THE MEMORIES OF OUR FUTURE:
THE MEMORIES OF MĀUI

BY

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The Memories of Our Future:

The Memories of Māui

Thank you

I need to thank my supervisor

Daniel K. Brown.

He has allowed me to realise the
creativity inside of me.

He taught me how to use it.

And most importantly he has taught me
not to be afraid to use it.

For this I will forever be grateful.

Thank you to my mum, Stella, who is
also superhuman. Thank you for giving
me the most unconventional yet the best
childhood anyone could have. You have
taught me how to love this world and
to cherish my imagination. Thank you
for your continual support and constant
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you had your own thesis to concentrate
on.

Thank you also to my family, friends and
to my incredible partner, all of whom
have encouraged me while having to put
up with my wild ideas, and absence due
to my workload throughout my years of
studying. Thank you, thank you, thank
you.

In case of loss, please return to:

ANY CHILD, DREAMER
OR BELIEVER.

As a reward: \$ _____

Pre face

“What an abyss of uncertainty, whenever the mind feels overtaken by itself; when it, the seeker, is at the same time the dark region through which it must go seeking and where all its equipment will avail it nothing. Seek? More than that: create. It is face to face with something which does not yet exist, which it alone can make actual, which it alone can bring into the light of day.”

Marcel Proust

Once upon a time, childhoods were filled with magic, mystery, and adventure. All you needed was a wild enough imagination that could take you to places you never thought imaginable...

I have been a nanny to two boys throughout my years of studying. I have watched in amazement that they would much prefer to watch the television or play the iPad than to go outside and discover the never seen before make-believe worlds. This saddens me as when I look back to my childhood I remember my best friend 'Mr. Nobody' who would always be by my side. We would sing to the crowd of spiders in my garage, we would dance through the Fairy Forest in my backyard, building huts that swung high in the vines. I distinctly remember my mother taking me and my older sister on wild adventures. She taught us to use our imaginations to understand this crazy world in which we live.

At age 9, my mum and aunty woke us and informed us that some baby aliens had mysteriously fallen from the sky. It was now our mission to get them to the tallest point on earth to return these babies to their worried parents. So off we tramped up to the summit of Mount Taranaki, with these baby aliens in our hands that looked a lot like painted ping pong balls.

**“And above all, watch with
eyes the whole world around you because
the greatest secrets are always hidden in
the most unlikely places. Those who don’t
believe in magic will never find it.”**
Roald Dahl

My supervisor gifted me one of Roald Dahl’s books early this year. It was the tale of the BFG, the Big Friendly Giant. Written inside the front cover was a note from my supervisor: “From one person who believes in magic and monsters to another.” As I re-read through the BFG I realized there was an uncanny resemblance between Dahl’s story and what I was trying to achieve with this thesis; but more importantly I realized that Daniel was right. I never had let go of my childhood imagination. I still did believe in magic and monsters; and perhaps that is what has cultivated my creative intuition over the years. This thesis is perhaps the culmination of my personal inquiry into my imagination to date.

That morning we climbed Mount Taranaki; as far as I knew I was literally on top of the world – watching with glittering eyes the magic world that lay beyond the Taranaki horizon. Fifteen years later, I rediscovered and redefined that magic world and I have transformed it into a place where our future generations can once again have memories of their childhoods filled with magic, mystery and adventure.

-Abstract

This thesis proposes a way to re-inhabit and transform the adverse identity of an old offshore oil and gas platform. Located 35 kilometers off the West Coast of Taranaki, New Zealand, the Māui A Platform (also known as MPA) is transformed in this thesis design investigation into an Environmental Centre, a living retreat for 'children' (in fact, for adults who will be encouraged in the design to see life through the eyes of children). The intention is to generate knowledge and awareness about the environment.

The Māui A and Māui B offshore oil and gas platforms are nearing the end of their economic lifespan. Globally, the current most common decommissioning method of oil platforms involves the use of explosives at the base of the jacket. The structure is then towed to shore and dismantled. The explosives leave scars not only on the landscape the platforms once inhabited; they critically damage the surrounding marine ecology,

severely harming and/or killing

vast numbers of marine species. This is of severe concern for the marine life and ecosystems surrounding the Māui A & Māui B Platforms as they are located in an extremely sensitive marine area where over 30 percent of the world's cetacean species inhabit or through which they frequently migrate. Only two of these marine mammal species are not listed as 'species of concern' in the New Zealand Threat Classification list.

The future of these platforms does not need to cause more adversity to the environment, but rather can regenerate it. By re-purposing rather than exploding and dismantling these structures, this thesis aims to propose a way to re-inhabit the Māui A Platform and transform it into an educational retreat that enables further awareness, reconciliation, restoration, and protection of marine systems, environment, and threatened marine species. This thesis explores opportunities to create a closed circuit system as a means of providing food, fresh water, water treatment and energy for the platform.

To achieve this regenerative solution in ways that will resonate with those who visit the Māui A Platform, this project enters the realm of the imagination. The imagination is fundamental to learning - hence the proposition that this design be framed as both mythological and experiential. Narrative design - story telling - is explored as a tool to connect sustainable awareness and consciousness as a means to help educate the beneficiaries of this world - our 'children'. To encourage the adult visitors to fully recognise that the beneficiaries are indeed our children, the thesis investigation will design the new Environmental Centre through the eyes of the child. As a tool to enhance the historic narrative of the site and context, the design strategically frames traces of important or unnoticed elements or equipment of the Māui A Platform.

In order to be understood and engaged with by 'children', this project enters the realm of the imagination enabling the design to be both mythological and experiential.

**AIMS: To re-inhabit and transform
the adverse identity of the Māui A
Platform into an educational centre
for children.**

OBJECTIVES: To generate knowledge and
awareness about the environment,
investigating creative educational
methods to engage with the 'children'
who visit the platform.

**“If a little dreaming is dangerous, the cure
for it is not to dream less, but to dream
more, to dream all the time.”**

– Marcel Proust

“Somewhere inside^{all of}
us is
the power to change the world.”

Roald Dahl

1_ Introduction

1.1_	Approach	1
1.2_	Scope	3
1.3_	Thesis Structure	4

2_ Context

2.1_	Introduction	6
2.2_	Environmental Analysis	12
2.4_	Unveiling disguised treasures	14
2.5_	Decommissioning Options	18
2.6_	Cultural Significance	22

3_ Theoretical Framework + Project Review

3.1_	Introduction	24
3.2_	The Need for Change	26
3.3_	Creativity in Education	27
3.4_	Imaginative Inquiry	30
3.5_	Landschaftspark Duis Nord	32
3.6_	25 Verde	34

4_ Creating the Narrative

4_	The Story of Māui A Machine	36
----	-----------------------------	----

5_ Design

5.1_	Introduction	41
5.2_	Preliminary Design	42
5.3_	Developed Design	66
5.4_	Memories of Māui	92

6_ Critical Reflection

6_	Conclusion	108
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7_ References

7.1_	List of References	110
7.2_	Source of Figures	112

“We must be mindful of our current trajectory
and the fragility of the moment in history that we now occupy.”

-The director, Imaginary Foundation

Introduction

This thesis tackles an important issue about which many New Zealanders are unaware: the nebulous future of the Māui A and Māui B Offshore Oil and Gas Platforms. On a clear day they are no more than dots on the horizon from the mainland. They are often out of sight and out of mind, privately owned and potentially about to be decommissioned through explosive charges. This could have a catastrophic effect on the surrounding marine environment. Yet this is not to suggest that the public is ambivalent about ecological issues. For example, the recent Global Climate march on November 29th 2015 resulted in 785,000 people from across the globe, including 31,000 from New Zealand, demanding immediate climate action. This demonstrates that a vast number of people do care about our environment and its fragile future.

In 1979 the erection of the Māui A Platform was a world's first; never had an offshore platform been upended at such great depths. New designs and technologies were created and developed for the Māui A Platform, which evidently led the global evolution of offshore platform design. Now that Māui A and Māui B Platforms are nearing the end of their economic lifespan, their future is unclear. The Māui A Platform led the way at the beginning of its production life; this thesis advocates that it can lead the way at the end of its production life too. Rather than decommissioning, exploding and dismantling the platform, this thesis proposes to regenerate the structure as an environmentally conscious means of re-inhabiting and transforming the adverse identity of the Māui A Platform.

This research investigation proposes to transform the Māui A Platform into a regenerative living retreat for 'children', generating knowledge and awareness of the environment, as well as educating 'children' about the platform's past.

The platforms are no longer needed for gas and oil production; therefore our future generations can benefit from experience of these impressive machines in a new format, and learn from them. Moreover, the structure can be adaptively re-used in a functional and ecological manner to create a closed circuit aquaponic farming system, in addition to a water and energy harvesting system that is sympathetic to the environment while simultaneously incorporating elements of history, mythology, kaupapa, education and imagination.

Although the thesis structure has been framed as a linear sequential approach to design, that is far from the case with the evolution of this particular design-led research. The thesis framework is inspired by one of John Hejduk's quotes in his book *Mask of Medusa* (95) where he poetically asks:

“Shards of memory lie everywhere... exposed...dare we pick them up?”

These ‘shards of memory’ were but an obscure vision at the beginning of my research. Ideas and pathways would arise that were daunting to explore with the lurking danger that they may result in painful dead ends. However, therein lies hidden logic beyond the surface. I would compare the design approach to a conversation: like the words form sentences, my propositions and design ideas morphed into experiments, only to be deconstructed, analysed and altered to form a cohesive conversation. That vision is now a memory that has only just become clear, albeit in retrospect. It was the speculative nature of this design-led research that invites the design to respond innovatively to a real issue through an iterative design process. This process is constructed of design experiments that explore – responding to influencing theories and ideas in order to uncover an alternative and imaginative architectural solution to decommissioning offshore platforms within New Zealand – Creating the *Memories of Our Future*.

The scope of this research is limited to the Maui A Platform located off the West Coast of Taranaki, New Zealand. It is limited to this platform as the design responds to site specific issues; however in saying that, if the project were to extend this could be taken beyond Maui A Platform. The theories and design approach could be applied to any of the other offshore platforms also located in the Taranaki Basin. Examining the economic viability of this project is beyond the scope of this thesis.

