance to cooperate on island-terms. They would have to undergo a cultural training of a minimum of nine months working alongside an island project as participantobservers, basically cultural apprentices, doing odd jobs. The concept of "internship" could be introduced here to show where the steering power is located. You can't buy your way out of it as with carbon credits. My work in Governmental Development Agencies in Germany has taught me that such cultural training is imperative for productive cooperation.

On the macro-level: political organizations like the European Union, ASEAN, the various departments of the United Nations, the big players of the multinational companies and countries which have transgressed, or, to state it bluntly, commited atrocious acts in Oceania need to get involved in the restoration-process. For this to happen, a mediating institution may have to be created. The groundwork for this has been achieved by the Indigeneous Peoples' Global Summit on Climate Change (convened in Anchorage in April 2009 — see bibliography) and the People's World Conference on Climate Change and the Rights of Mother Earth (an initiative of Bolivian President Evo Morales — see bibliography). I found

one instance — possibly — of Environmental Restorative Justice in action on the website of the Pacific Islands Forum: '...the Forum Secretariat is exploring ways of increasing the effectiveness of donor assistance to member countries, including in the area of Climate Change given it is so cross cutting in nature. This involves continuous engagement in the Development Partners Climate Change partnership as well as being an active member in the Pacific Climate Change Round Table. The Forum Secretariat has also recently secured 6.8 billion yen from Japan to assist member countries with their efforts on Climate Change. This is likely to become available to members in the first quarter of 2010.' Does anybody know whether this has actually happened and how it is implemented? (www.forumsec.org.fj/pages.cfm/strategicpartnerships-coordination/climate-change/)

The first instance where I saw Te Arahia and restoration at work was in the Tainui settlement negotiations with the Crown. The Tainui iwi refused the monetary settlement for their land claims until their mana was restored by a written apology from Queen Elizabeth II, asking for forgiveness on behalf of her people for all the injustices and atrocities inflicted by the British settlers and troups on tangata whenua. The letter did come, can be seen in the Waikato Museum, Hamilton, and the settlement was followed through.

Conceivable in the context of Environmental Restorative Justice is a voluntary taxation of polluters which is different from 'carbon credits.' It should be so severe as to encourage new ways of sustainable resource management.

Before larger measures on the intermediate and macro level are enacted, a multitude of small scale initiatives for restoration could be launched to facilitate survival on immediately endangered islands. We see the work of Judith Mitoma, putting a human face on climate change (see also Vilisoni Hereniko's contribution) as a constructive way forward. And also the manifold initiatives we have witnessed during the conference. Thus a global network on the grass-roots level may feed the work of the Pacific Islands Forum.

Summary

In a nutshell: a climate change of heart, a climate change of consciousness, that is what we are concerned with, going beyond being hypnotized by fear, working with the courage of love, veilomani, aroha. This will enable us to deal in a creative and practical way with the climate crisis. As Dr. Cathie Koa Dunsford has pointed out in her opening keynote speech, we base our work on ancestral knowledge and use only those new methods which are in tune with kaitiakitanga. We start at the grass-roots — as individuals, as families and communities, as villages, as islands. We network on a global scale with Restorative Environmental Justice in mind, and ensure a sustainable, balanced way of life, for oceans, islands, skies, for us, for our children, for generations to come.

Ideas for Island Survival in the Face of Physical Climate Change

Cath Koa expressed in her keynote speech the hope that her presentation would "reach us on a deeper than just an intellectual or rational level by allowing the spirit to fly between us all, so that by the plenary session and the final keynote speech, we have together created some possible solutions to the climate change debate from our shared creative energy." (4) Our ideas:

• self-sufficiency for all islands and villages. Similar to Rotuma, Ikaria, a tiny Greek island in the Mediterranean, has few imported consumer goods. Ikaria maintains its integrity as a community by relying on its own natural resources. The people of Ikaria thereby achieved a way of life which helped them to stay healthy, keep active in all walks of life until their nineties and hundreds, and enjoy their young people. They have created a community which is so attractive that the younger people either stay or return after studies abroad. (www.island-ikaria.com)

• supply the Pacific Islands Forum delegation to Mexico for the 16th session of the Conference of the Parties (COP16), 29 November - 10 December 2010, with a declaration by our conference participants for the COP16 and share this with the organizers of the Indigenous Peoples' Global Summit on Climate Change in Anchorage, Alaska, 2009, as well as with the organizers of the World People's Conference on Climate Change and the Rights of Mother Earth, Cochabamba, Bolivia, 2010 (see their websites under Resources); this could now happen through the website of our conference.

• introduce a 10% tax for local sustainable development to be paid by all foreign owned resort hotels.

