TE PIKINGA O TŌKU TUAKIRI.

THE ASCENT OF SELF-IDENTITY.

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Abstract.

This research questions whether considering Māori concepts of architecture and space within the design of New Zealand prisons can help in the rehabilitation process of inmates of Māori descent.

First, the general concept of prison architecture will be researched. The panopticon as a general diagram as well as specific case studies will frame an understanding of the characteristics of prison architecture in the western sphere. A specific attention to interior architecture will be established.

Second, the link between cultural experience and rehabilitation will be distinguished primarily through analysis of Māori Focus Units.

Third, the notions of Māori perception and understanding of architectural space will be explored in a general context. More particularly, characteristics of interior architecture will be researched.

Fourth, a site will be selected to reflect the contentious issues of incarceration of the Māori population. Matiu/Somes Island, located in the Wellington harbour, is a reflection of historical Māori culture and lifestyles that form a base of beliefs and mythology that modern Māori can identify with. The island itself is a provocation due to its history of incarceration.

This thesis is of interior architecture; hence the design will be developed within the constraints of a given architectural envelope. While this is an assumed position, the interior architecture will challenge the given envelope and its contextual site. As a consequence, further interventions into the landscape and the architecture will be developed to sustain the interior architecture here developed.

It is anticipated that this research will therefore support the idea that interior architecture of New Zealand prisons must be developed as an integral part of a holistic spatial intervention in view of supporting the rehabilitation process of Māori inmates.

Mihi.

Ko Whiria te maunga.
Ko Hokianga Whakapau Karakia te moana.
Ko Ngātokimatawhaorua te waka.
Ko Tuhirangi te marae.
Ko Mahurehure te hapu.
Ko Ngāpuhi te iwi.
Ko Peter James tōku koro.
Ko Babara James tōku kuia.
Ko Tom Pia tōku pāpā.
Ko Jenny Thomson tōku māmā.
Ko Ariana ahau.

For Mum.

To Nan and Pop, thank you for your unwavering belief and confidence in me, you have always given me the opportunities to learn, to grow and to live up to.

To Heiko, thank you for your patience, care and support throughout this year. And every other year. Your unfailingly honest comments have always made my work stronger. Thank you.

I would also like to offer a special thank you to my supervisor Philippe Campays for pushing me to do better, for encouraging me to step outside of the square, and for your patience.

Finally, I would like to thank those of you who shared this journey with me. You know who you are.

Contents.

Introduction.

*The meeting house contains many carvings or illustrations depicting ancestors, and it is also often meta-phorically a body, the personification of an ancestor. The house is often directly acknowledged by Māori in the same way we would address a person: it is not simply a building, a container for human activity.
(McKay, 2004, p. 8)*

Human reliance on architecture is total; every facet of our lives from birth to death is dependent on a structure of one form or another for uses such as sleeping, cooking, working, education, health and building a family. The Māori stance on architecture is unique to New Zealanders; the wharenui (meeting house) is seen as an anthropomorphic entity complete with a background and name. The interior tells the history of the people it shelters; providing an education to both the tribe's younger generation and visitors. Methods such as carving, weaving and patterns are all tools used to strengthen the history and express narratives that are important to each iwi (tribe) or hapū (subtribe).

The aim of this thesis is to explore whether an understanding of Māori and Māori perception of architecture could be used in the designing of prison facilities, specifically Māori Focus Units, as a tool for educating and rehabilitating inmates by giving them an idea of who they are culturally, and where they come from.

Māori incarceration statistics are grim, making up more than their share of the New Zealand prison population. One can question why this is happening, but we must also ask what can be done once the offending has already occurred. If the vast majority of prisoners in New Zealand are Māori, why are they being placed in incarceration facilities designed with no consideration to their culture? Is this an attempt at rehabilitation or does it create a sense of alienation that sets Māori offenders further apart from society?

In order to gain an understanding of prisons, chapter one explores the history of incarceration, types of prisons and prison layouts and psychology. William Hinkle and Stuart Henry discuss the philosophy behind one of Europe's first incarceration facilities, Leslie Fairweather examines the issues behind selected prison layouts and Dot Goulding interviews inmates

in order to gain an understanding of how it felt to inhabit these spaces.

Chapter two looks into New Zealand prison statistics and highlights Māori Focus Units as an important factor in lowering the Māori re-offending rate. This is then broken down into two case studies that concentrate on either culture or therapy as a tool towards rehabilitation.

Chapter three examines the Māori perspective of architecture and explores common issues and solutions, the idea of an architectural entity, and architectural sustainability.

Chapter four explores the site and its history. Matiu/Somes Island has a history rich in forms of incarceration and Māori occupation, a short review of what has occurred on the island is vital in understanding the importance of choosing Matiu/Somes as the site.

Finally, chapter five discusses previous design concepts, the final architectural intervention, narratives that were used to create the design and why they play an important role.

As a part of the 'research and design' aspect of this thesis, a series of small drawings for each section of writing have been completed. These drawings express conceptual forms and shapes conceived through the relevant research, interpretation by the author. It is noteworthy that the method of a graphic anchor of text has played an important role in the design process.

Chapter One: Architecture of Incarceration

Forms of prisons have been around for as long as human history. Places of incarceration where members of society were sent who behaved dangerously, dishonestly, irrationally.

This chapter explores Europe's principles of incarceration because of its direct relevance to New Zealand's system. More specifically the influence of British concepts[1].

This chapter will briefly look at one of Europe's founding prisons and discuss the original purpose of the structure. This will be followed by an examination of the Panopticon and other various organisational plans. These will be studied in reference to the different degree of inmate supervision, the relationship between prisoners and staff and the psychological effects the layouts have on the inhabitants.

1.1 What are prisons?

Henry and Hinkle (Bosworth, 2004, p. 82-84) explain that one of the first correctional institutions and forerunners of European prisons was the Bridewell Prison and Workhouse, founded in England in 1523[2]. The workhouse would be a place for orphans, hurt soldiers, the sick and others in similar situations that were seeking a better life. They would be given food, shelter and shown how to complete work that they could make a living from when they left the institution. In turn, the prison was set aside for thieves, nuisance beggars, unfaithful wives and such. This crowd was punished in accordance to the crime committed, and then put to work. Those who had committed serious offenses were sentenced to death.

1   The traditional mode of punishment or incarceration in Māori society (prior to colonisation) will not be discussed. This is because it was not found relevant; the purpose of this thesis is to consider and design a concept that could be used throughout all New Zealand prisons as a form of rehabilitation and education. As New Zealand is heavily influenced by European idealogy, it is thought that a mixture of Pākehā and Māori concepts would be more appropriate.

2   Bridewell Prison and Workhouse was originally called Bridewell Palace, the building was turned into a prison and workhouse at the request of Nicholas Ridley, the Protestant Bishop of London at the time. Due to an abrupt population rise in London which caused unrest among the lower classes, Ridley suggested using the prison and workhouse as a way to get the poor and problematic citizens off the street.
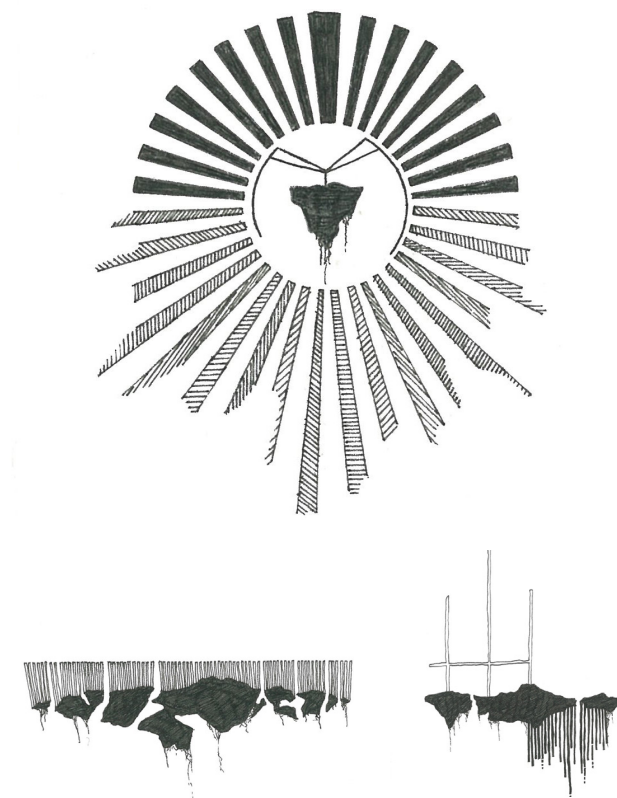
Figures 01-03.
Conceptual drawings: A History of Incarceration.
Images by Author, 2012.

The philosophy behind Bridewell Prison and Workhouse formed the base beliefs in what prisons or correctional institutes would be for; structures that housed the unfortunate or corrupt, that strived to educate and help in order to release inhabitants back into a society where they had a greater chance of acceptance and survival.

1.2 The Panopticon.

Designed by Jeremy Bentham, the Panopticon is one of the most controversial prison layouts. Considered genius and cruel among other things, the Panopticon is a fantastic example where prison philosophy meets design. In its birth, Bentham had visions of utilising the architecture throughout all facets of society, from hospitals and asylums to schools and workplaces (Foucault, 1995, p. 206-207)[3].

The Panopticon was designed as a cylindrical, hollow building consisting of several stories; prisoner rooms were located around the fringe of the structure and a guard tower was placed in the center of the building (Figure 08). Each cell had two windows; one to the exterior and one facing the guard tower. The guard tower had windows adjacent to the cells and was smothered with blinds, thus allowing the guards to observe inmates without being observed. Foucault (1995, p. 200) explains that the drive behind the room layout was to allow the exterior window to let natural light in, creating "the effect of backlighting" and allowing the observers to easily watch through the interior window. Bare concrete makes up the cell walls, restricting the inhabitants from communicating or even seeing the occupants in the next room, minimising the risk of collaborative attempts at escape or upheaval. In doing this, each room becomes a stage in which the occupant is the main focus (Figure 07). Completely opposite to the concepts behind dungeons which are hidden in the depths of the earth away from light, the Panopticon utilizes light and exposure as a form of punishment in which the occupant is unable to escape observation.

> He is seen, but he does not see; he is the object of information, never a subject of communication. (Foucault, 1995, p. 200)

Figures 04-06.
Conceptual drawings: The Panopticon.
Images by Author, 2012.

3   Originally designed in 1785 as a conceptual idea for the Russian Empress Catherine the Great, the Panopticon was an effort towards modernising prison facilities and laws, although the Empress later discarded it. However, in 1826 the Western Penitentiary in Pennsylvania (USA) was built using the Panopticon as inspiration (Thomas, 2004).

Figure 07.
Friman (CC). (Unknown). Presidio Modelo Prison in Cuba (interior) [Photograph]. Retrieved from http://www.digitalcrossrhodes.com/2009/10/panopticon/. Accessed 23/07/2012.
-Exterior light illuminates the rooms, showcasing the inhabitants movements.

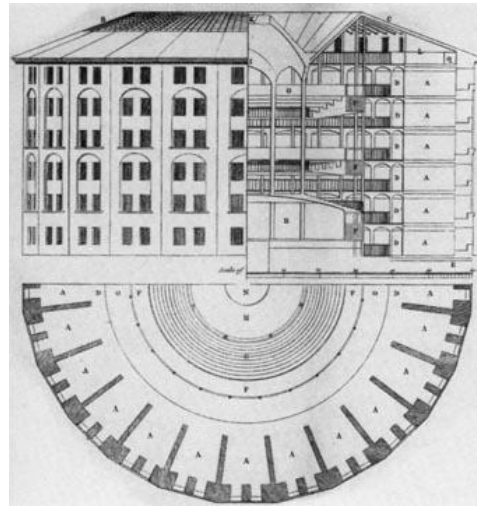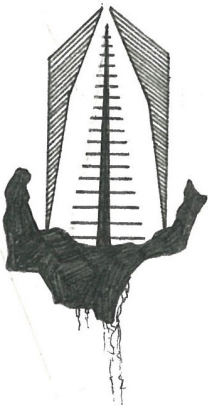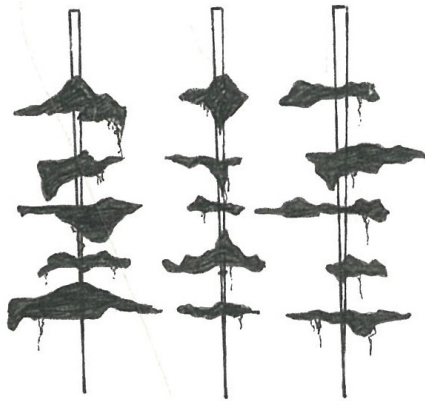
Figure 08.
Reveley, W. (1791). Elevation, Section and Plan of Jeremy Bentham's Panopticon. [Drawing]. Retrieved from http://www.moyak.com/papers/michel-foucault-power.html. Accessed 10/07/2012.
-Plan and section of Foucault's Panopticon showing interior layout.

Figure 09.
DuBois, D. & Goldberg, J. [Photography of panopticon syle prison]. (2002). Retrieved from http://thesocietypages.org/cyborgology/2011/01/05/surveillance-entertainment-a-panopticon-in-the-clouds/. Accessed 23/07/2012.
-The layout requires minimum security to overlook the many inhabitants.

Figures 10-11.
Conceptual drawings: Prison farms.
Images by Author, 2012.

The belief in the building layout was related to the blinds in the guard tower; prisoners would never know when they were being watched and when they were not, leaving them constantly on edge. Foucault (1995, p. 214) points out that the guard tower became the only other inhabitant of the structure for each prisoner, its location placing it directly in their line of sight at all times to be a constant and silent observer. This silent and looming structure was an ever present reminder that the occupants were being monitored, and because prisoners began to relate to the tower itself rather than the staff within as the enforcer, the staff population could shrink to a minimum of one or two (Figure 09).

Types of prisons.

There are various types of prisons that have and do act as places of incarceration including prison farms, nurseries and ships:

1.3 Prison farms.

Prison farms were most popular in the United States after the Civil War. These consisted of the state leasing prisoners to farmers to do long hours of back breaking agricultural work[4].

A modern prison farm is farmland owned by the state on which convicts work on to help supply food for the rest of the facilities. Crops that are not needed are then sold to the public and the extra money used to lower other facility costs. Research suggests that prison farms are beneficial to prisons and inmates as they help lower the cost of food, provide an income, give inmates outdoor work to do that also gives them work experience and is said to increase positive attitudes (Lucko, 2004, p. 1334).

4   The majority of prisoners found on historical prison farms were African American, living conditions were poor, and convicts were frequently abused by both prisoners and staff alike.
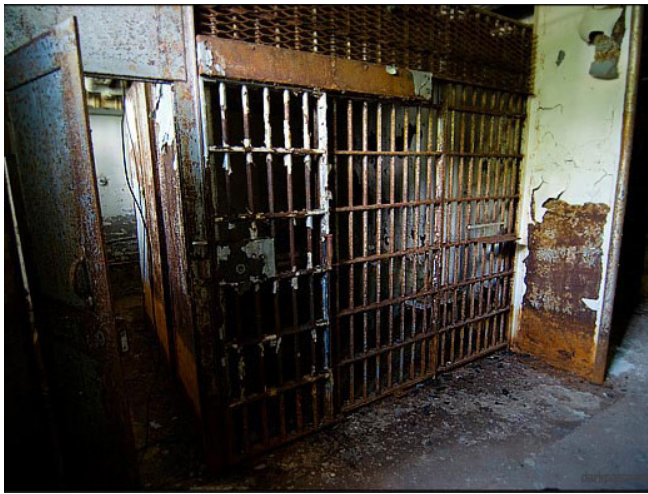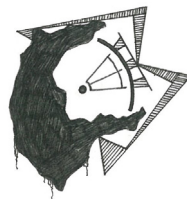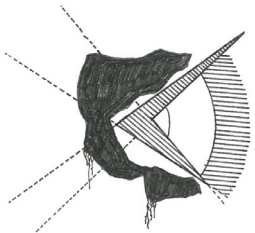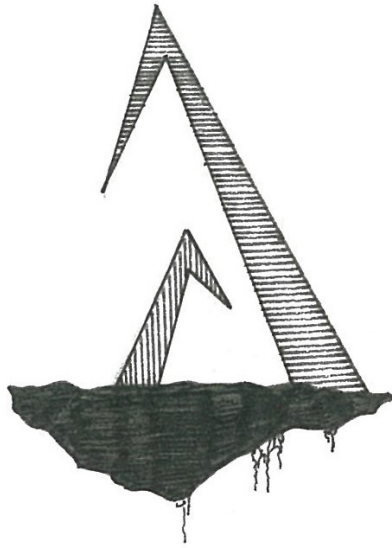
Figure 12-14.
Solis, J. [Photographs of abandoned prison farm, interior].
Prison Farms. Retrieved from http://travelogue.darkpassage.
com/pages/prison_farm.html.
Accessed 23/07/2012.
-Confinement facilities, large open spaces and minimal natural
lighting shows a focus on punishment rather than rehabilita-
tion.

1.4 Prison nurseries

Prison nurseries were most accepted before the Second World War in many countries throughout the world and, these were areas set up within prison facilities for the young children of prisoners. Typically, the mother is pregnant when convicted and the child is then born after the mother enters incarceration. However there are many cases in which babies or small children have accompanied their mothers into incarceration either because it was the preferred choice of the parent, or the child had no other relatives to live with[5].

While nurseries still exist in certain countries, some governments deem a prison an unhealthy place for babies and small children to live and forbid such activities. Although it should be noted that facilities that have nurseries often report that prisoners are calmer, have a more positive outlook on their futures and receive training and help that they may not have otherwise had that enable them to provide and maintain a healthy family environment when they leave (Kauffman, 2004, p. 1334).

Figures 15-17.
Conceptual drawings: Prison nurserys.
Images by Author, 2012.

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5   The majority of prisons in the US only allow children if the mother has less than 18 months before her release date.

Figure 18.
Guttenfelder, D. (2008) Untitled.
[Photograph of prison nursery]. Retrieved from http://therecord.
blogs.com/images/2008/08/to-keep-the-boy.html.
Accessed 23/07/2012.
-A sharp contrast between the cheerfully painted walls and the
bars controlling entry and exit.

Figure 19.
Binny, J. & Mayhew, H. (1862). The
Convict Nursery at Brixton. *The Criminal
Prisons of London and Scenes from Prison
Life*. By Binny, J. & Mayhew, H. London:
Griffin, Bohn and Company.

Figure 20.
Gould, L. (2008). [Photograph of children playing in prison].
Retrieved from http://womennewsnetwork.net/2011/11/30/eu-
film-afghanistan-womens-prison/.
Accessed 23/07/2012.
-A seesaw against the domineering facade of a prison wall.

1.5 Prison ships

Over-populated prisons in the 18th and 19th century spawned the birth of prison ships. Prisons were straining at the seams and ships harboured close to prisons or military facilities became substitute jails while more room on land was being sought.   Prison ships often had cabins converted into cells or built onto the ship, and the basic structure upon the water meant convicts had little opportunity for sunlight and fresh air (Figure 24-26), often resulting in sickness or disease. Due to the appalling conditions on the ships, they were eventually ruled out as an option for incarceration near the end of the 19th century.

The 1980s saw the revival of prison ships in both the US and Great Britain; these are also a result of over-crowded prison environments and are said to be temporary solutions (Patenaude, 2004, p. 1334).

Figures 21-23.
Conceptual drawings: Prison ships.
Images by Author, 2012.
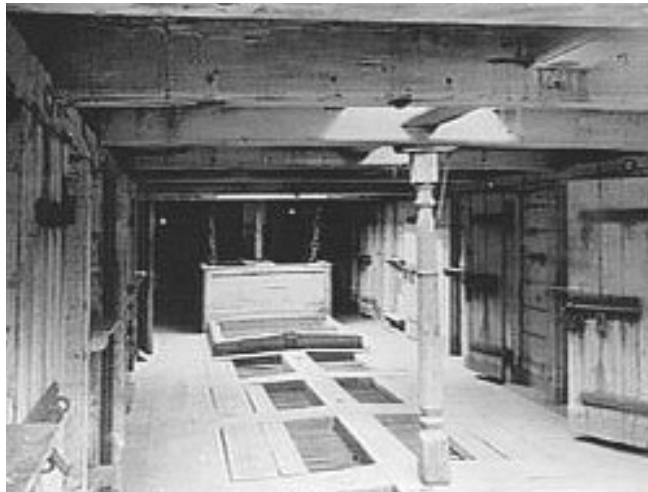
Figure 24.
Unknown. [Photograph of *Success* prison hulk, interior]. (Uknown). Retrieved from http://www.nzmaritime.co.nz/edwinfox.htm.
Accessed 23/07/2012.
-A shortage of exterior lighting and low headspaces added to the poor conditions onboard prison ships.

Figure 25.
Binny, J. & Mayhew, H. (1862). Sectional View of the Interior of the "Defence" Hulk. *The Criminal Prisons of London and Scenes from Prison Life*. By Binny, J. & Mayhew, H. London: Griffin, Bohn and Company.
Accessed 23/07/2012.

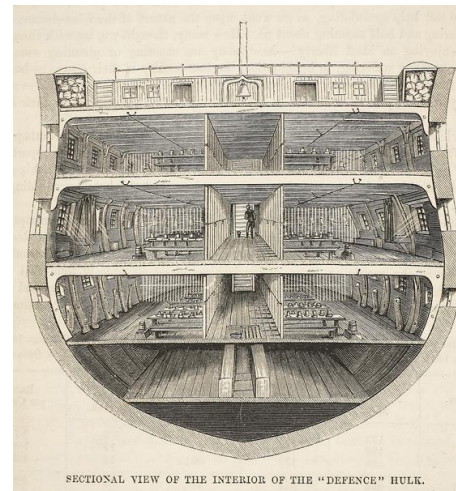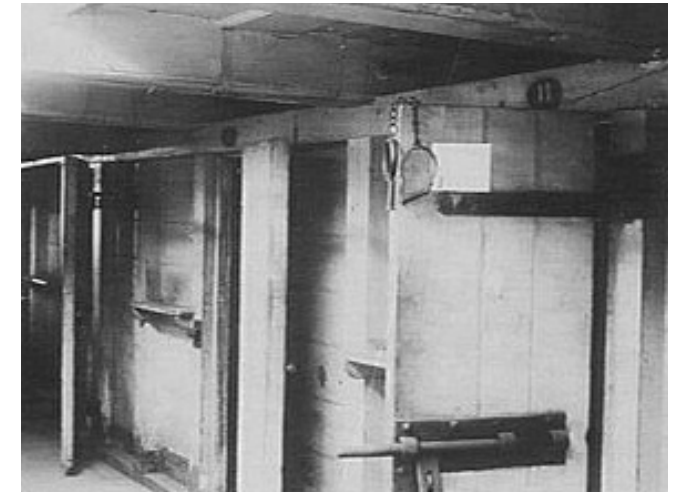
Figure 26.
Unknown. [Photograph of *Success* prison hulk, interior]. (Uknown). Retrieved from http://www.nzmaritime.co.nz/edwinfox.htm.
Accessed 23/07/2012.

1.6 New Consideration

Prison farms, nurseries and ships are all relatively alternative methods of incarceration that could be found outside of traditional prison facilities. Regular prisons were designed with strict layouts and materials that could relate to psychological punishment in order for the prisoner to 'repent' and 'reform'.

1.7 Indirect and direct supervision leading to other concepts

Prisons have long since been a subject of controversy, beginning with the idea that the spacial environment encouraged inhabitants to repent from their troubled ways and eventually sliding into the concept that it was an environment where disturbed and dangerous members of society were sent to be forgotten because nothing else worked. Dunbar and Fairweather (2000, p. 162) explain that prison design has always been an area of vague consideration, partly due to a lack of finances or the belief that money is better off spent elsewhere, and states that in the last fifty years there has been minimal progress in terms of prison architecture.

In recent years, an interest in the relationship between human performance and prison architecture has become more popular, although it has also been noted that the results have not always been eagerly received or acted on by governments. It has been deduced that within prison design it is always important to consider the site, size, materiality, management operation and the behaviour of both prisoners and staff before anything else (Fairweather & McConville, 2000, p. 31).

This interest in prison environment and behaviour is most likely spawned from the introduction of new prison layouts in the last 30 years. Layouts with indirect supervision not only create separation between staff and prisoners, but also between prisoners and prisoners which can frequently escalate into violence. Direct supervision with staff and prisoner interaction creates a friendlier atmosphere and lowers aggression levels. Statistics show that in some direct supervision prisons, assault rates have lowered by around 90% (Wener, 2000, p. 49).
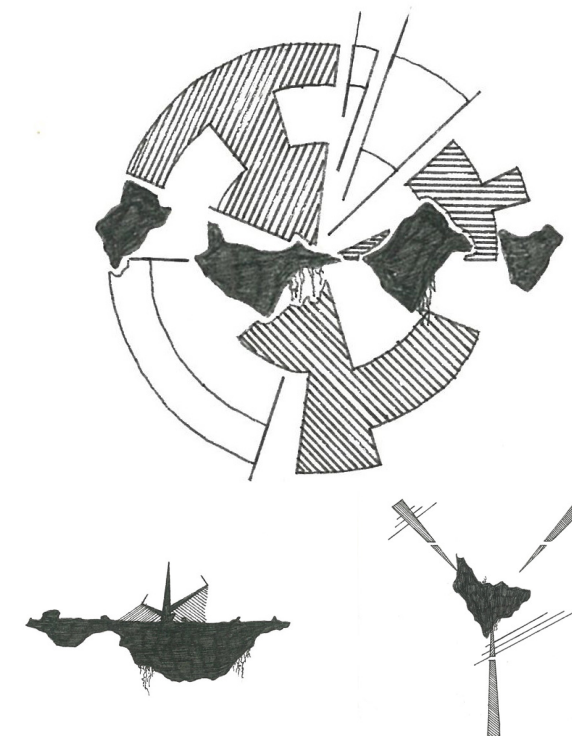
Various layouts will be further discussed:

1.8 Radial Plan

The Radial Plan became popular after the creation of the Eastern State Penitentiary in 1829. Its design was based around the "hub and spoke"; a central point or house from which lines of cellblocks radiated out from, similar to spokes[6].

The Eastern State Penitentiary was based on the belief of rehabilitation through solitary confinement. Each cell block was accessed through a single door from the 'hub' of the prison and was made up of single cells; this allowed guards to watch over individual wings and lock down quickly and safely without causing disturbances in other areas. Prisoners were placed in cells for a few days with nothing to keep them busy; a single window located in the roof was the only form of natural light which indicates that the view consisted of bleak concrete walls, a bed, and a toilet. Eventually inmates were put to work in their cells, working on things they had previously been trained to do or they were allowed temporary tuition to learn a new skill that would keep them busy until they finished their sentence. This was called the Pennsylvania system and advocates believed that prisoners themselves held the key to rehabilitation; this was why they were never allowed to mix with other prisoners. Physical punishment or torture was not meant to be an option; however there are recorded cases of it occurring. The Auburn system was introduced to several Radial Plan prisons and became a serious contender to the Pennsylvania system. This system stemmed from the idea that prisoners had little chance of being rehabilitated, and so were put to silent work outside of prisons during the day, often performing strenuous labour for long hours before being transported back to their cells.

Figures 27-29.
Conceptual drawings: Radial plan.
Images by Author, 2012.

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6   The Eastern State Penitentiary spawned radial plan prisons in a few other areas of the United States but was most popular in Europe. European colonisation in other countries around the world meant that the radial design also migrated to South Africa, Burma, Hong Kong, Australia and New Zealand (Roth, 2006, p. 223).

SECTION

PLAN

PART PLAN

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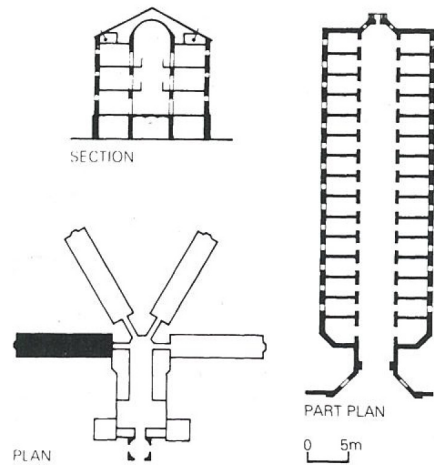
Previous page, left:
Figure 30.
Pentonville. (1842) Typical radial prison [Plan]. *Prison Architecture: Policy, Design and Experience.* By Fairweather, L. & McConville, S. (Eds.). (2000). Oxford: Architectural Press.

Previous page, right:
Figure 31.
O'Boyle, S. (2002). Interior view of the Eastern State Penitentiary [Photographs]. Retrieved from http://bldgblog.blogspot.co.nz/2008/04/mathematics-of-preservation-and-future.html. Accessed 26/07/2012.
-Images show a bleak interior widely made up of concrete and metal. Long hallways and small portals in the ceiling allow for natural lighting and yet emphasises the bleakness of the conditions.
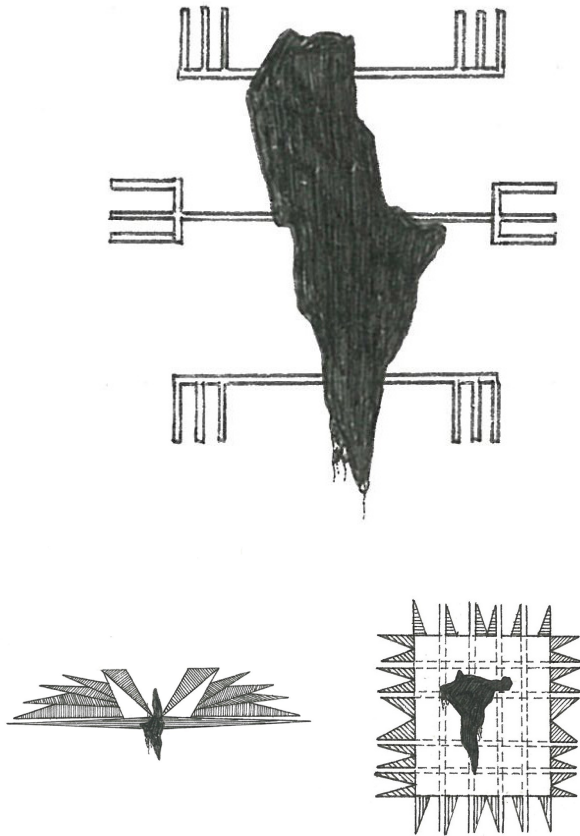
Figure 32.
O'Boyle, S. (2002). Interior view of the Eastern State Penitentiary [Photographs]. Retrieved from http://bldgblog.blogspot.co.nz/2008/04/mathematics-of-preservation-and-future.html. Accessed 26/07/2012.