Chapter 1: Introduction

This thesis begins with an introduction of the research problem, aims, objectives and the scope of this design-led research.

Chapter 2: Site

Māui A Platform was selected as a vehicle for this design-led research as it nears the end of its production life; furthermore it faces an unknown yet questionable future in an extremely sensitive marine area. The introduction of the site examines the context that the Māui A Platform inhabits; it explores and re-evaluates the common methods used to decommission oil and gas platforms – illustrating the importance of an adaptive re-use solution.

Chapter 3: Literature Review + Project Review

Sequentially my theoretical arguments are constructed from the literature and project review chapters; these form the foundations of the preliminary iterative design experiments. The literature review investigates three pedagogical strategies of investigative inquiry as a means of alternative learning, where the adult ‘children’ are encouraged to search for answers in an interactive and engaging environment.

Chapter 4: Creating the Narrative

Using design to interpret the theoretical propositions derived from the literature review chapter, I advocate that imagination

is fundamental to learning; to successfully create a resonating impression, the child must be fully immersed in a creative and engaging environment. In aid of creating a mythological narrative, I have used one of Britain’s most famous writers of children’s literature, Roald Dahl, as an inspiring precedent to convey messages of social criticism in an appealing and engaging manner for the ‘child’ in the adult. This narrative approach provides a vehicle to achieve an environment that cultivates ecological understanding, invokes the imagination, and fosters creativity, memory and knowledge. It is here where the play of the ‘platform is born’.

Chapter 5_2: Preliminary Design

The initial design experiments are constructed from the ideas and arguments investigated in the previous chapters, challenging the design to respond to these ideas and to provide the tools necessary for the ‘children’ to conduct these investigations and make meaningful discoveries about the environment above and below the sea.

Chapter 5_3: Developed Design

This chapter critically reflects on the strengths and weaknesses of the preliminary design investigations. The developing design experiments integrate the successful design iterations from the preliminary experiments to further explore the concept of imaginative inquiry through form, atmosphere and space – using the notion of marine navigation devices as mediators

of the ‘play of the platform’. Subsequently this mythological play enables the ‘children’ to become aware of the greater story of life – *the importance of orientation, placement in time, and their relationship to the environment.*

As a cumulative design experiment, this chapter investigates and tests the concept of a closed circuit aquaponic farming system in addition to a water and energy harvesting system to create an ecological design solution. Both of these tests begin to amalgamate synthesising a new form derived from a multi-layered design-led research investigation.

Chapter 5_3 Memories of Māui

This design chapter is constructed from a critical reflection and the integration of the multiple successive threads of theory and ideas derived from the literature and project reviews, my intuition and imagination, as well as the design experiments that I have investigated throughout the thesis thus far.

Chapter 6: Critical Reflection

This chapter reflects on the design-led research as a whole and the limitations and constraints of the findings due to the scope of this research. It also reflects on how this study has potential to advance if it were to be extended beyond the scope of this thesis.

2 _ S i T E

*From above the skies,
And beneath the seas.
A magic lies between,
From a world unseen.*

—Shannon Lenihan

The town

Northern Taranaki Bight

Southern Taranaki Bight

that doesn't want to be rich

The Maui gas question:

**Use it now, or
pay more later?**

**Against using
Maui gas**
6/12/85
T.H.

**Taranaki councils want
Maui meetings**
TH 2/9/85

**Maui field smaller
than expected**
TH 26/4/85

**Environmentalists
disagree
with gas use**
11/2/86

**Gas use
criticised**
PETROCHEMICAL
T.H.
25/9/85

Maui gas shutdown planned
D.N. 11/1/85
PERIOD - min 4 hrs

Maui rig dumping ruled out
D.N. 11/1/85

As illustrated in figure 2.2, all seven of New Zealand's permanent offshore Oil and Gas Platforms, or Floating Production Storage and Offloading Vessels (FPSO), are located within the Taranaki Basin off the coast of Taranaki, New Zealand. It is also recorded that over 30 percent of the world's cetacean species (whales, dolphins and porpoises) either reside in or regularly migrate through the Taranaki Basin (Ministry of Primary Industries). Of the 29 species that voyage through the area, only two of these species are not recorded as "species of concern" in the New Zealand Threat Classification List (Gardline Environmental Limited 60).

Before oil and gas explorations commenced in the Taranaki region, oil could be seen floating on the sea surface at Ngamotu Beach in New Plymouth. In local Māori mythology, a legend lay buried beneath the ocean floor; a giant sea creature or taniwha had died thousands of years ago and became the source of gas bubbles that now rise to the surface.

Natural gas and condensate explorations began in the area in 1969, where Shell BP and Todd Oil Services determined that the size of this particular 'taniwha' was 6 million cubic meters – at the time, this was one of the world's largest offshore gas reserves (Fried, 60). The explorers named the gas field in honour of the Maori legend of Māui – who drew a giant fish from the sea that became the homeland of the Māori people, Te Ika-a-Māui (also known as the North Island). The gas field was named after Māui with the expectations that the new find would bring equal riches to the people of New Zealand (Fried, 10) just as Māui had to his people.

Fig. 2.3 Time-line of Māui Gas Field.

The design was carried out by Earl & Wright and Global Engineering INC who developed the innovative design.

In 1974, the tower was constructed by Nippon Kokan Kabushiki Kaisha (NKK) in Japan. Once completed the tower was towed through 8,400 kilometers of ocean to its new home, situated 35 kilometers off the West Coast of Taranaki, New Zealand.

The tower legs, also referred to as the jacket, extend 110 meters before reaching the sea floor; then they were driven a further 80 meters into the seabed to anchor the platform permanently in place. Once the tower was upended, the eight prefabricated modules were positioned on the platform to form the habitable space. Full production of Māui A began six years after construction in 1979.

Both Māui A and Māui B Platforms are almost depleted, estimated to become economically depleted by the end of 2015 (St George). Controversy has arisen over lack of plans in place for offshore platform decommissioning practices in New Zealand. Local Iwi, residents and activists have expressed concern over the environmental impact of decommissioning platforms.

Māui's Environmental Setting

The Māui A Platform is located 80 kilometers away from New Plymouth, 35 kilometers off the west coast of South Taranaki, 110 meters deep within the Southern Taranaki Bight. The neighboring Māui B Platform is a further 15 kilometers southwest of MPA (see fig 2.2). The area is still currently operational and is owned by Shell Todd Oil Services (STOS).

The South Taranaki Bight is exposed to both the Tasman Sea to the west and the Cook Strait to the south. In a report by Resource Environmental Management (REM) collected data about significant wave height and wind statistics in the area between 1998 and 2009 and summarised that the maximum wave height reached 10.81 meters, while the average wave height over this 12 year period was 2.55 meters. This report included a wind rose of wind direction and speed over this 12 year period. The data was taken at 10 meters above sea level; the average speed was 8.88ms^{-1} . The average windiest month is June with an average of 9.93ms^{-1} . Predominantly the winds are westerlies; however the strongest winds are from the southwest (see fig. 2.6). The current structure of the platform provides a wind break from the predominant westerly winds, however no protection from the strong southwesterlies.

Clockwise from upper left: Fig 2.5. Wind Speed Map, Fig 2.6. Wave Height Map, Fig 2.7. Maui's legs, Fig 2.8: Wind Rose

The environmental exposure creates layers of patina and erosion lines that tell of Māui's age and experience with these elements above and below sea level (see figure 2.13). Buried 80 meters below the seabed, Māui's legs stretch 110 meters from the bottom of the sea to the uppermost point, breaking the waves into a world above the ocean.

Traces of the platform's age can be seen on the steel legs which act as a threshold between these worlds, only revealing hints of the world below sea level at the change of tide, forming a pentimento as organic biomass builds up layers over the stratum lines of the aging sacrificial material. Revealing the platform's voyage throughout is an important element of this investigation, and will be acknowledged throughout the design process. The design must be sensitive to and enhance the exhibition of these traces of age as part of the proposition to educate visitors about the marine environment.

Historic industrial buildings and infrastructure often provoke human curiosity and provide tangible links to our past. In the event that the Māui A Platform is released from its current occupation, decommissioning practices will require the owner/operator to remove all equipment and possessions from the platform – stripping the platform of its industrial character and heritage, leaving only the skeleton of what it once was. As a tool to embrace the historic narrative of the platform, the thesis design experiments aim to strategically frame these traces of history by incorporating most of the recycled material and reused equipment that was once bound to the Māui A Platform.

Fig. 2.16. Zones of the existing Māui A Platform.

As seen in figure 2.16. The platform can be divided into zones. When constructed the platform was designed to have 8 prefabricated modules placed on the structure. These are removable and would be removed from site at the time of decommission. The Northern quarter of the platform is referred to as the living quarters which is primarily inhabited by accommodation, the kitchen galley and dining, the gym, theater room, offices, and services. The remaining modules are production decks inhabited by structure, drilling, processing and storage machinery and equipment.

As indicated in figure 2.17. And figure 2.18, the interior fit out of the living quarters represents the era in which it was built (modules placed in 1979). This contrasts the production quarters where the material palette reveals no indication as to when it was built – the only hints of age presented are the those of the oil stained machinery and steel.

It is also important to note that the living is separate from the working/ production zones. There are few windows providing minimal visual connection to the platform. This provides a physiological separation between work and living for the staff who inhabit the platform for up to four weeks at a time (STOS).

A critical decision was made to leave the tank deck (bottom deck) and the top deck untouched. The contrast between living and production quarters will be retained throughout the design to distinguish between the public / private zones and spaces. The living quarters will remain on the northern modules, whilst the educational learning environment will transform the middle and mezzanine decks. It is these polar opposites that can establish the difference between its adverse history and its positive present/ future of the Māui A Platform.

Removal, Reef, or Reuse?

In New Zealand, six government agencies along with 16 regional councils share the responsibility for activities within New Zealand's Exclusive Economic Zone (EEZ) and the Continental Shelf. Currently all of New Zealand's offshore fields are still operational so we have not yet witnessed the monumental task of decommissioning offshore platforms; however the Māui Field is nearing economic depletion and soon faces decommission.