• introduce a 3% tax for resort visitors (this is done in German resort places without any detriment to visitor numbers and is a further boost to the local economy)

• a voluntary moratorium on outside food resources — on the individual, family, village level. This is a health giving and environmentally friendly action: it will reduce diseases and bring eventually non-biodegradables towards zero. (see article by Jeremy Dorovolomo in ESD, vol.1)

• promote political and social work for reclaiming the Pacific Basin as an activity of the Pacific Islands Forum as envisioned by Cath Koa in the final words of her opening keynote speech.

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Dr Mohit Prasad

Concluding Remarks: Oceans, Islands and Skies: Oceanic Conference on Creativity and Climate Change

hese concluding remarks for the Oceans, Islands and Skies: Oceanic Conference on Creativity and Climate Change is an attempt at a small overview.

The OIS conference saw an august gathering of writers, artists, and academics from various disciplines including the humanities, arts, science, technology and media and communication in conference about our Oceans, Islands and Skies and how and why we should be imaginative and creative in our responses to climate change.

The conference was imagined in late 2008 with an initial concept paper. This came on the back of finishing a number of research projects when re-reading the proceedings from the 2006 Pacific Epistemologies Conference, that I had edited.

The follow-up conference that had been so enthusiastically proclaimed at the end of PEC was nowhere in sight. The financial climate at USP post 2006 was partially to blame for that.

With concept and imagined Oceans, Islands and Skies at hand, it was encouraging to note the announcement in late 2009 for a special conference funding allocation by the VC Professor Rajesh Chandra. Being first in line and best dressed with a conference proposal ready for submission at the outset provided inside running for funding. At this point, contacts were made with various key personnel for the conference. I was relieved, as much as for the sake of their enthusiasm for the project and my own expectations, when funding was granted for the conference towards the end of 2009.

The rest was a journey; fairly smooth sailing, leading to the arrival from the region and internationally a large and distinguished group of scholars, artists and academics at the Laucala Campus, for OIS. This conference was organized with a lot of goodwill from all stakeholders and with a minimum of meetings. Personal communication was the preferred mode of getting things done, on foot among the various corridors here at USP, and via email to the rest of the world.

The conference itself was hectic, exhilarating resulting in a slight breakdown of the body, from the strains of the conference. Message received that one was not bulletproof, but in true Oceanic spirit, (and a lot of medication) I bounced back quickly enough to be here for the rest of the sessions.

It is perhaps timely to make a brief addition to the conference debates on traditional knowledge, creativity, climate change and the ingrained indigenous versus colonizer/migrant binaries within these. This conference has prioritized an inclusive ethos in hosting debates, exhibitions, community engagements in forms and styles not always as an ideal or even as academic exercise.

Instead the focus was on the realization of the stated aims of bringing together diverse thoughts on oceans, islands and skies. Skeptics and passionate believers could live together on the same platform, not out of convenience, but because all viewpoints are necessary in order that we think better and smarter about issues such as climate change.

Climate Change is very much a global issue, and we have attempted through Oceans, Islands and Skies, to insert a marker into the debates through an Oceanic perspective. This Oceanic perspective now has to decide on a way out of the trough or doldrums of introspective navel gazing, and begin to focus on Oceania as a world informed by many confluences. Some colonial powers remain entrenched among the islands. Other imperialist forces thrive by proxy. They do this by aid, and cheque book diplomacy.

The rapid acculturation of social and cultural constructs from and for the MTV generation throbs among oceanic rhythms. It is evident in the rampant materialism and consumerism among atolls and islands. Witness the sprouting of billboards adding ugliness to the vista of sunny profiles of coconut palms now shrouded by Vodafone and Digicel and Western Union.

I teach enough of Frantz Fanon, Aime Cesaire and Edward Said among other postcolonial thinkers, to not be naïve of the far reaching implications of the colonial past. It is very much here. We are products of it. The fact that I am talking to you in this language in a forum template designed very much by Western academia is proof enough of that.

The Oceans, Islands and Skies ethos is one to build room so that all the confluences of the past is given space in the climate change debate. We cannot afford to restrict climate change debates because of past injustices, real or perceived, by drawing further lines in our disappearing sands.

This is why it is important that this conference brings in fresh perspectives to question and perhaps ask for a shift in mindset. A

re-determination of old binaries is required. Perhaps an erasure is required such that demarcations of the past are replaced by new thinking.

OIS asks for unconditional solutions in Oceania and globally as we face up to climate change challenges. Talking points to be addressed in your feedback and evaluation over the coming weeks. It is crucial that we keep the dialogues open about our islands, oceans, and skies and how creativity and the imagination are keys to its sustainability and survival.

OIS was a start it will be up to the individual to take some thoughts, ideas and creations from it and continue to keep our islands afloat, healthy and free from encroachments of all forms. The way forward is the artist as a healer of all things including our oceans, islands and skies.