1.9 Courtyard Plan

The Courtyard Plan is the most satisfactory layout for mega prisons in the United States. Mays and Winfree, Jr. (2009, p. 157) describe that the security of the Courtyard Plan hinges on the walls, and acknowledge that while the design is considered to be more modern than the Radial Plan, it still resembles the central courtyard of historic castles that were occasionally used for incarceration. The layout is fairly simple; all areas bar the administration zones are located in the inner ring facing the courtyard, all doors open up to the courtyard aside from those opening up to administration, and long hallways follow the walls around to allow for interior circulation.

Figures 33-35.
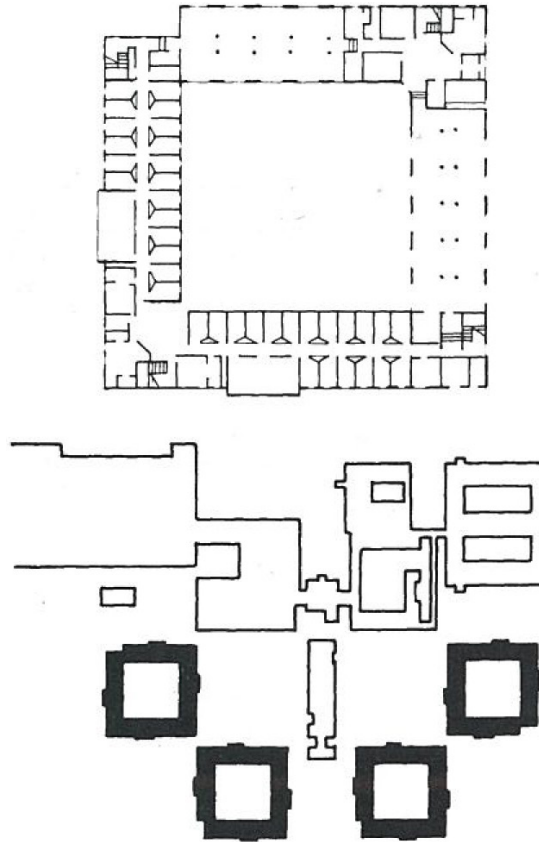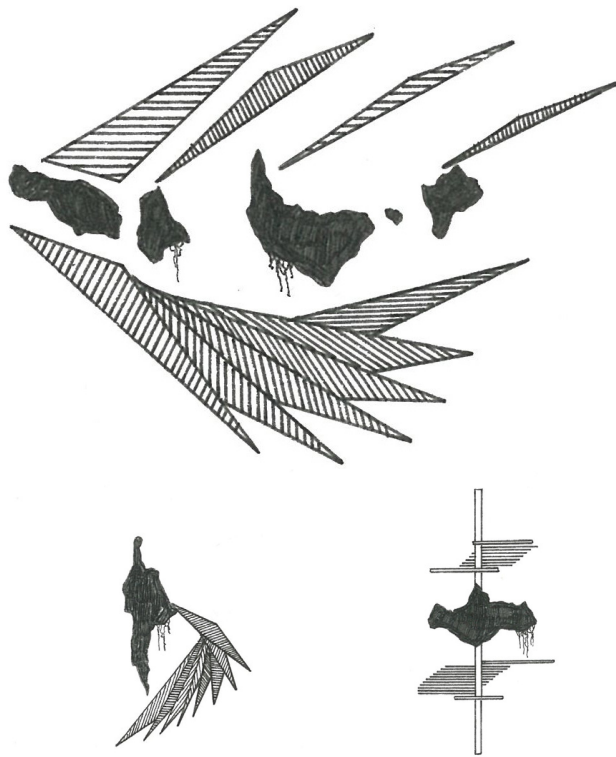Conceptual drawings: Courtyard plan.
Images by Author, 2012.

Figure 36.
Newton, L. (1978). Courtyard plan [Plan]. *Prison Architecture: Policy, Design and Experience.* By Fairweather, L. & McConville, S. (Eds.). (2000). Oxford: Architectural Press.

Figures 37-39.
Conceptual drawings: New generation plan and prison design briefing system.
Images by Author, 2012.

1.10 New Generation Prison

One of the more modern prison layouts, New Generation Prisons were designed with the Panopticon philosophy in mind; maximise security but lower the amount of prison guards, therefore lowering the annual costs while maintaining a high level of safety. In order to do this, the prison layout is separated into small and typically triangular-shaped cell blocks. These cell blocks generally hold between 30 to 100 convicts, significantly less than older layouts. Cells run along two walls, often layered two or more storeys and the last wall consists of floor to ceiling shatter proof glass. The atrium between the cells and the glass becomes day time space for inmates and certain areas outside the building are allocated to each cell block for recreational uses. The concepts taken from the Panopticon are in the floor to ceiling glass and the triangular layout; prison staff are usually stationed behind the glass and, due to the layout, they can observe everything that occurs within the cell blocks. The shatter proof glass creates a zoo-like affect in both observation and safety, allowing one or two guards to overlook up to one hundred prisoners at a time. However, many of the facilities function largely through electrical technology and this can create a sense of distance between prisoners and staff as staff interact with inmates purely through surveillance or two-way speakers. New Generation Prison facilities are so popular because of the amount of money saved in minimising security that they can now be prefabricated before being shipped to sites, and are often so visually identical that it is hard to tell them apart (Roots, 2004, Vol. 1, p. 661).

Fairweather & McConville (2000, p. 32) claim that this layout is the most progress within prison design that has been made in the last thirty years and is a layout that encourages staff and prisoner contact. It is a change that has been met with mixed emotions. Negative feedback from some staff stated that their stress levels increased as they felt there was a larger risk of violence, and some prisoners had requested to transfer to radial designed prisons as they were no longer used to the social environment that the New Generation Prison or PDBS offered. Fairweather & McConville also suggeststhat the reliance on technology to supervise facilities could be an issue, but also because of the problems that could arise in the event of a power failure.

Roots observes that sociological and psychological research on building occupation shows that people are less inclined to get out of control when housed in smaller groups, however he goes on to state that New Generation Prisons are more successful for correctional departments than prisoners and explains that critics of the design layout continue to believe that the layout supports incarceration rather than rehabilitation.
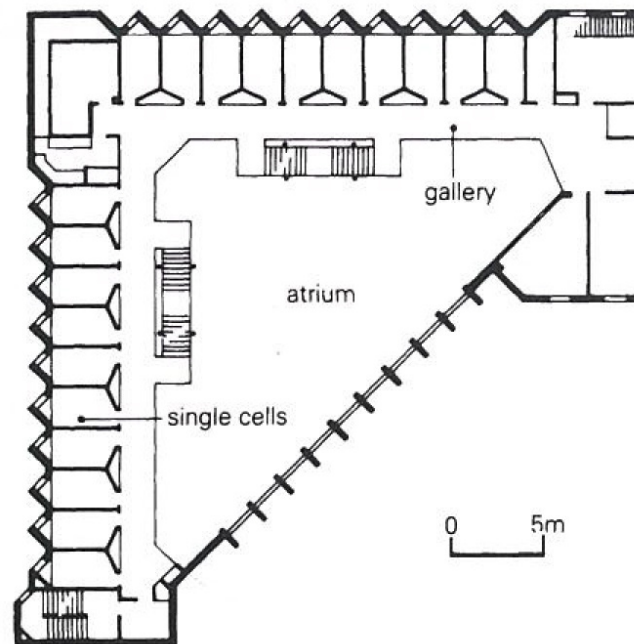
Figure 40.
Keynes, M. (1992). New generation prison [Plan]. *Prison Architecture: Policy, Design and Experience.* By Fairweather, L. & McConville, S. (Eds.). (2000). Oxford: Architectural Press.

1.11 Prison Design Briefing System

The Prison Design Briefing System or PDBS is similar to the New Generation Prison but rectangular in shape with the security and observation station located in the centre between the entry and exit to the cellblock. This design could be considered one of the most modern layouts and can be found in new prison facilities worldwide.

Rather than the 'traditional' layouts with indirect supervision, such as the Radial Layout (Figure 30) and the Courtyard Plan (Figure 36) that separated prisoners from staff, the new designs focus on a smaller scale. The New Generation Prison (Figure 40) and the Prison Design Briefing System (Figure 19) mix dayrooms, prisoner rooms, and staff areas together, taking huge steps to eradicate separate areas for inmates and 41 employees (Fairweather & McConville, 2000, p. 32).

> *"Officers in constant contact with inmates get to know them well. They learn to recognize and respond to trouble before it escalates into violence. Compared to traditional prisons, there is less conflict among inmates and between inmates and staff. Violent incidents are drastically reduced, homosexual rape virtually disappears, and vandalism and graffiti are almost eliminated." (Fairweather, Leslie & McConville, Sean. Cited in Prison Architecture: Policy, Design and Experience, 2000, p. 31).*

It should be noted that smaller prisons tend to have more success than large over-populated prisons. This is due to the higher rate of staff/inmate interaction that can lead to friendships, a higher rate of support and less chance of alienation. The recommendation for the maximum prison population ranges from between 100-600 and the medium of 300-400. Recommendations for the maximum cell block population are around 12-80 depending on the source and goal of each facility (Fairweather & McConville, 2000, p. 37).
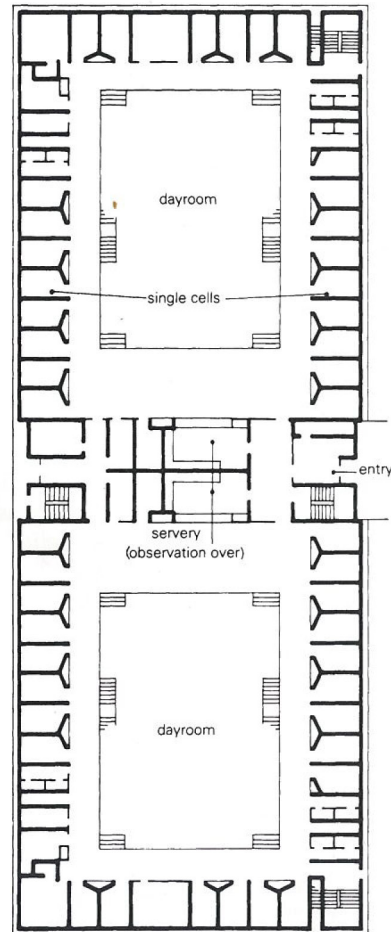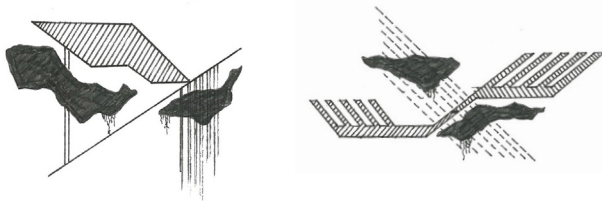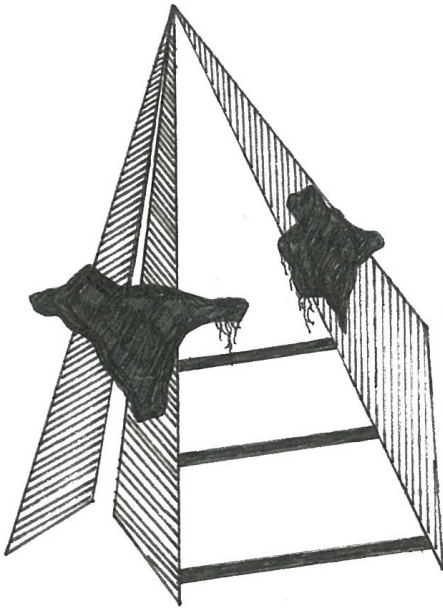
Figure 41.
Unknown. (1992). Prison Design Briefing System (PDBS) prison, suggested plan and section [Plan]. *Prison Architecture: Policy, Design and Experience.* By Fairweather, L. & McConville, S. (Eds.). (2000). Oxford: Architectural Press.

1.12 Specific Elements

Several issues emerge from the different layouts and categories of prisons. The threshold between the outside world and the space of incarceration is of prime importance. The quality of interiority of the individual cell, materiality, colour and light should also be considered.

1.13 The Threshold

In relation to the separation of family and everyday life, it is advised that the site be thoroughly thought out. To help ease the stressful process of entering and exiting society, prisons should be located somewhat close to a city or town as to allow interaction with the community and ease stress caused by the idea of isolation. Fairweather & McConville (2000, p. 32-34) suggest that entering and exiting the prison are the most traumatic times for prisoners due to the abrupt separation of friends, family and life; because of this, prisoners have an automatic aversion to the building. Goulding (2007, p. 40) confirms this by explaining that upon entry to prison, inmates are promptly stripped of their possessions and identity and can become disconnected with their surroundings. Therefore it can be assumed that these are areas that need particular focus. In order to allow privacy and a place of reflection, single or double cells are recommended. It is proven that layouts with these cells have lower rates of aggression, rape, illness, and general unhappiness.

Figures 42-44.
Conceptual drawings: Design and layout.
Images by Author, 2012.

The first time I went to prison I didn't know what to expect. I guess I was scared. I was told to strip naked in front of some other prisoners and I had to shower with them. I remember being embarrassed because I was heavy at the time and also worried in case someone would try to fuck me up the arse, but the screw (prison officer) was there watching us shower… Then I was made to squat, run my hands through my hair, let a screw look in my mouth, all this while standing there naked. My belongings – the clothes I had worn from court, and my wallet and all that – were taken away and I was given a set of prison greens… My photo was taken at reception and I was given an ID card with a prison number… I can remember my feelings of fear and shame as if they were yesterday. That was the first time I went inside. The next time I went to prison I felt nothing except being pissed off at the bloody inconvenience of it all. (Goulding, Dot. Cited in Recapturing Freedom, 2007, p.41-42)

1.14 The Cell

Goulding (2007) held interviews with several prisoners who had or still were serving time within the West Australian prison system; one of the interviewees describes the interior of their prison cell as "bleak" due to the colours on the walls and the sparseness of the room. The boredom of sitting for hours in cells was interrupted only for eating, working or sporadic cell searches which eventually caused the inhabitants to create "emotional brick walls." Another explained in a September 1998 interview that he spent at least 23 hours a day in his cell during his eight year sentence and was then put into complete confinement in the days coming up to his release date; this shows that there was a complete disregard in acclimatising to society in both philosophy and design.

1.15 Materiality and Colour

Materiality within the architecture is always important. Countries with large gang populations should avoid using colours that inmates could affiliate or be insulted with, however warm and sometimes bright tones create a friendlier atmosphere. Landscaping has been highlighted as an important design factor, breaking up hard materials with soft to avoid spaces looking desolate and grey (Fairweather & McConville, 2000, p. 41). Staff areas should have the same amount of thought as all other areas as dissatisfied staff can affect the attitudes of prisoners. Materials should be considered for the sound they might produce, for example, noise absorbent materials should be favoured in public spaces.

1.16 Conclusion

This chapter suggests that the notion of a 'prison' has changed from being a place of education and recovery to an institution of punishment. Although the development of New Generation Prisons and Prison Design Briefing Systems has taken steps towards improvement, research shows that smaller facilities that can provide more one on one contact and avoid prisoners feeling a sense of alienation would be more effective. Prisoner experience only serves to reinforce the research that has already been completed on the psychological effects of prison designs and layouts; if rehabilitation is the intended outcome then a greater effort is required in both the architecture and interior architecture aspects.

The next chapter explores the context of prisons in New Zealand, with a specific focus on the relationship between cultural experience and rehabilitation for Māori inmates.

Figure 45.
Department of Corrections. (Unknown). Exterior of Mt Eden Prison [Photograph]. Retrieved from http://www.corrections.govt.nz/__data/assets/pdf_file/0006/518055/History_of_Mt_Eden_Prison.pdf

Chapter Two: Considering Culture and Therapy Towards Rehabilitation.

Following the short reviews of architecture of incarceration in chapter one, chapter two will briefly look at some aspects of New Zealand prisons and general statistics relating to the impact of the Māori population on the prison programme. This will be followed by a description of Māori Focus Units (MFUs), a prison programme put in place by the Department of Corrections. Specific international case studies will then be analysed with regards to their approach or success in rehabilitation through either therapy or culture and will be followed by a comparison of what recently operational New Zealand prisons have to offer, highlighting aspects of the case studies that might benefit Māori Focus Units.

As a British Colony, it was only natural that New Zealand prisons would resemble their English counterparts as mentioned earlier (see note p. 15). The oldest surviving prison based on plans drawn up in England is the Mount Eden Prison, now known as Mt. Eden Corrections Facility. Completed in 1917 the prison was mostly built by convicts and resembles a traditional English jail made up of thick slabs of rock and iron (Newbold, 2004, p. 661)[7][8].

New Zealand currently has eighteen functioning prisons, three of which are for women and fifteen of which are more than 70 years old. One can assume that due to the maturity of most prisons, the prison architecture and layouts relatively old and outdated.

7   The site of Mount Eden Corrections Facility has housed a small prison for women and was the site of the 1965 prison riot that lasted 34 hours and burnt down much of the original architecture. At the time, prisoner capacity meant there was no time to repair the building to its original state; instead work was quickly finished to allow prison life to return to normal as fast as possible. In mid-2011 work was completed in renovating areas of the site that were not parts of its original architecture and the layout now conforms to a more modern design, the Prison Design Briefing System (Figure 41). Mt. Eden Corrections Facility is now listed as a historic place under the Historic Places Act 1980 (Department of Corrections, 2011).

8   Executions were accepted in New Zealand until 1935, it was then reintroduced briefly in 1951 before ceasing permanently in 1961. A total of 85 people were executed.

Figure 46.
New Zealand Construction News. (2007).
Inside the accomodation blocks of the new Mt Eden
Corrections Facility - each self contained 'pod' houses
up to fifty-nine prisoners, and includes a server, clothes
washing facilities and exercise yards [Photgraph].
Retrieved from http://www.constructionnews.co.nz/
articles/may11/mt-eden-prison.php.
Accessed 01/08/2012.
-An interior clearly designed to respond to pragmatics
such as function, light, etc.

2.1 Contemporary context

Snapshot graphical data from the Offender Volumes Report 2009 released by the Department of Corrections shows that the New Zealand prison population roughly increased by about four thousand inmates between the years 1980-2009 (Figure 47). From these statistics, female prisoners only make up around 5.9%.

Statistical data relating to the age, gender and ethnicity of prisoners (Figure 48) shows that by far the majority of convicted felons are under 40 years of age, male and identify as New Zealand Māori. Curiously, there are two peaks within the age/population ratio; the highest when prisoners are around 20-25 years old, and the second and slightly lower peak at around 40 years of age. While sentence lengths are increasing, there remains a steady onslaught of prisoners who have been given roughly two year sentences (Figure 49). This area contains perfect candidates for Māori Focus Units or MFUs, and their lower age range indicates that they still have a chance of rehabilitating before being caught in the prison cycle.

Figure 47.
Department of Corrections. (2009). Prison Sentenced
Snapshot Trend since 1980 [Graph].
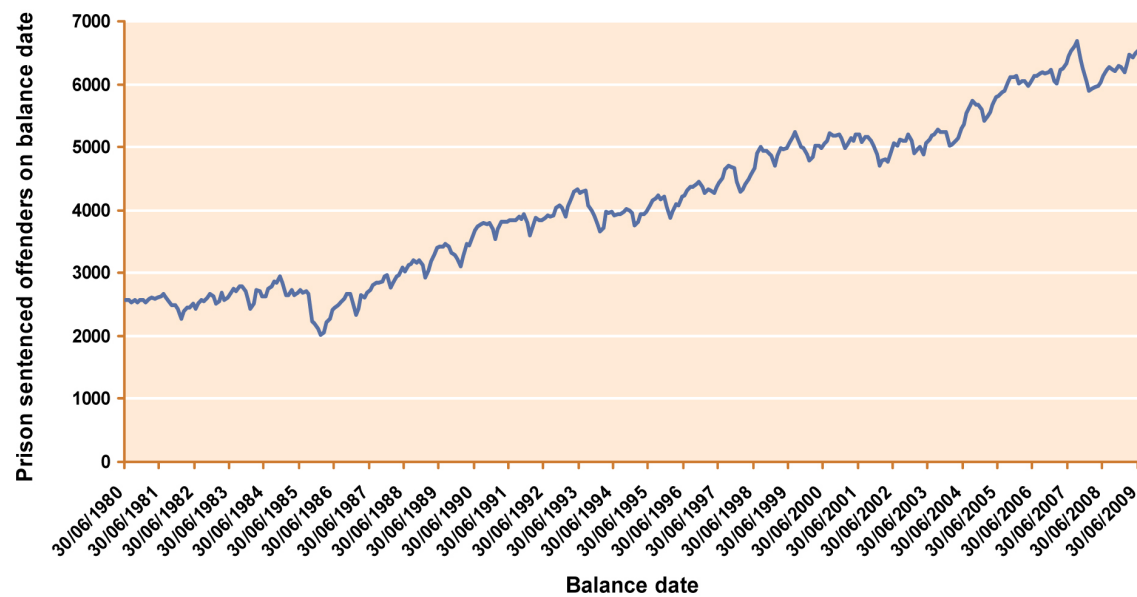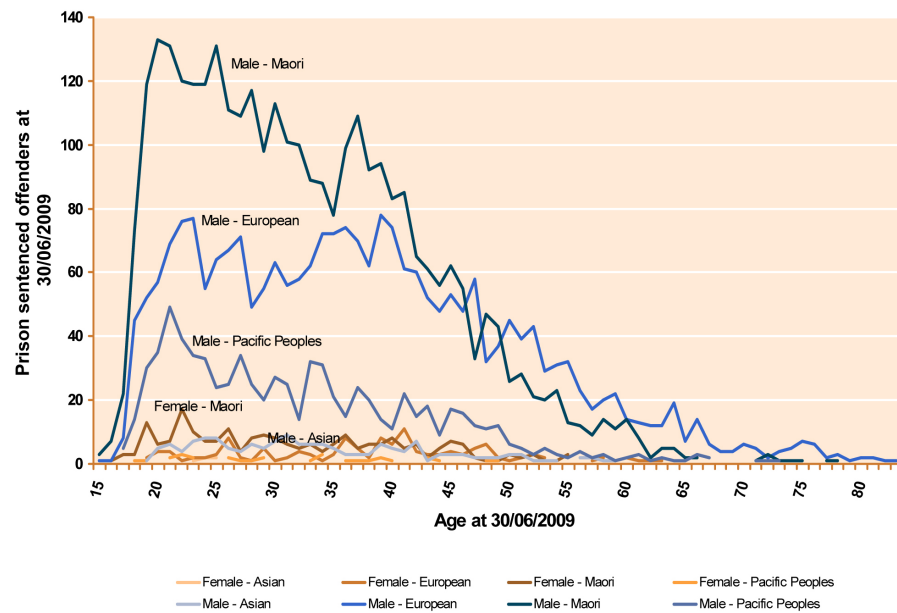*Offender Volumes Report 2009.*
Department of Corrections.

Figure 48.
Department of Corrections. (2009). Prison Sentenced
Snapshot at 30/06/2009 by Gender-Ethnicity-Age
[Graph]. *Offender Volumes Report 2009.*
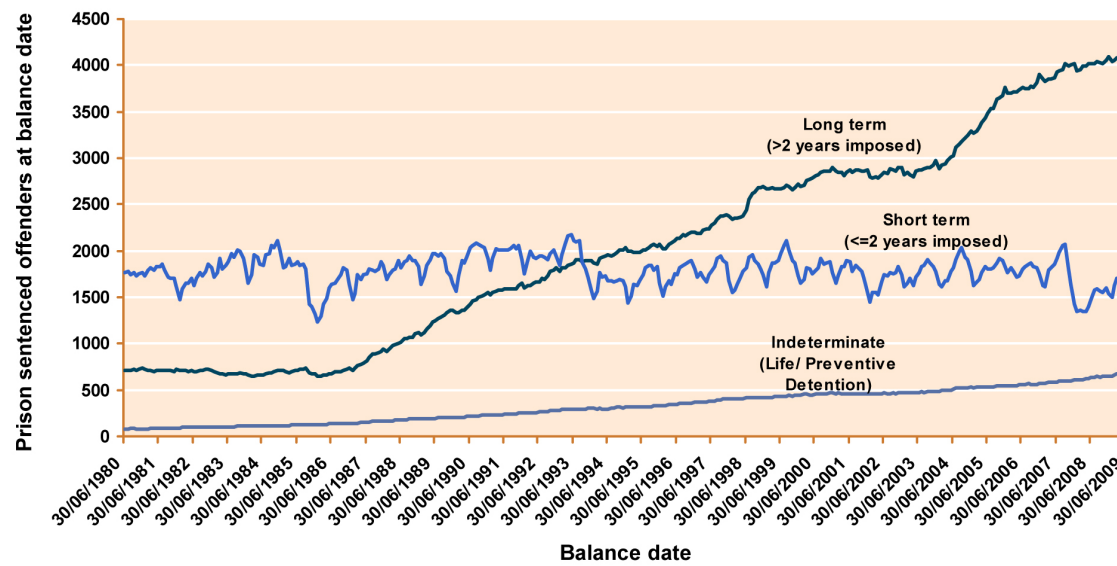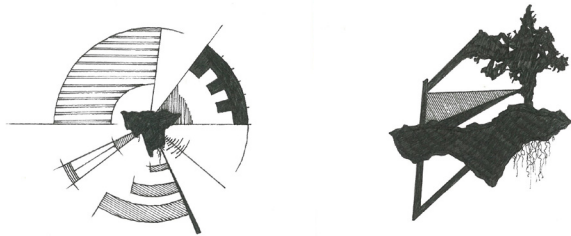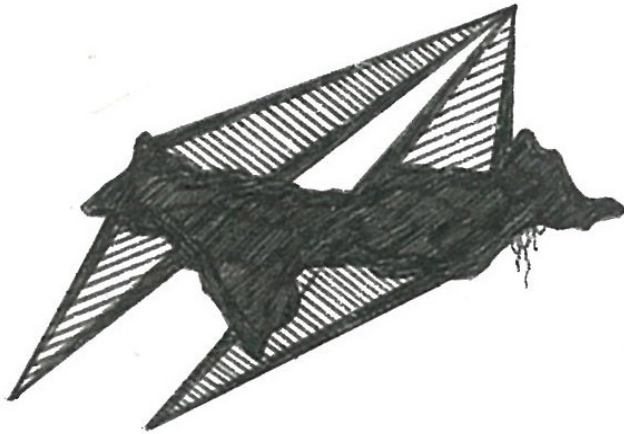Department of Corrections.

Figure 49.
Department of Corrections. (2009). Prison Sentenced
Snapshot Trend by Management Category [Graph].
Offender Volumes Report 2009.
Department of Corrections.

Figures 50-52.
Conceptual drawings: Māori focus units.
Images by Author, 2012.

2.2 Cultural experience within therapeutic programmes

Statistics show that Māori are over-represented within the New Zealand prison environment, this is a fact that the national population has quietly and perhaps unconsciously acknowledged. Realising the need to change the statistics, the Department of Corrections created Māori Focus Units; the first of five was opened in 1997 at Hawke's Bay Regional Prison (Department of Corrections, 2009). The aim of these programmes is to lower the possibility of re-offending by giving them the opportunity to learn about Māori culture in all its aspects. This is expected to give the participants a sense of cultural pride and identity, thereby providing them with purpose and motivation within the community.

Activities taking place within the units focus on the way that Tikanga Māori can help improve everyday life, and largely consist of therapeutic groups in which the prisoners can discuss different topics. In order to qualify for MFUs, prisoners must have between 6-24 months of their sentence left, be in the lower ranges of security status, be physically able to take part in all aspects of the Unit and agree to the kaupapa (foundation rules) of the programme which include:

- No alcohol or drugs

- No stealing or threatening behaviour

- No gang-related activity

- No spitting or tattooing while involved in the unit

- Participation in all areas of the programme

- Retaining an acceptable level of hygiene

In 2009 the Department of Corrections released an evaluation report on the progress of the MFUs; this stated that participants of the programmes were indeed gaining more cultural knowledge and skills. There was a small yet positive change in terms of re-offending and re-imprisonment however it observed that the MFUs were not yet running to their optimum ability (Policy, Māori Focus Units and Māori Therapeutic Programmes: Evaluation Report, 2009).

Outside formal written reports there is great difficulty in obtaining transcripts or interviews on the architectural context of Māori Focus Units. As architecture played a strong role in the everyday lives of both historic and contemporary Māori settlements, this is a topic that has driven the research and design process of this thesis. As developed further in this thesis, the designing of a new male Māori Focus Unit located on Matiu/Somes Island takes into consideration the base needs and goals of MFUs while taking into examination the stories and teachings that Māori culture has included into its architecture.

In order to gain more knowledge about rehabilitation facilities within prisons, two case studies have been completed focusing other therapy towards rehabilitation or culture towards rehabilitation.

	Count of matched offenders	RQ (re-imprisonment)		RQ (reconviction)	
		Score	Statistically significant?	Score	Statistically significant?
Maori Focus Unit	122	+ 0.03	no	+ 0.04	no
Maori Therapeutic Programme	31	+ 0.07	no	+ 0.08	no

Figure 53.
Department of Corrections. (2009). RQ Scores for MFU and MTP (12 months follow-up). *Māori Focus Units and Māori Therapeutic Programmes: Evaluation Report*. Department of Corrections.

2.3 Case Study One: Therapy Towards Rehabilitation.

Halden Fengsel Prison

Architects: Erik Møller Architects

Location: Halden, Norway

Built: 2010

The design of Halden Fengsel Prison has taken steps towards helping prisoners rehabilitate through the architecture and layout. Located in Norway, this prison does not seem to have any particular European culture in mind however the design focuses on creating a space to house inmates as equals. Despite the culture difference with MFUs Halden Fengsel prison actively helps offenders learn to create better lives for themselves and in doing so gives them a place in society.

One of the most controversial prisons in the world, Halden Fengsel Prison has earned its reputation due to its incredible civility when dealing with prisoners. Home to over 200 convicts, the prison is a sprawling collection of buildings that houses inmate rooms, a climbing wall, cafeteria, recreation centre, library, and hobby areas with room for a recording studio and kitchen facilities for cooking classes as shown by Linescrew1 (2010).