In recent years, criticism has arisen over the lack of plans and regulations for decommissioning practices in New Zealand. Controversy often surrounds the decommissioning process of offshore structures due to liability concerns and uncertainties regarding the economical and environmental risks and benefits. The 1995 decommissioning of the Brent Spar in the North Sea made international headlines when the British government announced its plan to support Shell UK's application to dump the floating oil storage tank in the Atlantic Ocean.

This sparked public outrage after Greenpeace initiated a high profile global campaign against the disposal plan. The resulting controversy led to the boycott of Shell in Germany and across much of Northern Europe. This had a detrimental effect on sales and share prices of Shell, creating economic problems and a negative

reputation for the multinational company. Shell UK eventually revised and abandoned the original plan of disposing Brent Spar at sea in favor of dismantling and recycling the structure on land in Norway. The Brent Spar campaign set a precedent for the oil and gas industry to provide an open and responsible approach to decommissioning offshore structures. It also opened discussion towards alternative means of decommissioning future obsolete structures. These alternative options are: complete removal, partial removal, toppling, and reuse.

Alternative 1: Complete Removal

The typical process of a complete removal begins by well abandonment, a process where the wells are filled with concrete. The conductors are then separated either using lasers or explosives. The topsides which contain the living quarters and processing equipment are cut from the jacket and removed; the piles that hold the jacket into the seabed are then severed with more explosives. The platform is then towed to shore, where it is dismantled and the components can then either be recycled, sold as scrap or discarded in landfills, or sometimes reconditioned and reused.

The estimated costs for complete removal in New Zealand is \$805 million - \$1 billion (Weir). The adverse cost to the environment,

however is far greater, where the complete removal of the platform by explosive charges will kill the majority of surrounding living organisms, and alter migration patterns, reproduction cycles and behaviour in response to the noise pollution of the underwater blasts. Much of the equipment used to dismantle, lift, and transport the elements of the platform runs on fossil fuel, usually diesel, emitting carbon dioxide and pollutants (Claisse et al). The underwater explosives used to disjoin the steel jacket from the seabed generate severe shock waves causing immediate lethal impact on the surrounding marine life (Schroeder 39).

Depending on time of year and season, the explosions can cause a dramatic reduction in local species diversity and abundance; this is especially concerning because endangered species can be lethally impacted. There are two major zones that are affected by the explosions; the first is a spherical zone centered on the explosion. All living organisms on or associated with the platform structure will instantly die of injury within this zone (Claisse et al) The second zone is in the shape of a disk just below the surface of the water, centered on the explosion. The initial shock wave travels as a compression wave until it reaches the water surface, where it is then reflected into a decompression wave. Fish, marine mammals, sea turtles, and diving seabirds will

“

*An individual has not started
living until he can rise
above the narrow confines
of his individualistic concerns
to the broader concerns of
all humanity.*

”

— *Martin Luther King Jr.*

be adversely affected in this zone. They will either instantly die from the blast, or suffer injuries such as severe damage to their auditory systems and physiological trauma or distress (Schroeder 42). Marine ecology recovery time of ten years or more has been recorded at other platform locations around the world. Recovery is defined as the point where marine biodiversity is equivalent or indistinguishable from communities in similar conditions (Schroeder 40).

Alternative 2: Partial Removal

This process is similar to the process above in regards to well abandonment and removal of the topsides; however only a portion of the jacket is removed. The accumulation of shells on the sea floor surrounding the jacket is referred to as the 'shell mound'; shell mounds are biogenic reefs and do not need to be removed/ exploded. In some cases, navigational aids are needed above the jacket. Once the topsides have been cleaned, they are taken to a new location, or towed to shore to be dismantled, recycled, or sold for scrap.

Although there are no explosives required in this method, there is little fatality or injury, and there is virtually no impact on marine mammals and seabirds, there is still the concern over the negative air emissions released from the derrick barge and other support vessels when towing the topside to shore. After the decommissioning process is complete, the structure should still continue as an artificial reef, depending on how the upper jacket was removed, e.g. the use of

explosives (Henrion).

Alternative 3: Toppling

The primary difference between partial removal and toppling is that the process of toppling is to sever the jacket from the seabed with explosives. A barge then tows the structure over to settle on the seabed.

A similar effect to the total removal method would see a great reduction in the abundance of species in the marine population at the time of decommissioning. The explosives would be fatal to any surrounding marine life (see alternative 1: total removal); however, toppling the jacket would provide a vacant artificial reef suitable for colonization. The structure could be towed into shallow waters to attract a more diverse range of species to colonise the vacant artificial reef (Schindler et al). The site would suffer from decreased air quality due to emissions from supporting vessels during the toppling process.

Alternative 4: Reuse.

Platform and associated shell mound can be left in original locations. Topsides are stripped and cleaned and navigational aids are installed. As this process does not require the use of explosives, or any further disruption to the marine environment, it would continue to function as they had before the decommissioning process. No mortality or injury would occur to surrounding marine population. Decreased air quality may be an issue during the removal of equipment phase. If the platform is to house a new occupation,

new activities would impact the environment.

After production lifespan:

The steel platform is currently protected by sacrificial anodes, which corrode before steel, preserving the jacket's structural integrity. It is estimated that if the anodes are not replaced the structure will still hold structural integrity for a minimum of 100 to more than 300 years (Schroeder 42); however, corrosion rates vary depending on temperature and environmental conditions.

Chosen Alternative: 4

Decommissioning alternatives 2 and 4 provide the least amount of environmental impact. However the costs of these alternatives have not been investigated, as the economic viability is outside the scope for this research. Due to the minimal environmental impact, this designed investigation aims to explore alternative 4: reuse, particularly due to the sensitive marine location. This project's aim is to transform the adverse identity of the Māui A Platform into a regenerative living 'environmental retreat'. The design will be conceived as if designed through the eyes and imagination of 'children' - specifically to enable adult occupants to reconnect to the environment in an imaginative and engaging manner. The investigation aims to mitigate any environmental adversities caused by the current occupation of the platform, to educate 'children' (i.e. the new visiting occupants) on the history of the platform and the environment both above and below sea level.

C u l t u r a l s i g n i f i c a n c e

The lands in Taranaki are home to many iwi and hapu. Three particular iwi concerned with the Southern Taranaki Bight are the Ngāti Ruanui, Ngā Ruahine and Taranaki. For Māori, the central North Island's landscape is steeped in cultural and spiritual significance. Taranaki was first inhabited by ancient Māori – who characterised the region's narratives in relation to two major geographical elements: the restless coastline and the lonely mountain.

The region is named after the visually dominant sleeping mountain; Tara means mountain peak, and naki derives from Ngaki which is thought to have meant shining (GNS). With one of the most symmetrical cones in the world, this snow topped quiescent stratovolcano is wrapped in a cloak of native forest, reminiscent of pre-European times – majestically rising above the region's rolling green plains dotted with grazing sheep. The ocean is of high cultural significance to the Māori, and is often referred to as Tangaroa, God of the Sea. Many iwi consider the water as the foundation of life, reflected in traditions that speak of the water as te taha wairua (the spiritual plane of existence).

Just as Māui drew a giant fish from the sea that became Te Ika-a-Māui (North Island) the homeland of the Māori people, the explorers named the gas field in honour of Māui – with the expectation that the new find would bring equal riches to the people of New Zealand today (Fried). This thesis investigation is named after Māui also in the hopes that it will bring equal riches to New Zealand, not economically but by returning the insights of the child to all people who visit the platform.

Mount Taranaki, also referred to as the lonely one, exerted a powerful influence over the imaginations of the Māori people. Taranaki was once married to the gracefully contoured little Pihanga. She was rich with deep green subtropical flora, native bush and wildlife (Puke Ariki). She was the most beautiful mountain god and all of the mountains were deeply in love with her, especially the mighty Tongariro.

Legends have it that the earth shook as the two dominant males fiercely fought; violent eruptions of fire and smoke burnt the skies for days. Tongariro lost his head but summoned the strength to kick Taranaki to the edge of the sunset. The victor Tongariro won little Pihanga's heart. Filled with anger and heartbreak, Taranaki now stands on the west coast overlooking the ocean below. It is said that the trail left behind was filled with tears for Pihanga, and when the mists and clouds cover the summit, Taranaki is still crying over the loss of his true love.

Imagery and Intuition

Fig 3.1: Gathering Thoughts

I hadn't read that until yesterday. I wrote something else for today (December 3rd, 1991).

Souls, shadow and sound. Raimund Abraham embraces and practices with determination the art and science of Architecture. He sees his discipline as one of the most profound gifts to humanity. He believes in the sacred, and he brings his offerings respects to the Earth and to the Heavens.

ences resonate in deep respect of man's inner breathing sounds, respond to the synapses of the soul, to carefully and quietly, illuminated to the sea-fall of fluids between the brain, flowing and moving horizontal plane, to the edge-line in vertical - that is to revelation.

Abraham is a rare free spirit, that the discipline of Architecture is a living and life-celebrating. His unrelenting in their pursuit and ultimately place the long into the very heart of the universe. It more explicitly, into the mysterious, which in the most precise and has the granite embedded with unrelenting shadows where Form and Space increasingly clear, consequently

3 Theoretical Framework + Project Review

Dreams and Intuition
something which she had conjured up, simply because she
had read about such a creature, and that have disregarded
its symbolic significance in her life. The process
identification, however, generated the emotional response
leading to a new realization of the implications of the
own life.

CREATIVITY AND EDUCATION

Theoretical framework inspired by Sir Ken Robinson's educational theories particularly in the works of Creative schools + Out of our minds: Learning to be creative

As Socrates famously expresses it: “Education is the kindling of a flame, not the filling of vesal”. This thesis aims to kindle the flame of creativity amongst the students who visit the platform – in order to create an engaging environment for the ‘children’ who visit the Māui A Platform, this thesis investigates ‘alternative’ means of education that promote creativity in learning to resonate meanings and memories within the ‘child’.

