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Kyriiri Oy
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FOREWORD David Hawkins

Kia ora

The Department of Design and Visual Arts, from the Faculty of Creative Industries and Business at Unitec was proud to host our friends and colleagues from around the world at *Cumulus Aotearoa*. We were all delighted by the very positive reaction we had to the event and look forward to strengthening the friendships made and academic collaborations begun.

The themes of this event – Māori and Pacifica story telling, and sustainability – are inter-twined via traditions and practice both indigenous to the South Pacific and from more distant origins. A fifteen-generations, and more, approach to sustainability is traditional, but now being embraced by increasing numbers of creative practitioners and sometimes politicians. Narrative content and cultural context frame meaning and help to establish value in increasingly de-materialised creative outputs.

Our two keynote speakers both work extensively with wood and sustainable materials and share a concern for the environment and for narrative.

Master Carver Lyonel Grand, PhD [honoris causa] described how he envisaged, designed and constructed the wonderful Wharenui, Ngakau Mahaki at the Unitec marae. He has combined an ancient structural approach, Whakairo (carving techniques), Raranga (weaving) and the use of the latest technology to tell the story of the Auckland region and the Wairaka campus.

The second keynote speaker David Trubridge uses sustainable materials to create dramatic and poetic objects, furniture and lighting with a wide and increasing international audience. His background as a naval architect informs his work with wood in particular as does the landscape, culture and climate of New Zealand (Aotearoa).

Delegates were welcomed to the Marae in a Powhiri (welcome ceremony) and after the keynote speeches took part in workshops on jewellery and weaving which ran alongside papers and discussions across a wide range of topics including film, cultural collaborations, social studies and design.

The welcome and closing ceremonies and social events were as much a part of the content of the pre-conference as the papers and demonstrations, each reinforcing the value of the other.

We are grateful for the presence of Cumulus at our campus and for publishing a range of the content presented at *Cumulus Aotearoa*. We welcome research and teaching collaborations and invite you to contact us about exchanges and our artist in residence programme.

We look forward to your return.

Naku noa,

David Hawkins
Head of Department of Design and Visual Arts
Unitec, New Zealand

Christian Guellerin

About New Zealand, Culture, identity and design…

It was a very moving experience to be hosted in New Zealand. There was a constant and definite effort to offer foreign visitors a unique experience and show them the original culture of the island. There was not one reception, speech or ceremony in which we did not hear a few words spoken in Maori, as if it to pay homage to their past and their strong, unique identity.

Without referring back to or knowing what was done in the past, there is no hope for future creation; we simply risk repeating what has already been done elsewhere. Acknowledging the past is a way of acknowledging one's culture, one's individuality and one's identity and helps us improve our creativity and better understand how to change what needs to be improved.

With globalization, the risk is that these identities are overridden by a standardized modern culture. It is essential for designers to go back to their roots in order to stand out from the rest. To be different is indeed the challenge today's designers face. Their role is to create, to break away from the established order and explore new ground.

The experience in New Zealand has made us reflect on our own school and cultural models. Degree holders are used to saying they graduated in such or such city or school: Helsinki, London, Milan, or Auckland… But will this still make sense in the near future? Will it still make sense to say this for students who spent 2 semesters in London, 1 in Helsinki, 1 in Milan, 1 in Auckland … and finally obtained a degree elsewhere.

Times are changing and models must be reinvented because students who complete their Bachelor's and Master's curriculum in the same country, in the same institution – thus limiting their mindscape to one single culture – are becoming scarce… and odd. The ongoing globalization spurs students to accumulate a wide variety of cultural and technical experiences and to hone their ability to appreciate make the most of differences. But then, what type of degree is the most appropriate for the students of tomorrow? And above all, what identity should this degree have? One solution would be to implement a degree common to all schools; but this is risky because doing so could jeopardize schools and their identity, their specific know-how, their uniqueness.

We'll probably be compelled to focus on values other than degrees, to define other criteria for selection that go beyond titles, training courses, places… and ultimately create new kinds of identity.

Thank you to all those who brought this unique experience to Cumulus: Dr David Hawkins, Associate Professor – Conference Chair, Dr Leon de wet Fourie, Associate Professor – Executive Dean Faculty Creative Industries & Business, Annabel Pretty, Conference Executive Officer, Dr Rick Ede, Chief Executive Unitec Institute of Technology, Hare Paniora, Pae Arahi Unitec and the rest of organizing team.

Christian Guellerin
President of Cumulus

KEYNOTE Lyonel Grant

Wharenui 'Ngakau Mahaki'

The following is a summation of an address I gave to the assembled Cumulus conference delegates in the Marae complex facility known as Te Noho Kotahitanga located at the Unitec Institute of Technology Owairaka campus, Mt Albert, Auckland on the 9th of November 2009.

While it is customary to pre-empt such an important address with the preparation of a formal script, I felt moved to access the mood of the conference collective and thus let the meeting house speak through me. Therefore this account is not a verbatim interpretation of what was said, rather a retrospective synopsis that hopefully will recount the essence of my speech at that time.

As the general underlying themes of the conference were storytelling and sustainability, for me the Marae project that I had recently completed that year, namely Te Noho Kotahitanga, was the perfect vehicle to eloquently convey these sentiments. While my initial response to themes such as sustainability in particular were predisposed to the impact on natural resources, the more I pondered the topic, further augmentation of the theme began to emerge. For example: the sustenance of a living culture as embodied in the building space, its build methodology, and its ornamentation. The maintenance and nourishment of language, culture, and relationships, are all as relevant as the salvaged timbers that were harvested after a 30 year period of languishing in the elements since their clear felled demise in the 1960's.

In addition to the narratives that comprise the art work both interior and exterior, the story or stories of the journey that created the meeting house werejust as prevalent. I hoped that the audience got some semblance of that story…

Wharenui 'Ngakau Mahaki' **by Dr Lyonel Grant**
Kia ora koutou katoa nga hau e wha, nga Manuhuri tuarangi, Nauami haere mai ki te poho o teneitupuna whare Ngakau Mahaki. Koutou kua tae to koutou tinana ki te whakamana, ki te whakahapai, ki te whakamana ki tenei hui whakahirahira o tatau, noreira nau mai, haere mai, whakatau mai.

If you should ask me what is your mountain? I would reply; Ko Matawhaura toku maunga, ko tera te kohatu korero a Pikiao.

Should you ask me, what is the body of water you affiliate to? I would reply, Ko Te Rotoiti kite a Ihenga ko tera toku moana piataata.

Should you ask me, on what ancestral canoe did your forbears arrive to this land? I would reply, Ko Te Arawa toku waka tupuna o nehe ra.

Should you ask me what is the place you feel the right to stand and call your own, I would reply, Ko Hohowai toku turangawaewae.

Should you ask me, who is the principle ancestor to whom you trace your genealogy? I would reply, Ko te Takinga toku tupuna. I noho ai ia i taua whenua.

No reira Ko Takuta Lyonel Grant toku ingoa, kia ora huihui mai tatau katoa.

During the initial moment when you, the esteemed visitors from afar entered the wharenui I was personally moved to wonder, what where your initial impressions? For me this environment is the frontline of our culture, our history, genealogy, our artistic expression in an 'all welcoming' embrace – in fact it is a moment of truth when all 'bullshit' is swept aside, when your ancestors and mine meet in a common place. Our ancestors are portrayed on the back wall of the meeting house. The forced perspective seemingly makes them melt into the landscape that terminates in a horizon. This space in the walls composition represents Te Ao Wairua or the spirit world. The divider between the spirit world and the physical is delineated by a row of vertical figures I call them the 'arai' or veil that delineates the two worlds. From that point the chronology begins and the story of human occupancy in this area is recounted through the exploits of famous and infamous ancestors together with topical snippets of history.

To create such a place one needs a vision. The vision needs to be shared by others to realise it, and the physical and financial resources somehow must be found to nurture the dream. The bulk of the physical resource the timber, was acquired from an area called Heruiwi

some 300 kilometers to the south of Auckland. Large native timbers were retrieved from the cutover remains of commercially harvested exotic pine forests. Some of these trees were in excess of a thousand years old and ironically took less than ten minutes to cut them down. Be that as it may, with the generous support of the local people, I was able to salvage enough material to build this wharenui. While this could be viewed as a good example of sustainability in a physical sense, many other sentiments, processes, and approaches were inherent in the project as a consequence. These elements further constitute the concept of Sustainability.

While at the time of my initial training at the New Zealand Maori Arts and Crafts Institute in Rotorua, the meeting house models that were commonplace then were essentially a pre-prepared 'box' structure that basically allowed embellishment to be added retrospectively. The conscious approach I wanted for this house, my third, was that the artistic elements that comprised its configuration would also have structural integrity – thus returning to the ethics or initial approaches our ancestors utilised for their built structures. This approach was to challenge people's perceptions, force rethinking of modern codes and consents as issued by local and municipal council bodies. Intrinsic in the process also were artistic portrayals and representations that importantly were key elements in the substance of the building – the art needed to represent relevant themes and topics both ancient and contemporary. Thus the 'sustaining' of history, mythology, and story were important in the narrative mix. This function was achieved by the use of a chronological sequence that runs through the art portrayals from within, and sequentially to the outside of the whare. Modern and contemporary topics could be incorporated, but were indelibly linked to past events via the chronology.

One example from the 1950s features a person who was incarcerated in the mental institution established on the site of this educational institution. The hospital ceased to function around 25 years ago. It transpires that this man Rolf Hattaway, had sustained head injuries in a fight that left him in need of care. His father had him committed some time after. An artist Theo Schoon was moonlighting as an orderly at the hospital, and observed this patient creating drawn compositions out in the exercise yard – he encouraged Hattaway to fill a scrapbook with his drawings, some he used in his own work, it is understood that he acknowledged the source – a close friend another well known modernist of the time Gordon Walters also was privy to the drawings. In 1998 a show was curated by Damian Skinner and art historian. The resulting catalogue became a rich source of stimulus for that particular carving in the whare. Not only does it acknowledge this man, who was a key part of the history of the land, it also is indicative of the time and its attitudes. Hardly a glamorous subject, but to me the resulting poupou has equal poignancy in a lineup of 29 others.

In addition to the tangible, oral histories and customary practice are also significant by virtue of the fact that traditional ceremony pervades all activity in the meetinghouse; themes that feature traditional songs and oratory flourish in the forum produced. It should always be the case that the first words uttered, especially in a formal situation, be those of our ancestors that emanate from this land.

Once redundant traditional building methodologies were recalled for this project and indeed augmented with a synthesis of modern materials and approaches to achieve necessary load and safety issues given the increased dimension of the structure. Eclectic groups of staff, students, artists, management and professionals were required to co-exist for the success of the project.

Figure 1. Hattaway Poupou – Photograph by Stephen Robinson. **Figure 2.** Inside Ngakau Mahaki – Photograph by Stephen Robinson.

These are all areas that undoubtedly enhanced the concept of sustainability.

In a wider context, the establishment of such facilities serves to educate those who are largely unaware of the Tangata Whenua history imbued in this land. The Maori are now synonymous with the world's perception of Aotearoa New Zealand. While many ethnic groups currently share our country, there has been a move in the last 30 or so years to infuse Maori awareness into the conciousness of learning institutions, Hospitals, local councils and indeed at higher governmental levels. This awareness has created a fertile environment that allows the establishment of such initiatives as Ngakau Mahaki.

I believe that this situation nationally, adds further to the international chorus of the indigenous cultures that face increased threat of extinction. May our mahaki meetinghouse here at Unitec work endlessly to bring cultures together. May we all long sustain those things that are important in our lives such as who we are and where we come from.

To you who have bought your ancestors with you, who represent many and varied cultures, you honor us with your presence – May you take fond memories of our land and people back to you come from

Kia ora tatau katoa!

Unuhia te rito o te harakeke, kei whea te komako e ko?
E kua whakatairangitia, rere ki uta – rere ki tai,
Mau e ki mai, He aha te mea nui o tenei Ao?
Maku e ki atu ki a koe,
He tangata he tangata he tangata.

If the central shoot of the flax bush should be severed,
where would the bell bird feed?
By sky land or the sea, if you should ask me,
What is the most important thing in this world?
I would surely answer,
It is People, it is people, it is people!

Lyonel Grant PhD (honoris causa)
Master Carver and creator of the Unitec Marae
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Glossary of Maori words and terms:
Kia ora be well, thank you, hello
arai veil, curtain, metaphoric divider
Te Noho Kotahitanga Reside in unity
Marae Traditional customary space, now modified to accommodate a large usually carved structure and dinning facility.
wharenui large house
tupuna whare ancestral house
poho interior
Rotorua City 200 kilometers south of Auckland
Kua tae have arrived
Owairaka Original name for Mt Albert
Koutou tinana your bodies (physical form, in person)
Heruiwi Land block where the carving wood was procured
whakamana to add intensity
Tangata Whenua People of the land
whakahapai elevate or intensify
toku my
Ngakau heartfelt
Mahaki humility
hui whakahirahira auspicious gathering
Tatau katoa us all
haere mai come hither
whakatau mai welcome
Koutou You all
tenei this
Matawhaura Name of a particular mountain
Nga hau e wha the four winds
maunga mountain
kohatu rock
korero speak
Manuhuri tuarangi visitors from afar
Pikiao A famous ancestor
moana piataata glimmering lake
Nauami haere mai Welcome
Te Rotoiti kite a Ihenga The small lake seen by Ihenga (another famous ancestor)
Te Arawa toku waka tupuna o nehe ra The Ancestral Canoe called 'Te Arawa' from ancient history
Ko Hohowai toku turangawaewae The marae I have connection to called Hohowai
Ko te Takinga toku tupuna. I noho ai ia i taua whenua Te takinga (an ancestor) who has resided there for on a constant basis

KEYNOTE David Trubridge

The moral of craft

1 Introduction

In this talk I make no distinction between art, craft and design as objects. I use the words as verbs. They are processes, and everything we make is the result of a creative process made up from all three. The relative balance of the processes might change from one object to another, but to be successful creativity must employ all three.