- Dr Cathie Koa Dunsford [Te Rarawa, Ngapuhi/Hawai'ian/Yugoslav] is author 1. of 23 books with ecological themes in print and translation in USA, Canada, UK, Australia, New Zealand, Germany and Turkey, including the popular Cowrie novel series featuring strong tangata whenua from the Pacific region. She has taught Literature, Creative Writing and Publishing at Auckland University since 1975. She is director of Dunsford Publishing Consultants, which has brought 197 new and award winning Pacific authors into print internationally: www. dunsfordpublishing.com. She is recipient of two literary grants from Creative New Zealand Arts Council and was International Woman of the Year in Publishing in 1997. Cath Koa Dunsford has performed her work at the Frankfurt, Leipzig and Istanbul Bookfairs. She recently appeared on the International Panel of Established Pacific Artists at Artspeak Pasifika, a conference featuring Pasific artists, writers and film-makers, convened by the Creative New Zealand Arts Council, Toi Aotearoa. Her latest novel, Pele's Tsunami, will be launched at the Oceania Conference on Creativity and Climate Change – Oceans, Islands and Skies at the University of the South Pacific, Suva, Fiji Islands www.uspbookcentre.com A documentary on her work by director Makerita Urale screened on Maori Television, July, 2010. She tours the world performing from the books with traditional Maori waiata and taonga puoro. Contact: dunsford.publishing@xtra.co.nz
- 2. Dr David Robie is professor in journalism and director of the Pacific Media Centre at AUT University, and is founding editor of Pacific Journalism Review. He is a former head of journalism at both the University of Papua New Guinea and the University of the South Pacific. This article is adapted from a keynote journalism presentation that he gave at the Creativity and Climate Change Conference at the University of the South Pacific, 13–17 September 2010.
- 3. Cresantia Frances Koya is a lecturer in Education at the University of the South Pacific. Her teaching and research interests include Pacific studies, Pacific Arts and Culture, Pacific Education, Curriculum, Education for Social Justice and Diversity and Anti-colonial studies. She is an artist and poet and is married to commonwealth award winning Tongan artist, Lingikoni Vaka'uta. Cresantia is passionate about the role of Pacific orality and the role of story telling and performance poetry and performs under the stage name 1angrynative.
- 4. **Keron Niles** is a research consultant and presented this paper while a PhD candidate at Otago University. He combines diverse interests in science, economics and the environment with more creative pursuits like poetry.

- 5. Susan Hawthorne is Adjunct Professor in the Writing Program at James Cook University, Townsville. She is the author of five collections of poetry including *The Butterfly Effect* (2005), *Unsettling the Land* (with Suzanne Bellamy, 2008) and *Earth's Breath* (2009) and a novel, *The Falling Woman* (1992). She has a PhD in Political Science from the University of Melbourne and from that came her book, *Wild Politics: Feminism, Globalisation and Bio/diversity* (2002). In 2011, her collection of poems, *Cow*, was published, as well as a chapbook, *Valence: Considering War through Poetry and Theory. Cow* was a Finalist in the 2012 Audre Lorde Poetry Award (USA). She is a student of Sanskrit and in 2009 was an Asialink Literature Resident at the University of Madras in Chennai. She has written widely in academic journals on ecology, war, human rights and publishing.
- 6. Elizabeth DeLoughrey is an Associate Professor of English at the University of California, Los Angeles where she teaches Pacific Island literatures. She is the author of Routes and Roots: Navigating Caribbean and Pacific Island Literatures (University of Hawai'i Press, 2007) and editor, with Renée Gosson and George Handley, of Caribbean Literature and the Environment: Between Nature and Culture (University of Virginia Press, 2005). She is editor, with Cara Cilano, of a special issue of Isle: Interdisciplinary Studies of Literature and the Environment on postcolonial ecocriticism (2007). She recently completed an edited collection with George Handley called Postcolonial Ecologies: Literatures of the Environment, Oxford UP, 2011.
- 7. **Otto Heim** is Head of the School of English at the University of Hong Kong, where he has been teaching since 2001. His publications include Writing along Broken Lines: Violence and Ethnicity in Contemporary Maori Fiction (Auckland UP, 1998), Inventing the Past: Memory Work in Culture and History (Schwabe, 2005), as well as numerous articles on American and postcolonial literatures. His current research focuses on creative engagements with indigeneity and globalisation in the writing of Oceania.
- 8. **Nilesh Bilimoria** is an Assistant Lecturer with the School of Law at University of the South Pacific [USP], Fiji Islands. His is currently engaged with the professional legal training program at USP. His passion extends in the area of environmental and climatic debates, negotiations and challenges faced in the Pacific Region.
- Dr. Manoranjan Mohanty is an Associate Professor in Development Studies at the School of Government, Development and International Affairs, Faculty of Business and Economics, The University of the South Pacific, Suva.