Learning is a personal choice and it needs to be recognised that all students have diverse interests and learning styles - currently our education system in New Zealand fails to address the diversity amongst our students. We have a strict national curriculum the requires students to conform in order to achieve national standards - One of the primary reasons people do not believe they are creative stems from education and especially the systems of mass education where national standards place a biased hierarchy on ‘academic’ subjects such as mathematics, literature and science – respectively placing less emphasis and value on the creative subjects. However; as the world is changing at such a rapid rate; we need to equip our students to think creatively in order to solve these unprecedented problems – we need to transform the way in which we think about and practice education.

In 1968 NASA employed Dr. George Land to research and develop a tool to measure the capacity of creative thinking. A sample of 1600 five year olds was tested; 98 percent scored what NASA described as ‘creative genius’ level. The same group of ‘children’ were retested at the age of 10; astonishingly only 30 percent remained at the creative genius level. By the age of 15, a mere 12 percent were still considered to be creative geniuses. Land and his team of scientific researchers proceeded to administer the test to over 1,000,000 adults; a disconcerting 2 percent of the adults were considered to be creative geniuses. They discovered through their research that there are two forms of thinking going on within the brain: ‘Divergent’ – the imagination generating new possibilities without constraint – and ‘Convergent’ – the process when the brain judges, critiques and evaluates decisions.

Moreover, they discovered that the education system teaches children to use both divergent and convergent thinking simultaneously, causing neurons to fight each other, which diminishes the power of the brain and limits creative thought.

There is no institution in the world that is not facing profound, turbulent and unpredictable changes . . . and if we are to enter the future with hope, we need to find the five year old, the five year old that produces this wonderful imagination.

— Dr. George Land

In Land’s 2011 TedX talk titled: *The Failure of Success*, Land recounted his famous research into the creative capacity of children versus adults; the results suggested creativity is learnt or more accurately ‘unlearned’. Land emphasised that this is still a global issue; now more than ever there is a critical need for creativity to be re-learned. Land asserts that “there is no institution in the world that is not facing profound, turbulent and unpredictable changes . . . and if we are to enter the future with hope, we need to find the five year old, the five year old that produces this wonderful imagination” (TedX. 2011). Arts and educational advisor, professor and author Sir Ken Robinson argues in *Out of our Minds: Learning to be Creative* that the more complex the world becomes, the more creative we need to be

to meet its challenges – that our greatest jeopardy is to face the future without investing in our abilities of imagination, creativity and innovation (47).

So why does creativity matter? Currently our education system in New Zealand and around the world is in a paradigm paralysis, crippling our students, and crippling our future. Our graduate unemployment rates are higher than ever, our prisons are overpopulated and our climate is in a state of crisis; now more than ever, we need to learn to think creatively to prepare for our future. This chapter examines the education system and its relationship to creativity, how this relationship has been neglected, resulting in disastrous consequences for our graduates, our employers, our environment and our economy. It investigates methods of fostering and cultivating imagination, creativity and innovation in education, and explores how these can be adapted and applied to the thesis design investigation.

In “Supporting the Future-orientated Learning and Teaching – a New Zealand Perspective”, a report prepared for the Ministry of Education in 2012, the Education Minister Hon. Hekia Parata addressed the concerns for the New Zealand education system to change in order to adapt to the challenges of our future. Parata opened the report with high hopes and expectations to change the New Zealand education system in order to create a “world-leading education system that equips all our young people with the knowledge, skills and values to be successful in a world that is increasingly complex, fluid and uncertain” (Ministry of Education, 2012). This report brings together a synthesis of international and national research within the realms of innovative school environments. It acknowledges that the current educational structure is failing to address and support the learning needs of all students within the system.

Given the changes engulfing us, most countries have recognised the need to reform their education systems. In New Zealand this reform has come by the way of Innovative Learning Environments (ILE). Over the past five years the Ministry has introduced the innovative learning environments to all new builds and major developments of existing schools, with the aim of having all schools in New Zealand upgraded by 2020. The Ministry’s design guidelines for innovative learning environments focus more on the architecture of the schools rather than the school education system itself. What Sir Ken Robinson expresses in both his books *Creative Schools* and *Out of our Minds: Learning to be Creative* is that more than reform is needed. We need to completely transform the way in which we think about education.

Most of the schools in New Zealand were built between the 1950s and 1970s and built off the industrial education system (MOE). At the time industrialism required more manual practical workers than it did college graduates (Robinson 34); therefore education catered for and responded to the needs of society at the time. The system of mass education was built in a way to resemble a pyramid. This resulted in compulsory education for primary school, a smaller sector allocated for secondary and a fraction for tertiary education. As Robinson critiques in *Creative Schools* the industrial education system is a metaphor of industrial manufacturing; its role was to produce identical versions of the same product. Moreover the byproduct or products that do not conform are reprocessed, rejected or removed. The industrial process demands compliance and supplies the market’s demands. The flaw in the industrial education system is that humans

are not cogs in an industrial machine, nor products in a product line. Standardisation and conformity do not work in education because people are not standardised to begin with.

Every person is unique; this goes deeper than our physical appearances to the greater diversities of our personalities, skills, talents and interests – some of which can be attributed to the communities and culture in which we are raised.

As times changed there was a need to raise the standards in schools. This is referred to as the standards or standardization movement. The national New Zealand curriculum has firm guidelines for how schools are to be run, comprised of three main elements: curriculum, teaching and assessment. The national standards set clear expectations that prioritise academic study such as English, mathematics and the sciences. It has placed less value on arts and the physical and practical disciplines such as art, dance, drama, physical education, communications, cooking, and media studies. The movement favours direct instruction of factual information and whole class learning rather than group based collaboration. The standardised assessments emphasise formal written examinations and extensive use of multiple choice based tests over portfolios, teacher evaluation, peer assessment and other forms that are less quantifiable (13). This has created a culture of compliance within schools that discourages the imaginative and creative capacity of students (37). Sir Ken Robinson has analysed the standards movement and argues that it is failing by its own terms, creating more problems than it solves. “To understand that people come in all different shapes, forms and size that have personalities with varying abilities, interests and skills; this is the key to seeing how the system is failing – and how it can be transformed” (25).

To understand that people come in all different shapes, forms and size that have personalities with varying abilities, interests and skills; this is the key to seeing how the system is failing- and how it can be transformed.

— Sir Ken Robinson

Although the ILE movement in New Zealand has shifted towards large open space design to allow for group collaboration, the national standard still follows the standardisation and industrial principles (particularly so with NCEA) that Robinson emphasizes are the problem

with education: this cultural hierarchy of academic illusion and economic focus has forced generations of people to be steered away from the creative subjects with benign advice about poor job prospects (63). This strikes a personal chord as I too fell victim to this form of educational bullying. When asked by the careers advisor at my high school “what I wanted to do with my life” I responded that I wanted to help save the world hopefully while pursuing my passion for design. The response I received baffled me then and continues to baffle me today. I was told that “there is no money in that, and no point trying to save the world. How about becoming a TV presenter; you have the personality for that”. Luckily for me, my personality was/is stubborn, and I continued to follow my passion, still trying to help save the world. Sir Ken Robinson believes that “what we become in the future is deeply influenced by our experiences here and now; education is not a linear process that prepares us for the future, rather it is about cultivating the talents and sensibilities through which we can live our best lives in the present and create the best futures for us all” (8).

How can we create an educational culture that caters to each and every one of our diverse students? Robinson advocates for a system that explores a broad approach to learning with flexible ranges of teaching styles that redefine our curriculum with interdisciplinary themes providing forms of education that encourage young people to critically engage with global economic issues of sustainability and environmental well-being. This system should encourage students to support the health and renewal of the world’s natural resources rather than to deplete them. The diversity of talents and interests needs to be actively encouraged and cultivated whilst eliminating the illusion of academic hierarchy between subjects, giving equal weight to all areas of study – and to foster practical partnerships between students and various types of working environments (47).

Although creativity is commonly associated with the arts, it is not confined to any one personality type, activity or subject; it is present in anything that involves intelligence.

It depends on the interactions of sensing, feeling, thinking and acting. Both Land and Robinson advocate that creativity can be learnt, given the right environment. However, in order to be creative we must understand that creativity is a process, not an event. Creativity is fluid and moves through

different stages; not only is it about generating ideas through the divergent thought process, it also involves making judgements and refining them in the convergent phase. Robinson explains that many people who have not trained to be creative misunderstand the process, attempting to produce a finished version in one move. This can often leave the person feeling that they are uncreative.

Robinson defines the creative process as having three core elements: Imagination, Creativity and Innovation. Imagination is the ability to bring to mind events and ideas that are not present to our senses. Creativity, refers to the process of having original ideas that have value; creativity is essentially applied imagination; it involves putting your imagination to work. Innovation is the process of putting those ideas into practice. Innovation can be thought of as applied creativity. Before we are creative we need to have solid foundations of imagination. As Robinson articulates, imagination is the primary gift of human consciousness. Within our imagination we can remove ourselves from the present situation, put ourselves in the shoes of others, revisit the past and create many alternative futures. Everyone has an imagination; it grows organically and wilts when not nourished. Psychology pioneer of his time Lev Semenovich Vygotsky argued that “imagination is not an idle mental amusement, not merely an activity without consequence in reality, but rather a function essential to life” (quoted in Singer 7). So in order to cultivate creativity we have to encourage cultivation of the imagination.

Professor Emeritus of psychology at Yale University Jerome Singer suggests throughout his research that the enjoyment children have when engaged in storytelling cannot be over emphasized; in addition make-believe play in childhood is regarded as one of the most vital aspects of divergent production which is fundamental to human operation and growth (255). Moreover, imaginative play leads to creative thought and is consistently associated with smiling, laughing and high satisfaction in children. Singer emphasises the importance of the role to foster imaginative and make-believe play in children through adult involvement, encouragement and participation. Singer asserts that had the suppression of creative and imaginative thought and play in education been reversed, school would become more interesting (245). Singer's research shows that schools with an atmosphere where games, play and creativity are actively encouraged, often lead to greater imaginativeness, enhancing curiosity and learning skills within the child resulting in greater student engagement.