The concept behind the architecture was to make it as normal as possible, thereby avoiding alienation and isolation of prisoners as they arrived and departed. The architecture somewhat resembles a modern education facility; large windows allowing optimum day lighting, carpeted floors and a warm palette upon the walls (Figure 54-55). Together, these details take large steps within prison design; generous natural lighting allows the building to feel more transparent and the light less harsh, carpeted floors absorb sound and help rooms retain heat and warm wall tones encourage more favourable attitudes. The prisons approach is to rehabilitate rather than punish, and to do so requires an approach different to the norm of most prisons; a large percentage of prison guards are female and unarmed and

guards play sports and eat with the inmates. It's believed that the presence of females in a male prison reduces the risk of aggression, and the presence of weapons creates tension and distance between the guards and prisoners, as stated by Adams (2010). Inmates are not given prison garb to wear and instead dress as they please, thereby allowing them to keep their social identity and taking steps to acclimatise into prison and back into the community.

> *In the Norwegian prison system, there's a focus on human rights and respect.*
> *(Adams, 2010)*

This is a strategy that could be working for Norway who have a 20% re-offending rate as opposed to the US who currently sit at 50% as told by Campbell-Dollaghan (2011). By focusing on rehabilitation rather than punishment, the prison creates a positive atmosphere for its inmates. Another aspect that is working for it may be its culture, or its lack thereof. The prison architecture's open and almost vibrant interior reflects the drive for rehabilitation, while at the same time it remains carefully neutral, and as a result takes no cultural stance and becomes a common ground for all inhabitants.

> *Many of the prisoners come from bad homes, so we wanted to create a sense of family.*
> *-Architect Per Hojgaard Nielson (Adams, 2010)*

2.4 Case Study Two: Considering Culture Towards Rehabilitation.

Healing Lodges

Location: Canada

First opened: 1997

Both New Zealand and Canada have been taking steps to address concerns regarding the high rates of crime within their indigenous communities. In 1995 native Canadians made up 17.8% of the Canadian prison population, almost doubling since 1987. This sparked an interest in nurturing aboriginal cultures within prison facilities in an effort to rehabilitate inmates; the first Healing Lodge, located in Okimaw Ohci was opened in 1995 and catered to 30 women. Okimaw Ohci Healing Lodge has small buildings which each house a bedroom, bathroom, living room, kitchen and dining area[9] (Figure 57). Since then, many other healing lodges have been opened, including facilities for men. Architecturally, most buildings were designed with the culture and beliefs in mind and programmes within lodge's center around providing participants with the tools required to make a positive shift in their lives; education and a space that includes the culture and beliefs of the people, inclusion in indigenous ceremonies and activities, and opportunities to speak to elders[10]. The lodges focus on how each individual can fit within a community and puts great importance on preparing participants to re-enter society(Trevethan, Crutcher & Rastin, 2002).

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9   Women who choose to have their children with them during their time at Healing Lodges also have the opportunity to live in units with playrooms.

10   Interior descriptions of the lodges are hard to find, and most talk about the architecture. All lodge architecture differs depending on location, population and age of facilities. Most of the younger lodge architecture takes into consideration the First Nation people of that specific location and design according to beliefs, mythology and culture (Government of Canada, 2002).

Currently, there are two types of healing lodges that run within Canada. The first is run by CSC (Correctional Service of Canada) and uses indigenous beliefs and traditions to facilitate the healing process of prisoners, the day to day activities are generally structured and are similar to the daily routines of typical correctional facilities. The second type are called Section 81 healing lodges, CSC provide correctional staff and services however the units are privately run by the native communities. These lodges have less rigid daily routines in comparison to the CSC lodges, however they focus strongly on learning native culture, spiritual beliefs and ceremonies (Trevethan, Crutcher & Rastin, 2002).

Trevethan et al (2002) state that indigenous prisoners who had participated in healing lodges had a 12% *higher* chance of re-offending and claim that this could potentially be a result of larger quantities of high-risk offenders entering lodge facilities rather than low-risk offenders. A lack of communication between correctional facilities and healing lodges is thought to add to the lowered success rate, some staff and healing facilities claimed that correctional staff had no real understanding or interest in healing lodges and as a result, were failing to provide the money to improve facilities[11].

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11   Pacholik (2003), reports that some Healing Lodges had been unsuccessful in rehabilitating prisoners back into society. This was partly due to illegal substance abuse and the participation of inmates who were not committed to the programme. Steps have since been taken in adjusting the acceptance criteria in an effort to avoid these issues from re-occurring; similar to MFUs; healing lodges do not allow drugs or participants who are affiliated with gangs.

2.5 Conclusion

Both Halden Fengsel and the Healing Lodges have similar aspirations, although the former may be more successful due to the boundaries that restrict the public visiting at any time of the day and hampering the progress of the inmates. The psychology behind the architecture of the facility is unique to Norway and is proving to be incredibly successful.

Section 81 Healing Lodges bring up an interesting concept of allowing the community to oversee the programmes. A similar and successful situation has been put in place in Lake Waikaremoana, New Zealand. The Lake Waikaremoana Hapu Restoration Trust is a programme run by the local iwi but funded by the Department of Conservation to aid in the restoration the areas of brown kiwi population and is making considerable progress (Kiwis For Kiwis, 2012).

This chapter has clearly indicated the importance of considering therapy and cultural understanding in the design of architecture of incarceration. Hence, chapter three looks at Māori understanding and perception of architectural space in a general context.

Previous page, left:
Figure 57.
Correctional Service Canada. (Unknown). Okimaw Ohci Healing Lodge Unit. [Photograph]. Retrieved from http://www.csc-scc.gc.ca/text/prgrm/abinit/challenge/11-eng.shtml. Accessed 01/06/2012.

Previous page, right:
Figure 58.
Correctional Service Canada. (Uknown). Interior of a Somba Ke' Healing Lodge Unit. [Photograph]. Retrieved from http://www.csc-scc.gc.ca/text/prgrm/abinit/challenge/11-eng.shtml. Accessed 01/06/2012.
-Interior shows cultural consideration and concepts through architecture, layout and seating arrangements.

Chapter Three: Māori Perspective of Architecture
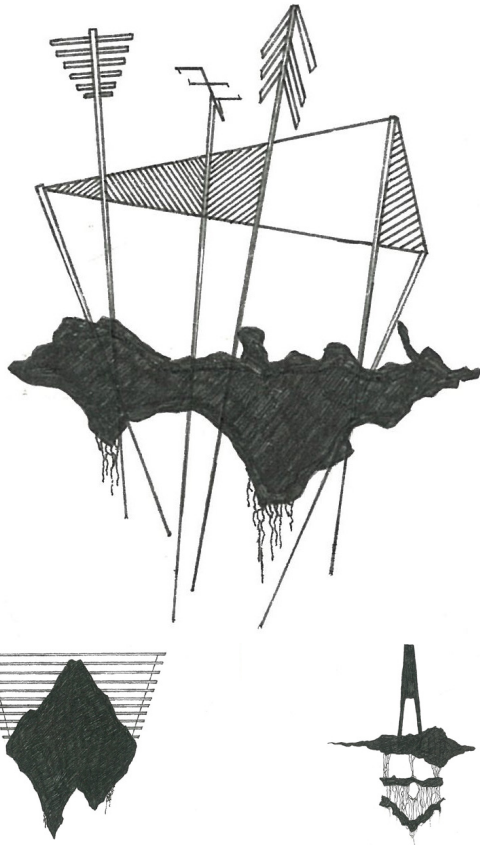
With the introduction of television programmes such as *Whare Māori* and the emergence of architecture like Te Wharewaka o Poneke (Figure 62) on the Wellington waterfront and Ngakau Mahaki marae (Figure 63) at the Auckland Unitec Institute of Technology it is becoming increasingly important for New Zealanders as a whole to reconnect themselves with their roots, and understand Māori connection to the land and culture. This chapter explores Māori concepts of architecture and its values. Previous works to be considered by Brown (1999, 2009), Hoskins (2011), McKay (2004) and Bennett (*Whare Māori*: Wharenui (Part One), 2011) (*Whare Māori*: Whare Wananga, 2011) all examine the built Māori environment but focus largely on the architecture as a whole rather than the interior realm. In order to create possibilities for the designing of interiors towards rehabilitation, which draw from Māori ideology, this chapter will analyse and compile important components that are used in historical Māori culture; designing for a collective; respecting tapu and noa; providing an architectural sense of identity and how this allows the inhabitants to connect the buildings with themselves, their whakapapa (geneology) and their stories; and the effectiveness of building with the earth.

## 3.1 The Shared and Collective Space

One of the most unique aspects about the interiors of Māori architecture is the concept of creating a structure that has a singular function and a completely open interior space that can be used by the whole community (Figure 67). Bennett (*Whare Māori*: Whare Wananga, 2011) suggests that the formation of a communal environment can allow the inhabitants to feel more welcome and encourages learning and the production of work. However, many new buildings within urban environments simply do not have enough space or financial stability in which to build multiple structures to house different needs. Consequently, larger architecture, such as Te Wharewaka o Poneke, with the ability of several functions are becoming more popular, although particular care should be taken with the design layouts to prevent mixing tapu and noa spaces.

Figure 62.
Unknown. (Unknown). Te Raukura/Te Wharewaka
o Poneke. [Photograph]. Retrieved from http://
www.wellingtonnz.com/conventions/te_raukura_te_
wharewaka_o_poneke.
Accessed 11/01/2013.

Figure 63.
Unknown. (Unknown). Ngakau Mahaki
Marae/Unitec Marae. [Photograph].
Retrieved from http://www.kaitiakitanga.
net/biomimicry/.
Accessed 11/01/2013.
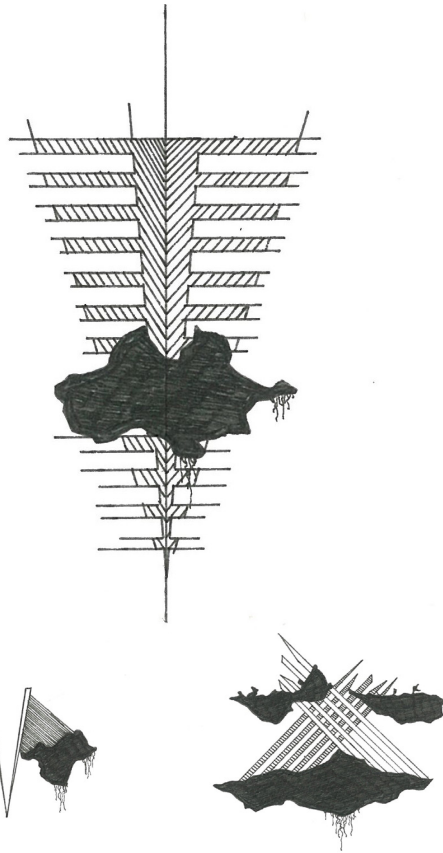
Figures 64-66.
Conceptual drawings: Tapu and noa.
Images by Author, 2012.

3.2 Tapu and Noa

The conception of separate buildings for different needs links back to tapu and noa. This could be seen as the biggest challenge in designing interior architecture in the 21st Century as the placing of certain areas or objects within interior spaces can prove challenging. Tapu and noa can be likened to positive and negative forces with tapu being sacred; the positive power that relates back to the gods, men and masculine objects, death and only the most respected women, and noa as tapu's complete opposite; a common force related to life, women and feminine items. Positioning a noa object or space within a tapu area destroys the nature of that particular domain and is seen as a bad omen as stated by Hoskins et al. (2002, p.9).

Other tapu and noa areas are created in western style housing and architecture without careful attention and cause potential cultural issues. For example:

•   The close proximity of the kitchen, food preparation, or dining areas to the bathrooms and laundry spaces

•   Living, dining and kitchen areas located next to the main entrance of the building

Tapu and noa have been noted in the design of modern interiors through material choices; Brown (2009, p.148-149) goes on to describe Pukenga, at Auckland Unitec as illustrating "the complementary, but equivalent, roles of men and women in Māori society. The 'female' part of the building is clad in natural wood and sometimes encloses curved spaces, while the rectilinear male area comprises three galvanised steel-clad classrooms that also, but not as a gender consequence, represent the three baskets of Māori knowledge".

It is noteworthy that certain situations occur where the incorrect placing of tapu and noa areas is unavoidable, for example when dealing with a very small house, however there are ways in which one can deal with these incidences. Metge (2004) explains that it is possible to remove tapu from certain spaces; washing or scattering water, repetitive consumption of cooked food, performing traditional chants or "the ritual action of a woman" can all lift tapu from certain places or objects.
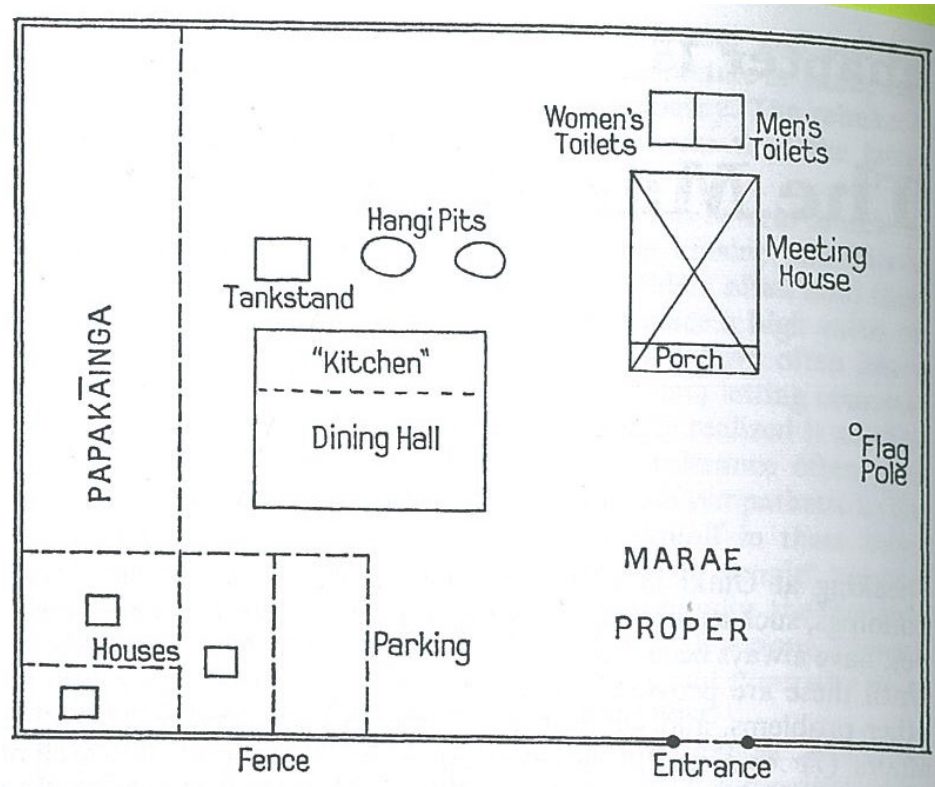
Figure 67.
Metge, J. (2004). Sketch plan of a typical marae. [Plan].
Rautahi: The Māori of New Zealand. London: Routledge and
Kegan Paul.

3.3 Anthropomorphy

Western culture has recently developed a perhaps unconscious trend of taking the spiritual and mythological out of many buildings so that they can be used continuously and owned by multiple businesses and people, but in doing so the people that use the spaces have no attachment to the structure. In contrast, emotional and spiritual attachment to buildings is evident in Māori architecture by its anthropomorphic concept. For example, the wharenui is designed with (as stated by Bennett (*Whare Māori*: Wharenui (Part One), 2011):

-Koruru (head)

-Mataaho (eye)

-Maihi (arms)

-Raparapa (fingers)

-Taahuhu (spine)

-Poho (chest)

-Poutokomanawa (heart)

-Heke (ribs)

These components used together embody an ancestor that has great importance to the tribe. McKay (2004) cites that because of this comparison to the human body the architecture is then seen as an entity; the face or front of the structure is greeted first as opposed to the end or sides. This familiarity with one's forefathers is a testament of the Māori appreciation and acknowledgement of age, history and time and further strengthens the bond between the inhabitants and the architecture. This tendency of visualizing the wharenui as an entity creates a greater respect for age and meant that these structures were granted the unique opportunity to grow old before being pulled down and rebuilt to age again, as established by McKay (2004, p.10). McKay (2004) also touches on the concept that because of this constant rebuilding it brought the community together and allowed traditional techniques to be passed on to future generations.
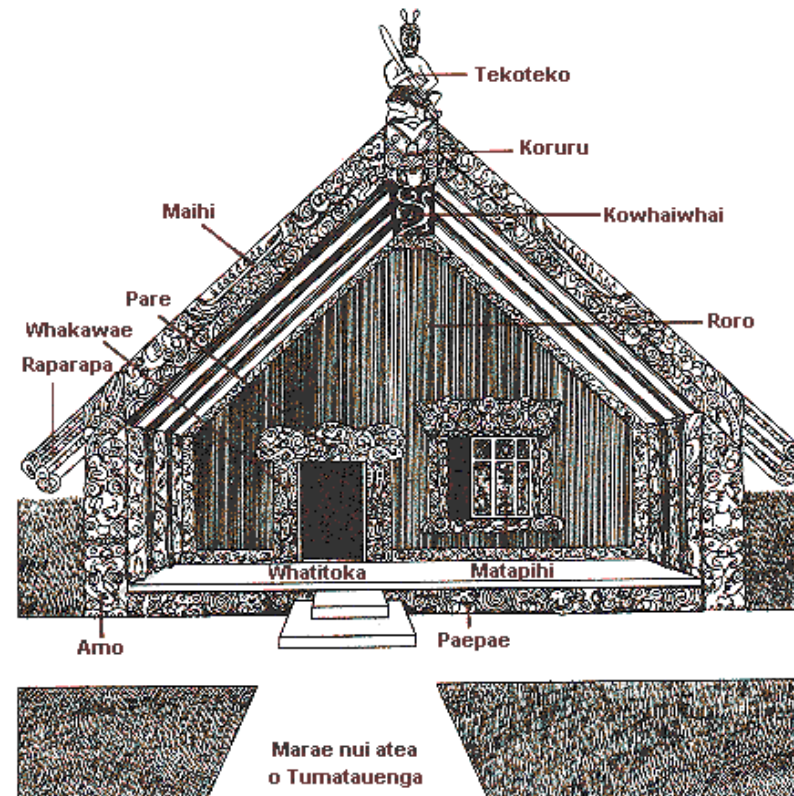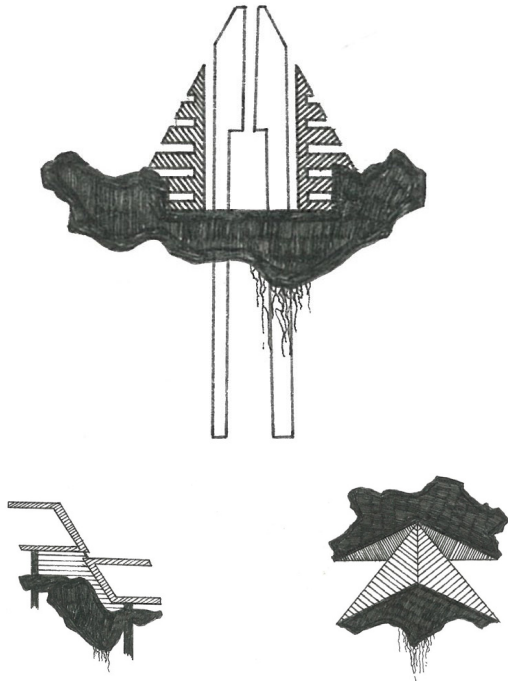
Figure 68.
Unknown. (Unknown). Wharenui.
[Diagram]. Retrieved from http://www.education-resources.co.nz/whare-nui.html.
Accessed 16/01/2012.

Figures 69-71.
Conceptual drawings: Building with the earth.
Images by Author, 2012.

3.4 Building with(in) the earth

Building methods that were historically common, such as building a whare into the ground (Figure 72), established a connection with the earth and if seen in modern architecture in this day and age, is seen as a unique and innovative sustainable solution.

Indeed, McKay (2004, p. 1) discusses how the first European settlers to New Zealand chose to recreate their homelands instead of working with the land to discover ideal ways to perform with the environment, this could be seen as the loss of part of our identity.

The Māori people had a great respect for the earth as it relates back to the very beginning of their history; the seperation of Papa-tū-ā-nuku (the earth mother) and Rangi-nui (the sky father) is a narrative of prime importance and will be considered in the design. These legends were continuously retold through the years and allow the Māori to create an affinity with their natural surroundings; they performed a karakia (ritual chant) before fishing, cutting down trees or taking flax leaves from the plant, they cook within the earth and used the materials they took to create something beautiful as a replacement, as was part of their beliefs.

It comes as no surprise then that some are making that connection again. Bennett (*Whare Māori*: The Wharenui (Part Two), 2011) interviewed Bruce Stewart of Tapu Te Ranga marae in Island Bay, Wellington, and discovered that he had created the marae using pieces of the environment that were around him, particularly old car containers that were used once before being thrown away, Stewart found it disrespectful for a tree to be cut down and thrown away after a single use and the development of the marae created an interesting and useful way for these resources to be permanently used.

Amanda Yates designed a house for her family in the Coromandel and used the land it is built on to dictate the contours of the architecture (Figure 73-74). The simple structure addresses the thresholds it crosses by extending out from the rock and into the air by the changes of materiality within the interior (concrete through to timber) as shown by Bennett (*Whare Māori*: Ringatu, 2011). Yates (2006) explores the ways in which the Māori used the earth to define interior spaces by shovelling into it and using the earth as a material rather than a platform to build upon.

The whareuku (earth house) in Ahipara, Northland was investigated by Bennett (*Whare Māori*: Ringatu, 2011) and relates back to Yates's ideas. The earth house is being built on Māori land and made from the earth with the intention of providing for the hapu rather than a singular family, the use of uku within the construction of the structure is not only cheap and strong, but provides excellent thermal insulation and references the connection that Māori have with the land.

> *Whareuku combines the use of materials gathered from the whenua with a straight-forward production process for a cost-effective durable house. Uku mix includes flax fibre, cement and earth. (Cited by Bennet, Whare Māori: Ringatu, 2011)*

Figure 72.
Best, E. (1975). Cross sections of Tauranga-ika Pa. [Drawing.
The Pa Māori. Wellington: Whitcombe and Tombs Limited.

Next page, left:
Figure 73.
Williams, M. (2011). Untitled. [Photograph].
Retrieved from http://blackwhiteyellow.blogspot.co.nz/
search?q=concrete.
Accessed 10/01/2013.
-A beautiful choice in materials; concrete (masculine) grounds
the architecture and compliments the timber (feminine) which
brings warmth and a sense of weightlessness.

Next page, right:
Figure 74.
Williams, M. (2011). Untitled. [Photograph].
Retrieved from http://blackwhiteyellow.blogspot.co.nz/
search?q=concrete.
Accessed 10/01/2013.

SECTION A.B.
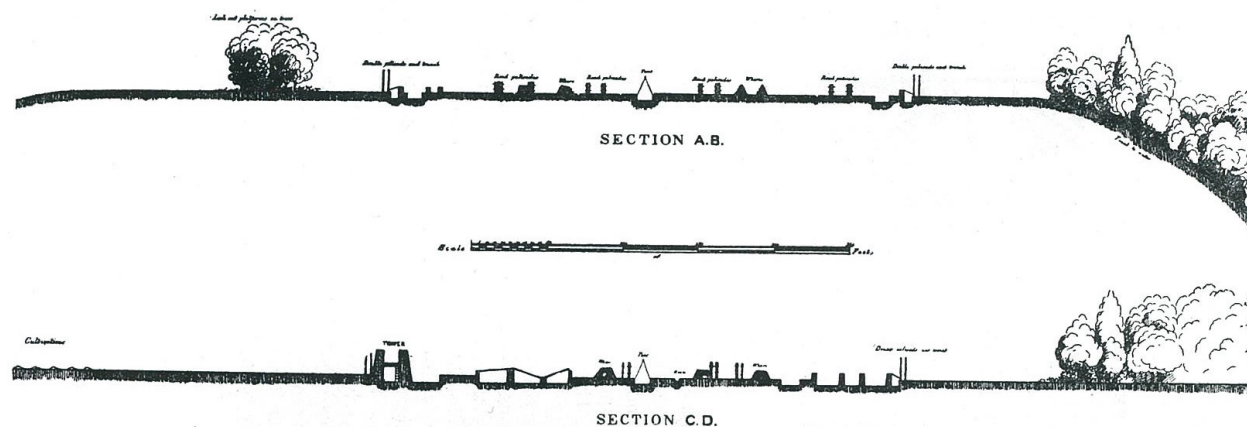
SECTION C.D.

Fig. 116a—*Cross sections of Tauranga-ika Pa.* (See p. 404.)

3.5 Conclusion

This investigation into Māori culture, beliefs and architecture brings forth important points that need to be considered in the designing of future Māori influenced interior architecture; however there remains a gap in which to work with where the possibilities are still underexplored; the only source investigated that addressed the interior of a whare to the same extent as the exterior was Bennett (*Whare Māori*: Whare Wahine, 2011) in the exploration of Ngakau Mahaki marae at the Auckland Unitec Institute of Technology. Designed by Lyonel Grant, the construction of the interior is unique and beautiful due to the different techniques that have been used; Grant created a cast bronze poutokomanawa, otherwise known as the heart, that stabilizes the central area of the building and references The Treaty of Waitangi; an event that changed the future of Māori.

Bennett (*Whare Māori*: Whare Wahine, 2011), describes the way in which the underlying concept of the wharenui was to create the building using traditional Māori techniques while incorporating modern artwork, this is presented in a stunning manner in which the whakairo (carvings) along the back wall are the most traditional, and then gradually become more contemporary towards the entrance. This method creates a special bond with the inhabitants by educating them on the past and also incorporating recent history that they can relate to. The materiality of the architecture is both old (carved timber) and modern (steel) and works together harmoniously to create one of New Zealand's most important pieces of contemporary Māori interior architecture. The research into Māori perception of architecture and the history behind it is an important chapter in this investigation in order to understand and design modern Māori interior architecture that is an innovative, evocative and educational place to inhabit.

With much of the vital research completed, chapter four explores the site of Te Pikinga o tōku Tuakiri and its history in order to understand the unique connection that Matiu/Somes Island has with this thesis.

Next page, left:
Figure 75.
Veronica. (2011). Interior of Ngakau Mahaiki Marae. [Photograph]. Retrieved from http://steve-wheeler.blogspot.co.nz/2011/12/barefoot-keynote.html. Accessed 12/12/2012.

Next page, right:
Figure 76.
Veronica. (2011). Ngakau Mahaiki interior, Unitec [Photograph]. Retrieved from http://float2.wordpress.com/2011/04/13/35/. Accessed 12/12/2012.
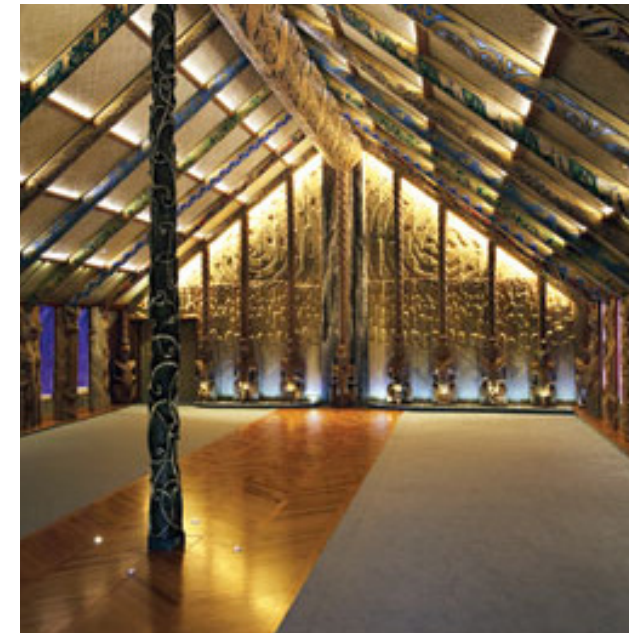
Chapter Four: Site as a Provocation

The proposed architectural intervention will focus on the occupier being of Māori descent generally, rather than targeting specific iwi. This thesis acknowledges that Matiu/Somes Island (the site selected for this design led research) was the location that all Māori arriving in Wellington, after their journey from Hawaiki, identified with. This was before the land was separated into tribal regions.

Therefore, chapter four will discuss the Māori and European history of Matiu/Somes Island and why the site is appropriate for this thesis.

4.1 The History of Matiu/Somes Island

An island of mystery located in Wellington harbour, Matiu/Somes Island is an area rich in history and secrets. It is said that it was first discovered by Kupe, the legendary Māori explorer who came upon New Zealand around 900 to 1000 A.D. as stated by Phillipps (1966, p. 18). McGill (2001, p. 15-18) explains that although there are many stories of Kupe, it is widely believed that he used Wellington Harbour as a resting area as he explored Raukawa Moana, better known as the Cook Strait. It was on one of these voyages that he discovered the island and named it after a close and young female relative, Matiu. Years later, brothers Tara and Tautoki settled in the area, with Tautoki claiming southern parts of the Wairarapa to Kapiti and Tara predominantly inhabiting the Wellington harbour (now known as Te Whanganui-a-Tara) and building his first pa on Matiu Island. This was a strategic defence move that would be later repeated by the New Zealand Defence Force[12].

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12   In the years that followed, Māori occupation increased and with it came more tribes. Control over Matiu changed

On the 27th September 1839, Lieutenant-Colonel William Hayward purchased land from some of the Wellington iwi, among it was Matiu Island as established by McGill (2001, p. 25). Hayward had also noticed (like those before him) that the island was in a prime position to observe arriving ships and, if need be, defend the harbour. Shortly after the purchase of the land, Matiu was renamed Somes Island after Joseph Somes, the Deputy-Governor of the New Zealand Land Company in which Hayward worked for[13].

1872 saw the erection of quarantine buildings after the arrival of the ship *England* on which 16 people had died of sickness (McGill, 2001, p. 32). In the years that followed, all arriving vessels were required to stop at the island in an effort to stop diseases from reaching the mainland; travellers were made to stand in a smoke house in which they were fumigated for 10 minutes before gaining access to the island. Many died before arriving, and those that were inflicted on arrival were quarantined until they regained health or passed away[14].