His areas of interest include urbanisation, social development, environment and climate change, migration, NGOs and sustainable development. He has several publication including books, monograph and research papers to his credit.

- 10. Jeremy Dorovolomo was a high school teacher for several years in the Solomon Islands, up to being School Principal for three years. Jeremy then joined teacher education in 2000 with the Solomon Islands College of Higher Education and with the University of the South Pacific since 2004. His research interests are in the areas of physical activity and health; physical education teaching and curriculum; and Solomon Islands educational issues.
- 11. **Briar Wood** is Senior Lecturer at London Metropolitan University. Her research is in Pacific and New Zealand literatures, especially poetry. Her most recent poetry publication is Welcome Beltane published by Palores Press.
- 12. **Shaiza Janif** obtained her Bachelor of Arts degree (Geography/Language & Literature) and Graduate Certificate in Education from the University of the South Pacific in 2011. She was also awarded the Vice Chancellor's Gold Medal for being the most outstanding graduate with a major in Education. During her undergraduate years, Shaiza was part of numerous Archeological Research Projects. She conducted a research project titled "Narratives of Lost Lands" under the co-supervision of Professor Patrick Nunn and Dr Frank Thomas. Shaiza has also presented at two international conferences on the value of oral narratives in decoding environmental and societal pasts. Shaiza is currently enrolled in the Masters in Climate Change programme and has a keen interest in researching about oral narratives, gender and culture, education and culture, traditional environmental knowledge and Lapita era in Fiji.
- 13. **Pio Manoa** is one of the foremost poets from the Pacific. His work spans the past four decades and has been widely published and anthologized. He held various academic and administrative positions at USP. Currently, he is making important contributions through his work on the Catholic Education Board in Fiji, and as Principal of Corpus Christi College.
- 14. A theatre director and designer, **Ian Gaskell** was trained in Canada where he worked as both an academic and professional theatre artist. He obtained his doctorate from the Graduate Centre for the Study of Drama at the University of Toronto, with a dissertation on Elizabethan Drama.

Ian was the Foundation Professor of Theatre Arts at the University of the South Pacific in Fiji, a position he held for twelve years. In his years at USP he directed and designed major productions of plays by Edward Bond, Ntozake Shange, Bertolt Brecht, William Shakespeare and local playwright Larry Thomas.

He currently works for CQUniversity in Australia, where he is Senior Lecturer and Head of Program for the Bachelor of Theatre degree.

- 15 .Lingikoni Emelio Vaka'uta has been a practicing artist for more than a decade. He was the first artist from Oceania Centre, USP to win the Common wealth arts award in 2003. He has exhibited widely locally and overseas, from New Zealand to London. Mr. Vaka'uta has conducted artwork shops in Fiji and other Pacific islands and is passionate in capacity building younger artists who have no access to further trainings. Lingikoni has a BA from USP and currently doing his MA in Pacific Studies and researching on contemporary art development in Fiji.
- 16. Dr. Karin Meissenburg is director of Global Dialogues: www.globaldialogues.com an international translation, publications, editorial and assessment agency which deals with visionary ideas and ecological solutions. She teaches Kaitiakitanga Permaculture and is author of several philosophical books: www. dunsfordpublishing.com She tours the world teaching Kaitiakitanga and performing at bookfairs, festivals and conferences with Maori author Cath Koa Dunsford. She as passionate about making sure that traditional cultures are honoured with integrity in global communications/korero in the sense of mo'olelo/talkstory, "let the spirit fly between people". She devotes her time to empowering causes which she believes in. She is currently touring Europe with Cath Koa Dunsford appearing at the International Festival in Berlin, The Frankfurt Bookfair and the Zofingen Literary Festival in Switzerland. Dr. Meissenburg is also working on a new Culinary Seaweed Book. Survivors, Cath Koa Dunsford, limited edition with woodcuts, Global Dialogues Press, 2012. Kiatiakitanga Pasifika, Cath Koa Dunsford, Global Dialogues Press, 2012 [to be launched by Witi Ihimaera at the Frankfurt Bookfair, 2012, where Aotearoa New Zealand is Guest of Honour: nz@frankfurt
- 17. **Mohit Prasad** teaches Literature at the University of the South Pacific (USP) in Fiji. He is the Director of the Pacific Writing Forum and Associate Dean for Research and Graduate Affairs in the Faculty of Arts, Law and Education. Among his publication are four volumes of poetry, Eyes of the Mask (1998), Eating Mangoes

(2000), Kissing Rain (2006) and Songs of the Jahajin (2010). He has edited two anthologies, Saraga! (2006) and Dried Shells (2008) both feature new writing from Oceania. He has published numerous journal articles and delivered papers and addressed at various conferences. He is the general editor of Dreadlocks, a multidisciplinary journal of the Faculty of Arts, Law and Education.