An approach to learning and teaching in a way that empowers the imagination is imaginative inquiry based learning. It brings together three effective pedagogic strategies: Community of inquiry, mantle of the expert and drama for learning (see fig 3.2). This approach respects the creativity of the learners' actions as they engage, collaborate and create inquiries while participating in reflective thinking. It is inherently connected to playful investigation where the learners are actively encouraged to explore, create and discover through play. In both imagination and action, imaginative learners build personal and meaningful representations of ideas that help them make sense of new, challenging situations (Lawrence).

This approach respects the creativity of the learners actions as they engage, collaborate and create inquiries then participating in reflective thinking.

— Carolyn Maher

Imaginative Inquiry based education recognises that every student by nature is a unique individual with intuitive talents and sensibilities. This education system draws out these talents but developing the whole child rather than just their academic abilities – it engages with their feelings, physical environment, moral education, imagination and their creativity. As Robinson mentions in *Creative Schools* many students at all levels tend to spend more time on desk based study and on computers or smart devices rather than physical, collaborative activities and engaging face to face with peers (177). Imaginative inquiry focuses on group based collaboration as a process or investigation, it explores the roles of each individual and their relationship to the situation, environmental setting and to the group – it recognises that knowledge of the self is as important as knowledge of the world – exploring the personal feelings and values of the child is essential and so presents opportunities to exercise the imagination and self expression (179). This thesis investigation aims to employ the Imaginative Inquiry strategy as a tool to inform and educate the 'children' who visit the platform. It is important for the design to respond to the ideas and issues presented in regards to creativity and education, in order to successfully achieve an environment where the imagination can be nurtured, creativity to be fostered and innovation cultivated. To achieve this there must be various environments, imaginative settings / stages and atmospheres to engage with varying sized groups, personalities and interests.

Inquiry

Inquiry learning is about seeing the curriculum as something to explore rather than deliver. It views children as active agents in this process, working together with each other and with adults to acquire, apply and develop new knowledge, skills and understanding.

The content and subjects of the curriculum are seen as areas of research, to be examined, explored and questioned through a collaborative process of investigation. Children are encouraged to ask questions, contribute ideas and think critically. The work they do is applied in-context, with meaningful outcomes (Abbott).

Mantle of the Expert

In the normal teacher-student relationship the teacher is the 'one who knows', the expert, and the students the ones doing the learning. In mantle of the expert this one-way learning relationship becomes more collaborative and dynamic.

When the children agree to take on the 'mantle of the expert' they enter into the fiction as the ones who know, with the power to make choices, take decisions and influence events. But, crucially, they also agree to take on the responsibilities, duties and roles of the expert team (Abbott).

Drama for Learning

Drama for learning is about using the conventions of theatre – point of view, tension, and narrative – to create exciting and meaningful contexts for learning in the classroom. Students and adults work together to invent imaginary scenarios that give meaning and purpose to curriculum study.

The scenario often starts with a question or a dilemma, and then moves into a moment of drama where the children and the adults represent different points of view and where action is slowed down using the conventions of dramatic action, allowing the students opportunities to question, explore alternatives and make reasoned choices (Abbott).

There is a real danger of eradicating evocative post-industrial sites, such as the Māui platforms; it is important to remember them because they illustrate an uncelebrated history, while revealing the strained relationship between humanity and nature. In his book *Industrial Ruins*, Tim Edensor argues that it is precisely due to their fragmented nature that ruins remain deeply meaningful. They blur the boundaries between rural and urban, past and present and are intimately tied to memory, desire and sense of place. As we experience places, spaces and events, we acquire a rich library of memories – some of which gather dust hidden in the depths of the hardest to reach of shelves, while others fundamentally shape who we are. There is an alliance that forms between our memory and the places we inhabit; in such a way the memory is empowered through embodying that place, just as that place is empowered by our memories. It is then our memories and experiences become fundamentally entwined within the fabric of the places we inhabit. The coexistence between our connections of memories and place forms a reciprocity bond.

Exemplifying the emotive power and allegorical potential of architecture and landscape, and the possibility of growth as well as decay, the living ruin of the first case study Landschaftspark Duis Nord looks to the future as well as the past. The park has won considerable international awards for its restorative design on a previously neglected adverse industrial site.

James Joyce scribbled the words, “places remember events” in the margin of his notes for Ulysses...

—Emily Orley

In this case study, allegory is used to define an experience that accommodates multiple journeys towards understanding; the industrial structures are transformed through a series of landscape interventions, altering the park's adverse identity into evocative celebration of humanity and nature. The visitors' engagement with the controversial industrial structures and their imagination reveal new connections to be made and allow the visitors to interpret them in new ways, to deal with them in new ways and to alter their perspectives on post-industrial sites.

[What if] places, as anthropomorphic entities, really could remember? What impact would this have on our own behavior, as visitors in those places? How might this serve as the stimulus for the production of artistic and critical work in and about a particular place? And finally, how might it affect how we, in turn, remember the place ourselves?

– Emily Orley

Landschaftspark Duis Nord embodies multiple narratives, one of which relates to allegory of weathering architecture. Memory emerges as a key participant of the design, not for the preservation of the site, but as a design strategy – showcasing the depth and genuine connection to site, while recognising that memories appropriate as one experiences life, and that ruins can be interpreted as a foundation for the future. The Piazza Metallica is the principal symbol of Landschaftspark; it represents this transience of memory, where 49 iron plates line the former foundry pits of the casting works. These plates mark a gathering place in the heart of the park, where the participants of the site animate allegorical history as the gradual decay and weathering of the iron plates becomes more apparent. The planted grass rises above and between the rusted remains, offering a ghostly glimpse into the furnace's past.

Applications for the thesis investigation: The thesis redesign will be driven by multiple strands of narratives that create a comprehensive didactic story that engages with the diverse 'children' who visit the platform. A key strand is that of the platform's melancholy mystery; as the strand unravels, the 'children' (i.e. all visitors, but seeing through the insights of the child) will learn about the adverse memories embedded within the steel that physically holds them above the earth they once undermined. Due to its sheer location and extreme weather conditions the maintenance upkeep of the platforms is integral to their survival; however after decommissioning the platforms, large amounts of cumbersome equipment are left behind to erode.

Through the altering of identities there is no longer a need for this equipment to perform its original purposes or to maintain them; rather there is potential to 'reinterpret' them as the 'ruins' of the platform's previous identity. Just as Landschaftspark Duis Nord introduced the new iron plates to erode as if they were ruins, the expired equipment on board the platform can represent a new lease on life, immersed in nature, exposing themselves to the weathering conditions – acting as a living messenger between the past, present and future identities, that can help us understand the vulnerability of our natural environment and our responsibilities towards it.

In the second case study, a residential complex in Torino, Italy illustrates how industrial materials can immerse themselves with nature seamlessly. In 2012, Luciano Pia designed '25 Verde' to not only contain 63 unique apartments but to become a living system. The 300+ trees produce oxygen, absorb carbonic anhydride, reducing air and noise pollution, while following the natural cycle of seasons, creating a microclimate inside the building – diminishing the effects of the rise and fall of temperatures of the seasons, whilst effectively reducing heating and cooling costs. What

Clockwise from top left: Fig 3.8-3.11: Images of Landschaftspark Duisburg-Nord, Fig 3.12- 3.18: 25 Verde

distinguishes 25 Verde from other 'living' or 'green' buildings is the architect's interpretation of a childlike 'dream tree house'; Luciano Pia invites you into a realm where imagination coexists with reality. The building is in the form of a living forest, where structural steel forms the trunks of trees that appear to grow out from the wetland ponds on the ground floor. These trunks hold up the irregular shaped terraces that are constructed of wooden planks. This building is recognised as being 'alive': it grows and breathes, changes and sometimes speaks when the trees move in the wind. The Corten steel trunks not only act metaphorically as the trunks of trees, they also internally provide the irrigation system of the recycled rainwater. Another element of harsh steel is the planter vases that occupy all of the terraces. Out of context, these massive planter boxes appear as if they belong in an industrial factory; yet within 25 Verde's complex they are immersed harmoniously within nature.

4_Creating the Narrative:

PROSTATE

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EXERCISE BOOK

24 LEAVES 12mm RULED

Shannon Lenihan
Storywriting

Name:

Subject:

The Memories of Māui....

In order to cultivate creativity we have to encourage the cultivation of the imagination – and acknowledge that the library of our imagination is limited to our lived experiences. Although we might ‘invent’ new images in our imagination they are essentially constructed of and limited by our real experiences; in order to encourage and cultivate the imagination we need to broaden our experiences. In aid of creating an imaginative and didactic narrative to encourage make-believe play and imaginative inquiry, whilst conveying the thesis investigation’s messages of social and environmental criticism, I have immersed myself in the works of one of Britain’s most famous writers of ‘children’s’ literature, Roald Dahl.

Dahl has an extraordinary style in which messages of social criticism are conveyed. Within Dahl’s books he plays with a relationship of good versus evil in a variety of ways; often between a child and an adult or other authority; there is however, no room for doubt that it is the ‘good’ – the young, with wild imaginations – who triumph over the old, the greedy and the wicked. One particular method that could be termed ‘bad endings’ is where nasty punishments are given to the characters who are villains with repulsive attributes or unpleasant greedy, disobedient, spoilt ‘children’. These bad endings subconsciously warn the readers of moral decisions and their consequences. Such an example is the fate of the greedy, self-righteous Violet Beauregarde in *Charlie and the Chocolate Factory*. In the book, Grandma Josephine predicts and warns the readers: “she’ll come to a sticky end one day, chewing all that gum, you see if she doesn’t”. Violet’s disobedience and greed results in her blowing up into a giant blueberry – after the fat Augustus Gloop ‘the great big greedy nincompoop’ falls into the chocolate river and blocks the great chocolate suction pipe. The famous Oompa-Loompa’s songs are sung after a lesson has been learnt and are crafted in such a way that they leave a lasting impression upon those who have read Dahl’s book or watched any of the *Charlie and the Chocolate Factory* movies.