2 Lost sensuality

In the beginning we lived in the forests. Not just 'in' as in "I live in a house", but totally IN, immersed and connected to the environment – subjectively. We were a part of it in the same way that we now see animals as a part of their environment. We were tuned to every nuance of sound and movement. The wind in the trees, or calls of other animals, sent messages we understood. The sounds we made imitated what we heard, reflecting the environment around us – they were subjective. There are forest tribes now who can still read bird calls and answer them. The only sense of time we had was not linear as we know it now but cyclical: day, night, day and the seasonal round. There was not the same sense of past, present and future. Hence our ancestors still lived around us, we felt their presence and communicated with them.

What happened to change this? One key event was the introduction of writing (words, not pictorial hieroglyphics) which was first used by the Hebrews to record their history as they wandered landless. It replaced an oral tradition and had the radical effect of making our language objective. Now it was no longer sound all around us – it became a series of fixed objects on a page, things separate from us. It didn't just live fleetingly as we floated the sounds from our throats, but remained mute and immobile, disconnected. As the words marched across the page there also entered a new sense of time as progression. Here was a visible written past, and an empty future full of potential. Time was no longer cyclical and became linear. Our ancestors moved into the past away from us.

At the same time as the Hebrews invented the first writing, they also introduced the concept of a single god. One word, one god. No more spirits and ancestors subjectively inhabiting the same space around us, but a separate and single being who issued commands. And a male being too, one that took influence and spirituality away from females into the hands of a patriarchy concerned with power. Spiritual power in women was turned into a threat to be destroyed, and with that went a sense of empathy. Males ruled and fought wars. To show sympathy was to be weak.

Now of course the invention of writing has had untold benefits to the human race, and I am not saying it was a bad thing. But it did come at the price of reducing connection to the natural world that gives us life. Until recently, while we still lived in some degree of balance with our environment, that price was not apparent. But that no longer remains the case and we have to reassess our relationship with that environment. How can we regain connection, an empathy, that makes us care more about the environment and others?

The point is that this is not something we can do intellectually or rationally. How can we regain a greater sensuality, a bodily connection that works through intuition rather than intellect.

3 Art and culture

What is it that defines us as human beings? Some would say our intellect and our hands, but other creatures have been shown to have similar attributes. What uniquely defines us as humans is our making of art. The main criterion that archeologists use to separate the first homo sapiens from the preceding neanderthals is their capacity to make art. Sapiens adorned their bodies with jewellery and painted on their cave walls. Throughout our entire existence as a species we have continued to define our identity with our culture through the things we make.

Every race, every society has its own culture which expresses itself, and reinforces its existence with its own sense of identity. If I say to you Aztec, or Egyptian, immediately visual images will come to your mind of their artwork and their buildings. Their cultures were achieved with a unique combination of collective imagination and bodily actions that tapped into the zeitgeist of the time. The bodily actions are called craft and the result art.

Craft is the interaction of body and material. As the available materials varied, so too did the results, which became a balanced synthesis of time, place and imagination. In the desert, houses were made of mud and stone, the scattered elements of the earth's surface being gathered and assembled by skilled hands. The craftsmen allowed their imagination to flow into patterns of decoration in the mud plaster that told stories about themselves. In the forest trees were cut down and carved and fitted together to create shelter. So, in all cases, the houses were an expression of time, place and people, all unique in their own way. No mud houses were built in the jungle or timber houses in the desert.

4 Aboriginal art

I'll give you what I think is the most perfect example of this synthesis of person, place, time and material: contemporary women's Aboriginal art of the Australian central desert. This remarkable culture has survived for 40,000 years – longer than any other on earth – and in one of the most hostile environments. These women's art is utterly contemporary and abstract in a western sense, but it is also one of the most finely attuned to landscape and tradition. How has this art of a tiny minority, living such a tenuous existence on the margins of the world, come to strike a chord with so many people in so many places? I believe that the key lies in the process by which they achieved their results – in their ability to connect so thoroughly to the landscape in a way that we can only dream about. They do this through their bodies, emphasising with the earth, feeling it like another body because to them it is another body. Then through rhythm, through total immersion and loss of all ego, their body and the earth together, make marks. Some of these artists claim that their art is a cry of help to the west to look after the land.

5 Craft

As I have shown, the skill of making is as old as we are. It is absolutely essential in the creation of culture, of finding and expressing our identity at any one time or place. But what is its essence? It is knowledge, but not rational knowledge. It is a knowledge that resides in the body. It is not learned by exercising the brain, by reading or talking. It can only be learned by doing… again… and again… and again, many hundreds or thousands of times. It is stored in muscles and nerves, not the brain. When you have learnt to ride a bike, it is not a rational thought that tells your leg to move at a certain moment. That is too slow; it is a direct action from the muscle itself. There is no conscious thought directing the action. Similarly, the lightening reflexes of top martial artists are only possible because they have trained themselves to cut out the brain and the time it takes to respond and send messages to the muscles.

I can tell you how to hold a chisel and to turn a piece of wood on a lathe. But you will only become skilled in your instantaneous reflexes when you have practised it many, many times. The hand itself needs to know, and not just the hand, but the whole body behind it. That is the essence of craft. It is the gesture that contains within it countless hours of experience, and knowledge of tool and material. And with that knowledge of material, traditionally comes a knowledge of place.

6 Craft today

There is currently much discussion about how new technology is changing the way we make things. What role does craft play in the world of computer aided design? In my company we do a lot of designing on computers and we use a CNC router for much of our production. Where is the craft? I am sometimes asked.

Firstly, I am adamant that you can't design what you don't know how to make. How could this be otherwise?! Yet I see many design students and graduates who create the most amazing ideas on a computer, which I know instantly could not possibly be made. When I build a structure on a computer I know what I can ask the wood to do. It is not a rational, engineering calculation; it is an innate feeling for the wood, built up over years of experience working with it. My body knows how much I can bend that piece of wood before it will break. Computer design has to be based on thorough craft knowledge.

Secondly, there is drawing. The computer is a tool – it contains countless small operations and given symbols which we can select and use. If this is your sole vocabulary, then your results will be limited and similar to all other such (mathematical?) designs. Sure it allows us to make extremely complex items, but I would argue that there is no craft in this. And quality does not require complexity. (Even without CAD, in a similar way there are too many designers who use existing vocabulary and forms, leading to derivative and unimaginative work, rather than developing their own through their art process).

I never start on the computer without having gone through a series of sketches and drawings. Occasion-

ally I have thought I could, but the curves just didn't look the same and the result became bland. Sometimes I scan my sketch and place the curve into the computer (essentially the same as using a tablet, or would be if the tablet were much larger and you could use your whole arm). This is where the body comes in. The body becomes the pencil, it is the line, it is inside it, pushing, moulding the line, feeling for the right point of intensity of the curve. It is an outflowing of countless years of training and experience which no machine can come close to replicating. It is also a result of eye-hand coordination, or 'the thinking hand'.

But now, having done this, the computer allows you to do some amazing developments, totally impossible in any other way. For instance, in my 'Three Baskets' lights, each quarter of the base basket part contains no repeated shape – every single shape is different, and asymmetrical on both axes. Yet, having drawn the original, I was able to generate all these shapes with one single click of the mouse! And then the CNC machine cuts them out – exactly, while I have a cup of coffee – or do another drawing!

The point is that drawing is another craft, another form of bodily embedded knowledge. The skill does not come easily (though more so with some than others); it needs to be constantly practised and honed. The best practice is life drawing. It trains you to draw, like no other way, because you can uniquely put your body into the same pose as the model. You can FEEL what that pose is like, and so draw from within. Your body tells you how the weight is being transferred, which muscles are loaded, and your same muscles can drive the drawing process. This teaches empathy, but it also teaches drawing as a bodily expression.

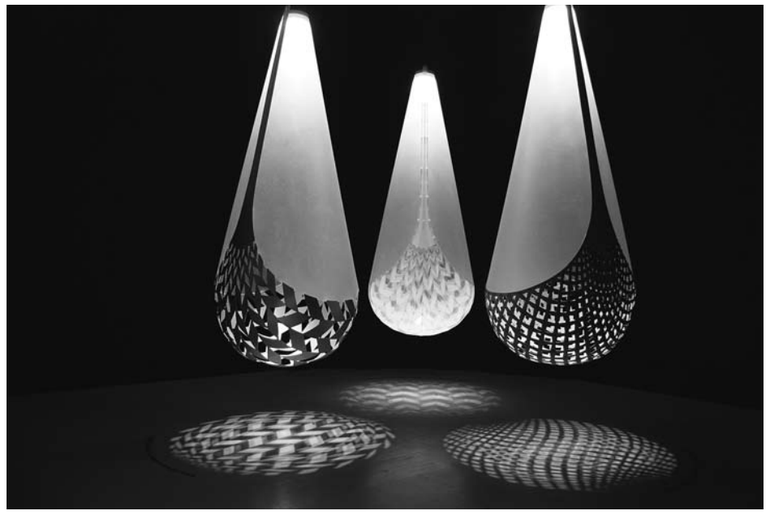
7 Craft education

This argument has an unavoidable implication for education. For some time there has been an approach in craft design courses that focused on teaching design and theory, with the belief that the manual skills will be picked up as you go along. If the essence of craft lies in manual skill which takes time to acquire, then this cannot be true. I suggest that the students are patently not being given the training they need either to be craftspeople or designers; and that skills training is reintroduced. In my studio we have quite a few interns, most of them from France, and they all have far better practical skills than local graduates.

So, through the physical act of making, the bodily skill of craft, we have a way to re-connect sensually with our environment, with our time and place. This allows our non-rational attributes to develop: our intuition and our bodily empathy. What are the wider implications of this?

8 Craft and care

When I worked as a furniture maker I always found it very difficult to throw away wood or to waste it. I would spend far longer than it was worth, trying to fit all the bits I wanted out of one plank rather than quickly using two planks. This is a common trait of craftspeople. It is because we CARE. Care is a fundamental component of craft. We care about what we are doing. We are not just making something as quickly as possible. We want it to be as well made as we can, using the best materials and to last as long as possible. All this because we care. Mass produced items have the care taken out of them; they are made to be as cheap as possible and to last a short time so that you can come back and buy another soon. Anybody who cared would not make, or buy, these, because in doing so they are squandering limited, precious resources.



"In my 'Three Baskets' lights, each quarter of the base basket part contains no repeated shape – every single shape is different, and asymmetrical on both axes."

In his book 'The Craftsman' sociologist Richard Sennett argues that another aspect of this care – and fundamental to craft – is doing a job well, purely for the sake of it. The result matters: you care about it and prefer to spend what time it takes to get it right. By contrast the prevailing attitude in business values speed – it is more important to get the job out fast, than it is to get it right. You are penalised if you focus on resolving details. Windows Vista is a typical, badly resolved, unfinished product that is thoroughly uncraftsmanlike. It is also a question of respect for the worker. If the craftsmanship and craft knowledge of builders is valued as much as their efficiency, they will be more content and the outcome will be better for everyone.

9 Empathy

Care is directly linked to empathy. If you don't care about something, you disconnect from it; if you care, you are connected. That connection is empathy. Because the essence of craft is within the body, the connection of caring is bodily. We feel through our bodies, not our minds. Our minds can be manipulated; our bodily knowledge cannot. The ultimate bodily connection is mother to child. That is why the mother cares so passionately about her children: she has such a strong bodily connection, such empathy. That is why women care so much more than men, why they bond more socially, why they don't go to war. Soldiers are trained to shut off their feelings, to disconnect from the enemy as a person, in order to kill them instantly. To empathise is to show weakness and hesitation.

Empathy cannot lie – it is an ultimate moral truth. I can create a strong rational argument why a business should undertake certain operations, and convince the board to pursue them, even though some of the means might only be justified by the ends. But if you empathise with the outcomes of those means, if you become connected, then you cannot allow it to happen. If you put yourself in the place of those who are suffering how can you continue to inflict the pain?

10 The moral of craft

Thus, at the core of craft is a moral truth. This moral is a paradigm for how we live. The paradigm is based on connection, on empathy. The reason why there is so little care for the environment, why we have caused so much damage, pollution and suffering, is because we are disconnected. If we saw the results of our actions would we continue to pursue them? Would Asian diners continue to consume shark fin soup if they saw the live, definned, fish slowly, helplessly sinking to the ocean floor, its eyes frantically rolling as it suffocated? Would drivers be so careless about petrol if they saw the suffering and destruction in the oil-producing Niger delta?

The University of Rochester recently did an experiment which proved that people who are connected to nature (even by large photos of forests and mountains inside their living spaces) become more empathetic, generous and community aware. Those in dense urban environments become more focused on personal wealth and fame. So empathy (in this case with nature) actually changes the way we are. In that case the same must be true for craft. It is not just a coincidence that craftspeople tend to be more community and environmentally aware. Probably the profession attracts more sensitive people, but this research now shows that empathy also increases those qualities.

And if surrounding ourselves with nature makes us sensitive and generous, then surely so also does surrounding ourselves with art and craft? We live in industrially designed environments that are increasingly homogenous, bland and impersonal. There is less and less cultural nourishment and stimulation, such as past civilisations had. We carelessly and frantically consume un-nourishing products which are like junk food. In the process we destroy the environment. Never have people been as privileged as we are, but have all these material benefits improved our humanity?

Through a greater sensuality – through connection back to nature via our bodies – I believe we can generate a greater empathy which will improve our humanity. Through art, craft and design we can create more personal spaces in which we can immerse ourselves, in which we can feel a sense of bodily connection, identity and spiritual nourishment. That would make us more fulfilled and better people.

I believe that connection and empathy are keys to realising greater care, both for other humans and all other life forms on earth. The processes of craft are one way to that empathy.

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Roger Bateman

BioChair – Adding Value to the Biomaterial Story

Where does New Zealand design come from? It is debatable whether there is something that you can definitely call New Zealand Design. There is design from New Zealand and things that have been designed made or manufactured in New Zealand. One could argue that it is illogical to try and distinguish between design from different countries as many companies sell their products in a global market and therefore cannot afford to design just for a home market.

Many New Zealanders would say that there is something special about New Zealand design: that a product from New Zealand can be identified as such, that a building has a certain 'New Zealandness' about it – but what is it that makes up this New Zealand feeling, aesthetic and sense of place?