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every so often, however it seems that although the tribes warred with each other, the island never became a fighting ground. Architectural evidence of Māori inhabitation on the island is now buried beneath the earth and existing buildings, the only visible indication of their presence is the terraced land at the north of the island and the discovery of two middens. Middens are the historic Māori equivalent of a rubbish dump, and the two on the island were filled with sea shells and bird bones as told by McGill (2001, p. 19).

13   Joseph Somes never set foot on the island.

14   Perhaps the most famous of the ill-fated passengers was a Chinese man named Kim Lee (p. 47), Lee reached the mainland of Wellington before being taken back to the island and diagnosed with leprosy. As there was no established leper colony

During the First World War Matiu/Somes Island started to earn its next identity as an incarceration camp for prisoners of war. The war against Germany caused suspicion and speculation to arise against the large numbers of German immigrants throughout New Zealand and the military began to round them up if the locals thought they were acting strangely[15]. They were kept under the watchful eye of guards and made to do hard-labour, many of the prisoners complained of cruel mistreatment but their protests were ignored by both the general public and the government. In 1919 four hundred and ten prisoners of war were quietly deported along with any family wishing to go with them (McGill, 2001, p. 70-74), and the remaining prisoners were eventually freed in 1920.

After the prisoners of war were shipped off the island after the end of the First World War the country was hit by the influenza epidemic. The Department of Health required more accommodation for patients and erected six more buildings on the island. The existing quarantine buildings in the centre of the island were turned into a hospital and kitchens (McGill, 2001, p. 42). Eventually the need for a facility to care for the sick waned, just in time for the Second World War and the next batch of internees. It wasn't until around 1945 that the last of the internees was set free.

In 1959-1960 the Department of Agriculture began work on transforming the buildings on Matiu/Somes Island into an animal quarantine, adding four houses and quarters for singles (McGill, 2001, p. 132). After the first decade the popularity and use of the buildings began to fall and the public began to demand use of the island. Many wanted to use the island as a chance to get out of the city for the day, and a few Māori wanted to use the island as a form of incarceration for Māori offenders. Eventually in 1995 the animal quarantine was officially closed down and the care of the island was taken over by the Department of Conservation. It has since become a home for endangered creatures such as the tuatara, giant weta and multiple species of birds. The public have been granted access to the island on the condition that nothing is taken onto it that could endanger the current habitat.

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in Wellington and the inhabitants of the island at the time protested to having Lee near them, he was placed on Mokopuna Island, located just off the north coast of Matiu/Somes Island. Lee was given basic furniture and supplies and the lighthouse keeper delivered his food by rowboat or flying fox if the weather proved too rough. Unfortunately Lee died shortly after arriving on the island and was buried in an unmarked grave; it is still not known whether the cause was leprosy or something else. Consequently, Mokopuna Island is also known as Leper Island

15   Leaving the lights on or having pigeons on their roof gained sceptical glances that they were trying to pass messages to each other as stated by McGill (2001, p. 43-47)

Figure 79.
Unknown. (1971). The maximum security animal quarantine station on Matiu/Somes Island shortly after completion in 1971. [Photograph].
Retrieved from http://www.doc.govt.nz/conservation/historic/by-region/wellington-kapiti/wellington/matiu-somes-island/animal-quarantine-station/photo-gallery/.
Accessed 26/01/2013.

4.2 The Site vs. Typography

The location of architecture of incarceration towards rehabilitation on an island may be seen as controversial - its isolation from society could be debated. However, it is proposed here that the surrounding water acts as a cleansing tool to island arrivals, thus completing a vital first step in the process of Te Pikinga o tōku Tuakiri.

Futhermore, Māori Affairs minister Pita Sharples admitted in a 2010 interview that he had always anticipated that MFUs would be built outside the boundaries of prisons (Akuhata, 2010). He went on to explain that the new Te Whare Oranga Ake unit, located in the Spring Hill Corrections Facility in Waikato would be one step closer to what he had originally envisaged. It is located within the prison boundary, but outside of the security fencing of the main prison facilities. The design of a MFU located on Matiu/Somes Island takes the facility outside site boundaries of a typical prison and allows for complete independence. Although the site is geographically isolated, the projected design makes no suggestion of creating artificial barricades and ferry access to the island is to remain in place.

This research proposes to adapt the animal quarantine building that presently resides on the island and incorporate aspects of the historical architecture, namely the prison/quarantine barracks that had been built in the same location. The site holds significance as it has a strong link to both Māori history and a history of incarceration. It was also the first point of contact within Wellington that the Māori and the Pākehā identified with when they arrived in the region. In its time, Matiu/Somes Island has been home to two different pa (fortified Māori villages); Te Moana-a-kura was located at the northern tip of the island overlooking Mokopuna Island and Haowhenua, the original site is thought to be underneath the quarantine building that resides today (Walton & Richard, Unknown).

Next page:
Figure 80.
Existing structures scattered throughout Matiu/Somes Island.
Image by Author, 2012.
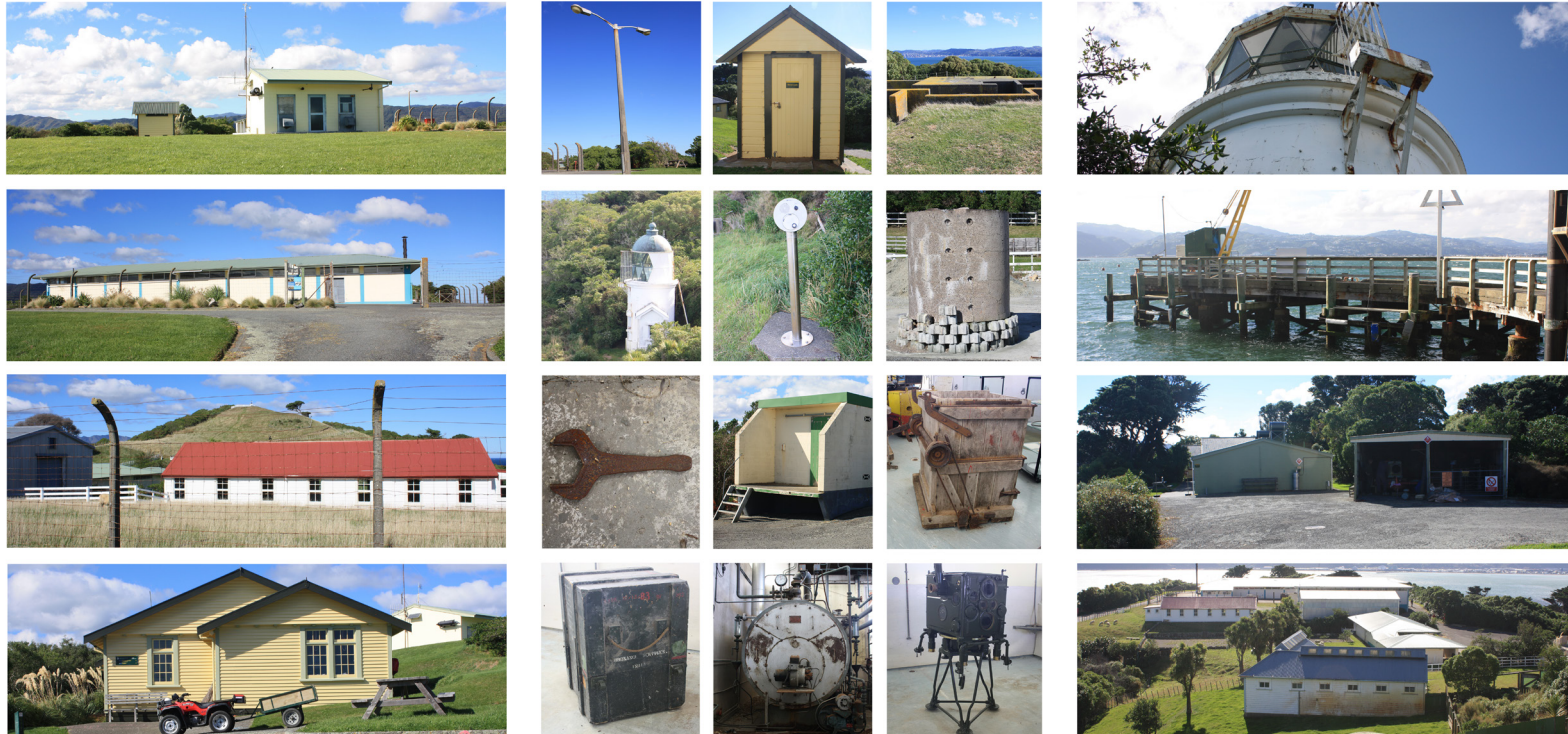
Chapter Five: Developed Design

5.1 Main Design Themes

Statistics New Zealand estimates that in 2012 the population of Māori living in New Zealand was roughly 682,200. This works out to be around 15% of the total New Zealand populace, a definite minority when given the facts, and yet Māori make up over 52% of the country's prison population.

There are currently five Māori Focus Units throughout the country[16] and all are located within prison boundaries and of non-descript design. Although the elements being taught within the Units are important in the rehabilitation and education process of inmates, this thesis suggests that the consideration of Māori Tikanga, architecture and narratives when building MFUs is equally important.

Brown (1999, p. 22-23) explains that disagreements can arise when designing architecture for multiple tribes due to conflicting tribal beliefs. She suggests that naming a building after a base ancestor or a belief that brings the inhabitants together is a solution to creating equal ground without causing offense. Gifting the architecture with a name not only adds to the occupant's idea of who they are and their origins but allows the building to be seen as an entity.

In this project, it is proposed that Te Pikinga o tōku Tuakiri (The Ascent of Self-Identity) is named after the function of the island; a place of rehabilitation and learning in order to gain a sense of identity and a place within society. This suggests that the land that the architecture is built on should also be considered, that the essence of the building cannot be contained to a singular structure but should instead encompass multiple and the surrounding elements.

Matiu/Somes Island is held in guardianship by Te Atiawa. It is anticipated that Te Atiawa would take over the care of the island on behalf of the Department of Conservation; this would give participants of the Māori Focus Unit regular contact with the tribe and its elders and allow them to take part in looking after the land and the creatures inhabiting it.

Therefore members of Te Atiawa would play a lead role in the success of Te Pikinga o tōku Tuakiri, their support and willingness to take part in the programme would not only provide them with a continuous source of income but would show prisoners that a community outside of prison boundaries is ready to support them.

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16   Hawkes Bay, Waikeria, Tongariro/Rangipo, Rimutaka and Whanganui
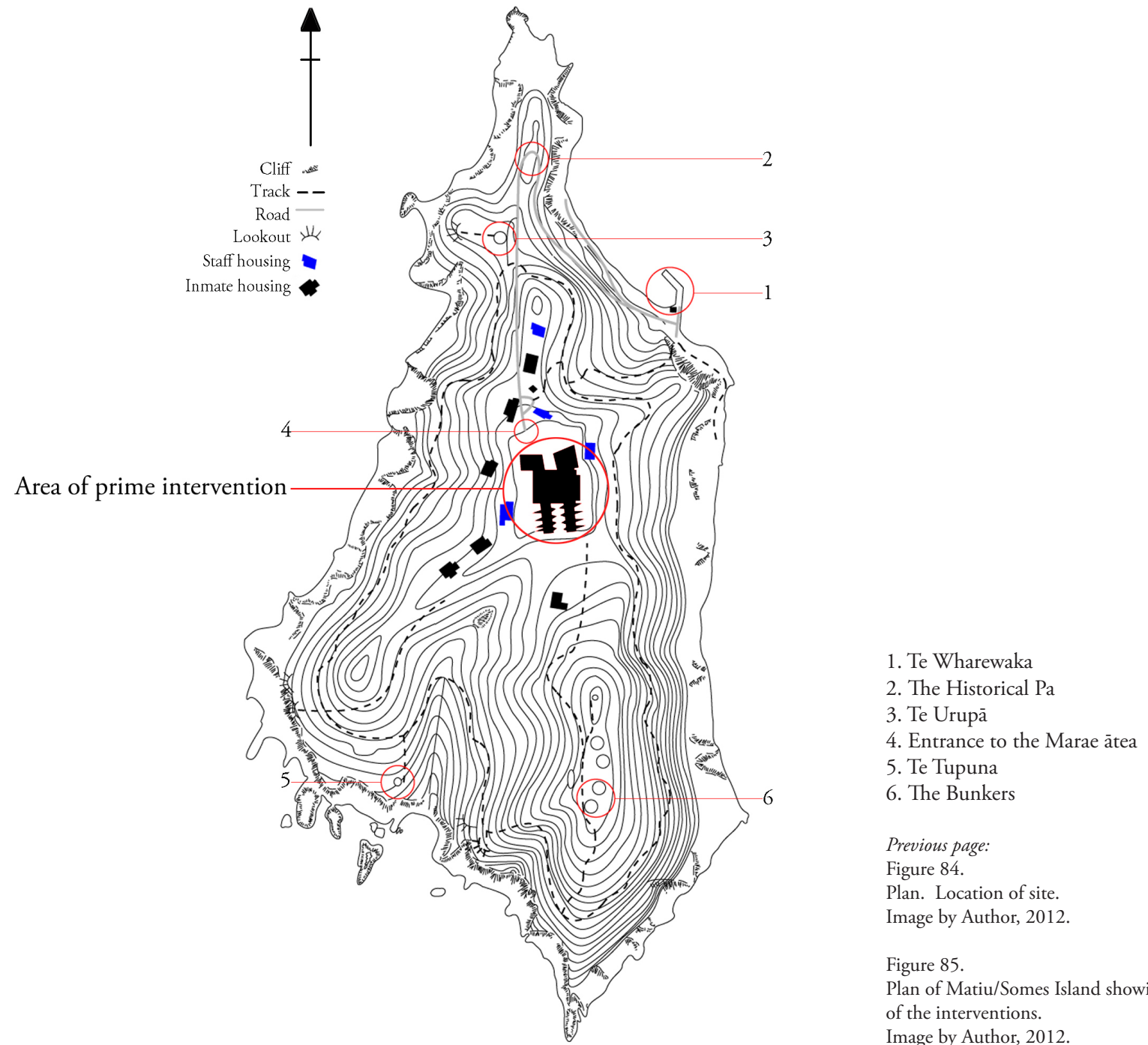
5.2 A New Beginning

A 20 minute ferry ride from Wellington city, Matiu/Somes Island is situated in the centre of the harbour. While it is geographically isolated, the island offers a panoramic vista of Mirimar peninsular and Wellington City around the bay to Eastbourne and Days Bay. Therefore the location lowers stress levels caused by the idea isolation (see "The Thresholds", p. 32).

The ferry across to the island also plays a vital role in the rehabilitation process. Interestingly, Metge (2004) explains that tapu can be lifted from things through washing or the scattering of water. Often when two tribes come together water is used as a cleansing tool in order for them to stand as equals without clashing. Thus the ferry across the harbour is significant as it acts as the equalizer to those arriving.

5.3 Past, Present and Future

McKay (2004, p. 8) clarifies the notion of Māori time as being a constant presence; the past (mua also meaning in front) is always acknowledged and seen in the present, the future (muri also meaning behind) is not visible. An understanding of the Māori concept of time dictates that the inhabitants of the island be aware of the island's history.

Connecting the presence of the main design to the shore to acknowledge past events or rituals, a series of small interventions have been foreseen throughout the island. These small interventions are located in areas such as the cemetary, the lighthouse and the bunkers and are described in the following pages.

Cliff
Track
Road
Lookout
Staff housing
Inmate housing

2
3
1
4
Area of prime intervention
5
6

1. Te Wharewaka
2. The Historical Pa
3. Te Urupā
4. Entrance to the Marae ātea
5. Te Tupuna
6. The Bunkers

Previous page:
Figure 84.
Plan. Location of site.
Image by Author, 2012.

Figure 85.
Plan of Matiu/Somes Island showing the order
of the interventions.
Image by Author, 2012.

1. **Te Wharewaka (the waka house)**

Te Wharewaka is the architectural threshold between land and sea, providing the first point of contact with the island. Crossing the water can be seen as an act of purifying the boat occupants, allowing them to step onto the land as equals regardless of tribe, religion or belief. The envisaged architectural intervention sits reasonably low to the earth to support the concept of being grounded, binding both elements together through materiality and reinforcing the concept of unity as the initial island experience.

2. **The Historical Pa**

The architecture of the original pa no longer exists, however the site and the alterations made to the landscape are still visible in some places and should be acknowledged not only due to its strong links to Māori culture but because the pa was also most likely used as a refuge in war, a safe haven. The concept behind this space is to recognise the historical habitation without being overwhelming; tall vertical components give a sense of power and awe and still allow a clear view of the land and act as a place marker for the past.
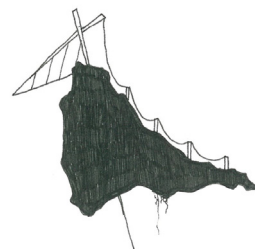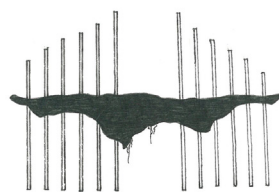
Figures 86-88.
Te wharewaka.
Images by Author, 2012.
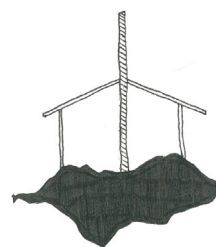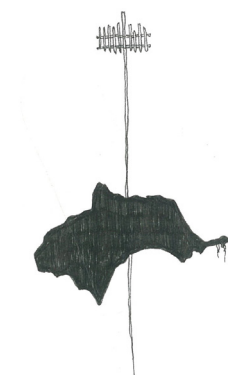
Figures 89-91.
The historical pa.
Images by Author, 2012.

3. Te Urupā (the cemetery)

Te Urupā also acknowledges the past; the numerous foreigners that passed away while on the island as the Europeans first began to settle in the area. This is a tapu area, a place of reflection and peace. This installation is simple and should reinforce the Māori narrative of death; the departing souls travel to a tree on the edge of a sea-side cliff, moving down its roots before dropping into the sea to make their way to Hawaiki (ancient homeland).

4. Entrance to the Marae ātea (the wharenui courtyard)

This installation signals the entrance to the marae ātea and acts as a space for manuhiri (visitors) to gather before entering a tapu area at the beginning of the pōwhiri. McClintock et al. (2012, p. 96-97) suggests that the pōwhiri process can aid in mental health by establishing positive relationships and respect for others through the different stages of the welcoming process. The design of the intervention revolves around the concept of materials and shapes coming together to produce something more beautiful.
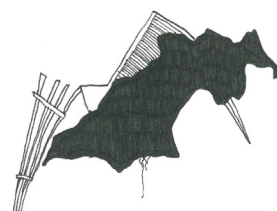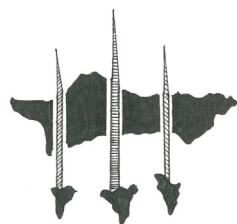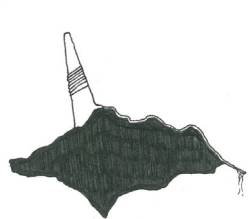
Figures 92-94.
Te urupā.
Images by Author, 2012.
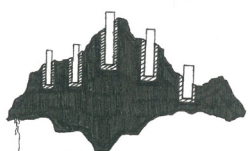
Figures 95-97.
Entrance to the marae proper.
Images by Author, 2012.

5. **Te Tupuna (the ancestor)**

A tall and lonely figure standing on the edge of the island, the lighthouse has acted as a guardian to boat weary visitors for years, guiding them past him to the mainland. A tragic tale similar in emotion to Māori narratives; here the ancestor is held in place by the land, always watching but never interacting. The Māori narrative of Maui discovering fire/light in a cave deep within the earth.

6. **The Bunkers**

The bunker site rests one of the highest points of the island and creates a suitable location for the last intervention. The poutama pattern (see "Secondary Design Themes", p. 129-135) shows steps that a warrior must take to collect the three baskets of knowledge that are vital to humankind, this area becomes a platform for the inhabitants to look out over the water and view the mainland, specifically those who have successfully completed their time on the island and are ready to fully integrate back into society.
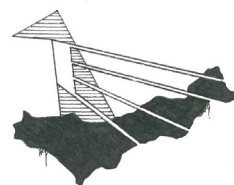
Figures 98-100.
Te tupuna.
Image by Author, 2012.
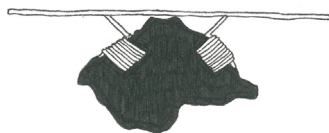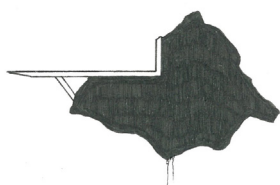
Figures 101-103.
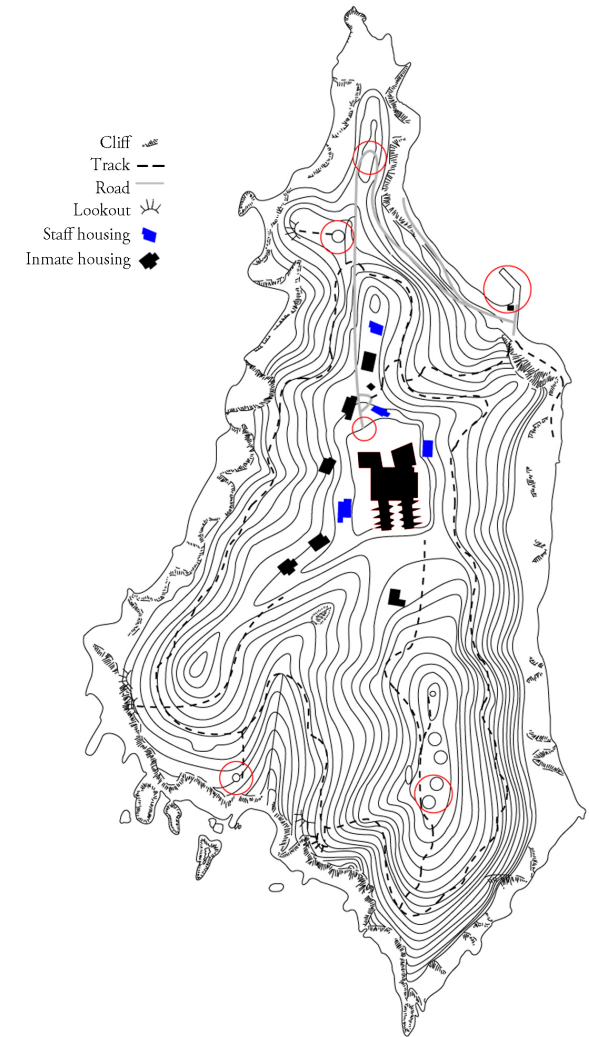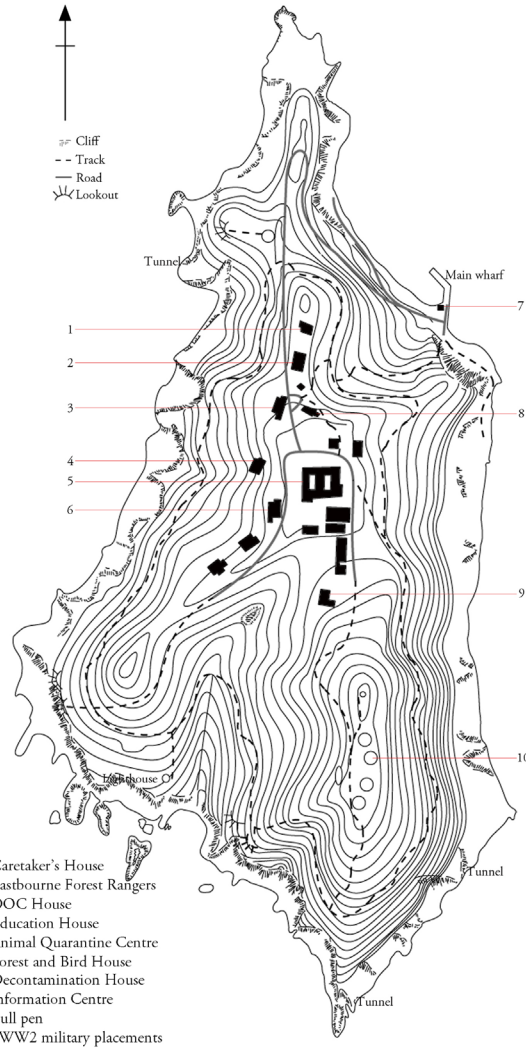The bunkers.
Image by Author, 2012.

The importance of acknowledging history is further shown through the layout of the main intervention; the outline of the historical prison barracks overlays the animal quarantine. The new design has been built within these confines.
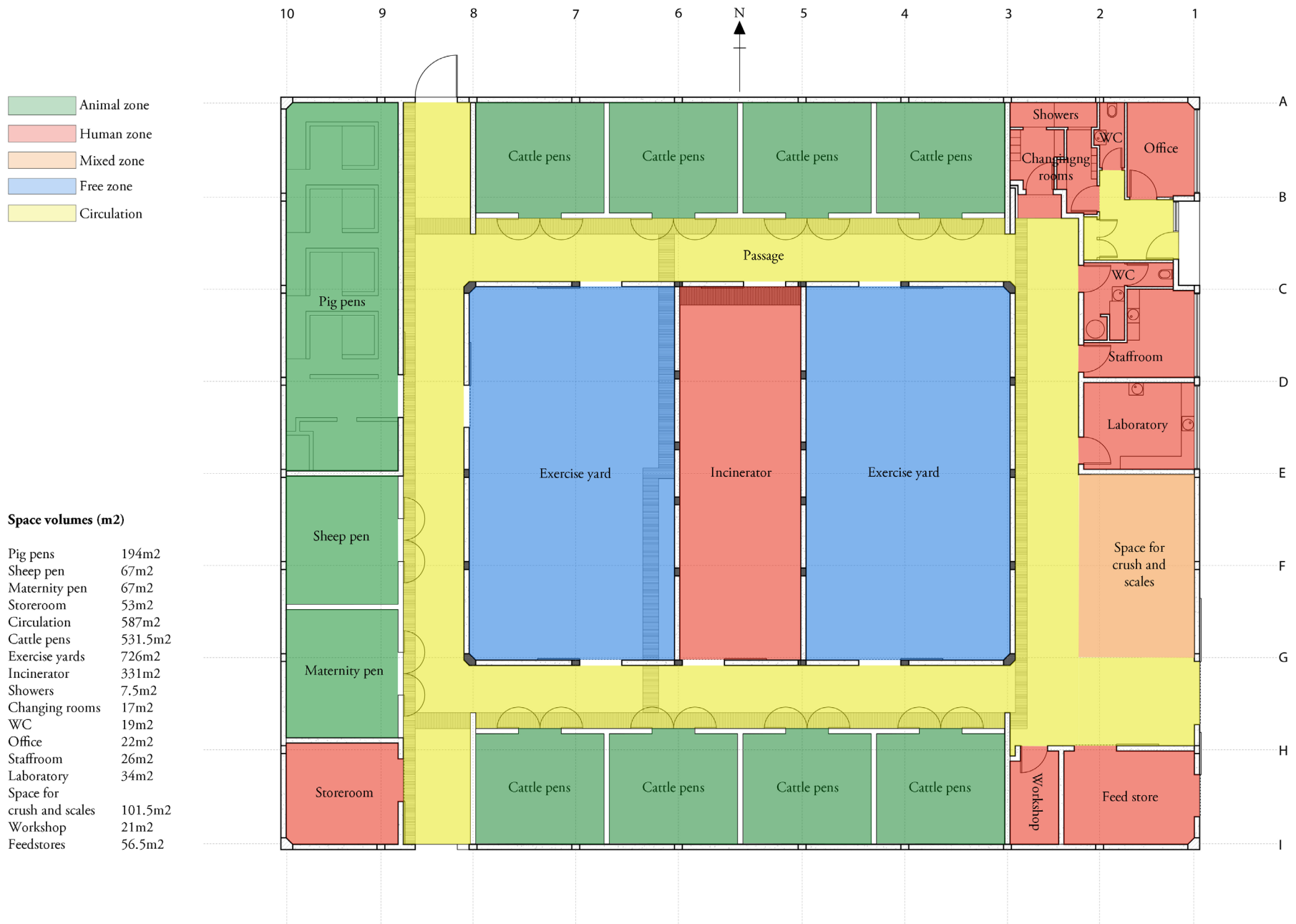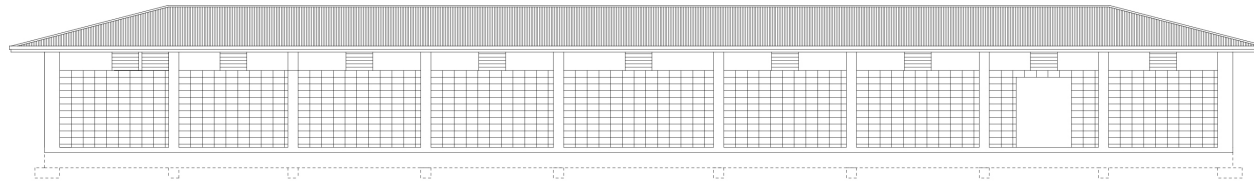
5.4 Primary Generators

The design has been developed in two folds: Primary generators and secondary themes. The primary design generators are the narrative of creation, acknowledgement of the past, and the consideration of tapu and noa visited earlier in text.