Dahl uses incredibly descriptive language; however he respects the readers’ imaginations to let them visualise and learn from the situation in their own minds. *Willy Wonka’s Chocolate Factory*, as I am sure you will agree, is an inspiring place all children wish they could visit. In the book, the original film and in Tim Burton’s remake, the factory can be likened to Willy Wonka’s imagination; it is weird yet desirable, imaginative, beautiful, fun yet complicated, disturbing and outrageous. It is polar opposite to what is expected within a huge industrial factory placed in the centre of a repetitive industrial grey city, similar to when Sophie is taken away from her orphanage in the story of the *BFG*. It is unexpected that the BFG is not a man gobbling giant but rather a dream blowing jumbly Big Friendly Giant. This thesis investigation uses Roald Dahl as a precedent to help cultivate the story of my BFG, the Māui A Machine. The Māui A resembles the *BFG* in so many ways – it lives in its own giant country, worlds away from the land of New Zealand (in the eyes of a child); Māui A Platform comes from a family of giants who instead of gobbling ‘children’ up, devour or destroy the earth’s natural resources. The new thesis design for Māui A aims to foster ‘children’s’ imagination and cultivate creativity just as the BFG blows dreams into the sleeping ‘children’. And just as Dahl seeks to convey messages of social criticism through a didactic story, so too does the Māui A Machine. In *Charlie and the Chocolate Factory* Dahl introduced his readers to the candyland room with the lyrics that I too will introduce you to in the Māui A Machine:

[so] “Hold your
breath, make a wish
and count to three.

If you want to
view paradise,
simply look
around and view
it.

Anything you want
to do, do it.

Wanna change the
world? There's
nothing to it."

What we'll
see will defy
explanation.

We will begin
with a spin,
traveling the
world of my
creation.

— Roald Dahl

Take a look and
see, into your
own imagination.

Come with me and
you'll be, in a
world of pure
imagination.

The design reinterprets and responds to the issues and ideas raised in the theoretical framework and project review chapter. The platform design aims to be an environment that encourages visitors, young and old alike, to foster their unique personalities, skills, talents, ideas and imaginations whilst providing an informative creative learning experience. The platform will ultimately work like a ‘school camp’, where diverse ‘children’ of all ages, cultural and economic backgrounds

5- DESIGN

will get to experience the platform for a period of time throughout their education: to learn about the environment, to foster their imagination and to cultivate creativity and innovation. In response to the theoretical chapter the design encourages imaginative inquiry and extends past the boundaries of imagination to provide an experience to expand the ‘children’s’ libraries of imagination. The platform must encourage ‘play’. It must have varying zones and experiences to engage with different ‘children’ and their diverse interests. Just as Roald Dahl plays with the delicate relationship between right and wrong, the design will respond to environmental issues while allowing the ‘children’ to experience traces of Māui’s environmental detrimental past.

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The following imaginative images were created during this divergent phase in response to the stories I read. It was through these images that I began to see the magic of the Māui A Machine unfold. By allowing myself the freedom to emotively draw, sketch, paint and digitalise my research, I was able to think about alternative ways to inhabit and portray the Māui A Machine.

In order to engage with 'children' who will visit the platform I needed to think like a child again to reignite my childhood imagination; to achieve this I immersed myself into 'children's', young adult and fantasy literature. As both Land and Robinson advocate, creativity is un-learnt, but can be re-learnt. The creative process requires one to be iterative, removing all rules and constraints within the divergent phase so it was important for me to allow myself the privilege of not focusing on the end goal in this phase of the project, but rather to retrain and rediscover my divergent mind.

Fig. 5.1 Imagining Māui – through 'children's' eyes.

The Preliminary design explorations explores the 'approach of the platform' - the 'child's' perceived experience of Māui A Platform prior to physically experiencing the design. By responding to various forms of literature - in particular children's literature following design explorations is about obtaining a 'childlike' vision / illustration of what The Māui A Platform and the experience could be like living as a giant in the deep sea.

Figure 5.1. Responds primarily to Dahl's *BFG*, and John Marsden's *The Rabbits* - The Māui Machine is held up above the ocean by the BFG. At first glance the bewildering pirate ship appears friendly, curious and on a mission; but in reality the pirate ship is industrial, toxic and opposes its natural environment.

Fig 5.2 Imagining Māui – through 'children's' eyes.

Fig 5.2: responded to Italo Calvino's Invisible cities. Many of the cities described by Marco Polo resonate with the plight of the Māui A Platform as an invisible city, however I chose the city of Baucis to illustrate a potential 'Hypothesis' for Māui's reasons to sit above the earth – although the Māui has had an adverse past, it now looks towards a future of reconciliation with its environment – to examine and appreciate the natural world in which the Māui lives.

After a seven days' march through woodland, the traveler directed toward Baucis cannot see the city and yet he has arrived. The slender stilts that rise from the ground at a great distance from one another and are lost above the clouds support the city. You climb them with ladders. On the ground the inhabitants rarely show themselves: having already everything they need up there, they prefer not to come down. Nothing of the city touches the earth except those long flamingo legs on which it rests and, when the days are sunny, a pierced, angular shadow that falls on the foliage.

There are three hypotheses about the inhabitants of ^{Māui} Baucis: ~~that they hate the earth~~; that they respect it so much they avoid all contact; that they love it as it was before they existed and with spyglasses and telescopes aimed downward they never tire of examining it, ^{Wave} leaf by ^{Wave} leaf, ^{Whale} stone by ^{Whale} stone, ^{Dolphin} ant by ^{Dolphin} ant, contemplating with fascination their own absence.

“...I slowly became aware that the essential book, the only true book, was not something the writer needs to invent, in the usual sense of the word, so much as to translate, because it already exists within each of us. The writer’s task and duty are those of a translator.”

ner grow tall, the other side short
takes some trial
and error.

Figure 5.3 & 5.4. Explore the role of the platform and this thesis to become the translator of stories, knowledge and memories through the eyes of the creative 'child'. These images translate the adverse past into an enchanting future environment with endless possibilities.

"The books transported her into new worlds and introduced her to amazing people who lived exciting lives. She went on olden-day sailing ships with Joseph Conrad. She went to Africa with Ernest Hemingway and to India with Rudyard Kipling. She travelled all over the world while sitting in her little room in an English village."

-Roald Dahl, Matilda

MAKING OUR MEMORIES
FROM WHEN WE
WOULD
MAKE BELIEVE

From the outset of this project, it became apparent there was a fundamental sense of mystery and magic associated with these platforms. To interpret the power of the site, I employed the term 'geomancy' to the following site investigations (see fig 6.2). Geomancy literally translates to 'foresight by earth'; it is an ancient Greek method of earth divination that interprets markings and patterns on the ground. In order to find the divine or magical qualities of the site I created a hand drawn site map locating the seven permanent offshore structures, the ocean hydrography, and Mount Taranaki (see fig. 6.3). A series of analogue and digital iterative patterns formed responding to the various elements within the drawings and the site. The resulting images began to lay the foundations of the preliminary sketch designs where the patterns began to take on architectural forms within themselves. The preliminary design experiments were a coaduration of these geomantic experiments and the divergent ideas developed in response to Sir Ken Robinson and Dr. George Land's work in the realm of creativity.

Fig 5.7. Exploring the site through Drawing

When an architect is thinking, he's thinking architecture and his work is always architecture, whatever form it appears in. No area is more architectural than any other. My books, for instance, are architecture that you can build in your head. When the research succeeds, it can express the ineffable, which is ultimately translated as spirit. Imagine a drawing and a sentence taking shape at the same time.

— **John Hejduk**

Both figures 5.8. And 5.9. Illustrate the illusions of not only the Māui Platforms but all oil rigs, and transport vessels in the marine environment. Figure 5.8 illustrates the illusion of what activities take place above the ocean; where figure 5.9. Illustrates the depth of the world's below, the metaphorical and literal murky impact our human endeavors have on this environment.

“Some people reflect light, some deflect it,
you by some miracle, seem to collect it.”

Mark Danielewski

These images stem from the analogue experiments that respond to the geographical geomantic elements of the site, and how they could resonate with points of interest in the design. As this is an iterative design process I then digitalised the geomagnetic data (see figure 5.11.) Again this drawing illuminated where paths crossed, creating points of interest that could be investigated further to find points of interest within the design.

Fig. 5.11. Geomantic image exploring Māui's relationship to the compass, vertically, and horizontally.

There nothing moved and I was alone. Anything that had stumbled upon such a wide way of grey grief had not chosen to stay. And I saw remnants of many strange shadows too. Did you know stars have shadows? They do. And can you imagine what it feels like to walk upon the shadow of day?

Mark Danielewski

The following design experiments investigated how these 2d illustrations could be translated into a 3d form. The design at this point disregards the 'real' aspects of the platform such as the remaining equipment and detail – only revealing the bare structure of the platform. This was to ensure the design at this stage was following the divergent thought process in order to create the approaching identity of the platform.

“We don’t receive wisdom; we must discover it for ourselves after a journey that no one can take for us or spare us.”

— Marcel Proust

Figure 5.14 and 5.15 illustrate a design iteration from the circular geomantic expressions based off the compass into a platform protected by the compass. Although the organic form of the compass cloak was intriguing; it failed to respond to the existing platforms identity – *infact it looks more as if a giant jellyfish was plonked on top.*

This design experiment aimed to respond to the existing visual identity of the platform whilst incorporating segments of some of the stories I was trying to convey. Particularly the story of the sensitive marine environment, the issue of mass extinction – This design explored forms of anthropomorphic architecture – how the structure can be associated with something recognisable and engage with the students imaginations. Originally titled the beast this design experiment focused on conveying the narrative of the sensitive ocean marine environment and the issue of mass pollution and extinction.

"He digs down into the earth and he builds up into the sky... [it] is that moment when the uppermost surface of the earth contacts the undermost surface of the sky. It is the moment of anticipation, the moment of filled with passion and with gentleness as with the angels of da Vinci, just touching the earth from the flight of the sky" - John Hejduk on Raimund Abraham

“The real voyage of discovery consists not
in seeking new landscapes, but in having new eyes.”

— Marcel Proust

Figures 5.18-5.21 illustrate the approach and the arrival of the 'child' to the 'beast'. It is clear that the beast has arisen from the sea and does not belong there. The entry point takes the child underwater to experience the magic below the sea surface, the next space the 'child' arrives in the whale graveyard. A sombre yet enchanting transitional zone where you are not below the sea yet you are not above. You are in between.