In his book 'Looking at art in New Zealand', Peter Tomory suggests that:

> *'the New Zealand aesthetic was different to that elsewhere. This statement is based on the premise that aesthetic appreciation is determined by visual experience: that as we go through day-to-day life, we acquire a visual vocabulary of the natural and man-made forms that surround us'.* **[1]**

Tomory used the term 'totem' to describe these visual contacts in New Zealand:

> *'with its few cities and fewer architectural landmarks, the land still provided a great number of the 'totems' by which New Zealanders developed their aesthetic measurements. The lack of European masterpieces, and the impress of the landscape, he concluded, produced a unique New Zealand aesthetic'.* **[2]**

Travel around New Zealand and you will see kilometre upon kilometre of green landscape, pastures, rolling hills, volcanic terrain, flora and fauna, off-shore islands and sea. It is probably this landscape and life within that landscape that has, over anything else, contributed more to forming a New Zealand aesthetic. It could be said that New Zealand design comes from the landscape.

In 1999 leveraging of the landscape and its natural beauty, Tourism New Zealand branded the country as "100% Pure". In its award winning advertising, Tourism New Zealand uses images of the landscape to reinforce it's brand story. But is this the kind of image contemporary New Zealand should be portraying?

In January 2007, New Zealand design, innovation and business magazine Idealog published an article called 'New Zealand Meet the New You'. In this article author Jake Pearce argues that New Zealand needs to portray itself in a far more innovative and contemporary manner:

> *'the '100% pure' campaign plays to this stereotype. Its panoramic spreads of white mountains and whiter beaches reinforce the perception that we do little more that raise cattle and run up mountains for kicks'* **[3]**

New Zealand is struggling to live up to the '100% Pure' image economically, environmentally and socially. Business pundit Rod Oram states:

> *'economically: we're fast loosing our competitiveness in the commodities that dominate our exports; our current account deficit equals ten percent of GDP.*
> *environmentally: our urban lifestyles and rural farming practices are putting unprecedented pressure on out natural resources'* **[4]**

Jude Hooson director of market strategist The Providence Report believes that '*the defining issue for New Zealand's economic future is our ability to apply our best minds and creative talents to our environment'* Hooson suggests:

> *'we have a deep biological economy with 70% of our exports traceable back to our industries of land-based innovation. The bottom line driver of our wellbeing and competitive advantage is our ability to make nature work for us and land-based innovation is our version of Finland's Nokia story'*
> *'Brands with global interest will carry the New Zealand value of sophisticated simplicity'* **[5]**

Undoubtedly, if New Zealand is to remain competitive in the global market place and not see the '100% Pure' image become its Achilles heel, it must manoeuvre itself into a position to fully realise and capitalise upon it's brand built upon the purity of its products, exports, landscape and tourism.

Furniture Design and Sustainability.

In their book 1000 Chairs, design writers Charlotte and Peter Fiell argue that:

> *'beyond matters of function and structure, the fundamental worth of chairs, past or present, lies in their communication of attitudes, ideas and values.'* **[6]**

The Fiells go onto say:

> *'over the last 150 years, the evolution of the chair has paralleled developments in architecture and technology and reflected the changing needs and concerns of society to such an extent that it can be seen to encapsulate the history of design.'* **[7]**

In his book The Eco-Design handbook Alistair Fuad-Luke suggests that the ultimate design challenge of the 21st Century is to avoid or minimise the adverse impact of all products on the environment. The us market for office furniture in 2008 was an estimated 12.9 billion **[8]** and within this sector, few office furniture manufacturing companies were exploring sustainable design and production as a means to tackle the challenge proposed by Fuad-Luke. Furthermore, furniture manufacturers that were investigating eco sustainable furniture production tended to focus on the recyclability of high-energy embodied technological materials rather than on the utilization of renewably sourced biopolymers that have a wider range of 'end of life' options.

Added to this is research into 'sick building syndrome'. Whilst many companies develop better performing, more ergonomically refined chairs few are taking into consideration the health of the office worker. One aspect of sick building syndrome focuses on indoor air pollution from off gassing volatile organic compounds (vocs) of particular plastics and man made materials commonly used in office components. There exists the need for new design solutions and material developments that will lead to improved and 'healthy' indoor environments.

BioChair – Out Of The Landscape.

The BioChair project began in early 2009 and is collaboration between Unitec and the Government owned Crown Research Institute Scion. Scion is focussed on research for the benefit of New Zealand and the formulation of bio based polymers forms one of Scion's key research areas. Within the broad area of bio based polymers Scion's research focuses on understanding the interactions of polymers with wood and pulp fibres, and how these interactions impact on processing and performance. In the past Scion have produced a biodegradable biopolymer that is used in the manufacture of small weed matt pegs. Even though Scion have worked on a number of small-scale biopolymer items there has been limited commercial uptake of biopolymers in New Zealand.

The idea of combining wood with natural bio based polymers in the design of a piece of exportable commercial furniture was seen to offer the opportunity to bring together the 'naturalness' of New Zealand with industrial design to create an innovative and original product that could express the new contemporary country brand those such as Pearce and Hooson argue is needed. Furthermore, the BioChair project aims to create and commercialise the first furniture design made from New Zealand formulated biopolymer in a 'sophisticated-simple' product. New Zealand, like most other countries, is beginning to see a growing introduction of bioplastic and biodegradable plastic materials within the plastics industry. The market penetration of bioplastics in the global plastics industry is expected to grow from less than 100,000 tonnes a few years ago to a level approaching 1 million tonnes by 2010. **[9]**

From the researchers perspective, the area of commercial furniture production provides an excellent application for the new bio based materials as it is a specific example, yet material characteristics required are common to many other applications.

Wood is a natural resource with qualities that are in demand by an environmentally aware society. It is renewable, biodegradable and has a green image not enjoyed by other materials (such as metals, concrete and plastics). The challenge is to enhance the value of wood by providing uniform performance without compromising its green image. Increasingly polymers will fill this role. Polymers are compounds made up of simple, identical repeated units. They are uniform, predictable and can be designed to form structures with specific properties. By combining wood or wood fibres with polymers, the renewability and biodegrability can be retained while improving the variability and stability in service. **[10]**

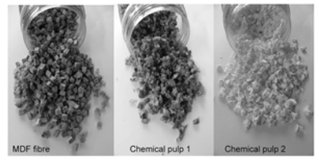
In recognising the importance of sustainable furniture and the contributing elements of 'Design' and 'Materials', the researchers developed a framework for a sustainable chair. [FIG 1]

From experience gained in the furniture industry, the lead researcher was able to define the initial focus of the chair project. It was decided that the target product would be a fixed height, 4-leg 'visitor chair' which is traditionally used in waiting rooms, conference rooms, chairs to be brought out for special functions or a more

Figure 1. (this page) Stages 1–12 as shown in Figure 1. have been completed. Figure 2. shows the initial results of the LCA Cradle to Gate study for the BioChair undertaken by SCION and as presented at the 5th International Conference on Industrial Ecology in Lisbon from 21st to 24th of June 2009.
Figure 2. (next page) LCA poster for BioChair. Developed by Daniel Kellenberger, SCION.

Element	Work Content
1. Market research	• Internet & literature searching. • Determine important parameters for chair design and sustainability features. • Determine mechanical/engineering requirements and Standards to be met. • Results input to material selection and design.
1.2	• Interviews with manufacturers and users.
2. Formulation	• Review existing formulations. • Manufacture and test new formulations. • Determine optimum formulation to target the spec's of glass reinforced PP. • Results will input material selection and LCA analyses.
3. Material types	• Define the different materials to be used in the chair, including indicative formulation for thermoplastic components. • Results input to LCA analyses.
4. LCA (see Fig 2)	• Search for existing data on materials to be used. • For new formulation(s) undertake LCA studies where data missing and develop environmental footprint for compo-nents and then final chair. • Initial outputs will help in material selection/ refining.
5. Design and Model Making 1	• Multiple design concept development including CAD models.
6. Market Discussions	• Visit to NZ Furniture Manufacturers to discuss design, materials, route to market
7. Mould Making	• Visit to injection moulding company to discuss mould making
8. Design Concept Selection	• Selection of chosen design concept. Further development of concept including model making and CAD.
9. Manufacturing approach	• Sketch out a manufacturing pathway to assist LCA assessments and allow social impact assessment to be done.
10. Social impact assessment	• Determine the social benefits of manufacturing a sustainable chair – funded and outputs assigned elsewhere.
11. Base design	• CAD drawings of the selected concept chair.
12. Model Making 2	• Make 1:1 scale models using 'modelling' materials. • Assess form and function of chair and refine as necessary.
13. Component design	• Undertake further CAD drawings of components for engineering calculations and future manufacture.
14. Engineering design	• Use FE analysis (or other) to determine physical dimensions of components to meet performance requirements.
15. Full family concept drawings	• Concept drawings of other furniture items that would augment the chair in the market place.
16. Pull package together	• Collate relevant research outputs to be able to present 'sustainable chair' to commercial parties and those with vested interest (eg Govt agencies).
17. Commercialisation plan developed	• Prepare a commercialisation strategy and plan initial approaches to industry.

SCION
Next generation biomaterials



Environmental impact of novel biopolymers - a "laboratory to industrial scale" case study

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Introduction and Goal

Scion[1] and Unitec[2] are collaborating on the design of sustainable furniture using biopolymers. Various biopolymer formulations have been studied for desirable mechanical properties (i.e. a minimum tensile strength of 56MPa; Even et al. 2009). Three biopolymers combining polylactic acid (PLA) with different wood fibres meet these mechanical requirements. This study examines the environmental impact of their production. The environmental impact has been calculated on both laboratory and future industrial-scale production. Scenarios based on five current electricity options plus two future (average and marginal) options have been applied to determine the polymer/energy mix with the least environmental impact.

Materials

Three biopolymer formulations were studied:

- Chemical pulp 1 & PLA (CP1-PLA);
- Chemical pulp 2 & PLA (CP2-PLA); and
- MDF-based wood fibres & PLA (WF-PLA).

They were compared to a control of 20% glass fibres with 80% Polypropylene (GF-PP), Figure 1.

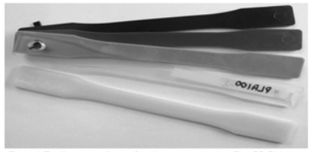


Figure 1: Tensile test specimens (from bottom to top): glass fibre-PP, PLA (not studied); chemical pulp 1-PLA, chemical pulp 2-PLA and wood fibre-PLA

The input materials/energy were grouped into ***polymers*** (either PP or PLA), ***reinforcements*** (chemical pulp or MDF wood pulp) and ***processing*** (drying of the fibres, extrusion and injection moulding).

Methods

The environmental impact was calculated using Life Cycle Assessment (LCA). The system chosen was ***cradle to gate***. The environmental impact from composting or landfilling was dealt with qualitatively due to lack of LCA data. The results are presented as Global Warming Potential (GWP in kg CO_2-eq.) for renewable and non-renewable Energy (MJ) as well as total Eco-Points based on the EcoIndicator 99 (H/A) methodology. The generation mixes of five existing electricity providers were used to calculate the **current provider** scenarios. The two **future** scenarios (**average** and **marginal**) used projected energy mixes [SOO 2008]. Applying **future marginal** electricity mixes means that a future industrial production of biopolymers will require additional electricity not covered by today's generation so these only take into account the difference between today's and the future electricity mix [SOO 2008].

Table 1 shows the **current provider** electricity mixes:

[%]	Electricity Provider in NZ (2008)					
Fuel type	Meridian	Genesis	Contact	Mighty River	Trust Power	Others
Hydro	96	17	32	61	73	63
Geothermal			20	19		
Biomass (Wood)				1		
Wind	4				27	
Coal		37				
Gas		46	48	18		37

Table 2 shows the **future average** NZ electricity mixes:

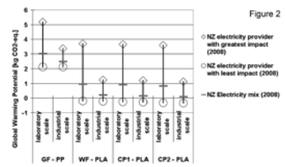
[%]	Average Future Scenario (2015)				
Fuel type	1	2	3	4	5
Biomass	1	1	1	1	1
Coal	4	3	3	9	3
Gas	18	19	19	18	24
Geothermal	16	12	16	12	12
Hydro	56	55	56	55	55
Other cogen.	1	1	1	1	1
Wind	4	10	4	5	4

Table 3 shows the **future marginal** NZ electricity mixes:

[%]	Marginal Future Scenario (2015)				
Fuel type	S1	S2	S3	S4	S5
Biomass	0	0	0	0	0
Coal	-14	-27	-28	28	-28
Diesel	0.03	0.02	0.00	0.01	0.00
Gas	-19	-6	-5	-19	42
Geothermal	86	48	90	49	52
Hydro	28	12	24	19	17
Other cogen.	0	0	0	0	0
Wind	19	74	20	23	17

Results and Discussion

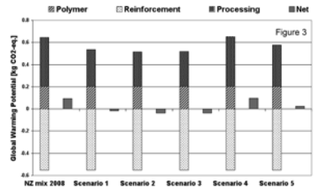
The Global Warming Potential for the three biopolymers based on **current providers** are shown in Figure 2:



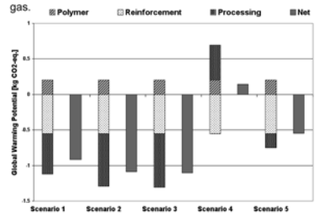
- The three biopolymers are all significantly better than the control on a laboratory scale. When up scaling the production to industrial scale, the production process will be more efficient so the environmental impact will be reduced further;
- By a slight margin, the best of the three biopolymers is the CP2-PLA; and
- For the biopolymers, GWP is negligible if using the most environmentally friendly NZ electricity mix.

The results for the best biopolymer (CP2-PLA) were then modelled with the **future average** and **marginal** electricity mix scenarios for GWP.

The results for CP2-PLA modelled with **future average** NZ electricity mixes (Figure 3) show that a large part of the existing non-renewable power sources are shifted to more renewable ones in Scenarios 1 to 3. Under Scenarios 4 and 5, changes in coal- or gas-generated power reflect changes in the use of other fossil fuel sources.