The secondary design themes include a detailed study of tukutuku patterns, materiality and constructability.
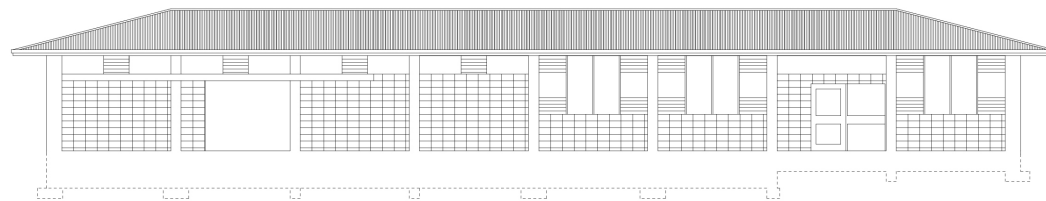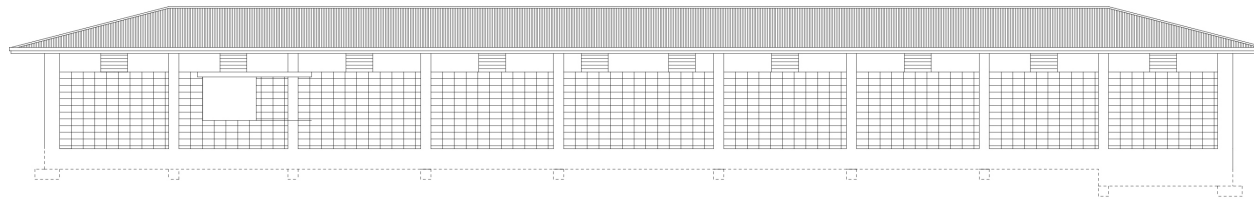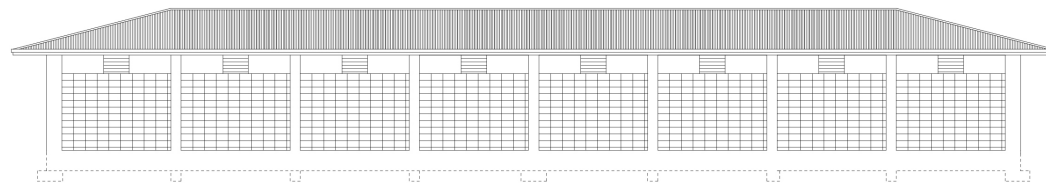
Topography of Somes Island

Legend (left map):
- Cliff
- Road or path

Labels (left map): Tennis Courts, Tunnel, Tunnel, Tunnel, Lighthouse

Legend (centre map):
- Cliff
- Track
- Road
- Lookout

Labels (centre map): Tunnel, Main wharf, Lighthouse, Tunnel, Tunnel

1 - Caretaker's House
2 - Eastbourne Forest Rangers
3 - DOC House
4 - Education House
5 - Animal Quarantine Centre
6 - Forest and Bird House
7 - Decontamination House
8 - Information Centre
9 - Bull pen
10 - WW2 military placements

Legend (right map):
- Cliff
- Track
- Road
- Lookout
- Staff housing
- Inmate housing

Animal zone
Human zone
Mixed zone
Free zone
Circulation

Space volumes (m2)

Pig pens	194m2
Sheep pen	67m2
Maternity pen	67m2
Storeroom	53m2
Circulation	587m2
Cattle pens	531.5m2
Exercise yards	726m2
Incinerator	331m2
Showers	7.5m2
Changing rooms	17m2
WC	19m2
Office	22m2
Staffroom	26m2
Laboratory	34m2
Space for crush and scales	101.5m2
Workshop	21m2
Feedstores	56.5m2

Pig pens

Sheep pen

Maternity pen

Storeroom

Cattle pens
Cattle pens
Cattle pens
Cattle pens

Passage

Exercise yard
Incinerator
Exercise yard

Showers
Changing rooms
WC
Office

WC
Staffroom

Laboratory

Space for crush and scales

Cattle pens
Cattle pens
Cattle pens
Cattle pens

Workshop
Feed store

North

East

South

West

Opposite page:
Figure 107.
Circulation plan of Animal Quarantine.
Image by Author, 2012.

Figure 108.
Elevations of Animal Quarantine.
Image by Author, 2012.

5.5 Early Conceptual Design.

First conceptual design based within the architectural enve-
lope of the existing animal quarantine. Footprints in plan
began to explore where the historical architecture intersect-
ed with the current architecture.

Early forms took on the narrative of creation, creating ver-
tical movements and forms of protection. However, the
concept needed to be further ingrained into the history of
the site. Plans of the historical architecture were then over-
layed.

Figure 109.
Plan, early conceptual design.
Image by Author, 2012.

Opposite page, top:
Figure 110.
Intervention section, early conceptual design.
Image by Author, 2012.

Opposite page, bottom left:
Figure 111.
Bedroom section, early conceptual design.
Image by Author, 2012.
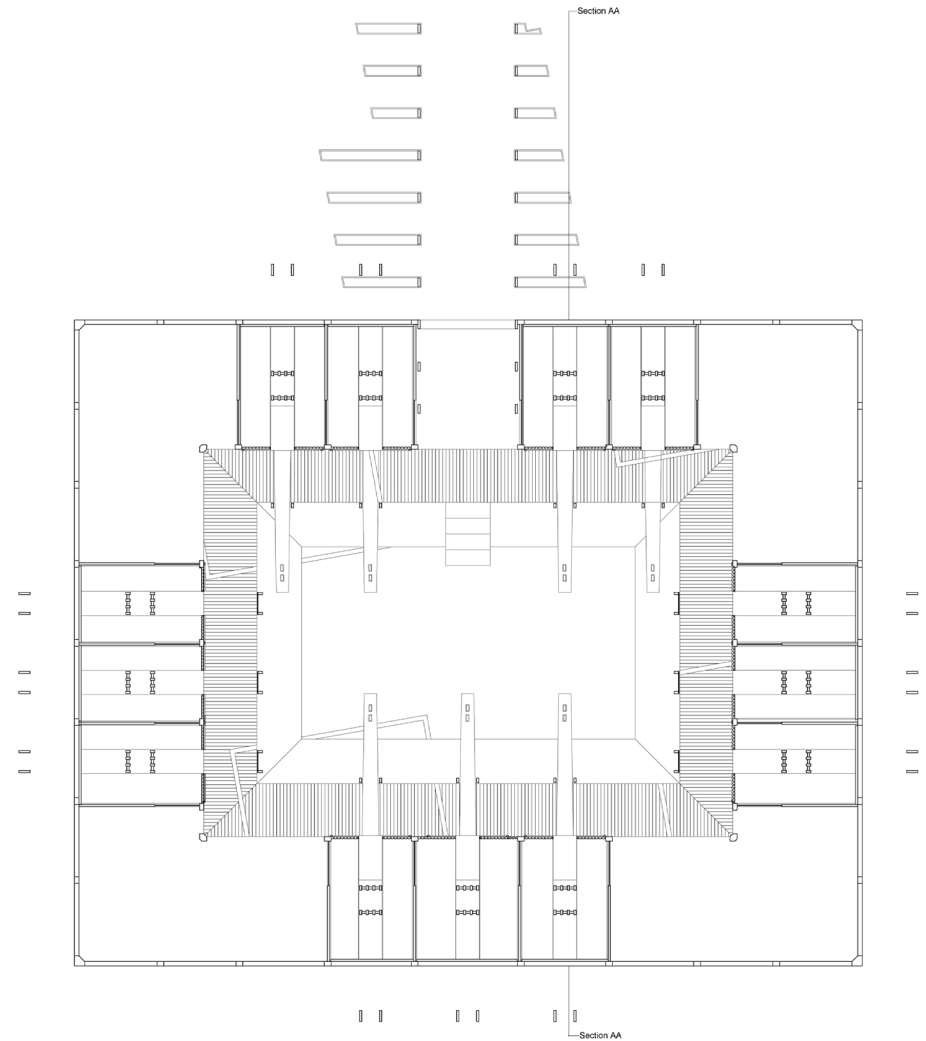
Opposite page, bottom right:
Figure 111.
Bedrooms perspective, early conceptual design.
Image by Author, 2012.
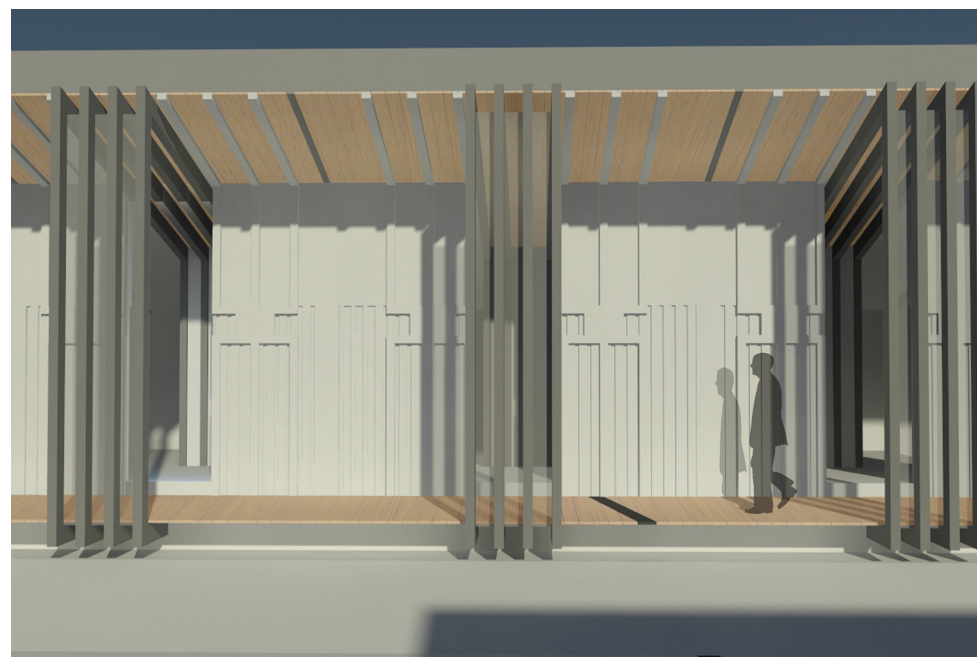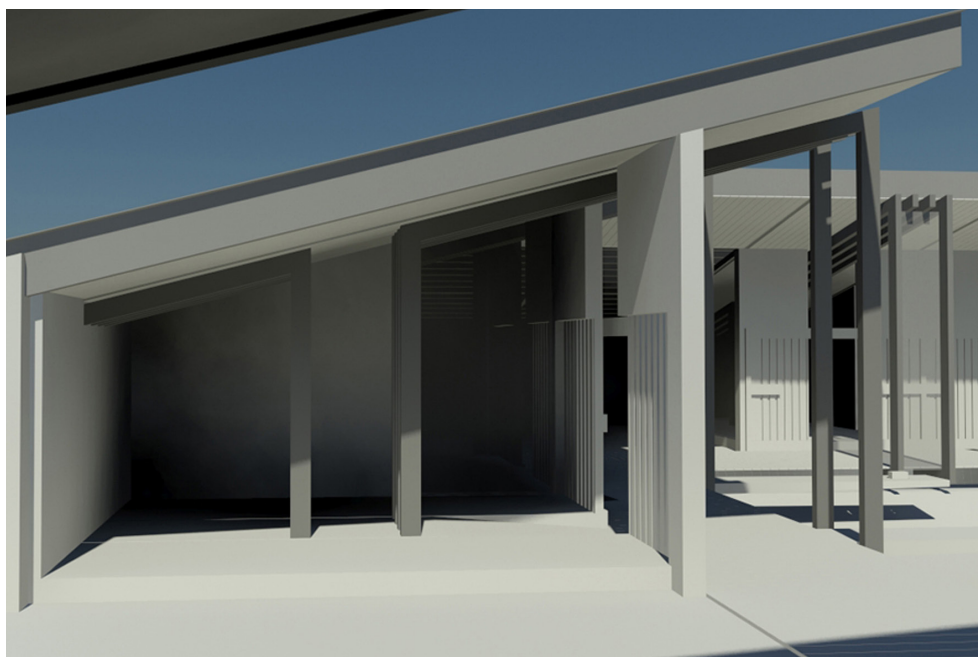
Figure 113.
Main entry perspective. A marked journey towards the architectural intervention..
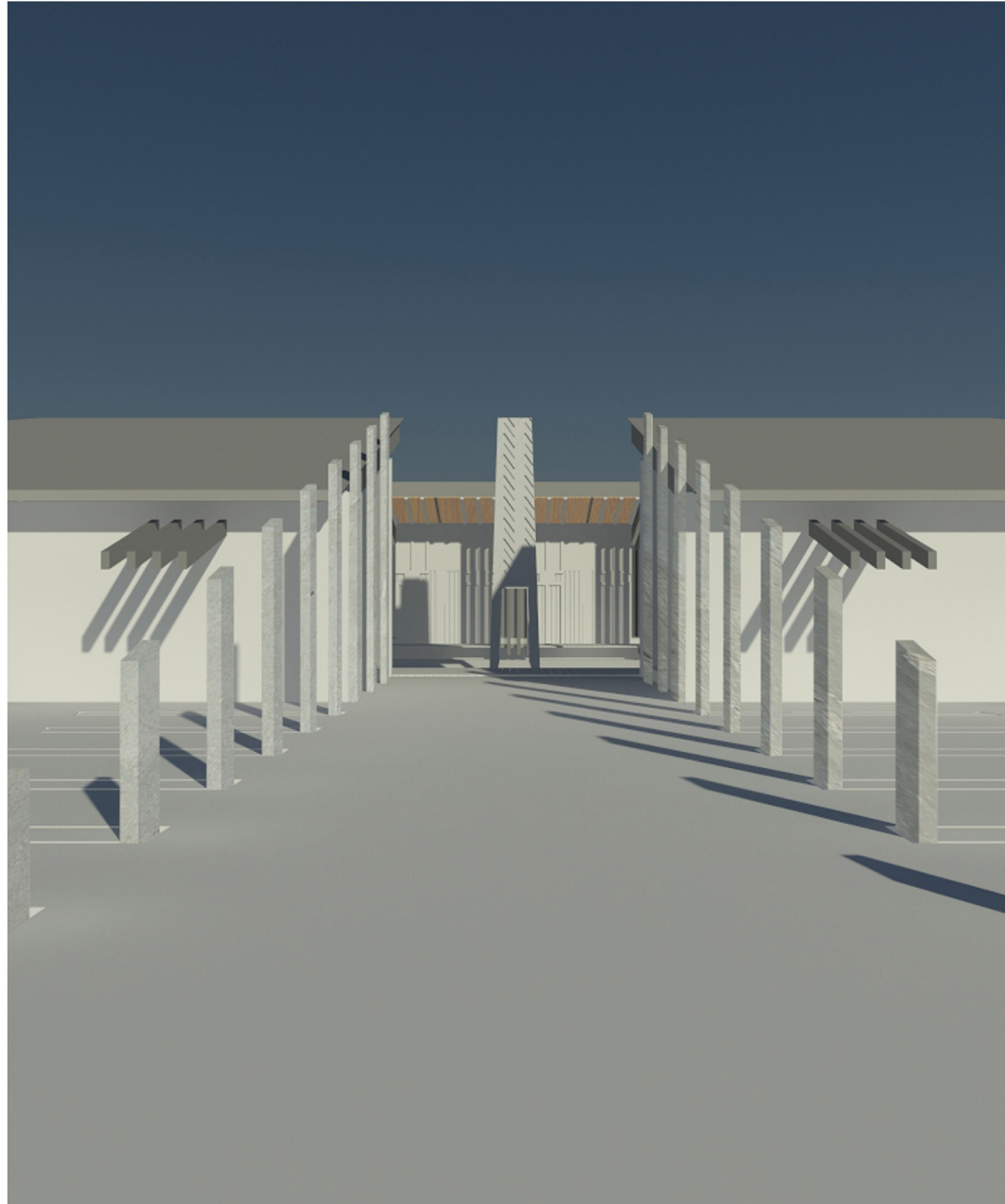Image by Author, 2012.

Opposite page, left:
Figure 114.
Plan of historical architecture.
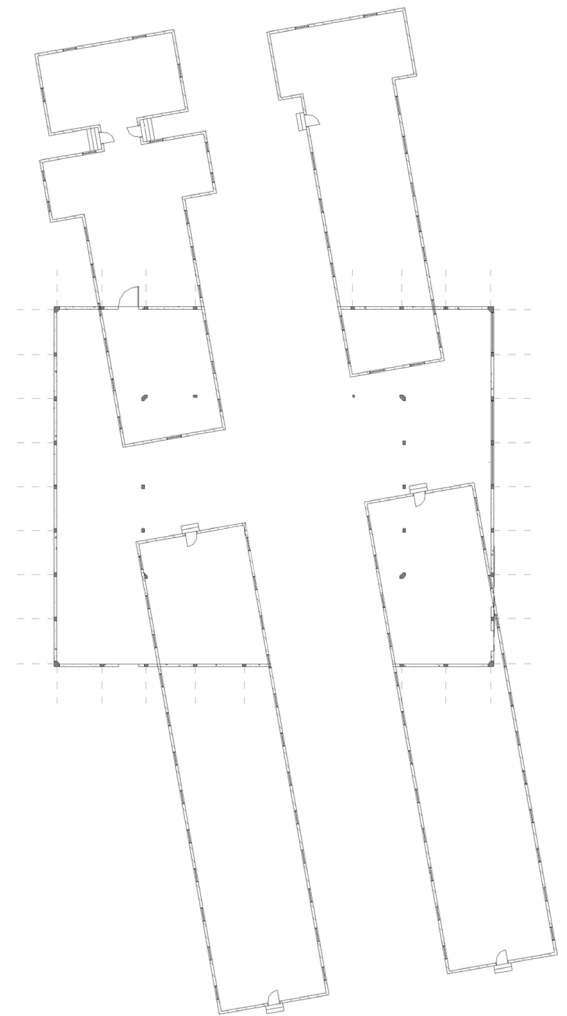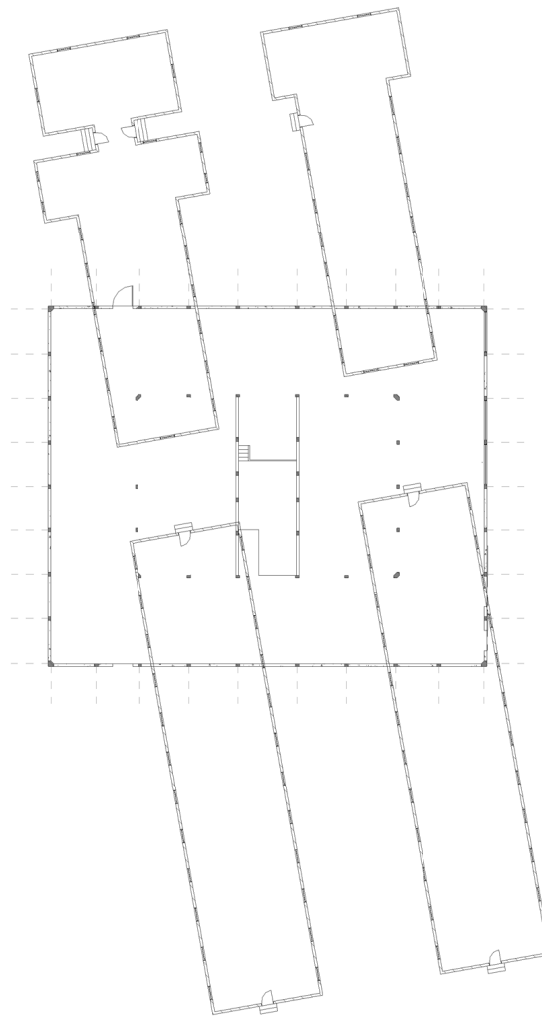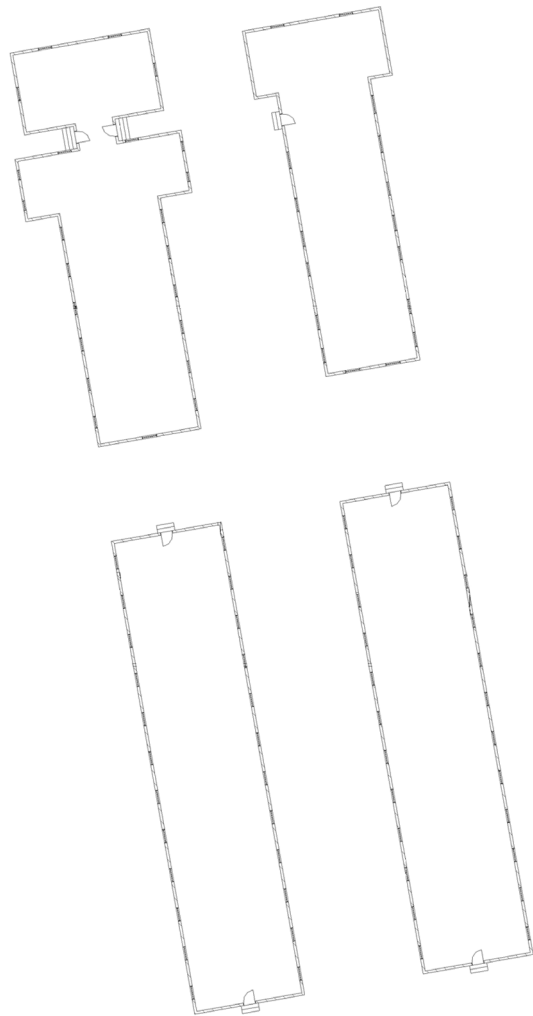Image by Author, 2012.

Opposite page, centre:
Figure 115.
Plan of animal quarantine, overlay of historical architecture.
Image by Author, 2012.

Opposite page, right:
Figure 116.
Plan of animal quarantine and "ghost" historical architecture, seperation caused by creation narrative.
Image by Author, 2012.

The hisitorical plan overlaying the animal quarantine becomes a footprint, parts of the new intervention are then built within these confines.

Note: No further information about the prison barrack architecture could be found.

5.6 Rangi-nui and Papa-tū-ā-nuku – The Creation of the World

The design of the main architectural intervention itself is based on the narrative of creation, expressing a collective history and thereby linking with the idea of creating individuality and community.

Although there are many interpretations, the basic narrative describes the story of Te Pō (the darkness) wherein Rangi-nui (the sky father) and Papa-tū-ā-nuku (the earth mother) lie wrapped in the arms of one another for many years (Figure 117). After a time their children, who lived trapped between their entwined bodies, grew sick of the oppressiveness. Tane-Mahuta, god of forests and man, pushed their parents apart (Figure 118) and created Te Ao Mārama (the light).

In respect to this the new architecture takes on forms that create the impression of earth lifting away (Figure 119), emphasising the separation of earth and sky and allowing light to penetrate. At both the front and the rear of the facility are individual forms rising from the earth; the wharenui creates the largest gesture at the entrance, with the wharemoe (sleeping houses) at the rear symbolising the strong backs of the children of Rangi and Papa emerging from the darkness. As a place of rest, the sleeping houses act as the gods providing safety for the mortal children. Beyond the wharemoe lie echoes of these forms (p. 128, p. 137); incomplete shells gradually sinking into the rising hill. These symbolise the ephemeral qualities of historical Māori architecture; what rises from the earth eventually returns to the earth.

Separation is also shown in the plan; the entire structure is split down the centre to allow inhabitants to walk through if desired. The two sides are brought back together through the location of the hangi pits; a place to cook food after which it will be consumed, an act that brings people together as proven through the final step of a pōwhiri.
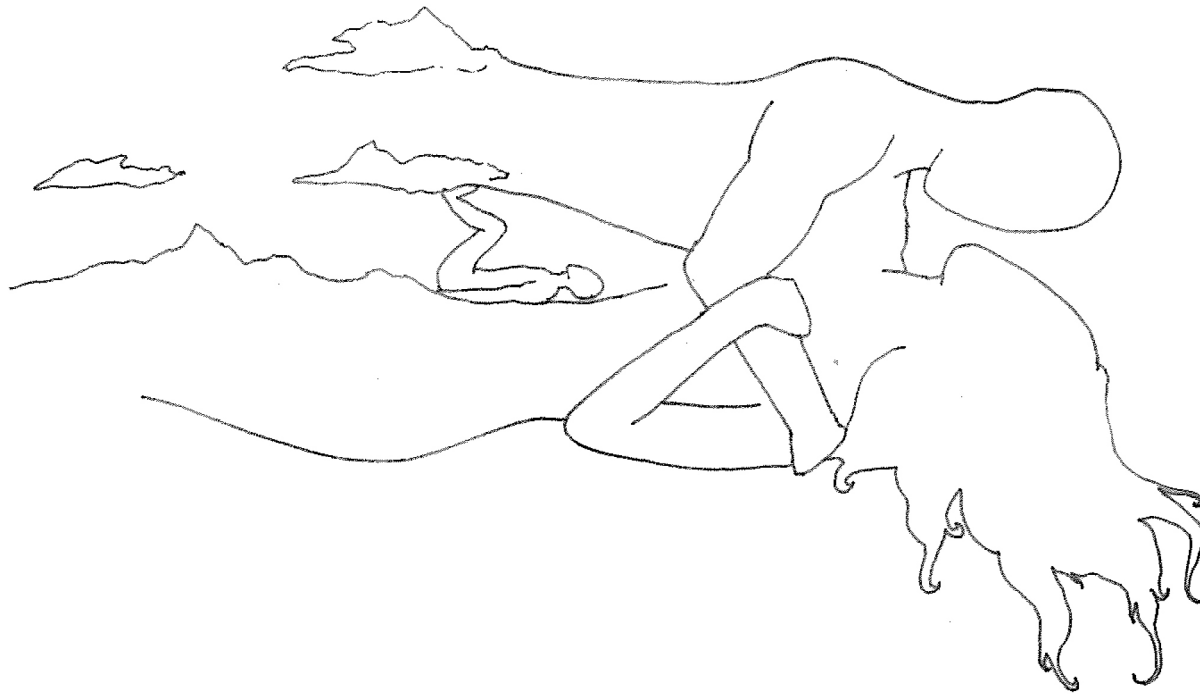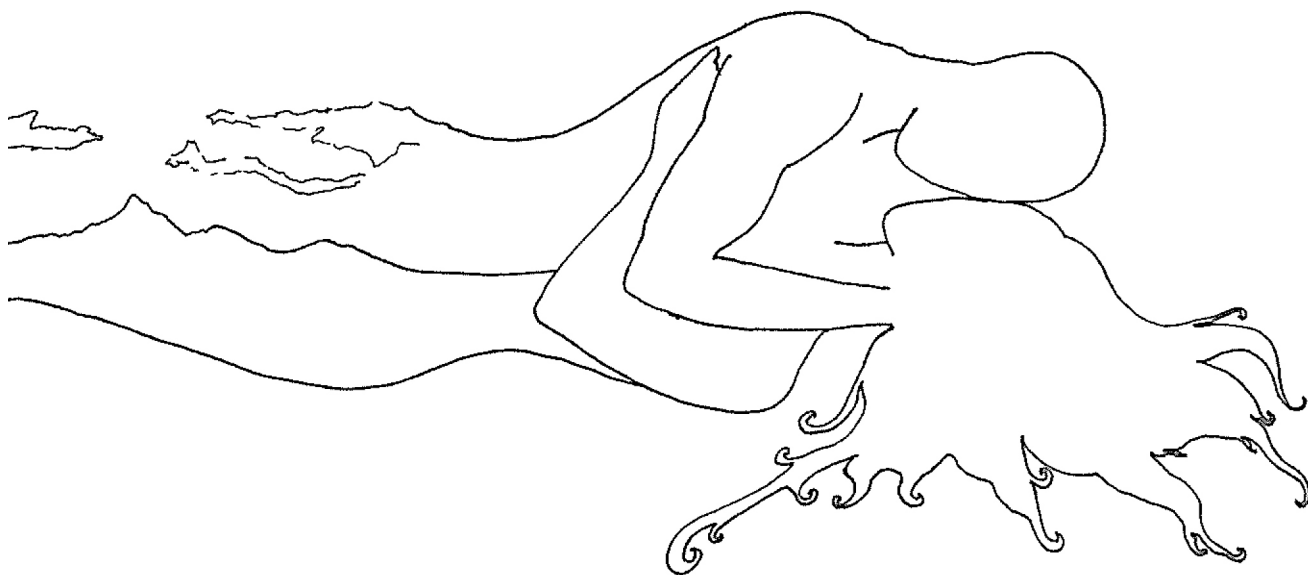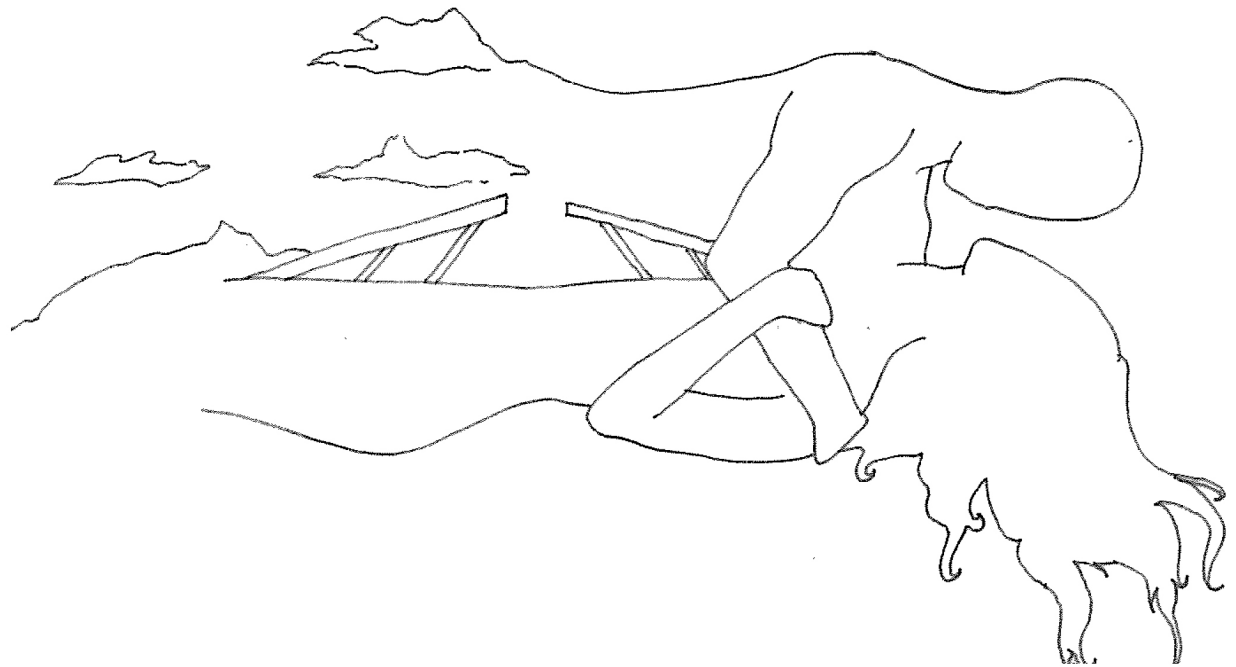
Figure 119.
The architectural intervention, capturing the movement of
separation.
Image by Author, 2013.