An era of desolation and erosion follows. The world seems out of order and full of confusion. It becomes useless to ask the night "as to what, and why, and wherefore."

Eric Levy

Figures 5.22 - 5.25. Illustrate the exploration into the underwater pods at the centre of the platform – the points of interest illustrated in figure 5.11 (page 55). The form of these pods responded to the earlier geomantic illustrations.

“I like your dream.

I BELIEVE IN YOUR DREAM.

But now you need to

“MAKE IT REAL.”

“I like your dream.

I BELIEVE IN YOUR DREAM.

But now you need to

MAKE IT REAL.”

— Leonardo Carta

Guest critique

5.3_

The preliminary divergent phase had allowed me to realise the magic and imaginative potential of the project; but it demanded more depth. A critical decision was made to leave the tank deck (bottom deck) and the top deck untouched. Tim Burton, director of the 2010 film *Charlie and the Chocolate Factory*, said that the beauty of the [*Charlie and the Chocolate Factory*] book was the texture of the feelings between the deprivation of the external world and going into this unimaginable amazing chocolate factory. It is these polar opposites that can establish the difference between its adverse history and its positive present/ future of the Māui A Platform. Also by retaining the industrial ruins of the bottom and top decks, Māui's memories remain. We can consider the ruins to act as a messenger between past and present, between nature and architecture but moreover as a symbol that the magic and creativity comes from within, this magic and creativity must be cultivated, nurtured and fostered in order for it to grow and flourish. The alternative is ruin.

Making it real.

To help me spatially amalgamate the many strands of stories that I was trying to share with the ‘children’ who will visit the platform I began to investigate Māori traditions of weaving. The spiritual symbolism and hidden meanings that are embodied within the various forms of patterns and the methods of weaving are tools for passing on culture. One particular type of weaving that survived colonisation is the Raranga. The spirit of Raranga evokes feelings of unity. It is seen as a tool that weaves together whānau (family), tribes, and their ancestors; it weaves together many strands of spirituality, knowledge, and wisdom to ensure the preservation of memories of the Māori people of Aoteroa.

Rather than looking at the weaving as a 2d pattern that embodies the strands of Māui’s stories, I explored the movement of the individual harakeke (flax) strands and how they travel vertically whilst moving forward horizontally. Each time the harakeke strand breaks the surface the experience is different to what it was before it had dived beneath another strand. To experience one story, you are exposed to many other stories, thus creating and uniting a collective story.

5.28. Illustrates the initial design matrix to inform the spatial organisation. Confined to the rectangular form of the platform – the narrative unveils itself through the passages in which the structure has thread. At the core of the platform is the portal the separates the worlds, the point of focus identified in figure 5.11 on page 55.

My Robot is nice

The next phase needed to invite the convergent and reflective mind into the design discussions in order to make this project realisable rather than just a paper project. It was at this point I reflected on Roald Dahl's work in 'children's' literature, along with my own creative story writing from when I was a creative child which aided in the construction of Māui's Story.

it plays with me and

The structure of the platform began to unmask itself as an invitational stage set, where all the various threads become woven together; allowing the 'children' to become the characters of their own play similar to Willy Wonka's Chocolate Factory in which the 'children' become the characters of the play. This play is about discovering oneself and one's relationship to the environment, eventually enabling the child to become aware of the greater story of life.

it's new and it is

One particular stage that demanded immediate attention is that of the closed circuit aquaponic farming system. To communicate this section of the story I introduced three mediators: the clock, the compass and the sextant. These are all nautical tools that enable the 'children' to become aware of the importance of their relation to orientation, direction and

little to and it is steel

placement in time. The design of the closed circuit aquaponic farm utilises the remaining decommissioned industrial equipment to form the stage set named: *The Timekeeper*.

and it's helpful

it is metal it love

flower it good.

dangling over dinner, illuminated by conversation and rich in the juices of a wild duck, that I noticed a woman whose face was a sea voyage I had not the courage to attend to. I did not speak to her, though I spoke to all the rest. She was a dancer. She was on flat pumps and balanced the yards of rope without faltering. She was a dancer. I spent the night in my suspended bed and slept badly. At dawn, I was on the edge of the window, a rope around my waist. The moon was still visible: it seemed to me that I was hanging from the ground. A cold wind numbed my ears. Then I saw her. She was climbing down the rope. The wind was strong. She had re-knotted a number of times during the descent. I strained my eyes. She was Jeanette Winterson, Sexing the Cherry.

The Librarian of Old Dreams
 "The Librarian of Old Dreams is nothing more than an old dream. I saw the object before me, then look up at the Librarian next to the clock. This is this an 'old dream' or is it the sound of the words 'old dream' led me to expect something else? The Librarian is something hazy, and something distant, aimless. She wants not so much to explain to me the dream as to tell me 'Or it is possible that the dream is a great deal more than a dream.'"

I nod, but do not understand. "Take it in your hands." I pick it up and run my fingers over the top of it to see if I can find some hidden clue. But there is not a clue...

"I am to read an old dream from this?" "That is the work of the dreamreader." "And what do I do with the dreams I read?" "Nothing. You have only to read them." "How can that be?" I say. "I know that I cannot read them. I can read them, but then not to do anything with it, I do not understand. What is the point of it?" She shakes her head. "I cannot explain it to you. I can only show you how it is done."

I set the [object] down on the table and then I go to look at it. It is a small, round, golden object that seems nothingness itself. The Librarian does not move. She is like smoke without a body. It is unfathomable, eternal, a disorienting vision. I have never seen anything like it before. There is a sadness about it, a sad, inherent pattern. I have never seen anything like it before. "Please show me," I say. I pick up the object, and I feel its weight in my hands. Smiling faintly, she takes the object from me and wipes off the dust...

"This is how to read old dreams." Haruki Murakami, *Hard-Boiled Wonderland and the End of the World*, New York 1993. p58-59

Evening in Llano
 "When an angel accidentally falls and drowns, the centaur's desperately flapping wings send out vibrations that cause a harmonic fluctuation that coincides with the sound of a suppressed cry, announcing an ocean storm. Think not the feathers washed up on the shore a natural event." John Tjejdkuk, *Education of an Architect*, New York 1988

The City of Dreams

"Dream Island. . . is difficult to approach because it always seems to draw away in the distance. Travellers are advised to arrive at dusk. The capital, or City of Dreams, is surrounded by a jungle thick with gigantic mandrakes and poppies from which hang great numbers of bats known as the 'birds of the island.' A large river, the Night-Traveller, flows from two sources at the gates of the city. The sources bear the names of Sleep Eternal and Darkest Night. The walls of the city are high and rainbow coloured. The gates are four: two look towards the Meadow of Indolence – these are made of iron and bricks and through them escape dreams that are fearful, murderous, and sinful; the other two open towards the sea, one made of horn and the other of ivory. According to a distinguished Roman gentleman, who saw two such gates in another country, the one made of horn allows the passage of true dreams, and the one made of ivory, of false ones. . .

Coming from the port, the traveller will find to the right the temple dedicated to the Goddess of Night. . . To the left is the Royal Palace and a square with a fountain, called the Drowsy Waters, and next to it two smaller temples, those of Truth and Deceit. The inhabitants, known as Dreams, are of diverse aspect; some are long, delicate, beautiful and graceful; others are hard-looking, small and ugly. Some are winged or have an astounding feature on their faces; some are dressed in full regalia, in the robes of a king or a priest."

Virgil, *The Aeneid*, 1st cen. BC

In order to understand the clock I deconstructed the clock. The exploded clock allowed my childlike divergent imagination to run wild with ideas of how the mechanism of time could be translated into an educational facility with an ecological identity. Figure 5.32. Illustrates the exploded clock to become the stage of the Timekeeper.

Wheel Train

Traditionally designed to ensure smooth transition of one gear to another. The wheel train now acts as the guiding path for 'children' to follow when discovering the Escapement Garden.

Edible Escapement

Traditionally a device that transfers energy to the timekeeper. The edible escapement garden's growth is the energy that essentially tells the story of the 'Timekeeper' within the Māui A Machine.

Desalination Barrels

The Timepiece mechanical barrels are transformed into rotating desalination tanks. These tanks transform salt water into the fresh water used to irrigate the Escapement Garden.

Winding Mainspring

Main Springs traditionally store energy from the time keeping process. Here it has been redefined to store the food cultivated in the Escapement Garden.

Fig 5.32 Exploding the clock to make the machine.

**AIMS: To re-inhabit and transform
the adverse identity of the Māui A
Platform into an educational centre
for children.**

AVOID 70. 1111

Fig 5.36 Exploding the diagram to weave layers together.

MEZZANINE_ Group + individual breakout spaces

As illustrated in figure 5.38. The mezzanine level includes two Breakout spaces, the Nest, and the Living Quarters.

Breakout spaces are seen as a place to individual and collaborative group reflection – As a means of way finding, a breakout space can be found on each point of the compass across the three levels. They have being spread across the levels in response to the Raranga weaves. On the Mezzanine level the break out spaces face to the South and to the North.

P N

MEZZANINE B/O NORTH

SOUTH
MEZZANINE BREAK OUT
1:00 P.M.

TIERED SEATING

Breakout spaces are recommended within the Ministry of Education's design guide - They provide spaces that encourage intendant and group based learning. It is important to include a variety of these spaces to engage with the diverse range of interest, talents and skills of the children who will visit the platform.

MEZZANINE_Nest

As this space is protected from the elements this transitional zone is constructed from low emitting natural materials, greenery and soft furnishing to provide a calming area to de-escalate before bed.

The Nest is effectively considered 'learning street' by the Ministry of Education – where the 'nest' is along the main passage to the living quarters. It is at the nest where the 'children' can relax before bedtime, they can communicate with their families back home and even read a bed time story.

GOODNIGHT KIWI NEST.
 COMMUNICATION PODS
 TO SAY GOODNIGHT
 TO PARENTS.