The results for CP2-PLA modelled with the **future marginal** electricity mixes for GWP (Figure 4) show that shifting some non-renewable energy (large negative GWP) to renewable energy (small positive GWP) energy reduces the environmental impact significantly in Scenarios 1 to 3. Scenarios 4 and 5 result in a net positive GWP due to small changes in the amount of electricity generated with coal and gas.



Conclusions / Recommendations

- Biopolymers have lower environmental impacts than plastics;
- Energy supply source strongly influences the environmental impact of polymers; and
- Increasing the proportion of renewable energy in the future will be critical for securing low environmental impact.

Acknowledgements

- Scion, specially support from Damien Even, Jeremy Warnes and Alan Fernyhough
- Clariant for providing industry data
- Roger Bateman from Unitec in Auckland, NZ for the good collaboration

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This poster was presented at the 5th International Conference on Industrial Ecology in Lisbon from 21st to 24th of June 2009

1. *The trading name of the New Zealand Forest Research Institute*
2. *Unitec Institute of Technology, Auckland*

www.scionresearch.com

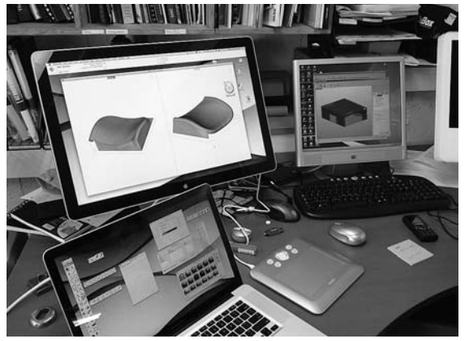

Figure 3. Illustrates CAD development work on the chosen design concept. Initial drawings constructed using Solid Works have been transferred into STL files that are now being used to make 1:1 models in Cibatool™

basic meeting room chair. The market is large and the requirement of visitors chairs, less demanding than that of task office seating.

Methodology.

The following methodology has been used in the development of the BioChair:

Test:

Data capture, Statistical Analysis, Material Development and Characterisation:

- Formulate a range of biopolymers and compound extrude followed by injection moulding to make samples for testing physical properties.
- Test for: Strength, stiffness, impact, cyclic fatigue and durability.
- Compare with properties of a reference polymer (20% glass reinforced polypropylene).
- Define key properties for design considerations.

Design:

- Design Data, Material Selection, Product Design.
- Research and analyse existing commercial furniture market with particular emphasis on 'visitors' and 'meeting room seating. (Define target market).
- Research into performance and safety standard applicable to target market seating.
- Create a number of design solutions for seating that suit the defined target market.
- Further develop design engineering via use of software and models.
- Create proof of concept 1:1 model (using appropriate model making materials and processes).

Market:

Exploration of market potential for biopolymer commercial furniture sales via:

- Exploration with manufacturers.
- Exploration with sales and marketing department.

Next stages:

Design work undertaken between Unitec and Scion seeks to prove that commercial office furniture can be made using biopolymer material formulated in New Zealand.

Working with Scion, polymer developments have been laboratory tested for mechanical properties, commercial moulding possibilities and end of life options explored, such as recyclability.

Design solutions are currently being completed and scale models produced for evaluation. In parallel to this a 50KG batch of Scion formulated bio based polymer has been mixed into pellet form. An injection moulded chair part has been made from the bio based polymer and is awaiting comparative testing against the benchmark material 20% glass reinforced polypropylene and testing for structural durability to NZ/AU commercial furniture standards.

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Paul Woodruffe.

Industrial Poetry.

Abstract.

One of the great opportunities that increased access to technologies and information has brought, is interdisciplinary practice between the fine arts and industrial design. As a student, these two pathways had at first appeared separate, and requiring different skills and temperament to study and practice. But on further enquiry into the subject of Landscape Architecture, which is considered an industrial design discipline, I discovered a past and present rich with unbounded trans-disciplinary and interdisciplinary practioners, where fine art methodologies have helped find identity and belonging in landscape, and have been used to influence and inform design.

I have based my Masters of Landscape Architecture project on how fine art practice could contribute to Landscape Architectural site analysis, and through this project demonstrate possibilities in interdisciplinary practice. The relationships between fine art practice and the articulation of *"sense of place"* has always been evident in map making, and it is in this cross-over that I hope to find a usefulness to Landscape architecture within my work. In this paper I describe my methods and findings from this project so far.

Methodology.

One of my first observations of making the transition from fine art practitioner to Landscape Architecture student was that I would have to understand normative site analysis practice, and place my work in context with it. What I had to do was establish at what level my site analysis artwork was to operate within the managing and developing of public open space, and what aspect of site analysis if any is not currently being utilised.

I started by selecting a site that I had known as a child, Centennial Park on Auckland's North Shore. There are projects such as the Common Ground movement in the UK, and the Bright Sparks funding scheme also from the UK that explore the relationship of artist and industrial environmental design. The former is engaged in preserving local distinctiveness and empowerment in the face of insensitive development. This is done through advocacy and the publication of guidelines and strategies that are designed to promote sense of place. One of the methods employed is to use local artists to conduct mappings of their towns and villages, thus giving a counter view to the authorities town planning data collection that is often done without the benefit of intimate local knowledge and experience, as (Wood, 2006, p.8) observes; *"Beyond their formal continuities, maps and paintings are both communicative, that is constructs intended to affect behaviour"*.

This process enables artists and crafts people to talk to Town Planning and Landscape Architectural practice through a complimentary creative process, this has been a distinguishing methodology for the Common Ground projects, for the reason (Kanarinka, 2006, p. 24) suggests; *"It is possible to think of a map not as a representation of reality but as a tool to produce reality."*

The Bright Sparks funding scheme offers a different approach, it explores public space potential through creatively led research that is achieved through partnerships between artists and public realm professionals. This scheme was set up by Haring Woods Associates, and Landscape+Arts Network as (Woods, 2009, p. 26) describes; "*The scheme champions the role of the artist in the development of the public realm, and the their intuitive response to spaces, places people and wildlife."*

These two differing ways of achieving similar goals offered me two methodologies from which to use as a model, I had to try the Common Ground approach first as no such scheme as Bright Sparks was available to me, unless I created one myself, not easy.

After my second workshop, when I had presented explorations through producing artwork based on locations within my site, it became clear that only through the use of my own fine art methodology could I produce work that could offer Landscape Architecture something that was not already available through existing practiced site analysis techniques, or too heavily coded. The aspect of site analysis I identified through research that is currently under explored was narrative, and as (Potteiger, 1998, p. ix) observes; *"…narrative offers ways of knowing and shaping landscapes not typically acknowledged in conventional documentation, mapping, surveys, or even the formal concerns of design."* What was also evident from my second workshop was that the artist should not abandon the poetic in order to come closer to the scientific, it is the dreaming and the poetic qualities of the artwork that the scientific data collection requires. The necessity for the partner-

ship arrangement in the success of the Bright Sparks Program was evident to me now, and I decided that I needed to find a partnership that could work in a similar way, and the model of the Bright Sparks Program was what was needed to for me as an artist to have currency in Landscape Architectural site analysis.

Having identified an unusual planting of Pohutukawa trees in the park, I completed three artworks of this landscape feature. From these artworks I discovered that the site contained significant historical importance, and this importance even though known by some local residents was not known to the North Shore City Council, under whose authority the park resides. From this artwork I discovered the following story of the sites construction;

In 1939 the local residents under the umbrella of the Campbell's Bay Beautification Society undertook to contribute to the national celebrations of the 1940 Centenary. They planned to do this in the form of a grand avenue in a similar style as Twin Oak Drive in Cornwall Park but they decided to use Pohutukawa.

The avenue was bulldozed to approximately 20 meters wide and 480 meters long, from one road-end of "Takapuna Reserve" (Beach Rd,) to another (Rae Rd.). For the Centenary the park was re-named "Centennial Park" and the grand avenue planting was started.

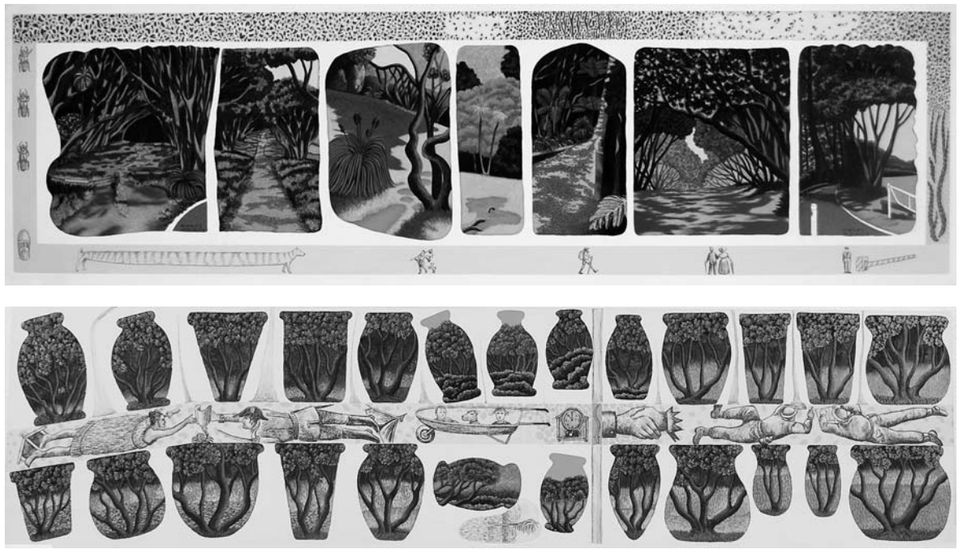
But in September 1939 the war had arrived, and the decision was made in 1940 when citizens were being mobilized to go overseas to fight to continue the plantings began in 1939, but each man leaving from the district would now have a tree planted for them in the avenue with their name written on a small plaque that was placed under their tree. And from that time on this avenue was known by locals either as "*Centennial Avenue*", "*Memorial Avenue*" or "*the soldiers trees*".

This impressive landscape feature had now become a hybrid memorial, one designed to celebrate the inception of nationhood signed at Waitangi in 1840, and to celebrate the courage of the men who had volunteered to fight for that nation. The hopeful possibility of partnership and nationhood that the cartoon from the Herald of 1940 endeavoured to create had been captured in this double row planting of Pohutukawa.

But by the beginning of the 1960's the origins of the memorial had been lost to all but a hand full of locals who had an interest in the park's history or witnessed the original construction.

The artwork made from researching images from various time frames from the life of the avenue of trees, and the findings of the site made through this process was presented to the council. The result from this presentation was that the Council changed the draft management plan of the park to recognise the avenue of trees known alternately as Memorial Avenue or Avenue of Remembrance to locals, as a listed historical site. In recognition of this work, the Council agreed to a partnership arrangement with me in the form of 120 hours of expert advice from the specialist council staff, as I required it. I now had something resembling the Bright Sparks model to work with.

As (Girot, 1999, p. 95) states; *"The central question today is whether we are capable of returning to a site-induced vision."* and the key word for me in that quote is "*site-induced*", and that is where my work could be of value, to explore the *genius loci* and to work complimentary to the council planners, managers and landscape architect. And in order to help me to identify what method I could use for a categorising of the elements within a landscape I turned to (Relph, 1976, p.5) "*identity of place is comprised of three interrelated components, each irreducible to the other – physical features or appearance, observable activities and functions, and meaning or symbols.*" A decision was made to use this proposition to structure my enquiry. The city council's sole landscape architect is responsible for all design development within the city parks, and her role is almost completely management of contracted landscape professionals. Budgetary constraints limited the depth of site analysis work undertaken by council and the contracted architects and designers. The council structures for funding are such that the arts and open public space are managed separately, coming together occasionally for a sculpture, a bridge or placed landscape features that are commissioned for a negotiated space. The use of fine art practice to research and articulate a *sense of place* for a public open space, by anyone other than a landscape architect is not currently considered by the council, and as the contracted architects are under budgetary pressure for design solutions this is not required of them beyond the rendering of site lines and vistas, even though many have been trained in fine art practices, but what is required for true understanding of *place* is what Colin McCahon is quoted as saying in (Park, 2006, p. 57) "*…his landscapes weren't landscapes*". And



Park puts this quote into context for us; "*But an interpreting a place through symbol and imagination, they heighten our own perceptions in ways that are rarely permitted by ordinary process of seeing.*"

(Girot, 1999, p. 95) comments again on the need for a deeper connection to *place* in site analysis; *"How far from reality can the landscape design tools that we work with be? The gradual withdrawal from landscape as a place to landscape as a piece of paper or a computer screen must be questioned."*

The council officers suggested an application for funding from the Community Board Fund to put together a comprehensive historical site analysis of the avenue, a successful application would enable through the funding, for a Bright Sparks model to be used in New Zealand.

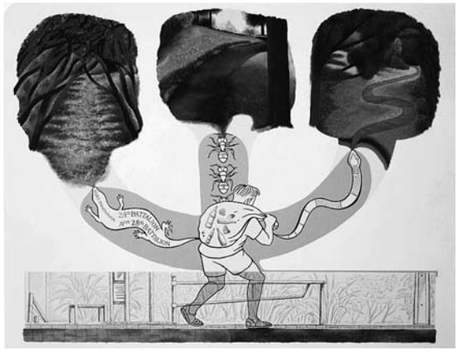
One of the outcomes of my second workshop was the realization that an extended description of the artworks is unnecessary and perhaps counter productive, and that the poetry of the site contained within the work should speak for its self, and the true value in the works are the personal interpretations of the site made possible, and that answering questions about the work is a better way to utilize the artworks. So I set out to construct the artworks as devices or machines that could be used to provoke dialogue and thought and to extract the stories of the landscape.

If the artwork can take on mechanical characteristics without losing it's spiritual and perceptive creative origins, it might enable the art-machine to become a more effective instrument within the discipline of Landscape Architectural site analysis, one that could be more complimentary to scientific data collection.

In the absence of an expert partnership, I needed to find an example of where perception and the use of imagination to unlock aesthetics could have made a difference to an industrial landscape development. And I have here an example of where the collaborative work of artist and industry in conducting site analysis might have assisted in preventing an Environment Court case.

This Environment Court decision went in favour of the Respondent, the NSCC, who opposed the coastal development plans of the Appellant.