5.7 Tapu and noa

The concept of separate buildings for separate needs due to tapu and noa issues is becoming less functional for many reasons. In order to create architecture that still addresses these concerns, the layout of Te Pikinga o tōku Tuakiri has been carefully thought through. This has been assisted by various readings and articles such as Ki te Hau Kainga: New Perspectives on Māori Housing Solutions (Figure 120). In order to experience the building at its potential, tapu and noa factors will be explained as each area is reached.
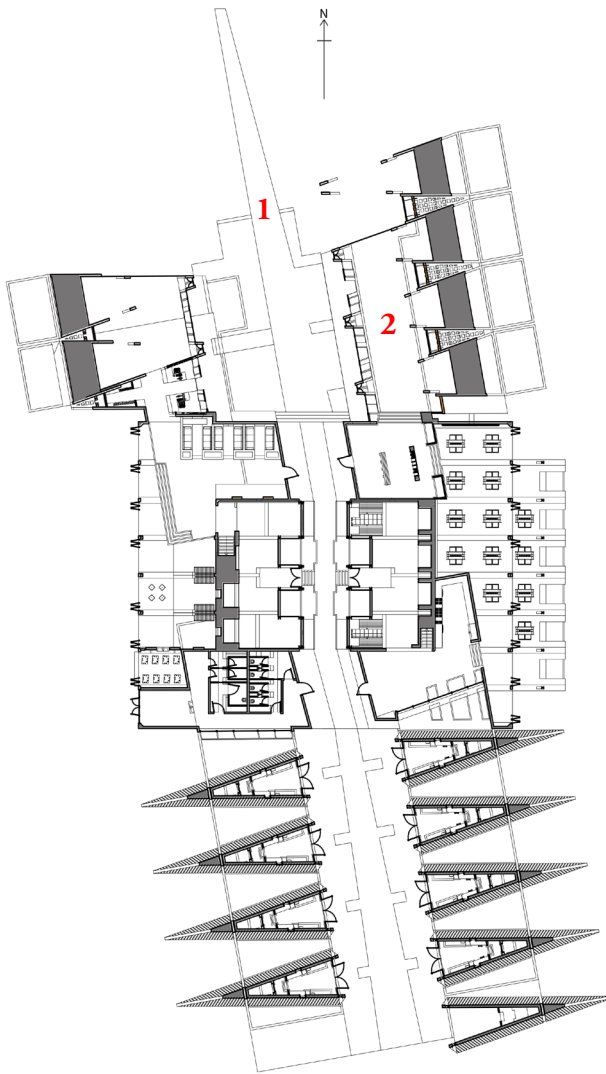
Figure 120.
Table of Tapu and Noa relationships for various spaces in a house.
Image sourced from Ki te Hau Kainga: New Persepctives on Māori Housing Solutions. A Design Guide prepared for Housing New Zealand Corporation.
Acccessed 05/02/2013.

5.8 Marae ātea and the wharenui

McClintock et al. (2012) suggest that the pōwhiri process plays a vital role in the mental health of Māori by beginning the first stage of welcoming through a ritual based on respect and a positive outlook on the relationship between visitors and hosts.

The marae ātea (1 – the open space in front of the wharenui) is therefore important in beginning the course of the pōwhiri. The marae ātea and the wharenui (2 – meeting house) are both highly tapu areas, the pōwhiri is used to navigate and set standards for visitors. It then becomes a space that naturally introduces manuhiri to the main intervention and guides them into the wharenui. This room is used to complete the welcoming ceremony; however the space is also available for education and sleeping large groups of people when needed.

Previous page:
Figure 121.
Plan, location of marae ātea and wharenui.
Image by Author, 2013.

Figure 122.
Main entry perspective. Architectural forms show an upward
thrust caused by narrative.
Image by Author, 2013.

Materiality

As a culture that is deeply connected to the land it seems appropriate that the materials used in the construction of the architecture also reflect a respect for the earth where possible. However, the large majority of the new architecture consists of concrete, a more sustainable and cost-effective material such as uku mix[1] would have been more appropriate, however uku mix is not as strong as concrete in areas prone to earthquakes.

The concrete columns that push the roof of the wharenui skywards create the foundation for green roofs planted with natural grass and carex testacea[2]. The glass roofing is protected by 50mm thick rusted mild steel panels that express purapura whetu (see "Secondary Design Themes", p. 129-135) and also references the ephemeral qualities of the historic wharenui.

Carpeting throughout the entire structure is made from hemp fibre and wool. One of the most hardwearing and durable natural materials, hemp is a fast growing product that does not require fertilizers or other harsh treatments and is naturally resistant to mould. The hollow qualities in the fibre allow hemp to cool down in warm weather and retain heat in the cold. The addition of wool to the carpeting soothes the rough qualities of the hemp to give it a softer feel.
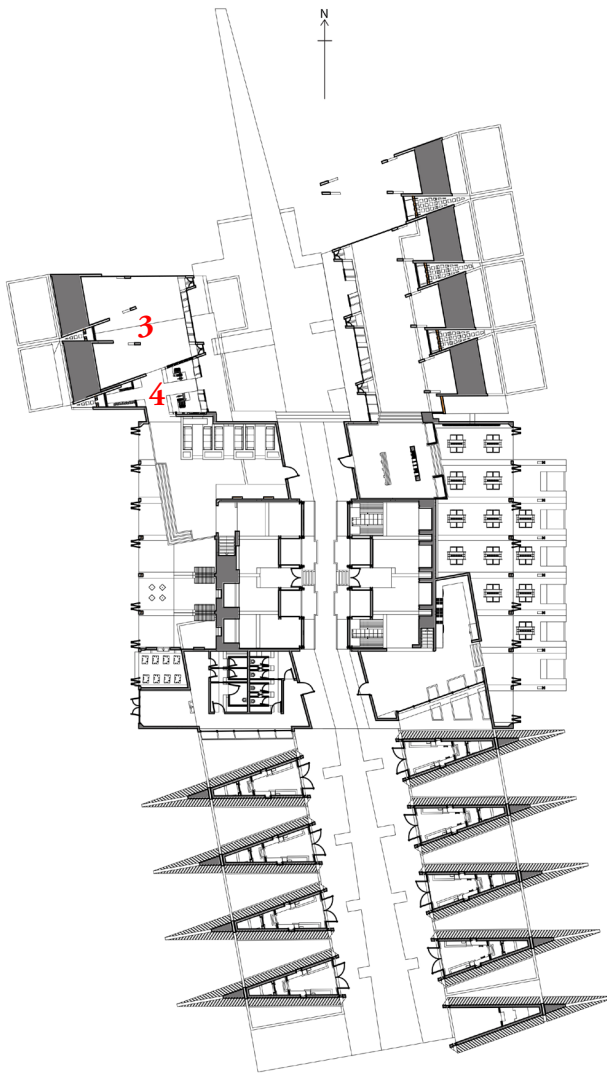
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1   A mixture used for building walls made up of flax fibre, earth and cement

2   A hardy and native New Zealand tussock grass.
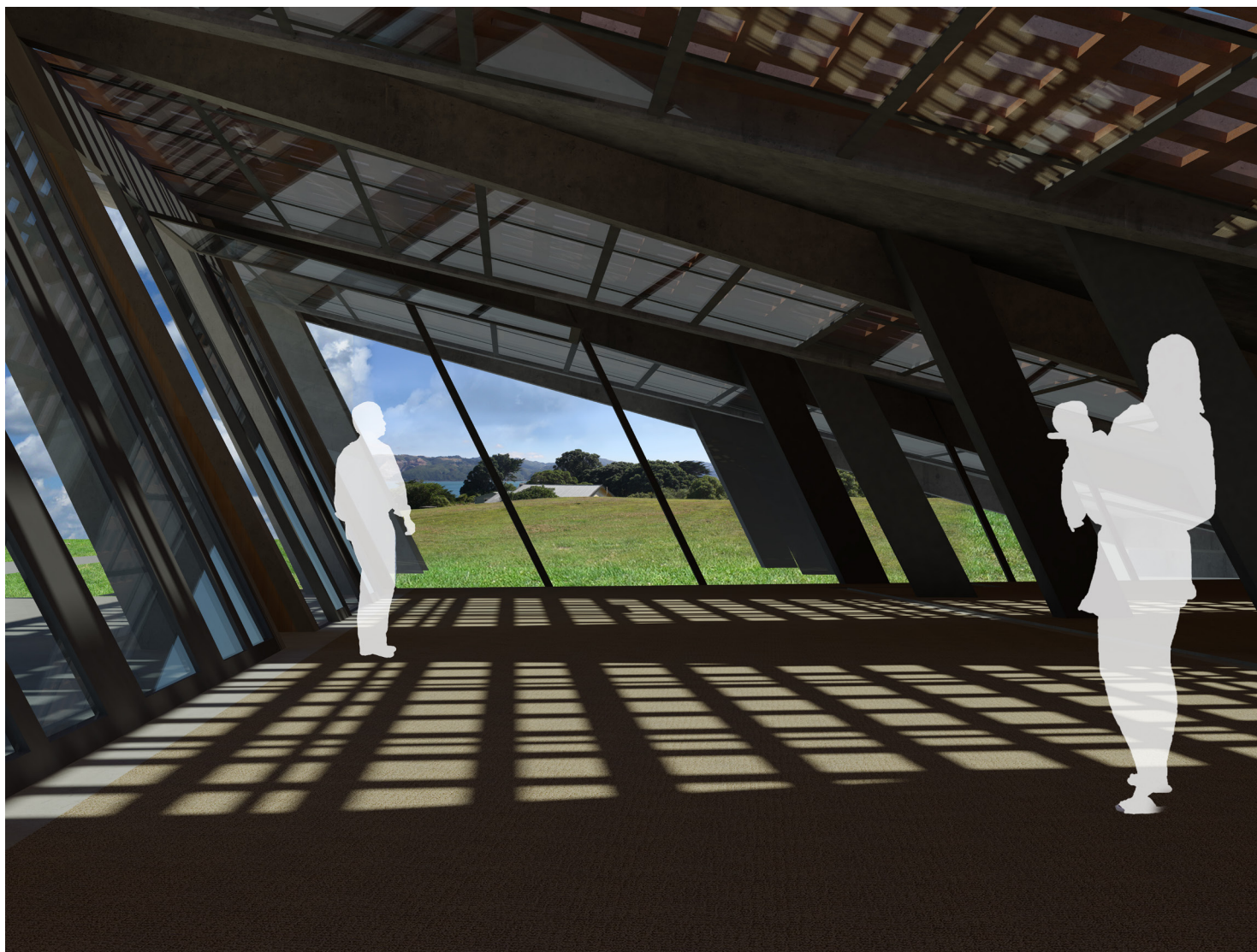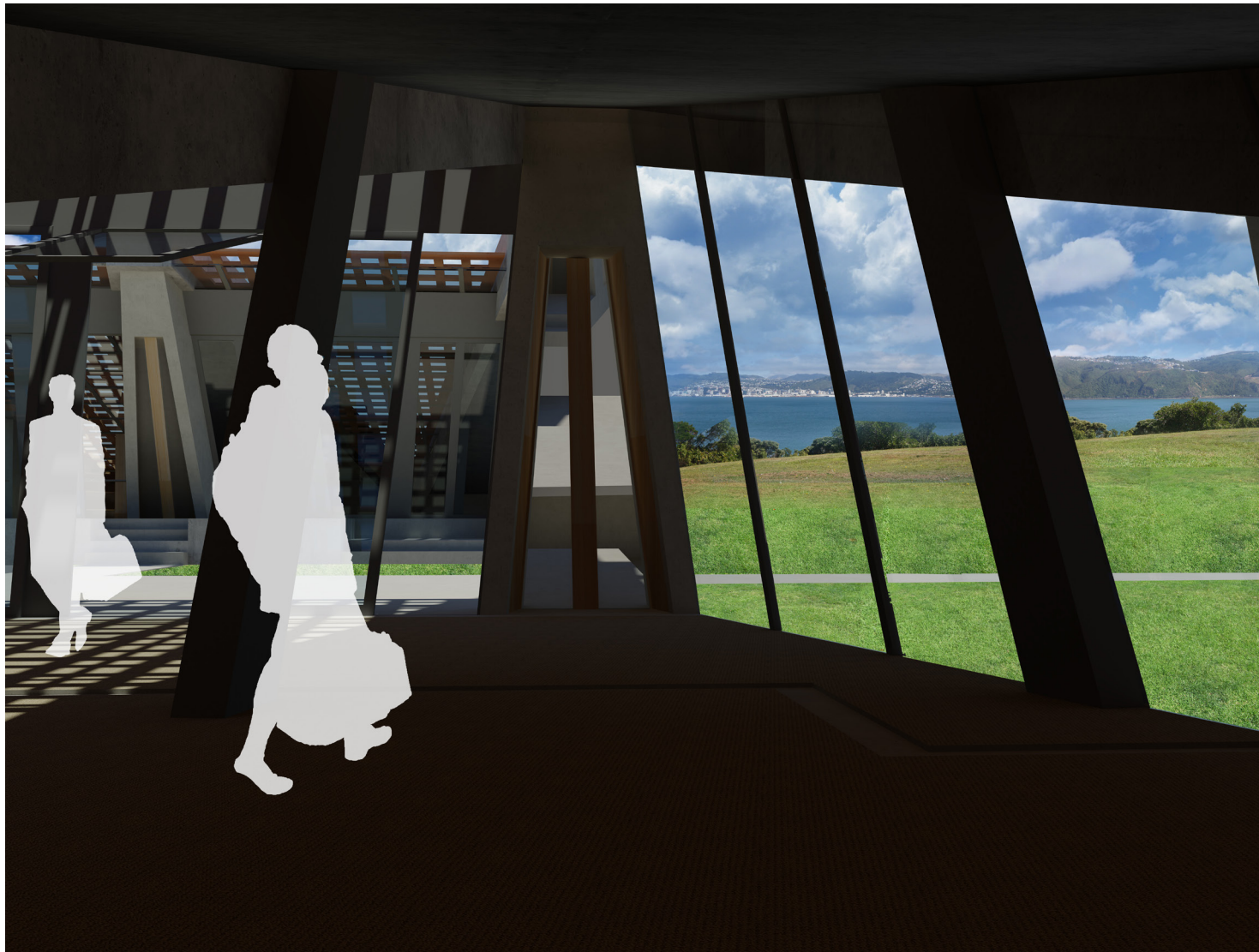
5.9 Taupaepae matua and Recreation Space

Directly opposite the wharenui is the taupaepae matua (3 - office) and recreation space (4). These spaces have been positioned in an area that is easily located, accessible and creates a balance with its tapu counterparts.

Figure 126.
Plan. Location of taupaepae matua and recreation space.
Image by Author, 2013.

Next page:
Figure 127.
Taupaepae matua entry perspective.
Image by Author, 2013.
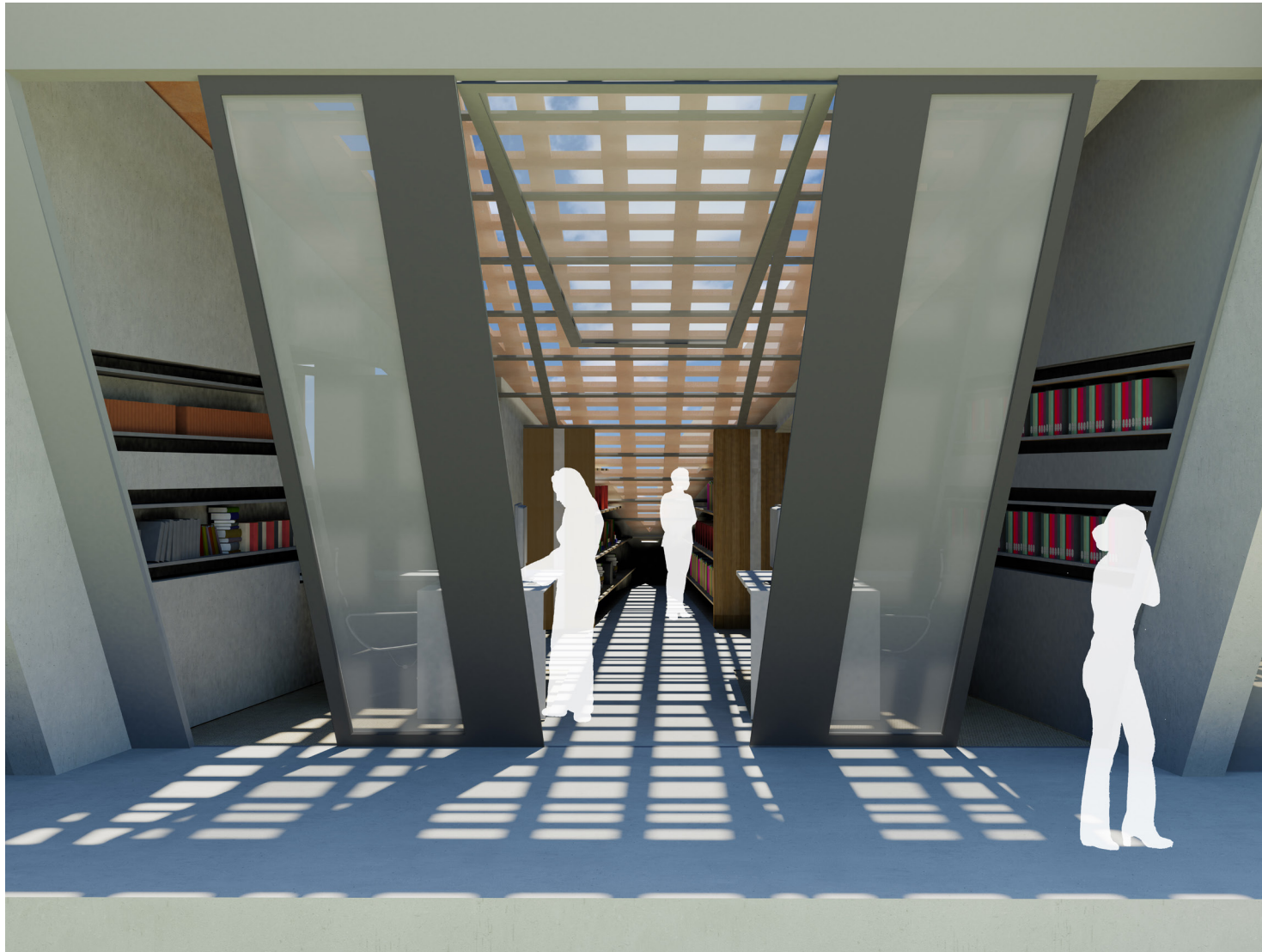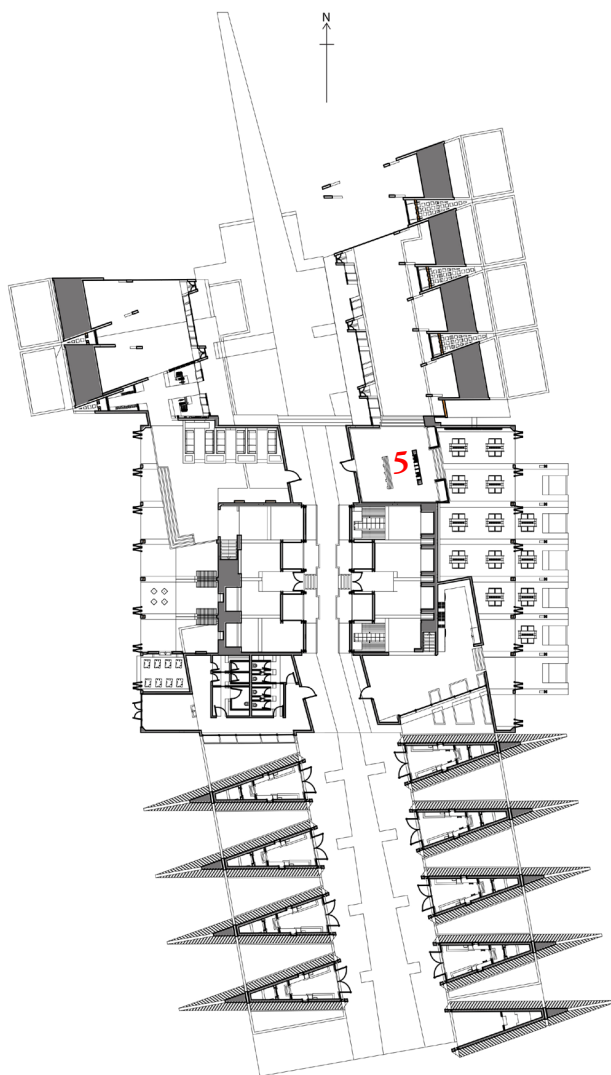
5.10 Putanga Hū

Upon near completion of the pōwhiri, visitors are moved into the wharekai (dining room) and must pass through the putanga hū (5 - shoe storage). Shoes must be taken off when entering the wharenui, and while shoes will be placed outside during the pōwhiri, they can then be moved through a side entrance to the shoe storage for later use.

Traditionally, the wharenui and wharekai (6) were housed in separate buildings. Here, the shoe storage sits elevated between the spaces and creates a threshold for transitioning between rooms. Large shelving units allow for a mattress cache used for visitors, circulation room is used to break up the area.

Figure 128.
Plan. Location of putanga hū.
Image by Author, 2013.

Next page:
Figure 129.
Interior perspective. Putanga hū.
Image by Author, 2013.
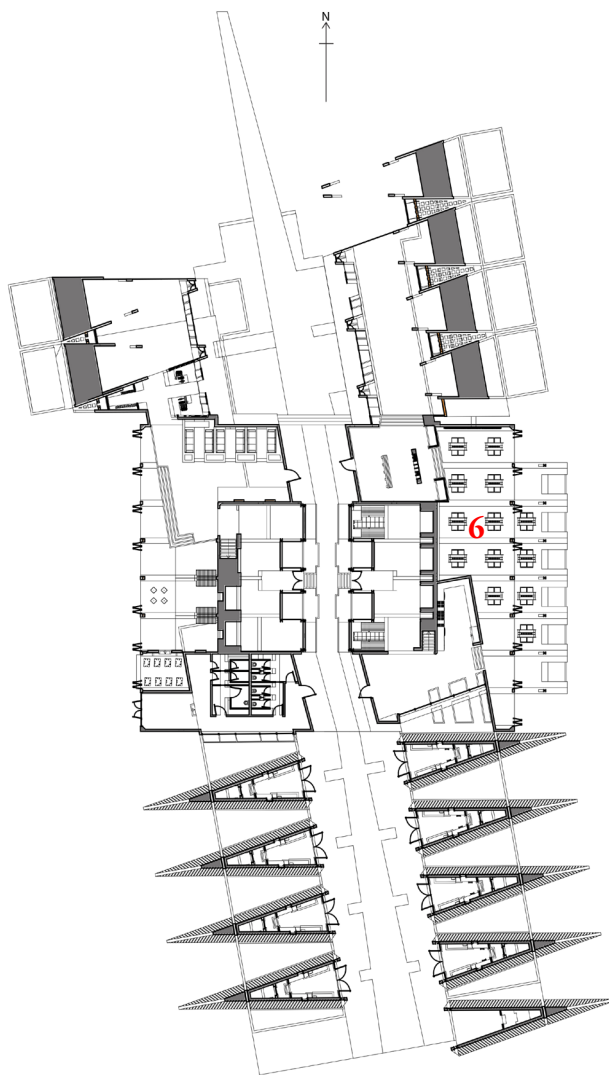
5.11 Wharekai

The hakari (feast) completes the pōwhiri. All participants are then invited into the wharekai where manuhiri and tangata whenua sit down to eat and converse.

The shape of the wharekai is dictated by the overlay of the historical architecture on the animal quarantine. A long space, the dining room is broken up by the perpendicular lay of the timber and concrete flooring. Bi-fold doors and a veranda allow the eating space to stretch out; the essence of the building gently spilling out onto the landscape. The veranda ends in seating pockets that reference the traditional way the Māori ate and where their food came from; the earth.

> He nui maunga e kore e taea te whakaneke, he nui ngaru moana mā te ihu o te waka wāhi.
> *A great mountain cannot be moved, a giant wave can be broken by the canoe's prow* (Figure 134).

Materiality

Native timber is used throughout the entire intervention, moving from a darker tones in the centre to lighter as the material is placed closer to the exterior on the east and west, this links back to the concept of knowledge within the darkness (see Rūma noho and the whare pukapuka, p. 114) and also supports the idea of the intervention opening up to allow the light in.

Varnished timber finishes emphasise the beauty of the timber used, and painted walls boast earthy colours that help to relax and quietly support the other materials used without taking the attention away.

He nui maunga e kore e taea te whakaneke,
he nui ngaru moana mā te ihu o te waka wāhi.

Page 102:
Figure 130.
Plan. Location of wharekai.
Image by Author, 2013.

Page 103, left:
Figure 131.
Wharekai perspective. Looking towards putanga hū.
Image by Author, 2013.

Page 103, right:
Figure 132.
Wharekai verandah perspective. Facing south.
Image by Author, 2013.

Previous page:
Figure 133.
Interior perspective. Wharekai.
Image by Author, 2013.

Figure 134.
Interior perspective. Wharekai. Facing north.
Image by Author, 2013.
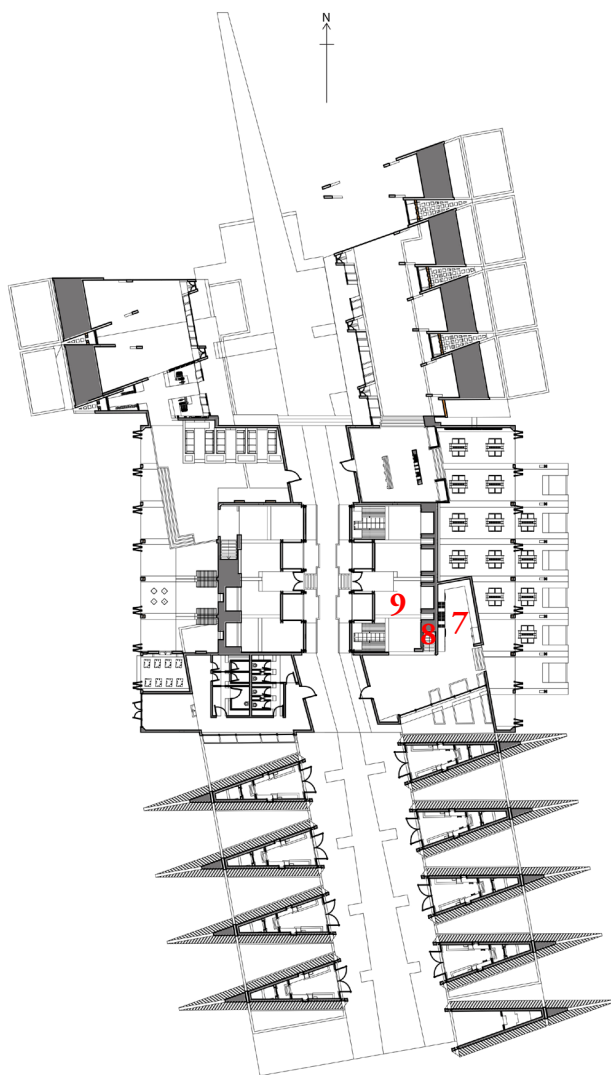
5.12 Pataka and rua

The whareumu (7 - kitchen) is situated directly next to the dining room and also opens up to both the pataka (8 – elevated storage for treasured food) and the rua (9 - earth food storage). As stated on page 106, the timber flooring is slightly darker in the pataka and then progresses to a dark wood covering in the rua that protects the food underneath.
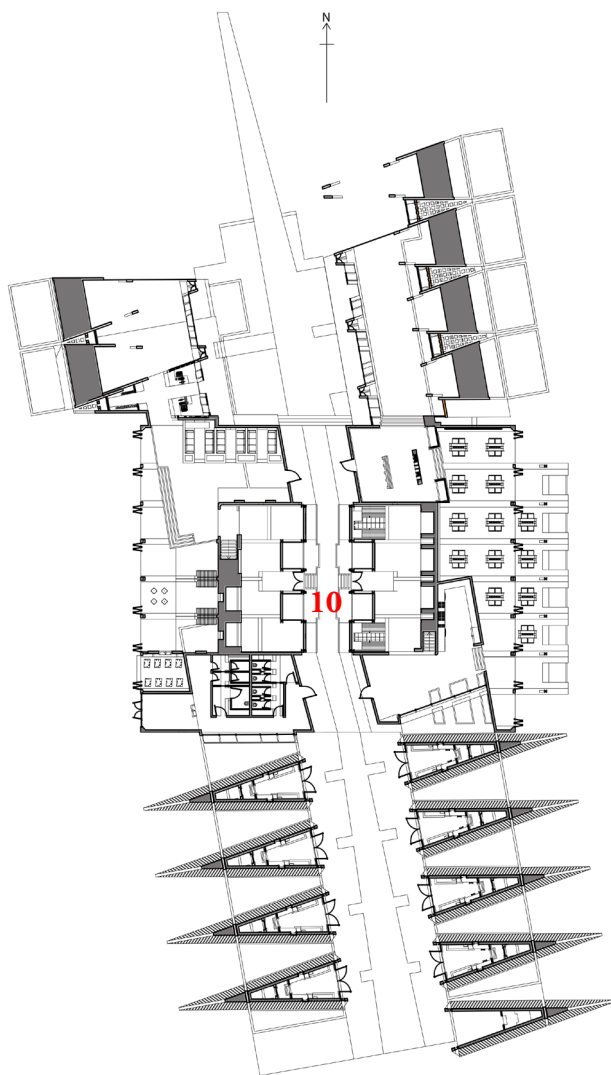
5.13 Hāngī pits

Located in the centre of the building in place of the incinerator are the hāngī pits (10). It is fairly accurate to expect that the historical incineration of animals in this area would cause it to become tapu, therefore it should also be noted that tapu can be lifted from such places through the repetitive consumption of cooked food as cited by Metge (2004). Access to the hāngī pits can be made via ramps located on the north and south of the intervention, and a fire pit for heating stones sits outside but in the general vicinity (11).