MIDDLE DECK_ Breakout spaces

The Middle deck is the home of the Timekeeper – it is on this level where the children learn about the consequence of time, participating in the process of cultivating, preserving and storing the edible crops. It was important for the ‘children’ to be able to reflect upon which that have they learnt on this level – this is why the Breakout spaces on this level point back towards New Plymouth reflecting on where they come from, and out to the West towards the horizon – towards the future.

Fig 5.42 Middle Deck breakout floor plans.

LOWER DECK_Group Colab

Located on the Southwest point of the compass, the Lower Deck group Breakout space is confined to solid walls with no exterior windows – rather it is constructed with sections of structurally glazed floor panels that provide a visual connection and focus to the marine world beneath the platform. It is on this level that the Whale Graveyard also rests, along with the Group Sensory Theater.

Fig 5.44. Glass bottomed group collaboration floor plan.

LOWER DECK_Theater/ group sensory

ACOUSTIC
THEATER/ GROUP SENSORY

The Group Sensory Theater is an acoustic room with no visual connections to the exterior. The walls incorporate led frosted glass that can allow the room to illuminate different colours to align with the atmosphere of the film.

Fig 5.46. Theater floor plan and exemplar visuals displayed on the interactive screens.

It was also critical to consider the children's emotions when leaving their parents and homes for school camp; the experience on the platform could be overwhelming for some 'children', in which case the developing design needed to incorporate sensory spaces to provide emotional balance.

mohter

These therapeutic spaces allow 'children' to be able to remove themselves from the activity on the platform into a quiet room designed to provide a calming tranquil oasis. These rooms are also able to connect with family back home through audio and visual communication software.

91

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THE MYSTERY

Sensory rooms

Illuminated by controllable LED and fiber optic lights and projections, these rooms often have no windows or connection to the outside world – this is to physically and emotionally remove the occupant – in this case ‘child’, from their current environment or situation.

The platform introduces various sensory rooms with different atmospheres and occupancy scales around the platform not only to ensure that the ‘children’ have a safe relaxing haven – but also to transform the current use of sensory rooms to become didactic. The following images illustrate the exploration into transforming these spaces into creative, educational and engaging spaces.

Clockwise from top left: Fig. 5.52-5.53. Precedent sensory rooms. Fig. 5.54. Mermaids and whales. Fig. 5.55. Sensory ball pit.

Sensory rooms

LED GLASS ROOM

INFINITY WALL LED PROJECTIONS

7/5

the Queen
goes out to the

ILLUMINATED
BALL POOL

FIBRE OPTIC CURTAIN

5.4

AIMS: To re-invent it and transform
the adverse identity of the Maui A
Platform into an educational center
for children.

MEMORIES OF MĀUI

Fig 5.58. An old dream to save the world.

AIMS
the a
Platf
for cl

The witching hour, somebody had once whispered, to her,
was a special moment in the middle of the night when every child and every grown-up was in a
deep deep sleep, and all the dark things came out from hiding and had the world all to themselves."

she smiled at me I

"The witching hour" had once
somebody
whispered to her, was a special moment in the middle
of the night when every child and every grown-up was
in a deep deep sleep, and all the dark things came out
from hiding and had the world all to themselves."

— Roald Dahl

here because I what to

see you. i said

OBJ
awa
inv
metl
who

I

was show. the sun

a well? no matter

what I'm 2tail good.

“[She] said, “ Never do anything
by halves if you
want to get away with it. Be outrageous. Go the
whole hog. Make sure everything you do is so
completely crazy it's unbelievable...”

— Roald Dahl

Hoofe Bye Bye

AIMS
the a
Platf
for cl

But be sure to
what it seems...and remember that

pay close attention
Everything is not
A little magic
can take you a long way.

— Roald Dahl

smiled at her I came
here because I ^{want} what to
see you. i said

OBU
awa
inv
metl
who

was snow. the sun

Because...

what I'm 2tail good.

"Somewhere inside all of us is the power to change the world."

and I Hope you are

Roald Dahl

Hoofe! Bye Bye

AIMS: To re
the adverse i
Platform into
for children.

OBJECT:
awarene
investigating crea
methods to engage with the 'children'
who visit the platform.

Fig 5.64. The Māui Machine has an adverse past. But this is all about to change.

“We must abandon
completely the notion of blaming the past for
any kind of situation... The present is always
changing the past.”

Alan W. Watts

AIMS: To re
the adverse i
Platform into
for children.

and He saw a beaut
ful snake shshshers

[so] Come with^{me} and you'll
of pure imagination Take a look and you'll see^{be In a world}

OBJECT:
awarene
investigating
methods to engage with the 'children'
who visit the platform.

What we'll see will defy explanation.

If you want to view paradise, simply look around and view it.

AIMS: To re-inhabit
the adverse identity
Platform into an ed
for children.

Once, upon a
Me and Kelly
work in the
week in the

We will begin with a spin,
traveling the world of my creation.

OBJECTIVES: To generate knowledge and
awareness about the environment,
investigating creative educational
methods to engage with the 'children'
who visit the platform.

Time

were

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~~and~~ and Then another
have Georgie
came
~~Rame~~ Rame to us we

deet and a binar
ce me te us and to Rd

AIMS: To re
the adverse
Platform into
for children

and He saw a beaut
ful snake sh/s/sh
beautiful what do you

Anything you want to do, do it.

Wanna change the world? There's
nothing to it.

OBJECT:
awarene
investigating
methods to engage with the 'children'
who visit the platform.

If a little dre-
forn is n-

AIMS: To re-inhabit and transform
the adverse identity of the M5-A
Platform
for children

made me happy.
THE END

OBJECTI
awarene
investi
methods
who vis:

Kids Have
a crazy
imagination

Conclusion

The true cost of global capitalism has resulted in the exhaustion of our natural resources that is so mindlessly rapid, convenient and accessible – we see ourselves as singular individuals rather than part of a collective tied together in a complex web of interconnected dependant relationships. As Naomi Klein states in her book titled *This Changes Everything*:

We are products of our age and of a dominant ideological project. One that too often has taught us to see ourselves as little more than a singular, gratification – seeking units, out to maximise our narrow advantage, while simultaneously severing so many of us from the broader communities whose pooled skills are capable of solving problems big and small (460).

We are all aware that the climate is in a state of crisis; unfortunately many of us cannot imagine being a part of the mobilisation needed to make a much needed positive impact on our environment – too often we hear “What’s the point? I won’t see the effects in my lifetime.” I believe this is intergenerational theft. This thesis was driven by my ambition to be a part of the mobilisation needed to create a healthier world not only for me and my lifetime – but for the generations to come. I had uncovered a severe issue regarding the future of the Māui A and Māui B Platforms, their potential decommissioning options and the sensitive marine area that they inhabit. I was determined to share this knowledge with and inspire our future generations; however this was outside the realms of interior architecture as I knew it.

Expert in presentation and design, Nancy Duarte captivated me with her words when she opened her 2012 Ted talk “The future is not a place that we get to go. It’s a place we get to create” (Duarte). Duarte explained that the most powerful device to man was an idea – but, an idea is powerless if it stays inside of us. As Dr George Land discovered, our education system is training the mass to reject the idea and the divergent mind. This I believe has contributed to our individualistic views on the world- too often we are taught not to think creatively but to conform to the standard answers prescribed by our education system. This too I believe is intergenerational theft. This thesis began to explore ways in which we can prepare our future generations for a world that is changing at such a rapid rate and to prepare them to solve these unprecedented problems that the world is now (and will be) facing.

Duarte further argued that ideas are conveyed most efficiently through the form of a story. This aligned with psychologist Jerome Singer's views on child cognitive psychology, where he emphasises the enjoyment children receive when engaged in storytelling and make-believe play. However, this is true for both adults and children alike. It became clear that the design driver for the platform was for 'children' but there was no age limit on the child. Rather than producing an architectural set of drawings, this thesis became the story, one that could be read by adults but understood by 'children' or the child within every adult.

Creativity is not only about generating and acting upon ideas; it involves a process of generating ideas and respecting them by exploring before reflecting and judging them; this process is defined in the thesis as the divergent process. The preliminary design required exploration into my divergent mind in order to tease out the magic of the site and the platform. This was a place where I had to break my educational mould to feel the freedom to take risks, to be different, and to be playful. The developed design required the thesis to respond to current Ministry of Education design guidelines and to explore the spatial organization of the design. This allowed the platform to identify the spaces as chapters in the story that it was trying to tell.

These 'chapters' are introduced in the book titled *The Memories of Māui*. It was important that this book did not conform to a traditional architectural project, but to this project, and to the title. This book is a collection of memories through the eyes of a 'child'.

The scope of this project was limited to the Māui A Platform due to its location, in addition to the particular story which is told. The Māui A Platform is the basis of the imaginative giant's character, whose stories are reflective of the Māui's past, present and future. However over time this approach to an imaginative and engaging adaptive reuse design could be further developed and applied to any other adverse architecture that embodies a personality.

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Sources of Figures:

Note: All figures not attributed are author's own.

Fig. 2.3. (a)

Author's own image, 2015. Original photograph: Sedco 135F, 1979. The Story of Māui.
Fried, Paul. Wellington: Māui Development.

Fig. 2.3. (b)

Author's own image, 2015. Original photograph: Māui Platform A, Kirkland, John. Marine
Traffic. Web. 4 May 2015.

Fig. 2.3. (c)

Author's own image, 2015. Original photograph: Māui Platform B, Fairey, David. Māui Gas
Field: Te Ara. Web. 4 May 2015.

Fig. 2.5.

Resource and Environmental Management Limited. Wind Speed Map, 2014. Taranaki Basin
Exploration Drilling, Vertical Seismic Profiling: Marine Mammal Impact Assessment. 17
Sept 2014. Web. 20 Apr 2015.

Fig.2.6.

Resource and Environmental Management Limited. Wave Height Map, 2014. Taranaki
Basin Exploration Drilling, Vertical Seismic Profiling: Marine Mammal Impact Assessment.
17 Sept 2014. Web. 20 Apr 2015.

Fig.2.7.

Author's own image based on information from: Resource and Environmental Management
Limited. Taranaki Basin Exploration Drilling, Vertical Seismic Profiling: Marine Mammal
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Fig. 2.8.

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Marking comments:

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Thank you for your time, effort and critique.