In the case of Bayswater Marina Holdings v. North Shore City Council, Environment Judge J.A. Smith (Smith, 2009, p. 29) when delivering the decision began by saying; *"At the heart of the difference of opinion on natural character was the perceived naturalness of the*



reclamation." This issue was at the heart of the dispute, and it is my contention that an artist could have been in a position to express variations of "naturalness" in this case, and could have provided the valuable site analysis dealing with this problem of perception.

The Judge (Smith, 2009, p. 30–31) also commented; *"How we assess and address landscape issues depends on how landscape is defined."* And more pointedly on this subject went on to say; *"Neither is it simply a total of bio-physical elements, patterns and processes occurring over time, even though these are regarded as formative factors."*

Is it this kind of case that possibly can answer the question of why fine art practice should be used to assist in solving industrial landscape design problems?

I believe what this Environment Court document represents, is an acknowledgement that the qualities of a landscape, are not able to be defined simply by a scientific collection of data, or by a photographically representational rendering of a site. Possibly what is asked for is a site analysis that is able to express values and perceptions through an exploration of a site's meaning, and to assist in defining the cultural basis to the definition of landscape.

My conclusion so far is that the positioning and relevance of using fine art practice in conducting site analysis for Landscape Architecture relies on the structure put in place for analysis and development, macro or micro, a district, neighbourhood or a specific site of importance. The artwork, even though intended only for site analysis requires a standard of presentation that enables it to have authority, and should also be available in a format that enables it to be distributed to all interested parties in a clear and accessible manner. One way of making fine art practice more useful to industrial applications like Landscape Architecture would be to ensure a wide variety of rendering media and methods of composition were used when producing artwork, and multiple pieces of artwork for a site are produced, this would maximise the machine-like qualities that artwork can bring to analytical discourse, and bring a less pre-determinate site analysis to the design process.

As (Joliet, 2001, p. 40) states; *"Landscape incontestably involves aesthetics; we could even go so far as to say, aesthetic motivation, as regards the land."* I believe it is in this aesthetic motivation that the place for fine art in Landscape Architectural site analysis resides. Fine art's capacity for aesthetic discovery becomes a vital tool for ensuring the best interests of the environment and society in the early stages of town planning and open space development. But I also believe that currently the Bright Sparks model for funding and artist/public space professional partnerships is the optimum methodology for an artist practitioner like myself, to maximise the interdisciplinary process and to contribute useful knowledge through site analysis. I also propose that a working partnership between open space design management and fine artists in exploring "*sense of place*", is vital to preserve identity and uniqueness in communities.

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Leslie Haines

Auckland's Urban Forests, Functions and Designs

Introduction

The Landscape Architecture programme at Unitec, Auckland, New Zealand, is increasingly incorporating ecological components into urban designs and some students are addressing issues of landscape ecology, where interventions at the local scale are intended to have positive ecological outcomes at the wider landscape scale where ecological functioning often occurs e.g. pollination and seed dispersal, population sustainability.[1] In fragmented urban landscapes these landscape designs have an important contribution to addressing the issues of urban biodiversity conservation. This paper overviews the current patchiness of the vegetation in urban Auckland City, and introduces a range of Bachelor of Landscape Architecture student designs that focus on landscape ecology issues.

Auckland context

If you are a visitor to Auckland, you may have been taken to the top of Maungawhau (Mt Eden), one of the 48 volcanoes in the Auckland region one of the tallest and the closest to the Central Business District (CBD). You may notice from here the harbour and the gulf islands, other volcanoes dotted around the isthmus and beyond, and, despite being within a couple of kilometres of the CBD, the greenness of the surrounding urban and suburban landscape – the threads of urban forest.

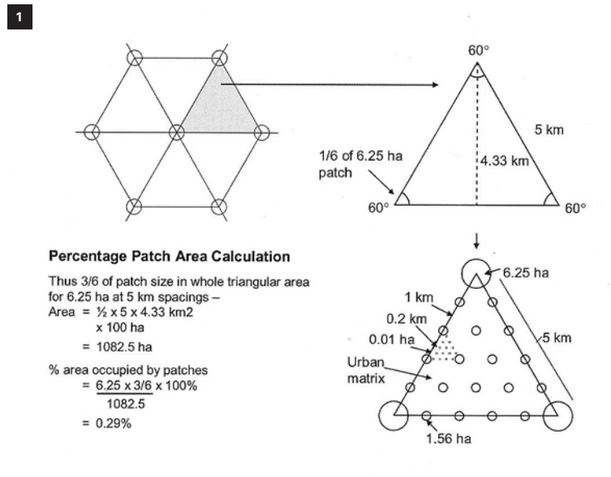
Auckland's Maori name is Tamaki Makaurau '*Tamaki desired by many*'[2], and the city is the most populated in New Zealand. It was relatively heavily populated by Maori more than 800 or so years ago[3] and provided rich kai moana (seafood) and good quality horticultural soils. The volcanoes were important vantage points for defence and were well-drained sites for food storage. After colonisation occurred in early 19thC, Swainson, New Zealand's first Attorney General in 1841, described the climate as '*more temperate in summer and milder in winter – compared with Nice – one of the world's most celebrated continental climates – more limited in temperature range and less sudden changes, and longer warm season*'[3]. Because of these various characteristics, it still rates as one of the best cities in the world to live in.[4]

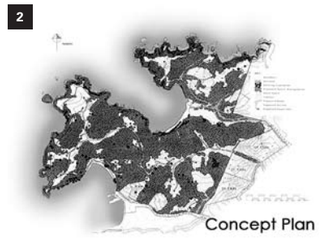
Before Maori arrived Auckland was more or less covered in forest[5], although it may have looked patchy, because every new volcano would have covered the forest with lava or ash and set it alight, causing a return to earlier stages of successional growth. The effect of the volcanic activity was to cover the sedimentary soils in places with lava rock or volcanic ash, and this has created a complex of soil types in the city, and provided a new medium privileging some species more than others, contributing to the patchy mosaic of vegetation.

When Europeans arrived in the 19th Century most of the forest in Auckland isthmus had disappeared due to continual Maori burning. By the time of the first European settlement in 1840, most Maori had been driven out a few decades before by Northern tribes with muskets, and this abandoned landscape had become overgrown. In 1843 the Auckland Agricultural Society describes the isthmus city area '*about one-fourth of the district presents a more level surface, being covered with dwarf manuka, fern, and shrubs… about one-half …, consisting of undulating ground, is covered in fern and ….possesses a soil of a rich yellow clay, mixed with sand and charred vegetable matter, owing to the frequent burning of the fern, which when broken up and exposed to air, soon pulverised into a fine, rich loam*.'[6] In response to regular fire the pioneer species manuka (*Leptospermum scoparium*) covered poorer clay soils and bracken fern (*Pteridium esculentum*) the more fertile volcanic soils. The reminder of the district was covered in native grass with a small portion in trees. Because Cook's Endeavour sailed by in 1769 during a storm and missed the harbour entrance, we don't have earlier written records of Auckland's vegetation from botanists Banks and Solander, who had recorded vegetation in other areas of NZ during this voyage.

During the Maori occupation, good forests had survived beyond the isthmus especially on poor clay soils of west Auckland and North Shore. On the arrival of Europeans these were systematically logged for timber to build houses and, in the mid 19th Century, formed 30%

1 Forman 2008.
2 Cameron, Hayward and Murdoch 2008.
3 Ibid.
4 Business Week
5 Cameron, Hayward and Murdoch 2008.
6 Swainson 1853.





of the export trade. Patches of these logged areas have regenerated after timber extraction while some areas were farmed and later were either abandoned and regenerated, or were developed for housing. The expansion of the city has impacted on the percentage of forest remaining. While most remnant regenerating forest has protected reserve status, some patches of regenerating forest are awaiting a designated use, (e.g. the now rare gumland manuka forest in the city's cemetery), and are therefore likely to disappear unless their importance is prioritised.

Despite the centuries of disturbance there are populations of large trees surviving in inaccessible places such as steep cliffs or in deep moist gullies on the urban isthmus. Within one kilometre of the CBD, Grafton Gully forest survived until the motorway development in the 1960s leaving only a few individual native trees amongst the exotic plantings. As well, some of the lava flows, such as that from Mt Eden, were very rocky and fairly inaccessible, allowing forest to survive there while the city was built around.

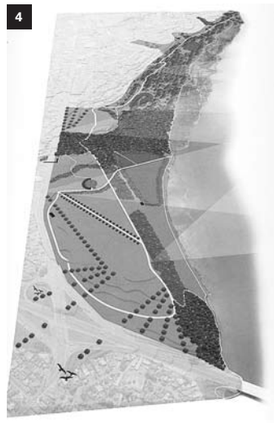
The 50ha rock forest beside Mt Eden is thought to be similar to what Maori may have experienced on their arrival[7]. Large titoki (*Alectryon excelsa*), puka (*Griselinia lucida*), and puriri (*Vitex lucens*) trees grow tall in this rock, that is the result of Mt Eden eruption 19,000 years ago. Only a portion of this 50ha forest remains and two small patches of about 1ha each are reserved. The remainder of this forest exists across the suburban landscape in private properties with houses amongst the trees. James Wallace, one of the city's major art patrons, has integrated his art collection within the forest of his residence. In 1979 Millener a local botanist suggested that '*this unique and very beautiful association is almost certain to disappear within a generation or so.*'[8] One generation on from that comment, and much of the forest is still here but has variable management, and one species in particular has almost disappeared from the canopy in that time, and understorey regeneration is less likely with private owners will to 'garden'. The local council have zoned it *'to protect the spacious and tree-filled qualities of sites characterised by generously sized plots.'*[9] Another inaccessible landscape that has retained some original vegetation is the coastal cliff habitat fringing the two harbours, which is a dynamic crumbling environment that the pohutukawa, a long-lived coloniser, is adapted to. Auckland has a long coastline with considerable stretches covered in trees.

We now have a responsibility and a will to protect our local biodiversity. Birds are our focal animals because in New Zealand, where we have been isolated for so long, we have no indigenous mammals apart form two tiny bat species. The kereru (*Hemiphaga novaeseelandiae)*, a large woodpigeon, is one of our iconic species, with a gape (mouth opening) larger than other local species and therefore the only disperser of the large-fruited natives such as karaka (*Corynocarpus laevigatus*) and taraire (*Beilschmiedia tarairi*) which are important canopy species of Auckland forests. These birds need large continuous habitat to breed but may move across a patchy landscape for food. They visit the lava forest in Mt Eden and the alluvial patch on the North Shore – both patches have mature trees and good food rewards. The more common younger forest reserves often don't provide enough food, and are not tall enough, or are too distant to attract woodpigeons. It may be a century or more before the trees which provide rich food sources mature.

7 Smale and Gardner 1999.

8 Millener 1979.

9 Auckland City Council 1999.



1 Urban Greenspace Model by C Meurk & G Hall **2** Waiheke Island Matiatia landscape design by D J Scott **3** Waiheke Island design outcome by Dennis Scott **4** Ecological Connections greenfields landscape design by Jeremy Parlane **5** Ecological Connection design detail by Jeremy Parlane

In the urban context, the reserves are not sufficient habitat and food sources without the support of the urban matrix – such as street trees or tall trees on private property. The biggest threats to both native plants and birds are from mammalian pests, lack of seed dispersers such as the woodpigeon (which are also affected by mammalian predation), and urban intensification where large trees are seen as problematic. Landscape design has a role to play in enhancing habitat and connectivity for local biodiversity.

Landscape Design Models

Meurk & Hall[10] have developed a spatial model for increasing biodiversity and ecological health in the New Zealand urban context. They suggest a configuration incorporating three forest patch sizes with the largest patch at least 6ha, large enough to provide some habitat for many indigenous species such as kereru, and have these placed at 5km intervals. Between these are medium-sized patches of 1ha at 1km spacings with clumps of tall trees every 200m. [FIGURE 1]

If we look at the distribution of indigenous forest in the Auckland isthmus, there are six large patches (>6ha). Four coastal forest patches are close together and the other two are within 5km, including the Mt Eden lava rock forest. There are other large areas with significant large trees that are either naturalised exotic/native mix in neglected gullies, or patches of large planted trees in public parks. The latter contribute to the forest connectivity, acting as stepping stones for wildlife moving between indigenous patches.

Landscape architects are increasingly designing in ways that privilege indigenous biodiversity compared to past practise. The subdivision on Waiheke Island [FIGURE 2 & 3] has converted marginal farmland into lifestyle blocks that integrate covenanted revegetation. This design by Dennis Scott[11] is being used as a model for other greenfield developments in New Zealand. Increasingly, Landscape Architecture students are also integrating biodiversity into their urban designs for a range of scenarios.

Student landscape designs

Jeremy's site[12] is a large park development (83Ha) in West Auckland – a greenfield development. He has used the Meurk & Hall urban vegetation patch model to look at the site in relation to the large patch patterns existing in the broader landscape, and has incorporated a 10ha patch into his design in order to fill a gap at the 5km scale, while still retaining social connectivity and significant views from the site. The size and location of this significant habitat patch within the site is a strategic intervention for functional ecology at the landscape scale, while providing a variety of experiences for the park users [FIGURE 4 & 5].

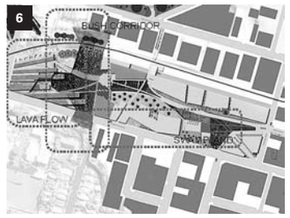
Jane's site[13] is an urban brownfield development, the old brewery site that is planned for mixed use commercial, retail and residential and is adjacent to a highly intensified retail/commercial zone. It sits between the Mt Eden lava rock forest and the city. Jane's aim is to connect the Mt Eden forest to the gully forests adjacent to the CBD. Her mixed-use design [FIGURE 6 & 7] incorporates a small forest patch amongst the retail and commercial buildings on the site with habitats for small birds and lizards, some tall trees that can been seen by birds from a distance and used for perching, and some

10 Meurk and Hall 2006.

11 Scott (no date).

12 Parlane 2009.

13 Dumbleton 2008.



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6 Transparent Ecology brownfields landscape design by Jane Dumbleton **7** Transparent Ecology detail with kowhai by Jane Dumbleton **8** Fringes, Ribbons and Veils landscape design by Janet Luke **9** Green wall, New Street Square, London Photo Leslie Haines **10** Bird feeders, Soho Square landscape design by Joseph McCready **11** Birdfeeders, nightshot by Joseph McCready

clusters of food trees such as kowhai (*Sophora chathamica*). It is also intended to provide some conspicuousness of the indigenous biodiversity to residents and shoppers.