The timber wings straddling the hāngī pits are orientated to emphasise the vertical movement shown in other parts of the architecture.
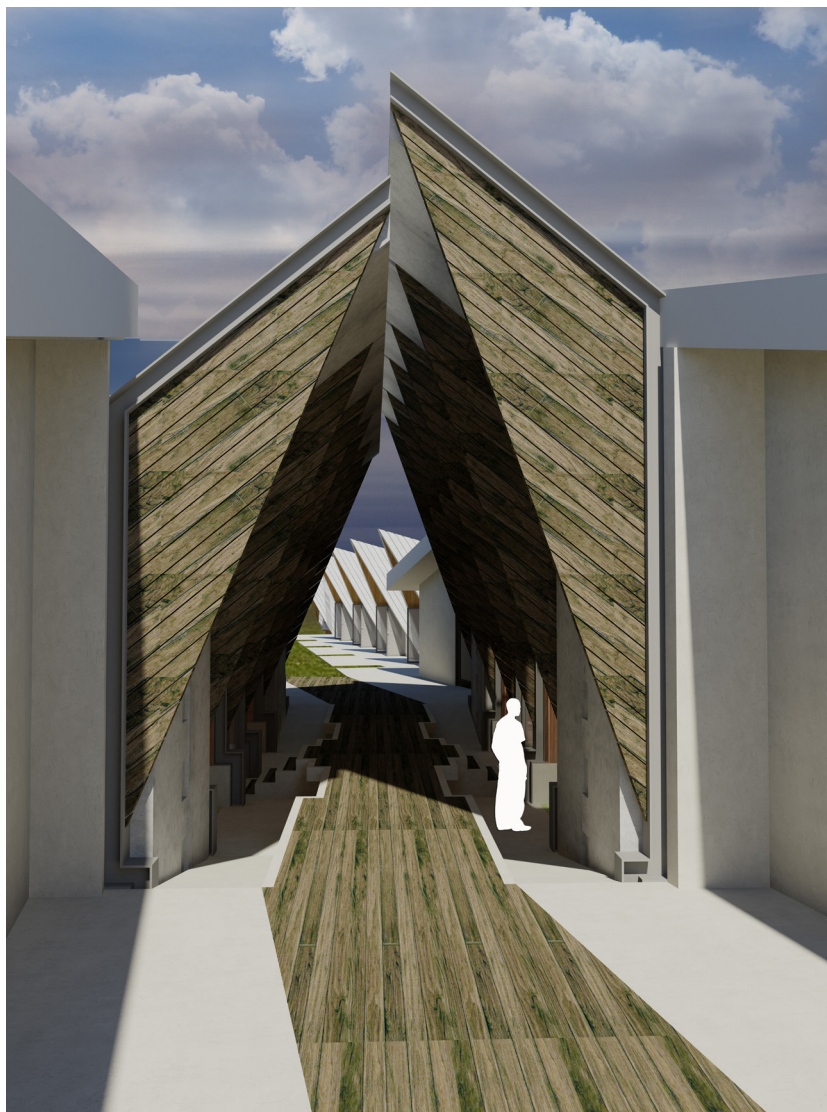
Page 110:
Figure 139.
Plan. Location of hāngī pits.
Image by Author,

Page 111, left:
Figure 140.
Hāngī pit entry perspective. Facing
south.
Image by Author, 2013.

Page 111, right:
Figure 141.
Hāngī pit entry perspective. Facing
north.
Image by Author, 2013.

Figure 142.
Interior perspective. Rua. Hāngī
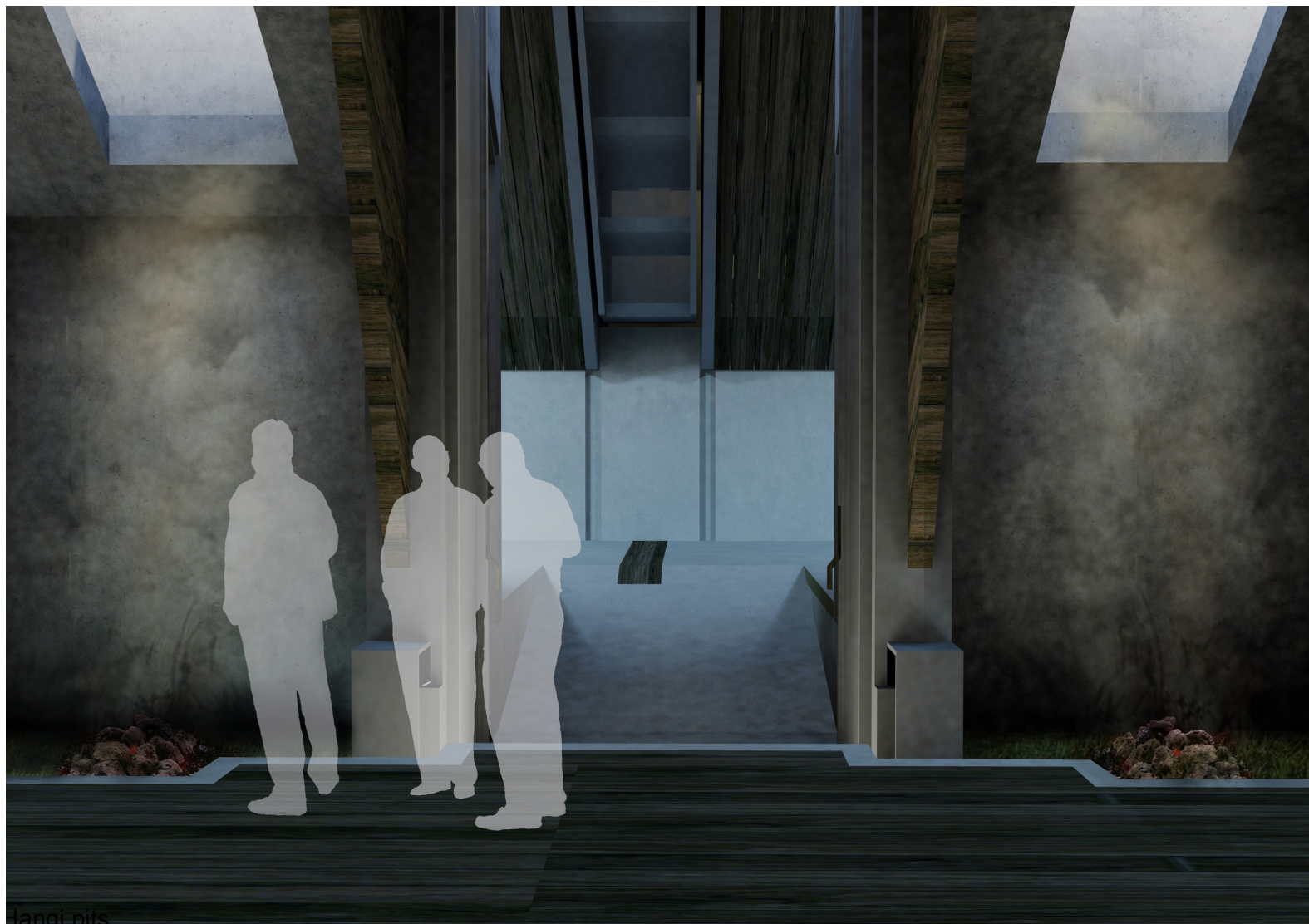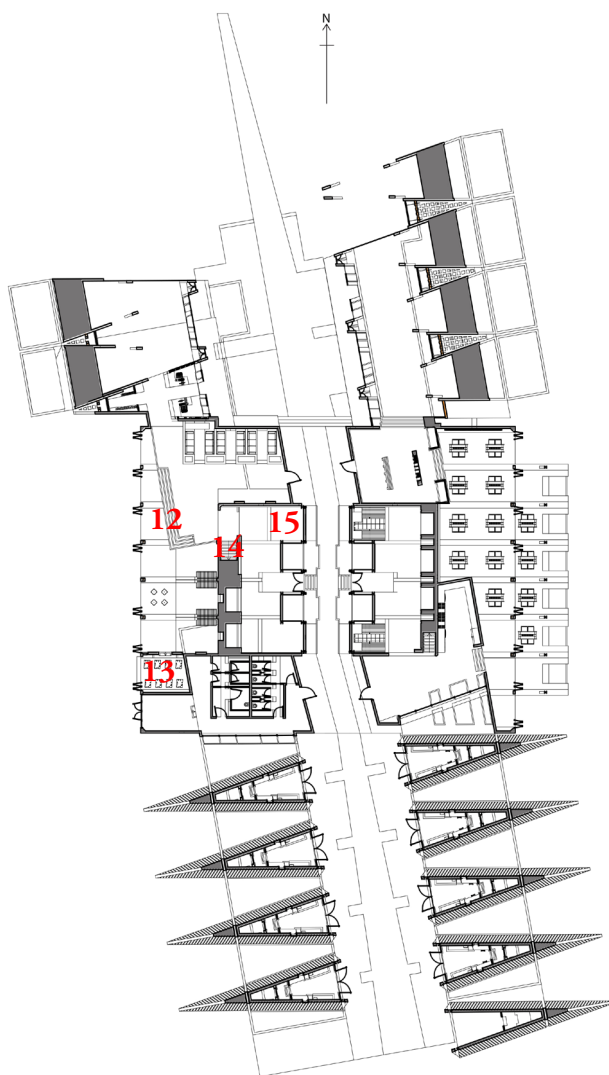pits. Facing pataka and rua.
Image by Author, 2013

hāngi pits

5.14 Rūma noho and the whare pukapuka

Friends, family, staff and other inmates can gather to talk in the rūma noho (12 - lounge). This space gives access to a smaller and more secluded rūma noho (13) used for quiet, reflection and group talks. These rooms are also dictated by the lay of the historical architecture. Footprints of the architecture can be found in the carpet of both the main rūma noho and the wharenui through a change of carpet to concrete inlay.

Three concrete columns etched with an interpretation of waewae paakura or takitoru (see "Secondary Design Themes", p. 129-135) also reference the three baskets of knowledge.

Stanton (2007, p.403) describes that the world began with Te Po (the darkness). This was soon followed by Te Ao (the light), and with the light came knowledge. For this reason, the whare pukapuka (14 – library) and tari (15 – study) spaces seem cloaked in darkness; lighting is provided when the spaces are occupied and allow the inhabitants to find the knowledge they seek.

5.15 Rūma horoi kākahu and the wharepaku

At the back of the building sits the rūma horoi kākahu (16 - laundry) and the wharepaku (17 - bathrooms). One of the largest tapu and noa issues within Māori architecture is the close proximity of the kitchen, dining and lounge areas to laundry and bathrooms as cited by Brown (2009, p.54). For this reason the area has its own entrance, and is separated from neighbouring spaces by a 200mm thick precast concrete wall. French doors in the laundry open up to the exterior rather than the typical timber bi-fold doors that the rest of the north and south walls have; this shows a distinction between spaces. The toilet and shower cubicles are "floating" spaces, with voids between walls and ceiling to emphasise the separation from other spaces.

Figure 151.
Interior perspective. Wharepaku. Showing voids between walls and skylight.
Image by Author, 2013.
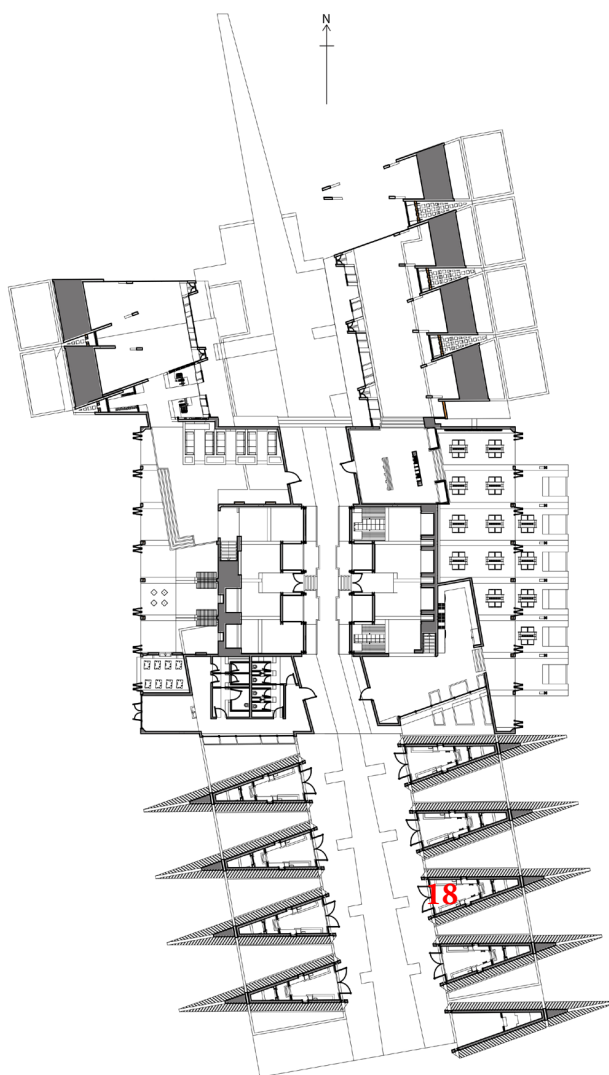
5.16 Wharemoe

Finally, at the rear of the architectural intervention are the wharemoe (18 – sleeping houses). The sleeping houses are built to accommodate two people per structure[3]. The wharemoe have a built-in study, storage and bathroom, Goulding (2007, p. 40) notes that single or double cells are recommended within correctional facilities in order to lower aggression rates, rape and depression. Traditionally guests staying at a marae sleep together in the wharenui and the tangata whenua (people of the land) have houses nearby. Te Pikinga o tōku Tuakiri is a Māori correctional facility, for this reason new participants to the Māori Focus Unit sleep in wharemoe organised as a collective at the back of the facility. Reminiscent of the Courtyard Plan, the layout supports the idea of sleeping as a group like manuhiri in a wharenui, however safety and privacy issues dictate that the structures be individual[4]. As the facility strongly supports rehabilitation, as the inmates work through the Unit they begin a gradual shift further away from this central structure and are placed in houses on other parts of the island. This not only shows the inhabitants that they are trusted and have become tangata whenua, but supports the idea of easing them back into society and giving them independence.

Clear glass windows allow the wharemoe to receive optimum natural lighting, and privacy can be obtained by using roller blinds. The beds sit low to the ground, emphasising a connection to the earth and the height and strength of the structure. The bathroom and sleeping area is seperated by a small storage area to help maintain the tapu and noa balance.

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3   The wharemoe hold a maximum of14 inmates and 3 staff, however it is invisaged that other housing facilities would be available for inmates as they progress in their journey. Staff sleep close at hand for emergency purposes and as a further example that all inhabitants on the island are treated equally

4   When sleeping in a wharenui, the inhabitants sleep with their heads to the walls, feet facing the centre of the room. This arrangement has dictated the sleeping layouts of the wharemoe; although the wharemoe are individual structures, the beds are placed in a way that their heads face the back of the houses and their feet face the door.
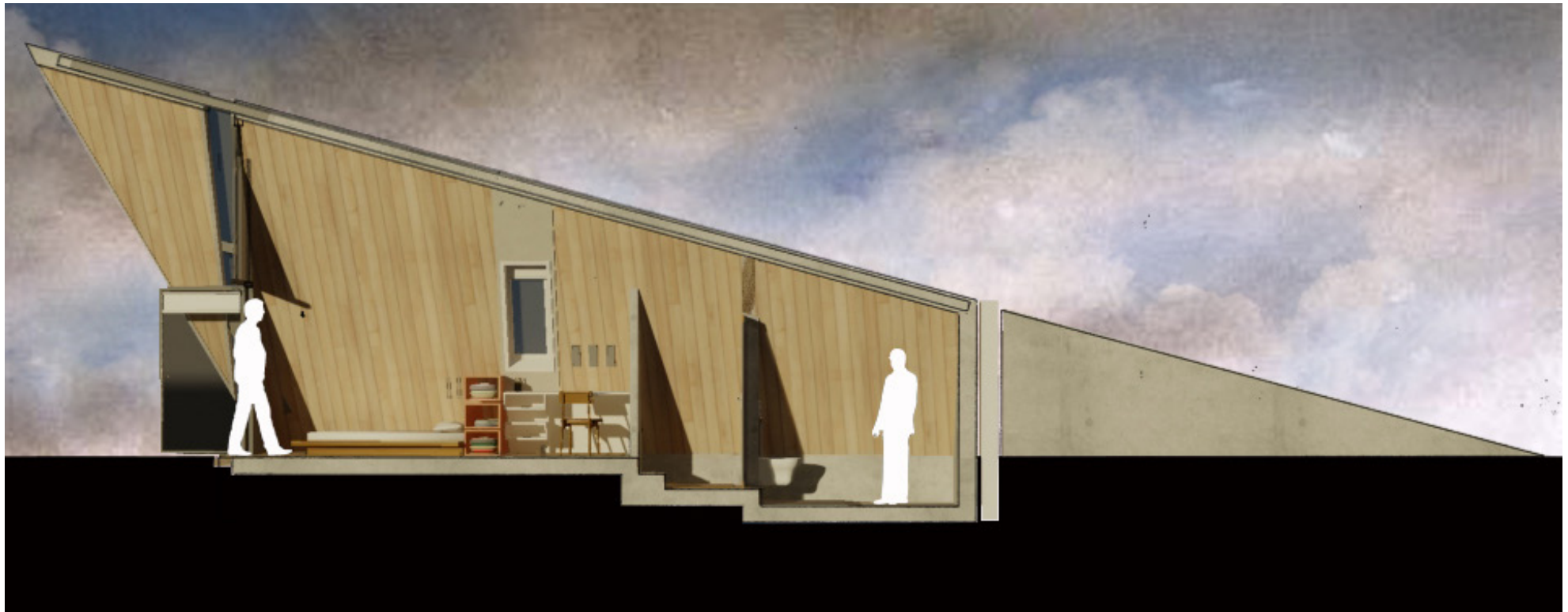
Page 122:
Figure 152.
Plan. Location of wharemoe.
Image by Author, 2013.

Page 123, left:
Figure 153.
Wharemoe perspective. Doors shut.
Image by Author, 2013.

Page 123, right:
Figure 154.
Wharemoe perspective. Doors open.
Image by Author, 2013.

Previous page, left:
Figure 155.
Interior perspective. Wharemoe. Day.
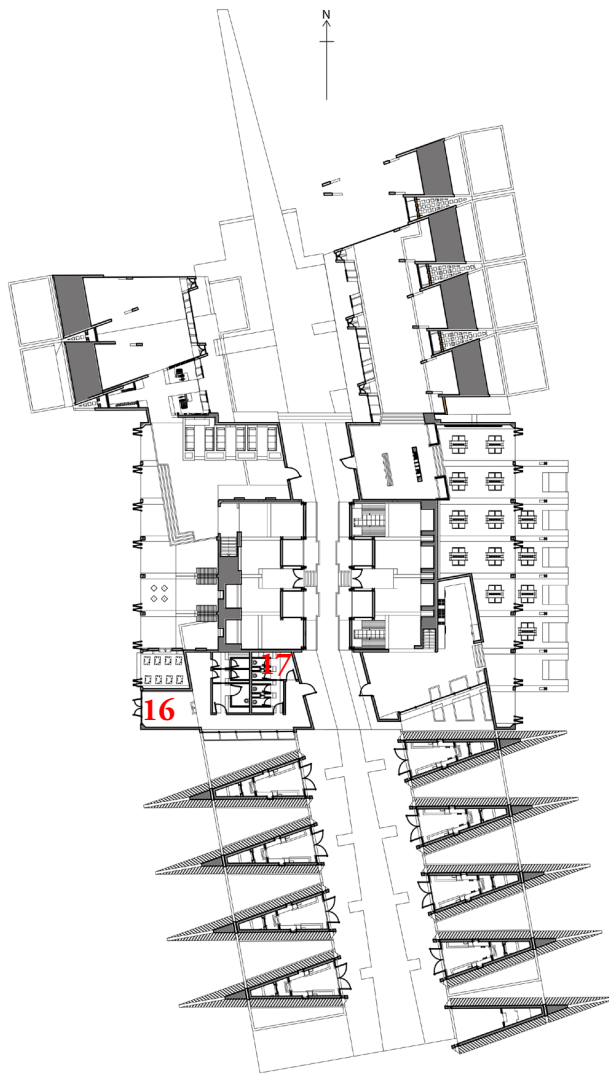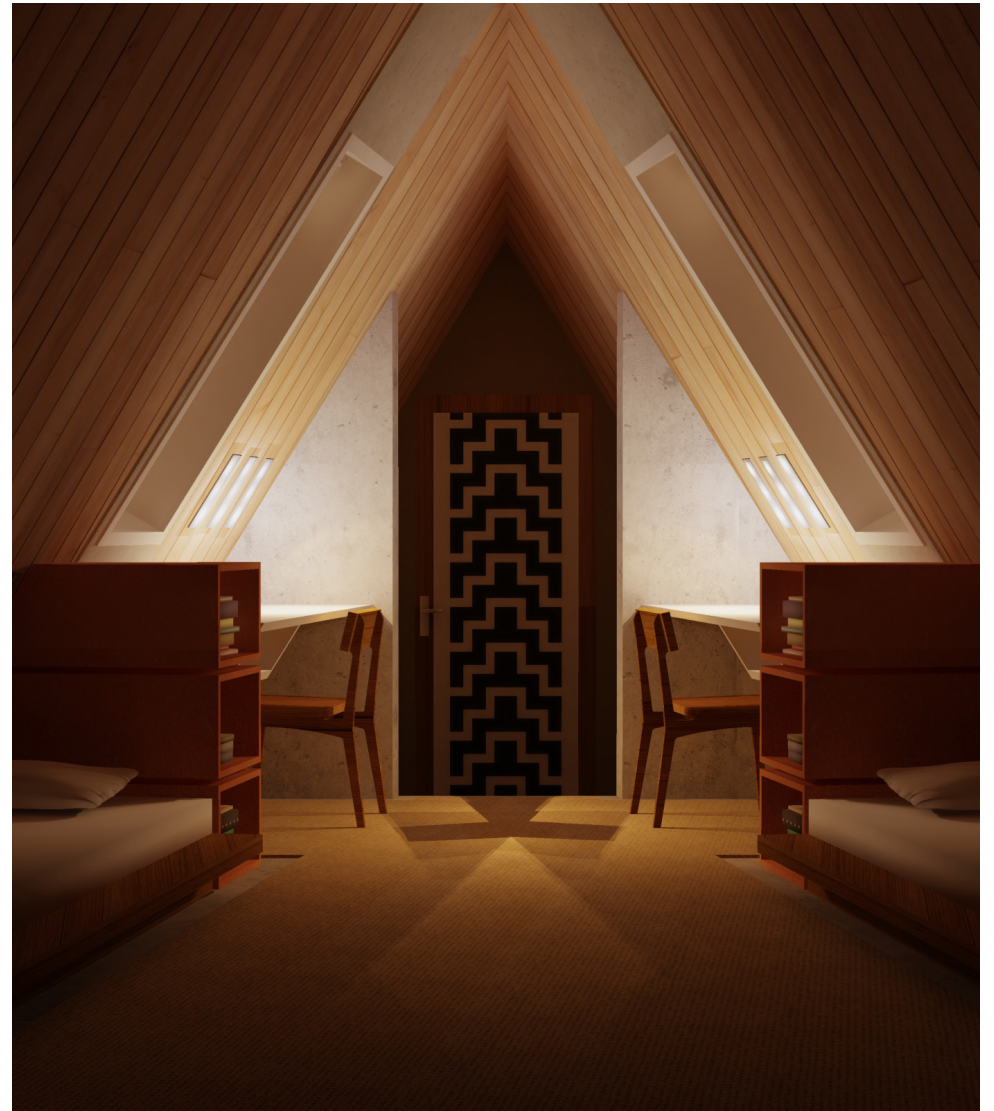Image by Author, 2013.

Previous page, right:
Figure 156.
Interior perspective. Wharemoe. Night.
Image by Author, 2013.

Figure 157.
Section AA. Wharemoe.
Image by Author, 2013.

Figure 158.
Wharemoe perspective. Facing north.
Image by Author, 2013.

Emerging from the earth

Returning to the earth

Returning to the earth

Emerging from the earth
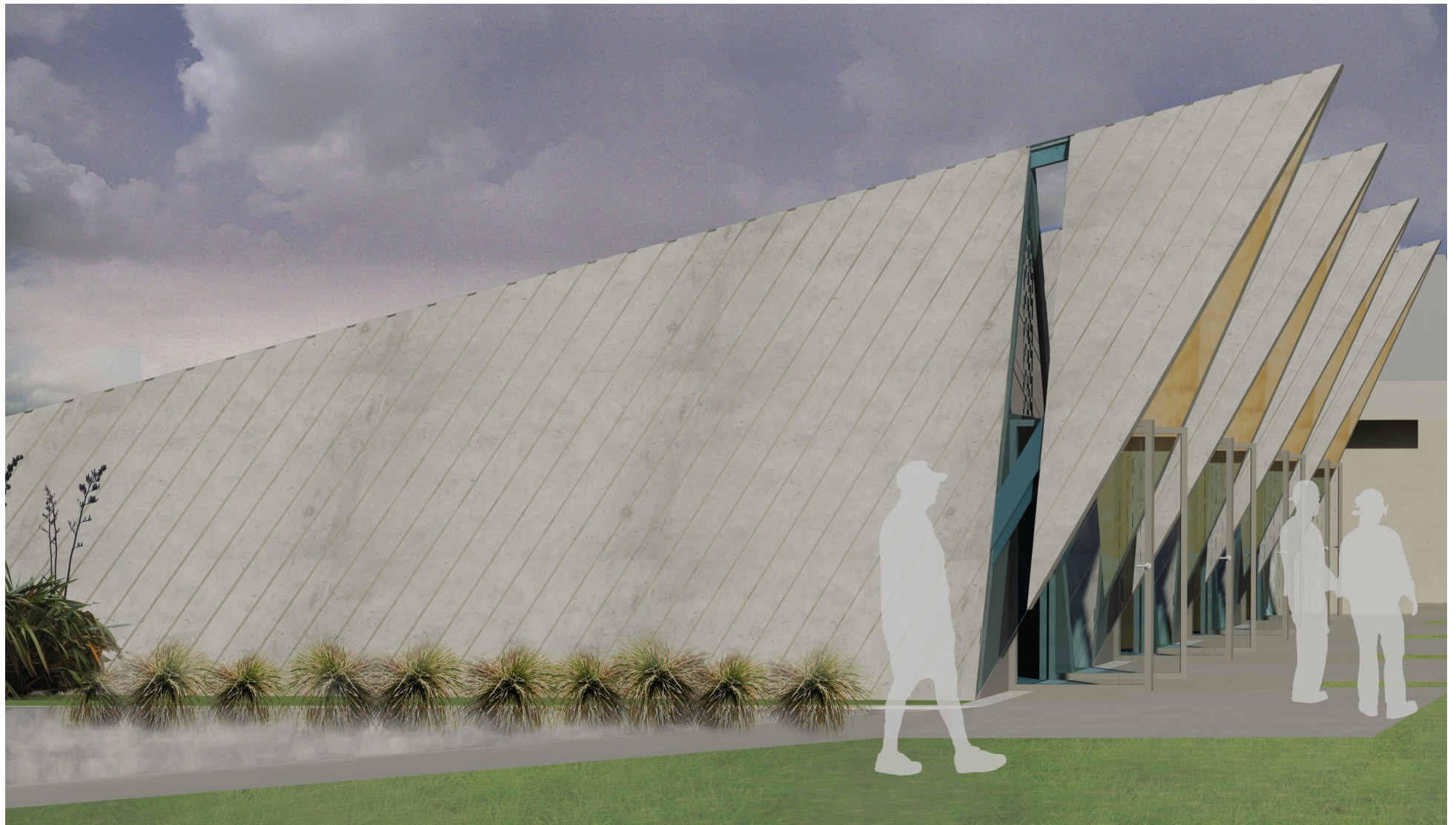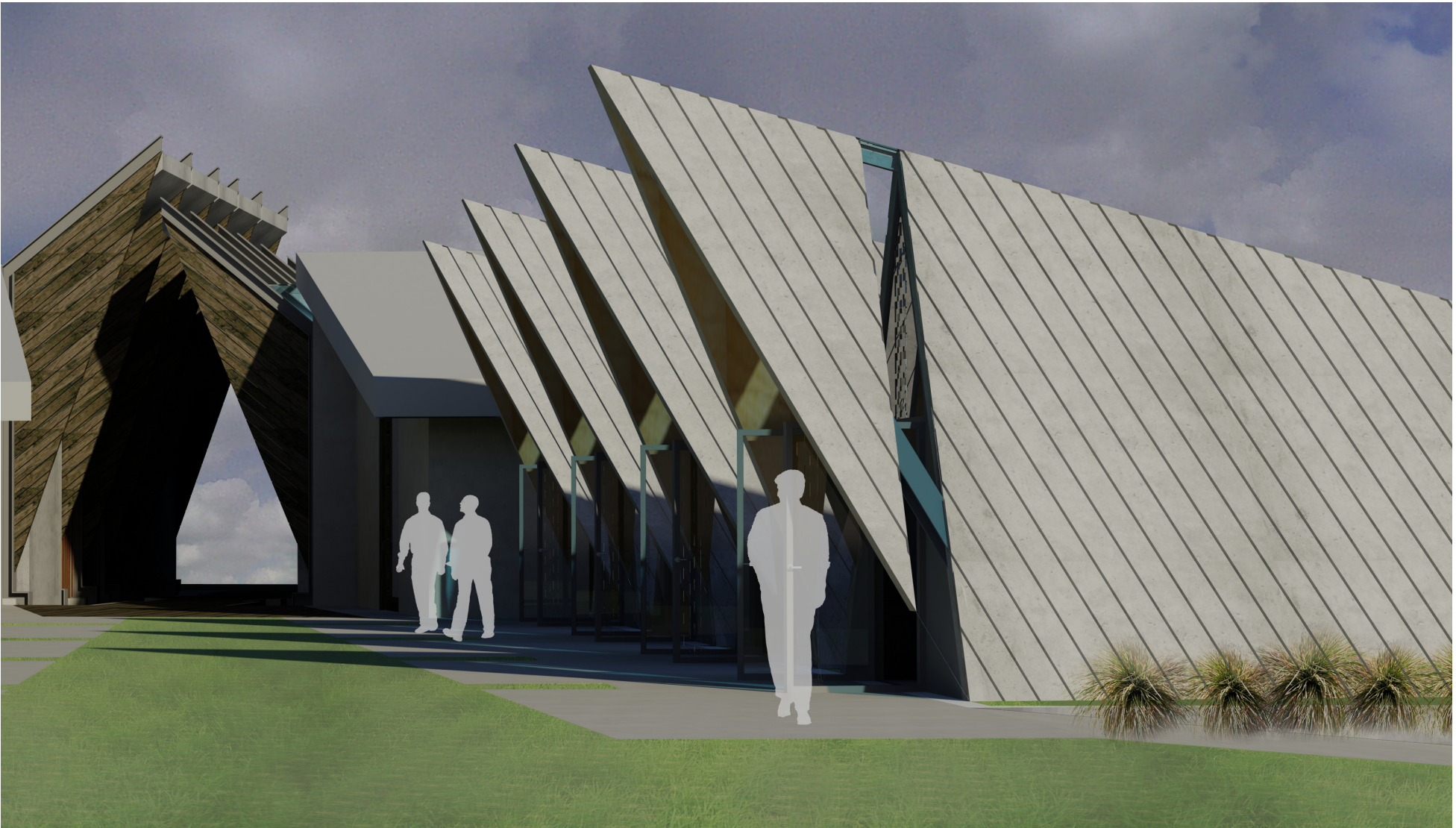
5.17 Secondary Design Themes

Tukutuku Patterns

Throughout the intervention tukutuku patterns have been allocated to specific areas to help boost motivation, good attitudes and provide silent support. Traditionally, tukutuku patterns were designs that were woven into panels and placed on the walls between the poupou (carved figures) of the wharenui. The weavings supported and worked together with the carvings and kowhaiwhai (painted work) to describe the story of the structure. The tukutuku of Te Pikinga o tōku Tuakiri have been designed in order to show the purpose and drive behind the architecture and to enforce the education that the participants receive.