Janet[14] tackled biodiversity right in the CBD – a highly impervious landscape. The objective was to apply the Ecological Greenway concept to an intensely built space. Her focus was on identifying the existing ruderal ecology, building on this to create new wildlife habitats. She designed a hierarchy of categories appropriate to the scale and character of the site (e.g. fringes, ribbons, veils of vegetation), that could provide stepping stones for indigenous species to move through the city between existing patches of large trees [FIGURE 8]. New technologies for green walls (e.g. central London [FIGURE 9]) and roof gardens are examples to make her design a reality.

Joseph[15] has chosen a more challenging design. He lives in Ponsonby, on the periphery of the Auckland CBD, where the proposed mixed use development has been controversial. The hole in the ground has been abandoned due to the recession, and local 'urban guerrillas' broke into the site and staged a beach party beside the collected stormwater. Joseph used the ecological concept of ruderality in relation to ecological and social outcomes. He follows the principles of Chris Reed's work which '*establishes seeds, catalysts, and agitators that instigate change and transformation, be it ecological succession, urban adaptation, interim occupations …"generators"…that evolve and adapt to new circumstances.*'[16] How could this abandoned site be colonised by ecology and people, and provide a temporary landscape for, amongst other things, birds that in turn affect the broader landscape? A component of his design incorporated bird feeders strung across the site, which double as lights at night [FIGURE 10 & 11]. As well, a recipe for making 'seed bombs' would be delivered to locals to accommodate the 'guerrilla' in all of us. These interventions are intended to not only provide an interesting interactive temporary landscape, but through Reed's concept of 'agitators to instigate change and transformation', influence any future site development.

So, the trends are positive for urban biodiversity. Each ecological design intervention contributes to the urban matrix and, in conjunction with remnant and regenerating ecosystems, aims to enhance the long-term viability of the indigenous biodiversity.

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14 Luke 2003.
15 McCready 2009.
16 Reed 2007.

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Angela Blachnitzky

Outside culture

– the curious Kiwi custom of taking interior furniture outdoors

Abstract

This paper presents a photographic documentary of the curious New Zealand habit of taking interior furniture outside. When placing indoor furniture items outside, the context gets altered, giving the photographic works a surreal aesthetic. Often placed in front of houses or gardens, the chairs and couches beckon the viewer to come and sit down, to relax in a 'homely atmosphere'. The quirky characteristics of this relocated furniture are often connected to the way furniture begins to break down where the effects of wind, rain and extreme sun take their toll.

Introduction

My project started in 2008 when I spotted several couches and armchairs that New Zealanders had put on their porches and in their gardens in Wellington. Coming originally from Germany, where only homeless people have indoor couches outside, I was fascinated by how comfortable and inviting this furniture looked and wanted to capture this impression. My first photographic series "outside culture" was exhibited at the Toi Pōneke gallery in Wellington in September 2008. The response from the audience was in general extremely positive. Most people said that they experienced déjà-vu, as many had lived with such furniture when they were younger. At this event several visitors wanted to know, why New Zealanders place inside furniture outside and what kind of people they are. Many assumed that it was mainly students who place couches outside. The uncertainties that I had answering those questions led me to investigate the topic further, and I travelled throughout the South Island in order to take more photos and survey people via questionnaire, which helped me find out more about this quirky practice. So far, I located most of these people by randomly driving around. In all, 95 adults from different socio-economic groups were surveyed and a mixture of 37 quantitative and qualitative, open- and closed ended questions were asked. Of those 95 surveys, 40 were from students in Dunedin, a city that it famous for its high couch-rate and burning of couches. This high percentage of students is an exception and cannot be found within the whole population.

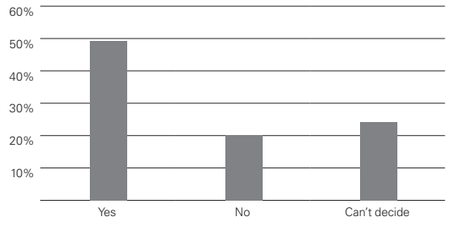
Early pictures

Those pictures are an excerpt from the exhibition at the Toi Pōneke gallery in Wellington in September 2008. They represent furniture in nature, furniture in family homes, thrown-out furniture and furniture left in public places. [IMAGES 1, 2, 3, 4]

Facts about the phenomenon

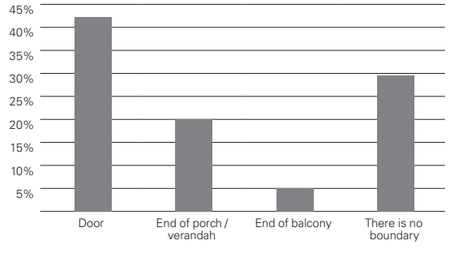
Survey responses confirmed that the boundaries between interior and exterior are blurred in New Zealand culture, allowing the threshold to be easily crossed. 49% agreed that the boundaries are blurred, while only 20% did not agree and 24% could not make up their mind.

Are the boundaries between interior and exterior blurred in New Zealand



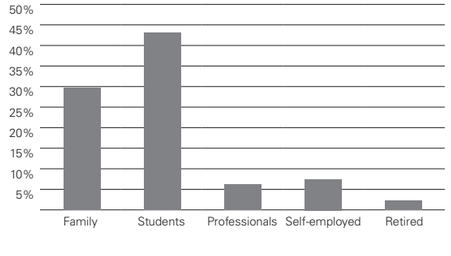
A lot of people (42%) consider the door as the boundary between interior and exterior. However, there is also quite a high number of people (29%) who would say that there is no boundary. 20% regard the end of porch or veranda or the end of balcony (5%) as the boundary.

Where people set the boundary between interior and exterior



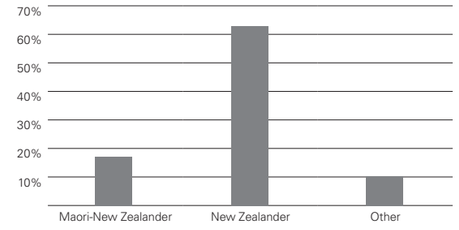
People who place indoor furniture outside are mainly families of lower and middle income groups. The graph below shows who places indoor furniture outside. In this graph students were represented by 43%, followed by families with 29%. The reason why the student numbers are so high is that nearly all of them were from Dunedin. If I did not include questionnaires from Dunedin, the percentage for students in the whole population in the South Island would only be 2%.

Who places indoor furniture outside



63% of all indoor furniture that I could find outside was situated at homes from Pākehā (New Zealanders who are not of Maori blood lines). 17% were found at Māori, homes and 11% at others.

Participant's nationality/ethnicity



When asked why people place their furniture outside, the reasons given varied. Most people (37%) said that there was not enough room inside. A few people (16%) could not afford to buy outdoor furniture; others put their sofas outside when they become too scruffy (21%)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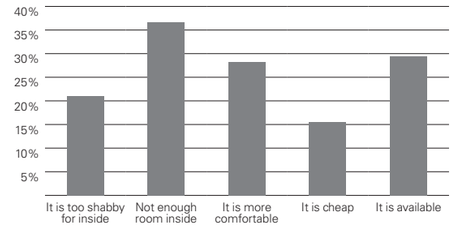
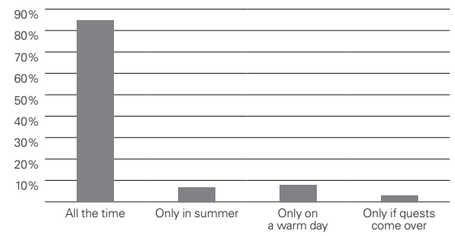
or just because they were available (29%). Many just preferred the comfort of upholstered furniture (28%).

Why do people place indoor furniture outside



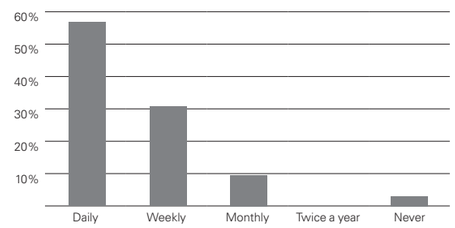
While the preferred times when people like to sit on their furniture varied, the time when the furniture is placed outside and the frequency how often people are sitting on it is nearly the same. 85% responded, that their furniture was placed outside all the time and once it got placed outside, it would never make its way back inside again.

When is furniture placed outside



57% responded that they sit daily on their furniture, 31% only on a weekly basis. Only 3% are never sitting on their furniture because it is unusable.

How often do people sit on their furniture



Other popular places and objects

New Zealanders also tend to take their furniture to places other than their gardens. Very popular in this regard are beaches, roof-tops and public places. [PICTURES 5, 6, 7]

Other objects from inside that are frequently taken outside include mattresses, rugs, bathtubs, shelves and heaters. [PICTURES 8, 9, 10]

The value of old furniture

In places like Dunedin people chain their couches and take seat cushions inside so that they do not get stolen. However, if asked, the majority (63%) stated that they do not value that furniture. Most people (74%) do not care about the condition of this furniture. Interestingly more than half of them (55%) consider their furniture as having a shabby chic or rustic charm. [PICTURES 11, 12, 13, 14]

Next steps

While this article presented a summary of raw survey data and related photographs from the South Island of New Zealand, it represents only half of the country and only the opinion of those people who have indoor furniture outside. In order allow broader generalisations, a survey from the North Island still needs to be completed and a survey of people who do not put indoor furniture outside could be included in order to interpret people´s everyday lives and understanding of spatial relations and material culture.

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Joanne Drayton

Vikings of the Sunrise

In the spring of 1831 a remarkable discovery was made in the Bay of Uig on the west coast of the Isle of Lewis in the Outer Hebrides. A kiln-like structure was uncovered from a sandbank by a herder tending his cattle. According to anecdotal accounts the herder believed he had stumbled upon an 'assemblage of elves or gnomes' or 'the pigmy sprites of Celtic folk-lore.' Overwhelmed with fear, he 'flung down his spade, and fled home in dismay. It was only the 'bolder curiosity of his wife … [that] induced him to return to the spot' and properly excavate the site.[1] What was unearthed was a kind of time capsule containing an exquisite collection of 93 pieces of carved ivory.

No one knows how long the Lewis chess pieces sat inside their strange kiln-like chamber, described as 'vaulted … about six feet long with a quantity of ashes on the floor', but they were immediate interesting. '[They] are the most curious specimens of art I ever remember to have seen,' wrote Frederic Madden, the Assistant Keeper of Manuscripts in the British Museum, after an hour-long session with Sir Walter Scott 'looking over … a set of very curious and ancient chessmen brought to the Museum this morning for sale'.[2]

Frederick Madden believed the British Museum had been offered the whole hoard, but ultimately 11 additional pieces would end up in the National Museum of Scotland. The original find is thought to have consisted: 78 chess pieces, 14 tablemen or draughts counters and an intricately engraved belt buckle. At least four partial sets can be made up from the hoard. When the British and Scottish museums' collections are added together there are 8 kings, 8 queens, 16 bishops, 15 Knights, 12 warders or rooks, and 19 pawns. They have been carved almost entirely of walrus ivory, with just two or three pieces perhaps being made of whale's teeth. What makes this collection remarkable is that with the exception of the pawns, which are geometric shapes, all the pieces are tiny sculpted human figures.

Art historically, the Lewis chess pieces are orphans, with no known provenance. Everything about them, except where they were found must be read from the objects themselves or guessed. How they arrived in their subterranean chamber is the point at which things become most speculative. There are tales of shipwrecks off the coast of the bay of Uig, of plundered treasure, greed, murder and hanging. Nothing is certain, not even the period in which these terrible events occurred.

They are an enigma, yet at the same time they tell us so much. If you took a selection of Lewis chess pieces and held them in your hands you could see the effects of tiny termites that have chewed minute channels across their surface. None of them have been worn by wave action: some have resisted dampness and temperature change better than others. Today they are the same aged-brownish to creamy off-white colour, but in Madden's time he records that some were stained beetroot red. Chess is a war game and opposing sides are miniature armies that need to be easily distinguishable. The colours of engagement in the case of the Lewis chess set seem to have been red and white. The fading of natural dye or pigment has happened subsequent to their discovery.

If we look deeper we discover a game with an ancient Eastern pedigree. Chess began modestly in India in the 6th century AD, and spread through Asia, Persia, and from the Islamic territories into Spain, France, the British Isles and Scandinavia. Chess pieces, boards, illuminated instruction books travelled along with the courtly and aristocratic mores associated with playing the game.

As chess spread through the Islamic territories its pieces became abstract. It wasn't until they were anthropomorphized that the game took off in Europe. In Scandinavia the playing of chess was widespread throughout the whole population and it may have been from here that the game moved to the British Isles. It is in Scandinavia in the twelfth century that scholars believe the Lewis chess pieces were carved. Initially the field of possibility for the origination of the Lewis chess set encompassed much of Western Europe. Stylistic links and recent discoveries have narrowed the parameters of probability to Norway, and specifically to the international port of Trondheim.

A convincing argument can be made for the fact that the Lewis chess pieces were executed in a single workshop in Trondheim and transported to the Isle of Lewis by merchant ship. There is a family likeness or homogeneity between the Lewis pieces. Every figure is individually conceived, yet, they come from the same gene pool with their protuberant eyes, downward sloping

mouth, pronounce upper lip and hair that falls straight in cord-like strands.

Although small in scale (the largest piece is 5.5cm × 10.5cm high) the Lewis chess pieces are commanding, and appealing, especially to a modern sensibility not imbued with Celtic folk-lore. I first saw the British Museum's Lewis collection during the Christmas break of 2000–2001. They left an after image in my mind. When I became more adept at surfing the internet I discovered them again. It was after a subsequent trip London, and the British Museum that I decided to carve, a chess set in beef bone in response to the Lewis pieces.

Susan Stewart's book *On Longing* provides some provoking ideas around the notion of the souvenir. She writes:

'The souvenir speaks to a context or origin through a language of longing, for it is not an object arising out of need or use value; it is an object arising out of the necessarily insatiable demands of nostalgia … The double function of the souvenir is to authenticate a past or otherwise remote experience and, at the same time, to discredit the present. The present is either too impersonal, too looming … The antique as souvenir always bears the burden of nostalgia for experience impossibly distant in time: the experience of the family, the village, the firsthand community … The souvenir must be removed from its context in order to serve as a trace of it, but it must also be restored through narrative and/or reverie.'[3]

Nostalgia, longing, a desire to participate even vicariously in the family, the village, the firsthand community of my ancestors were things I recognised. In a Post-Colonial world it is the fate of settler progeny to find them selves geographically separated from their roots. I am a New Zealander of Scandinavian origin, and I live alongside an indigenous Maori culture that is steeped in ancestor worship. Maori can visit the turangawaewae or place of birth of their ancestors: they live amongst the artifacts and signs of their early history.

Because I do not live in the land of my ancestors, cannot see their artefacts, and because their world is not a 'visitable destination'[4] anyway, revelry and narrative generated around the souvenir seemed the only way for me to satisfying this longing for an ancient past. My, choice was either to purchase a replica chess set or to make one. I quickly realised my need was more than just to own, it was to understand. I wanted to get inside the minds of the makers, to comprehend the materiality of ivory and appreciate some of the challenges of medieval carving.

My initial revelation was the restrictions of working with bone and walrus ivory. Simply, you have to be so careful. There's an outer layer, which can be carved, but ideally not penetrated. While bone is hollow, the walrus tusk has a soft-layer of dentine, which is differently textured and unable to be polished in the same manner as the outer layer of ivory. This determines how deeply the carver could cut into the material. Walrus ivory is about 1.5cm thick. Beef bone is very rarely that thick so I was forced to carve in flatter relief than the Lewis carvers.

As I began to work with this very hard material I inevitably thought about the kinds of tools the carvers might have used. I researched without success. Amazingly little evidence survives about what tools were used to create these intricate figures. Even more astonishing is the lack of scholarly interest in the craft of making. I started with the simplest figure, the warder or rook. They are foot soldiers that stand on the margins of the board protecting the feudal society represented on it. As Neil Stratford points out, 'the Lewis chessmen reflect a particular stage in the evolution of the game itself, away from its purely military roots and towards embodying the various hierarchies of society, royalty, ecclesiastical and knightly.'[5]

I drew directly onto the bone, discovering almost immediately that my eye was classicised, and the wonderful simplicity of Romanesque sculpture was lost. I decided to use a photocopied image. The Lewis rooks (the word coming from the Persian *rokh* or hero) most-

ly wear a coat or gambeson, and if not, a hooded coat of mail. They carry a sword and a large kite-shaped shield, which bears the beginnings of heraldic symbolism. I could have chosen a *Berserker* rook. Our expression 'to go berserk' comes from this wild Scandinavian foot soldier frenzied by the prospect of war who, demonstrates this in the case of the Lewis chessmen by chewing the edge of his shield (there are 3 *Berserker* rooks). Instead I went for something more restrained and patrician.

My next challenge was a bishop, which was an innovation to the chessboard because they were just beginning to establish their power in Scandinavia when the Lewis pieces were carved. It was fashion around the wearing of the bishops' Mitre's that helped narrow the dating of the set to the mid-twelfth century. Prior to this bishops wore the Mitre right-to-left. Ecclesiastical gab in 3-D was a challenge. Working with 2-D images meant I made a mistake in the execution of my chasuble [outermost liturgical vestment]. I realised this after sitting drawing from the set on a visit to London. I flew home and corrected my mistake. This made me think about the 2-D/3-D issue in medieval copybooks. Were medieval designs and drawings subject to the same distortions?

Seven of the Lewis bishops are seated on thrones and nine are standing. They are dressed in chasubles, which cover the body like a poncho or copes fastened at the neck. In addition to this, there are dalmatics, stoles and tunics. Without exception they carry a crosier, or hooked staff of office. In their other hand some hold a Bible or make a sign of blessing. The Church strongly disapproved of chess, so it is ironic that bishops now assumed a powerful position on the board. From the First Crusade in 1095, waring bishops fought on battlefields, so this as well as an attempt to legitimise the game may have prompted their inclusion. I decided to have my bishops standing, one dressed in a chasuble and carrying a Bible and the other wearing a cope and giving a blessing.

My king and queen I enthroned because all Lewis royalty is seated. It is in the execution of the backs and sides of the thrones that the Lewis carvers' imagination took flight. They are like the amazing illuminated margins of manuscripts with lush, twisting foliate patterns, interlaced arches, tracery, scrolls, and a veritable bestiary [a medieval collection of stories providing physical and allegorical descriptions of real or imaginary animals along with an interpretation of the moral significance each animal was thought to embody] of creatures biting and fighting each other. It was here that strong stylistic links have been made to the carving of Norwegian stave churches, especially at Trondheim. Royalty seated on ornate thrones required a relatively broad piece of walrus-ivory as they were carved out of a single piece. The difficulty of this challenge may explain why the left side of one of the queen's thrones has been mended with a separate piece of walrus-tusk being pinned into position.

The Lewis kings are warlords. They are warrior patriarchs with low trefoil-crowns, and swords drawn ready across their knees. They have large spoon-shaped beards, moustaches and their hair falls down their backs in plaits. Long hair was a symbol of strength and prowess on the battlefield. Their dress consists of an upper and an under robe, which in some cases is pinned at the left shoulder to keep their sword arm free.

The queens by comparison, are less aggressive. Their characteristic pose is chin resting in right hand, which is often supported by the left. The exception is where the left hand clutches a horn, which may be a drinking or money horn. A modern interpretation of the queen's gesture might be anxiety, but this has been discounted. The gesture has iconographic links to images of St Joseph beside the crib at Christ's Nativity and to the grief stricken Virgin Mary at the cross, and was probably intended to under-score the significance of the Queen's role as confident and adviser to the king. The Arabic equivalent piece was called the *vizier* or counsellor. The queens wear veils under their crowns, a sign of rank, and a mantle that hangs from the shoulder to the feet covering another under-gown. Their sleaves are plaited from the elbow to the wrist.

Beef bone is narrower in circumference that a walrus-tusk so I decided to make my thrown out of separate pieces of bone and pin them as the early carvers had done to mend a queen. The knights present a bigger problem, which I am still solving. These pieces require a big circumference because they are the most sculptural of all the pieces. They are helmet and mail-clad knights seated on what might well be, Iceland ponies. 'A kite-form shield, suspended from the neck, hangs on the left side of each … Beneath the shield appears the sword, which is fastened round the waist by a belt, and in the right-hand each knight carries a massive sword. All the figures have large beards and moustaches.'[6]

The detail treatment of the knights, contrasts dramatically with the simplicity of the pawns. They are abstract shapes, mostly octagonal, tapering to a curved top, which terminates with a small disc-like shape. Three of the nineteen pawns are decoratively engraved. Because of their simplicity the pawns are probably the easiest pieces to render in bone, which has its own abstract lyrical quality.

My response to the Lewis chess set is a work in progress. When I first conceived the idea I planned to produce two sides of a red and white chess set inspired by Scandinavian carving. My Head of Department, David Hawkins, challenged me to consider the idea of making one of the sides Maori. The more I thought about it the more I liked the idea. If I did that, I would not only be responding to my own tradition, but to that of my partner whose mother's family are Tainui Maori. My methodology and approach has yet to be established. What I know it will give me though, is an opportunity to look in detail at both Maori and Scandinavian carving traditions and establish relationships and differences between making, iconography and myth. In a way a game of strategy, skill, intelligence and sadly sometimes cruelty has been played between Maori and Pakeha since their arrival in Aotearoa / New Zealand. What better way to symbolise this complex bicultural relationship of give and take than with a game of chess that brings our ancestors together on one board.

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Tulia Moss

The Down Under Dairy and Other Stories

Notwithstanding there is no cow – "The Dairy" remains at the corner of every street in suburb and town, part of the New Zealand cultural vernacular. Milk signs have been enmeshed in the visual culture since their inception pre-1900, when dairying became the backbone of New Zealand's economic growth. Milk is a product of nature, yet one that is increasingly altered and mediated by industry. As the relationship between milk and nature changes, the history of milk signs is a graphic narrative about the changes in broader cultural attitudes to nature.

Introduction

Milk packaging signs signify contemporary culture in the same way pre-industrial tribal myths were stories that contained implicit meaning which defined and re-enforced cultural identity and values. The depiction of familiar events and objects combined and re-contextualised, connote meanings of a New Zealand story, the chapters silently shaping and reflecting a collective cultural identity. The New Zealand consumer is a character playing an active part in a daily story of all consuming goodness.

This writing is a précis of my thesis '*Goodness – designing the Nature and Culture of New Zealand milk packaging*'. By identifying the invisible the every-day milk jug as extraordinary, opportunities arose to revisit with a redesign. A new milk packaging design concept followed, informed by this research. The design concept proposed packaging milk in a new way that was nutritious, affordable, sustainable, bio-degradable and from renewable resources. It is one possible solution to the central issues – findings explored and exposed, and thus its aesthetic references attributes from nature, culture and industry. It comes from a renewable resource. The milk packaging design concept is some proof that it is possible to not dominate nature. A packaging object that signifies what it is, through an industrialised aesthetic, by breaking the allegoric inferences, enables consumers to decipher the product as it is – industrialised milk with a twist of nature.

Milk packaging signs reflect New Zealand cultural attitudes towards nature and also inform cultural identity in relation to nature. Design research revealed the dilemma of creating milk packaging and signs from nature for an industrialised culture with commodified notions of nature and at the same time acknowledge the physiological need present in all living things to be satiated. In aiming to stimulate a primal biological instinct to consume, issues of form, size, odor and colour were set into play. Here the nature inherent in culture becomes apparent because signification of culture and commodification are made secondary.

Early New Zealand milk signs

Semiotic analysis of New Zealand milk signs and packaging from 1800 to the present day provided the necessary framework for deciphering the underlying relationship between culture and nature. The historical context of New Zealand milk signs and what they signified, and the signification of contemporary milk signs, gave context for the development of the design brief and resulting milk packaging artefact.

By applying the theoretical frameworks of Strauss, Baudrillard, Barthes, Williamson and Pierce early signs revealed a paradoxical relationship of domination by culture over nature – its right to do so unquestioningly. Early New Zealand milk signs reflected a transposed culture fearful of untamed nature and battling against it. In an emergent, largely regionalised industry, nature was re-signified as symbols for culture. The raw product was inferred, rendered not visible and presented as improved by technology, sweetened by music, made superior by breeding and contained and rendered harmless by science; in some instances also represented by symbols of empire, loyalty, monarchy, brute strength or more latterly simply not nature – improved.

Contemporary New Zealand milk signs

Deciphering contemporary New Zealand milk signs revealed a culture still overwhelmingly expressing a domination over nature: nature now reassigned as 'the natural' with remnants of past signs; still visual threads in a new time context. Semiotic analysis of contemporary milk signs also included the wider context of competitive commodity artefacts and signs simulacra when taken out of the retail environment, becoming indecipherable from toxic substances to non-readers.

Contemporary milk signs and packaging paradoxically also reflected culture with a new desire to merge with nature through signs signifying raw nature in people, authoritative anthropomorphised cows, wild children, cartoon characters that infantalise the culture – the new expression of raw nature moving beyond natural to organic.

Milk packaging artefacts do little more than contain the reconstituted ('standardised') 'fresh' product for transportation and display. The packaging materials, from a non-renewable resource, are non-biodegradable and unable to protect the promoted nutritional values of the milk beyond a few hours of being displayed for sale. The new raw, renders the consumers' association with nature even more distant and alien.

The consumer

1 in 6 New Zealand children do not get enough to eat (Orange,R. 2004) and the poorest children are the primary purchasers their own food (Scragg, R. et al. 2001).

A possible design solution

In response to the research, new design was to denote attributes connoted in contemporary milk packaging signs, with secondary meaning; signifiers pertinent to the nature of the product and was not to infer too close an association with the natural. The milk packaging design concept became a physical object with an industrialised aesthetic, yet merged culture with the experiential of nature first hand in the context of industrial reality.

Design direction

Referencing pre-industrial packaging design provided direction for a new generic approach to mass-produced packaging artefacts as signs. The functions of the milk packaging artefact extended beyond the industrial requirements of contemporary packaging functions of containment, ease to fill, transportation, and display of milk. Extending the design brief involved addressing cultural allegory and repackaging to address the materiality and disposal.

Physically the packaging artefact needed also to be ergonomic, accessible and safe for consumers. It needed to carry and contain the milk, protect it from light and air, be stackable, be easily and safely disposable, perhaps infuse the product with added dietary benefits and taste experiences, it also needed to display the milk, and communicate the content in a persuasive manner, avoiding any connotations of rawness. It's form needed to be an obviously manufactured object, understood and acceptable to mediated culture, yet would also reignite the consumer relationship with nature, to inspire an instinctual response through touch, odor, colour, size and shape, first hand. To nurture the nature within the consumer – but not infantalise.

Social & environmental consequences

Research into the social and environmental consequences of the economic scale of milk packaging uncovered a series of design dilemmas that threatened my optimism to create a worthwhile design other than more toxic packaging for the landfill. The packaging design that resulted from the research came from congress with nature; the notion that human culture might measure its identity/worth by how it rated itself alongside nature; as part of one symbiotic entity, harnessing industry as a tool to support nature, rather than as a separate entity proclaiming its superiority by abusing the very nature culture depends on for survival. A primary function of the new milk packaging was to serve the consumer, as did pre-industrial packaging, be as a utensil – a mediator between the cooked (consumer) and the cooked (milk).

Materials

Inspired by pre-industrial Japanese packaging, I was excited to find a material developed by Tara Mc Hugh, a chemist for the United States Department of Agriculture (Rojas-Grau, 2006) who whilst researching new ways to use fruit and vegetable produce otherwise unsuitable for individual sale, made a thin film by drying pureed fruits on Teflon plates. The film forms without any need for chemical intervention – the natural sugars provide the flexibility in the film and the carbohydrates provide the structure. This is the material I proposed as an inner "packaging". 100% edible would provide necessary added natural dietary nutrients as well as protection for milk from light and air (www.food-techsource.com). It is 100% sustainable as it uses fruit that cannot be easily sold otherwise and it is 100% biodegradable as it is 100% from nature.