Previous page, top:
Figure 159.
View of intervention from the west.
Image by Author, 2013.

Previous page, bottom:
Figure 160.
View of intervention from the east.
Image by Author, 2013.

Figure 161.
Plan. Location of tukutuku patterns.
Image by Author, 2013.

1. Purapura whetu

A basic pattern, purapura whetu typically consists of single cross stitches decorating a panel and resembles a starry night sky. Christchurch City Libraries explain that one of the traditional meanings behind the pattern is that it is not possible to have a tribe without many people. Here, the pattern has been interpreted into the rusted steel roof panels on the wharenui, office and recreation spaces. Square voids take the place of the stitches and the entire panel casts the patterned light down onto the inhabitants as a reminder that they are part of a collective.

This design also subconsciously invites the public inside. The transparency of the architecture opens up the wharenui and taupaepae matua and allows visitors to feel more comfortable and at ease.

2. Pātikitiki

Its diamond shape gives the appearance of a flounder, which was the inspiration for the design. Pātikitiki represents being able to provide, good health and weather. The pattern appears in the wharekai as a dark inlay in the timber tables and chairs. It further reinforces the inmates relationship to the sea that surrounds the island in a positive and fruitful manner; its purpose is to remind those partaking in the food that they have been provided for, and to remind those that have cooked the food that they *have* provided[17].

17   It is anticipated that everyone within the MFU will help in all areas of the facility, from cooking and cleaning to making the furniture and other objects

3. Rangi-nui and Papa-tū-ā-nuku

This tukutuku represents the story of creation; as the main narrative for Te Pikinga o tōku Tuakiri this pattern is important for the architecture. Found as a recessed pattern within the precast concrete panels that make up the hangi pits, the tukutuku supports the movement that the architectural geometry makes in order to create separation and light.

4. Waewae paakura or takitoru

Māori Studies Department (1986, p. 42) explain that waewae paakura comes from a message made up of three stitches that was sent from Rongomaituaho to Paikea. When Rongomaituaho received a reply it came in the form of another three stiches, angled in the opposite direction to symbolise communication.

Traditionally, Māori worked out their personal issues in a group setting rather than one on one. Because of this, the building supplies two lounge areas that can be used for group work, the pattern embedded in the wall encourages them to talk with one another in all things.
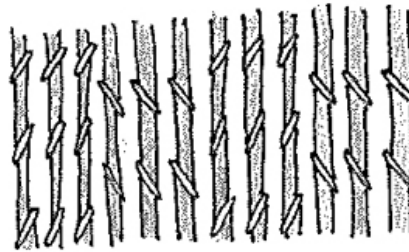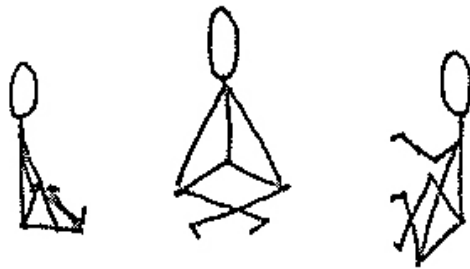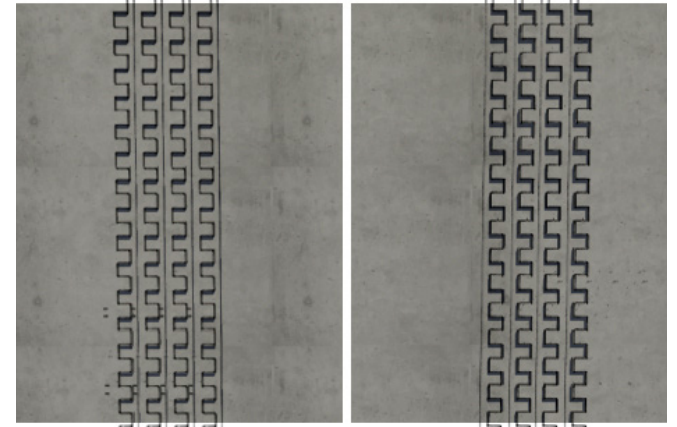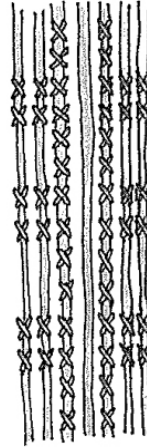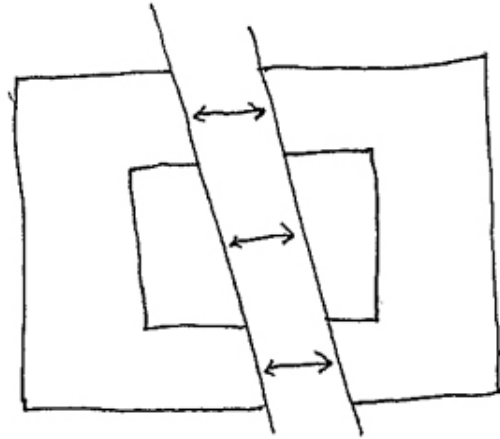
5. Poutama

Poutama comes from the story of Tane collecting the three baskets of knowledge that were vital to human-kind. In order to collect the baskets Tane had to work his way through the many layers of the heavens, on each level his brother Whiro challenged him until at last, Tane reached the highest level and brought back the baskets.

The pattern represents the steps of the heavens, each one a challenge, and the triumph of succeeding reminds the inmates that they too can achieve their goals. Embedded in the frosted glass of the wharemoe, the pattern is a reminder that is seen every morning as the sun rises and every evening as the sun sets.
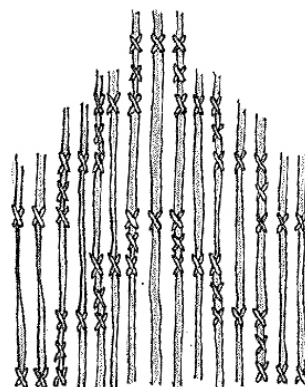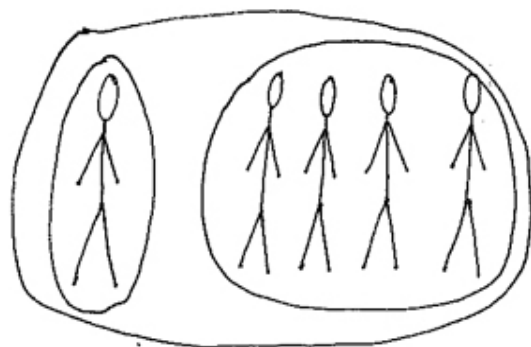
5.18 Overall Plan
1:300
Please note that the plan has been rotated ninety degrees
for a better fit and easier viewing.
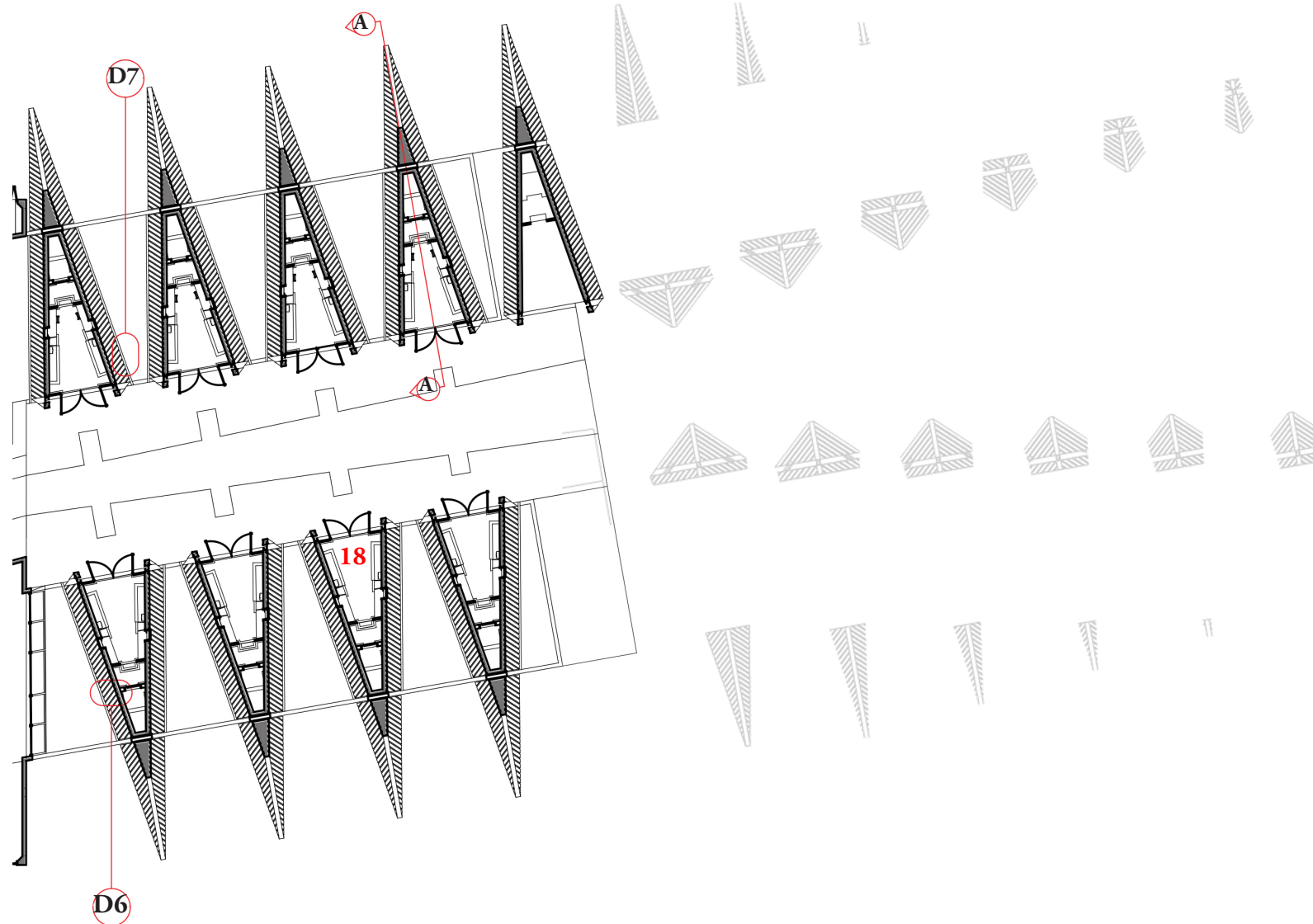
Completing the life cycle. The front of the intervention emerges from the earth. At the rear, forms begin to submerge, returning to the earth.

1. Marae ātea
2. Wharenui
3. Taupaepae matua
4. Recreation space
5. Putanga hū
6. Wharekai
7. Whareumu
8. Pataka
9. Rua
10. Hāngī pits
11. Kōrua mura
12. Rūma noho
13. Rūma noho
14. Whare pukapuka
15. Tari
16. Kākahu
17. Wharepaku
18. Wharemoe

5.19 Construction Details

50mm thick rusted mild steel panel with 300 x 300mm square voids(see tukutuku patterns) sits 200mm above glass roof to allow for cooling.

5mm thick rubber gasket with aluminium frame and flashing.

2 x 12mm thick laminated glass.

Loose laid river stone ballast 50mm min (allow filter membrane over perforated outlet cover).

Purpose made perforated stainless steel cover plate over outlets. Geotextile filter fabric over top of cover plate.

Stormwater drain with connections to downpipes and sump outlets.

Support for the mild steel panel by way of structural protrusions from concrete roofs.

Support for the glass roof by way of structural protrusions from concrete roofs.

1 Earthriser Glass Roofing and Gutter Section
1:10

Painted steel column positioned 10mm from concrete work and bolted with stainless steel M30.

200UB column extends 200mm into floor slab to reinforce the concept of separation between earth and sky.

Galvanised steel plates

12mm thick toughened glass sitting on channel.

Concrete base formed from original foundations, lifted to create a cradle for the inhabitants and further strengthening the idea of an architectural entity.

10mm thick preformed and varnished silver beech fixed on 50 x 30mm battens. Plug over screw.

2 Hangi Pit I-Beam/Concrete Work Section
1:10

3 Library Seat Section
1:10

12mm thick varnished silver beech lining.

100mm painted timber trim.

Shelving unit for cushions references the historical habits of Maori and reestablishes the ritual in a modern way.

50 x 25 x 3mm steel brackets.

Shelves and upper wall sit 50mm back from original concrete foundation to emphasise the precedence of the past over the present.

Concrete foundation extrudes to begin forming base of seating.

Membrane to concrete topping.

4 Cushion Shelving Unit/Wall Section
1:10

300mm gap between cubicles to emphasise isolation from other spaces.

5mm thick rubber gasket in framing.

12mm thick laminated glass. Frosted finish.

Cubicles connect through the hand basin facilities, the act of cleansing purifies the area.

Substrate.

20mm gap.

Waterproof channel.

Prefabricated angled sinks show connection to other design aspects throughout architecture.

300mm gap between cubicles to emphasise isolation from other spaces.

Loose laid river stones ballast 50mm min.

18mm thick timber flooring direct stuck to 12mm ply underlay.

5 Bathroom Handbasin/Separation Gap Section
1:10

200mm thick precast reinforced lightweight concrete.

100 x 150 precast concrete beam.

Steel joinery frame housed in precast concrete panels with flashing.

12mm thick laminated glass.

Seperation gap creates a vertical void where the walls of the historical architecture were once located.

12mm thick varnished silver beech wall lining.

Galvanised steel plate.

30 x 50mm timber wall studs.

6 Wharemoe Roof Panels/Seperation Gap Section
  1:10

200mm thick polished concrete panel with 30mm deep recesses.

18mm thick silver beech panels on 30 x 50mm battens.

Galvanised steel plate.

Loose laid river stone ballast 50mm min (allow filter membrane over perforated outlet cover).

Purpose made perforated stainless steel cover plate over outlets. Geotextile filter fabric over top of cover plate.

Slope of precast panel symbolises an upward movement. 30mm overhang over 100mm deep x 130mm wide gutter shows disconnection from earth.

Stormwater drain with connections to downpipes and sump outlets.

7 Wharemoe Gutter/Concrete Foundation Section
  1:10

5.20 Conclusion

Te Pikinga o tōku Tuakiri was born from the obvious struggle that many Māori are having within the New Zealand prison system and the idea that interior architecture and architecture could take to address this issue. Acknowledging the present cultural disconnection within our incarceration facilities have led to some improvements in recent years primarily through the creation of Māori Focus Units. However, a prison or rehabilitation unit designed to educate and reinforce the work of the units is found to be underdeveloped.

Interior architecture explores possibilities within a given architectural envelope. This thesis suggests that in order for the interior to be successful, one must consider the site in its entirety. Indeed, Māori beliefs and perception of architecture cannot be confined to a single space, instead encompassing a whole. Some of the issues considered here include the site, the surroundings landscape, its history, the people it is being built for, narratives that relate to them, and tapu and noa. These must all be acknowledged in order for the inhabitants to form a relationship with the architecture based on respect, positive outlooks and community. Māori architecture, much like Māori culture, has many layers that come together to create the whole.

This design-led research suggests that learning through the experience of space is a vital tool in the process of rehabiliation, specifically when the design has carefully considered the cultural understanding of the space of its inhabitants.

In reflection the proposed design is found to be successful in many ways:

- finding a common narrative

- dissolving the traditional boundaries of incarceration

- embedding a sense of journey

It is important to note that this is a personal interpretation of some of Māori understandings and that further knowledge of Māori culture will reaffirm the design intention.

This research offers a model, a model in terms of approach to the problem and a model in terms of how to articulate interior architecture and its surroundings.

It is hoped that this research positively contributes to the debate of Māori incarceration and rehabiliation by offering interior architecture as one of its tools. This is in the anticipation of helping in Te Pikinga o tōku Tuakiri.

Glossary.

All spelling and definitions cited by Māoridictionary.co.nz

A.

Ao mārama   (noun) world of life and light, Earth, physical world.

H.

Hākari   1.(verb) (-tia) to have a feast.
2.(noun) sumptuous meal, feast, banquet, gift, present, celebration, entertainment.

Hāngī   (noun) hāngī, earth oven - earth oven to cook food with steam and heat from heated stones.

Hapū   (noun) kinship group, clan, tribe, subtribe - section of a large kinship group.

Hawaiki   (location) ancient homeland - the places from which Māori migrated to Aotearoa/New Zealand.

Heke   (noun) surfing, coming time, slope, rafter.

Hīrere   (noun) waterfall, torrent, shower (bathroom).

I.

Iwi   (noun) extended kinship group, tribe, nation, people, nationality, race -often refers to a large group of people descended from a common ancestor.

K.

Karakia   1.(verb) (-tia) to recite ritual chants, say grace, pray, recite a prayer, chant.
2. (noun) incantation, ritual chant, chant, intoned incantation - hants recited rapidly using traditional language, symbols and structures.

Kaupapa   (noun) topic, policy, matter for discussion, plan, scheme, proposal, agenda, subject, programme, theme.

Koruru   (noun) carved face on the gable of a meeting house, often representing the ancestor after which the house is named.

M.

Maihi   1. (noun) bargeboards - the facing boards on the gable of a house, the lower ends of which are often ornamented with carving, or a house so adorned.
2. (noun) a house adorned with carved barge boards.

Manuhiri   (noun) visitor, guest.

Marae ātea   (noun) courtyard, public forum - open area in front of the *wharenui* where formal welcomes to visitors takes place and issues are debated.

Mataaho   (noun) window.

Mua

first.

1.(location) the front, in front of, before, ahead.
2. (location) the past, former, the time before, formerly,

Muri

sequel.

1.(location) the rear, behind, at the back of.
2. (noun) the future, after, afterwards, the time after, the

N.

Noa

unre

(stative) be free from the extensions of *tapu*, ordinary, stricted.

P.

Pā

city

(noun) fortified village, fort, stockade, screen, blockade, (especially a fortified one).

Pākehā

in a

1.(loan)(noun) New Zealander of European descent.
2. (loan) (noun) exotic - introduced from or originating foreign country.

Papa-tū-ā-nuku

(personal name) Earth mother and wife of Rangi-nui. All living things originate from them.

Pātaka

(noun) storehouse raised upon posts, pantry, larder.

Pātikitiki

(noun) a pattern used on *tukutuku* panels, kits and mats, origi nating from the lashing together of framework timbers of houses.

Pō

1.(noun) darkness, night.
2.(noun) place of departed spirits, underworld - the abode of the dead.

Poupou

(noun) post, pole, upright slabs forming the framework of the walls of a house, carved wall figures, peg, stake.

Poutama

(noun) the stepped pattern of *tukutuku* panels and woven mats, symbolising genealogies and also the various levels of learning and intellectual achievement.

Poutokomanawa
house.

(noun) centre pole supporting the ridge pole of a meeting

Pōwhiri

1.(verb)(-tia,-a) to welcome, invite, beckon, wave.
2. (noun) invitation, rituals of encounter, welcome ceremony on a marae, welcome.

Purapura whetū

(noun) a *tukutuku* pattern that represents the stars and the great numbers of people of a nation.

R.

Rangi-nui
(personal name) atua of the sky and husband of Papa-tū-ā-nuku, from which union originate all living things.

Raparapa
(noun) the projecting carved ends of the *maihi* of a meeting house.

Rua
(noun) hole, pit, burrow, den, chasm, grave, store (for provisions), abyss, mine.

Rūma horoi kākahu
(noun) laundry.

Rūma noho
(noun) lounge, living room, sitting room.

T.

Tāhuhu
(noun) ridge pole (of a house), subject of a sentence, main theme, direct line of ancestry.

Takitoru
(noun) the name for the pattern used on crossbeams and *tu kutuku* panels of meeting houses where single stitches across the panel are in groups of three at alternate angles. It repre sents communication, identification and special personal rela tionships.

Tāne-mahuta
(personal name) *atua* of the forests and birds and one of the children of Rangi-nui and Papa-tū-ā-nuku.

Tangata whenua
(noun) local people, hosts, indigenous people of the land - peo-ple born of the whenua.

Tapu
1.(stative) be sacred, prohibited, restricted, set apart, forbidden, under atua protection.
2. (noun) restriction - a supernatural condition.

Tari
(loan) (noun) office, department, study.

Taupaepae matua
(noun) main reception.

Tikanga
(noun) correct procedure, custom, habit, lore, method, manner, rule, way, code, meaning, plan, practice, convention.

Tukutuku
(noun) ornamental lattice-work - used particularly between carvings around the walls of meeting houses.

Tupuna
(noun) ancestor, grandparent - western dialect variation of *tipuna*.

U.

Uku
(noun) white clay.

Urupā
(noun) burial ground, cemetery, graveyard.

W.

Waka
1. (noun) canoe, vehicle, conveyance, spirit medium,

medium.

Wharekai	**(noun)** dining hall.
Whakairo	**1. (verb)** (-tia,-hia) to carve, ornament with a pattern, sculpt. **2. (adjective)** be carved. **3. (noun)** carving.
Whakapapa	**(noun)** genealogy, genealogical table, lineage, descent.
Wharemoe	**(noun)** sleeping house.
Wharenui	**(noun)** meeting house, large house - main building of a marae where guests are accommodated.
Wharepaku	**(noun)** toilet, lavatory, convenience, latrine, loo, bog.
Whare pukapuka	**(noun)** library.
Whareuku	**(noun)** a house constructed of earth.
Whareumu	**(noun)** cooking shed, kitchen.

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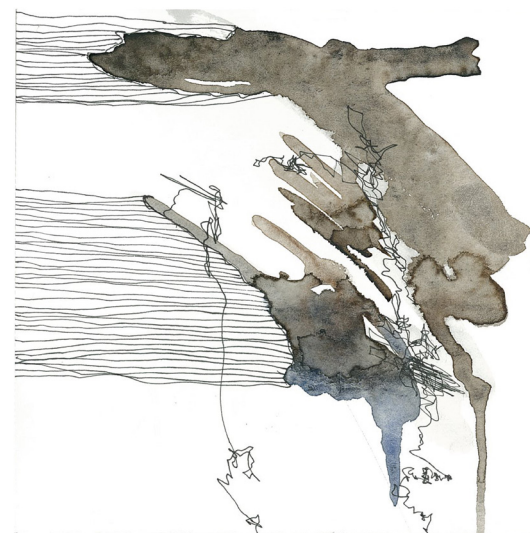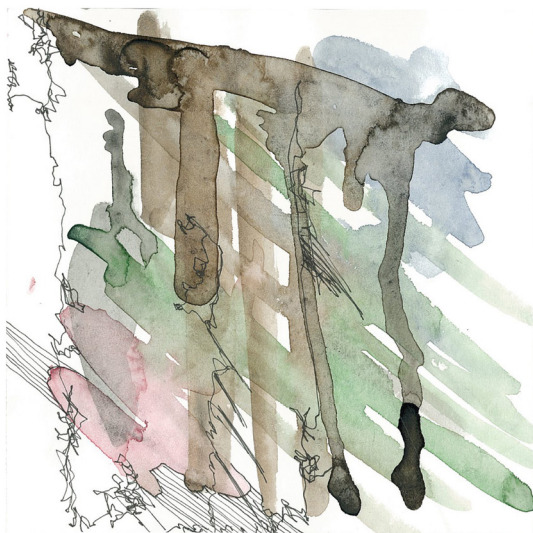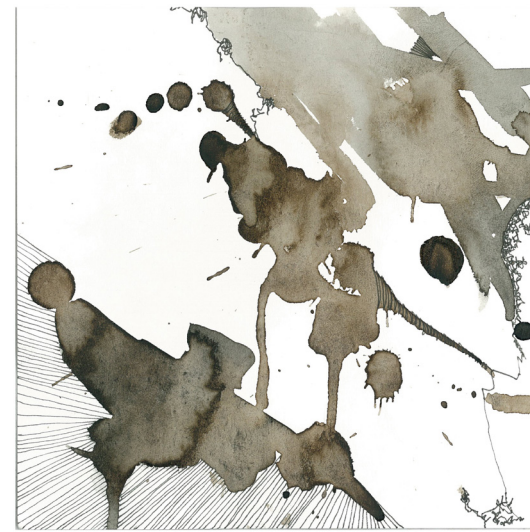Weka, H. (Unknown). The Legend of Rata's Waka. Retrieved September 4, 2011, from The Whanau Show: http://whanaushow.co.nz/index.php/Māori-legends/ratas-waka

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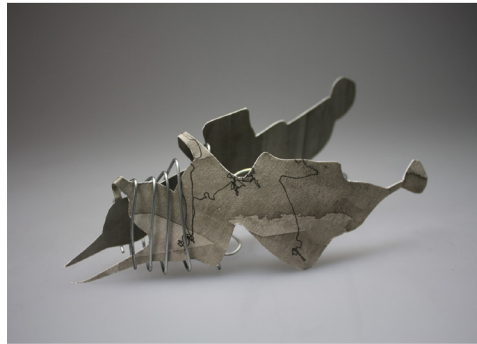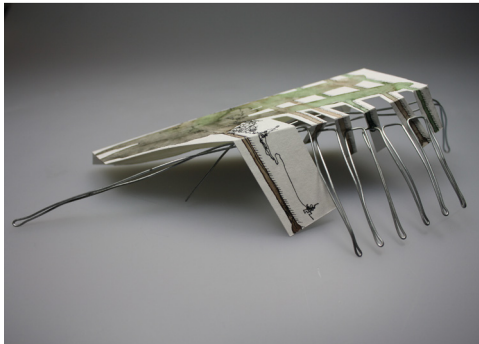
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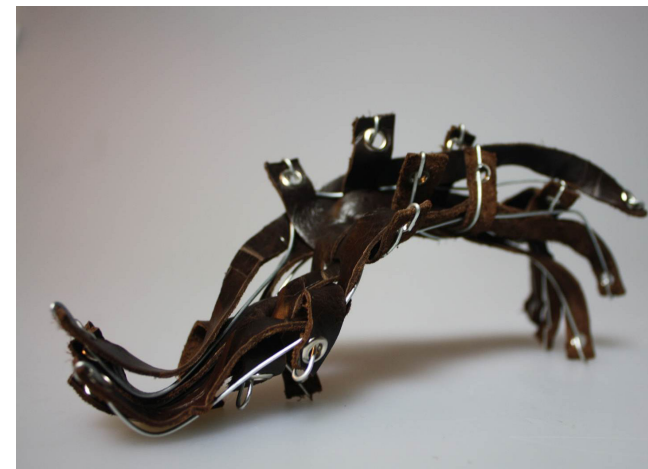
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Appendix.

The following images, models and matrices are taken from previous designs and concepts that are no longer relevant to the final design but were part of the process in order to get to the end result.

Programme / Site	Maori Culture	Communal living and Collective learning	Relationship to the Earth	Affiliation or Relationship to architecture	Whakataukī
The Isolated Island	A place of sanctuary and protection. Full circle.	Reliance on one another	A child cradled in the mothers womb	Learning through inhabitation	*He pukepuke maunga, e pikitia e te tangata; He pukepuke moana e ekeina e te waka; he pukepuke tangata, e kore e pikitia e te tangata.* A man can climb a steep mountain; a canoe can climb mountainous seas; a man cannot overcome a great chief.
Land vs. Harbour	A place of transition or threshold. Life and death. The sea, the land and the air above.	Reliance on one another	A transitioning of spaces	Elements working together, symbolism and balance	*He nui maunga e kore e taea te whakaneke, he nui ngaru moana mā te ihu o te waka e wāhi.* A great mountain cannot be moved, a giant wave can be broken by the canoe's prow.
The Indigenous Species	Tāne Mahuta - Legends of birds and forests	Reliance on one another	Guardians, protectors of the past	A shelter, a place of revitalisation	*Ehara taku toa i te toa takitahi engari he toa takitini.* My valour is not that of the individual, but that of the multitude. No one can survive alone.
The Historical Footprint	Acknowledgement of the past and acting in the present	Acknowledgement of the past and acting in the present	Easing the pain/scars placed on the land	Architectural foot-print, acknowledgement	*Me matemate ā marama te tangata I te ao nei.* Let the men of this world die as the moon dies; that is, that they might come to life again.

Site / Programme	The Historical Footprint	The Indigenous Species	Land vs. Harbour	Whakataukī
Incarceration	Awareness of historical architecture and daily routines	Equal ground, an even playing field	Strength of the elements, acknowledging a greater force	*Ara te kōrero e piki rā i Tawhiti-a-Pawa, Takoto noa Waimahuru.* While news climbs over to the Tawhiti-a-Pawa, Waimahuru is left isolated.
Isolation	Ancestors, the silent observers	Room to grow, educate, heal. A healing space	Awareness of a greater force, recognition of man's short existence	*Toitū he kāinga, whatu nga-rongaro he tangata.* The land still remains when the people have disappeared.
Rehabilitation	Education	A place of nur-turning; a shelter of protection	Returning to the basics, a clean slate	*Ka maru koe i tōku pūreke, he kahu pītongatonga.* I will shelter you with my raincape, an impervious garment.
Education	Learning from past mistakes	The development of a broader sense of being; a purpose and pride	Reconnecting with cultural history and mythology	*Kia mau koe ki te kupu a tōu matua.* Hold fast to the words your father gives you.

Previous page:
Matrix of Site vs. Māori Culture

This page:
Matrix of Typology vs. Site

Note: These matrices were complet-ed as an idea to garner and organ-ise early design ideas. As the later concepts began following narratives rather than whakataukii, they were put aside to prevent confusion.