Form

Here is a nutritious packaging design that is appealing to New Zealand children. It is persuasive in its play value, its usability and its worth in quashing hunger pangs. The conical shape is a non-threatening twist on the familiar, edible ice-cream cone. The cone is a combination of the straight lines that occur in industrialised forms (that repetition non-existent in nature) and the curves that are in all forms of nature. The tip end of the new package is a call to action to bite, as though a piece of fruit. It is also a call to action that appeals on an innate mammalian level – to suckle – a less industrialised aesthetic of contemporary water bottles.

The tactile characteristics may be described as responsive, or in industrial-speak, interactive. The shape allows for various size hands to manage easily. The shape provides multiple opportunities for play in the ways it may be consumed – sucking from the up-turned cone or drinking and chewing from the down-turned direction. The total volume of the artefact is 200mg, in keeping with unit serving guidelines, contents descriptors, and bulk packing, transportation and display environments at point of purchase. The shape easily

stacked in a zig-zag limiting (expensive) airspace. The internal structure of the package may be cell-like (similar to inside an orange), making consumption easier. Or, it could be a spiral (similar to the structure inside a shell) to slow the milk and be less likely to spill. More fruit packaging would be beneficial in providing more favourable dietary fibre (the sugar content modified) and although there is perhaps too much for a child to consume, it is biodegradable waste.

Manufacture

To manufacture, the fruit wrap would be made as a continuous tube, similar to the technology of sausage 'skin' twisted at one end, then turned inside-out – the thickness variable, weighted at the base for strength and stability – filled and then twisted at the top, before being encased in the heat sealed clear glaccine film outer wrap, or in units of five or ten school lunch days.

Colour & taste

Colour is a signifier of flavour in food packaging. Existing milk packaging colour is coded for fat content rather than flavour. In the milk packaging colour **is** flavour, as it is the actual fruit (apricot hue for apricot fruit, a bluish hue for blueberry, and a pinkish red for strawberry). Research found many ambivalent milk drinkers (Wham, 2000) who thought milk an insipid but not unpleasant taste. The signs of this new product are that the milk is infused with the edible, packaging flavour. The outer packaging acts as a hygienic barrier. The biodegradable glassine film (www.communisis.com) is similar to sweet wrappers. It is noisy and shiny, a contrast experienced between the gloss of the glaccine and the soft, tactile, matt surface texture of the package. When opened, the aroma of the product is released. In a landfill situation its volume is comparatively minimal. The prototype is made of cellophane and simulates glassine.

The research findings indicated children had a mixed response as to what colours tasted like. Some children associated colours with particular brands. The brand identification revealed their own first hand experiences with the packaging; with answers such as "cat food" and "baby powder". Some colours set off a child's desires; "a toy", "a book".

Yellow signified milk most often, indicating children were most familiar with calcium-added milk products; this in turn indicating the household shopper's trusting awareness of stated levels of calcium in the product. Many children bought the family milk from the local dairy. One child identified himself as the boy on the Anchor Xtra milk jug –being good and helpful and doing the right thing for his family, at the same time, feeling small and alone with his Mum sick and unable to get up in the morning. The diagram (**below**) is a summary of part of the research conducted with children about packaging and milk.

Graphics

The selected typefaces provided a juxtaposition of a humanist font – Cooper Black – with a geometric font – Futura Condensed. Cooper Black has the curvaceous fullness of nature, inferring milk as wholesome nature, while Futura Condensed provided the factual voice of science. Cooper Black also has a "squishiness" that alludes to the nature of the packaging experience. The typographic content is informative and succinct. The overall design relies on the juxtaposition of an obviously playful product alongside a non-emotive font to provide a balanced tone. The content description on the outer glaccine is divided into information about the fruit wrap first, in bold headline. Then the description is repeated with bold emphasis on the milk when the milk contents are described.

The glossy brand sign at around 72pt on the matt surface of the product was a decision made as part of the design process. It is an intrinsic part of the product, and cannot be removed, providing an indelible identification that projects pride and authenticity – "bite" is a reassurance, instructing consumers as to what to do when faced with this new product. The brand offered identification should there be line extension such as yoghurt. The brand is on the product. It was also considered as a potential marketing tool for promotional strategies.

Redesign summary

The design solution is unmistakable to decipher, even for non-readers. It provides additional nutrition by protecting milk from light and air degradation and providing added nutritional value, appealing taste and odor. It is one possible solution to the central issues – findings explored and exposed, and thus its aesthetic references – attributes from nature, culture and industry. It comes from a renewable resource. The milk packaging design concept is some proof that it is possible to not dominate nature. A packaging object that signifies what it is, through an industrialised aesthetic, by breaking the allegoric inferences, enable consumers to decipher the product as it is – industrialised milk with a twist of nature.

In many areas designers must learn how to re-design
(Papanek. p.81)

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Donald Preston

Mapping identity: learning to love our place in the world

For several years, until recently, a small map appeared in one of New Zealand's national Sunday newspapers, which registered the lightning strikes for the past week. The maps contained a tightly cropped outline of New Zealand, coloured bright green, set inside a frame little larger than a matchbox. The lightning strikes were shown as small and crude black dots; the crudeness enhanced by the coarse screen of newspaper printing. The maps seemed to have no definable audience, the framing bore no relationship to New Zealand's social and economic interests and the maps themselves were insignificant and insipid. By any measure the maps were at best old fashioned and at worst hopelessly unequal to the task of describing or reflecting such awe-inspiring and transient natural events.

To some extent it was because the map failed in its overt purpose to convey information about lightning strikes that it succeeded in connecting with me as reader. The absence of overt meaning allows the reader freedom to interpret and respond to the map and shifts the power to determine its meaning from its author to the reader. While this is unlikely to have been part of the author's intent, these maps had as much interest as visual communication as those that set out to convey emotional content. As a focus for semiotic analysis they are of greater value, highlighting in their simplicity the power of the basic outline of New Zealand and its ability to extract an emotional response from me as a reader.

Mapping as visual language, viewed through the science of semiotics, has a set of visual codes that are widely recognised and understood. However, each of us operates within individual sets of codes, which both reflect our cultural and personal experiences, and how we interpret the world around us. Maps are the visual representation of data, dimensions, attributes and the relationship of elements in the physical and logical world using a set of formal conventions (both semiotic and linguistic), which enable the transfer of this data into a recognisable visual representation. Maps, however, are man-made, a selective observation, and therefore can be neither detached nor free of bias. Yet the viewer's belief that maps are neutral carriers of factual information gives them an enormous persuasive power. Map-making fulfils our human desire to understand, and therefore to control, our world. Maps, thousands of years old, record human communities experiences and relationships with their surrounding environment. Map-makers have the power to define territory in their own terms and to write their own vision onto the landscape. Maps provide the means for those in power to exert control: to extend their trade, create social boundaries and exclude those who are 'other' (literally 'outsiders'). New Zealand's borders, delineating our nation, have been shaped solely by nature however. Powers beyond human control crafted the nicks and curve that form New Zealand's unique outline. It is left to us to find meaning and symbolism in those forms. My current research focuses on the increasing adoption of New Zealand's cartographic manifestation as a key cultural signifier.

> *"New Zealand was easy to find on any map: just look for a pair of small dots at the bottom of the world. Occasionally we'd come across a map of the world that had left New Zealand off. This made us a bit indignant; but it was also amusing. Imagine: there were people out there in the rest of the world who didn't even know where we were! We laughed at their pathetic ignorance." (Bell, 1996, p. 3).*

New Zealand's geographic reality, as a series of islands at the 'bottom of the world', has played a central role in the development of a national psyche and sense of self. New Zealand's history is based on journeys, and it could be said that our understanding of ourselves as travellers is what we have in common. Maps in a wide variety of forms have therefore been a central cultural motif.

By European standards New Zealand is a young country, still developing its cultural and national identity. Portrayed as a 'South Pacific Paradise' in the early 1800s, New Zealand has gone through a process of forging and refining a national character, to emerge as a modern nation grappling with issues of bicultural and multiculturalism. Once, being part of the pink of the British Empire that coloured much of the landmass of the world map, and appeared on the walls of most New Zealand classrooms and civic buildings, gave New Zealanders a sense of identity and belonging. The trade

routes flowing up through the Panama and Suez Canals and across all of the oceans were umbilical cords connecting us with our 'mother country'. Those lines and connections were comforting linkages, yet they reinforced the great distance and our isolated position at the bottom corner of the world. When my grandparents went by boat 'back home' to England, I understood just how very long those trade routes were.

The map in my primary school atlas was unusual in that it showed the Pacific in a central position, rather than the usual Euro-centric view. Britain therefore appears twice, and even though it was a New Zealand publication, exaggerated in size so that it is as big as France; a graphic portrayal of the way that Britain still loomed very large in our world.

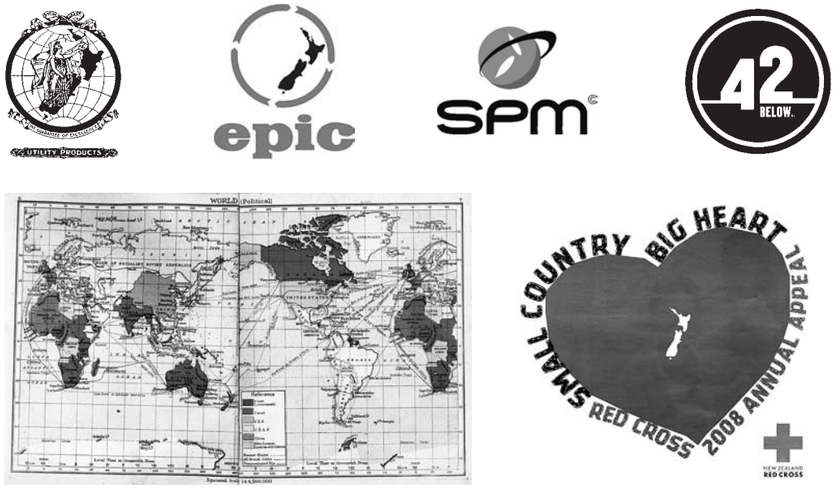
Now, New Zealand's developing sense of nationhood has grown into an acceptance of its geographical position in the southern Pacific and has cemented the simple outline map as an important cultural icon. The economic and political umbilical cords have dwindled in importance as our eyes shift towards Asia and closer neighbours rather than Europe. However, the transport lines still hold resonance and most New Zealanders still head to London to begin their 'Overseas Experience'.

One reason for the map's power is that the simplest way of representing a country is through its cartographic expression. For artists and designers maps offer a base of enormous emotional potency upon which to communicate a wide range of concepts. The map is a more neutral symbol than other signifiers of New Zealand while still providing a shorthand index for patriotic identification and links into a deep vein of meaning and emotional loading. New Zealand's outline and position is immediately identifiable and lends itself to both reinterpretation and abstraction.

There is a historic context to the current use of the outline map. It was adopted at an early point as an identifier and was used in a variety of media. It was as common a device as the kiwi, the moa or the Maori warrior. Cartoonists in the 19th and early 20th Centuries frequently used the outline map to indicate New Zealand's relative position in the world, showing a kangaroo leaping across the Tasman or an angry King Dick Seddon with his feet planted somewhere near Christchurch gesticulating towards the coast of Australia.

New Zealand's identity was inevitably defined by and imported from Britain, but the changing relationship between the two countries has forced an ongoing reinterpretation of identity. The map has been used throughout this period of change and has continued to be a potent visual symbol. Its power derives from its recognition within and outside New Zealand and its neutral symbolism in terms of New Zealand's multicultural reality. The Red Cross appeal poster from 2008 emphasises the smallness of the country and highlights it comparatively isolated position. But in this image there is a sense of celebration and even comfort as New Zealand floats, small and white, in a heart-shaped blue sea. It's an image of our islands devoid of any umbilical cords.

Much of New Zealand's sense of identity derives from seeing itself as an island nation isolated at the bottom of the world. What was once a disadvantage is now seen as a positive expression of uniqueness. This



1. Utility Products **2.** Epic Online Reference Databases **3.** SPM Asset Management **4.** 42Below
5. The New Zealand Clear School Atlas **6.** New Zealand Red Cross 2008 Annual Appeal

is increasingly reflected in a wide range of visual representations that celebrate New Zealand's position on the 'edge of the world' in a way that can be seen as a culturally creative position. Although the bottom right hand position is a construct forced upon New Zealand by the European world, it is now adopted, embraced and proudly used in a huge variety of forms.

The map's adoption as part of our visual language has led to a high level of recognition that allows it to be used in extremely abstracted forms. These rely much less on geographical realism than on proportion and alignment. In many cases the shape is constructed from other elements, and sometimes its form is so abstracted that it becomes a symbol of the map, rather than a map in itself.

Increasingly, the outline map is coming off the page and appearing in everyday items. It's used in popular culture as a comforting decoration that reminds New Zealanders of who we are – on everything from coffee cups to pillowslips. Its broad acceptance as an icon of the country has made the map more popular than ever as an adornment, on T-shirts, jewellery and as tattoos, that allows individual New Zealanders to signal to others who they are. The map is now something that symbolises a point of difference – and therefore of pride in what is a more and more homogeneous world. On T-shirts the map is sometimes connected with phrases such as 'Home grown', 'Born here' or 'Made in NZ'.

The changing use of New Zealand's distinctive geographic outline charts the country's changing view of itself and its place in the world. It reflects a growing sense of confidence and a striving to define its developing identity. The map's early use was as a 'realistic' symbol of New Zealand, and a marker for geographical position relative to other (implicitly more important) places. However, this has given way to more flexible use of its distinctive shape and political and cultural neutrality. Depictions of the map now frequently refer to New Zealand's position to symbolise a sense not of isolation but of independence and uniqueness. The very broad acceptance and recognition of the outline map allows it to be used in increasingly abstracted ways, and yet still be a base upon which to express ideas about New Zealand as a country and about what it means to be a New Zealander.

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