

A dark, dense forest scene with a wooden bench in the foreground. The image is mostly black and dark green, with some light filtering through the trees in the background. The text is overlaid on the lower half of the image.

Cabin Fever

Exploring the Possibility of a Wilderness Experience

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degree of Master of Interior Architecture*

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All figures not attributed are author's own.

A b s t r a c t

New Zealand's backcountry huts do not stimulate a meaningful connection between the occupant and their surrounding natural environment. Generic solutions provided by the Department of Conservation are dictated by a nostalgic frame of mind, rather than evolving from the intrinsic qualities of nature.

This exploration is for those who seek to find and feel a sense of wilderness in our modern times. Despite our inherent desires to be amongst nature, our architecture does not facilitate our fascination. The intimate scale of interiors provides an insight that is detailed and intuitive, allowing for the emotive experience of the occupant to be the primary concern of the design intent.

This thesis investigates the potential for a new wilderness experience by exploring and critiquing past and present backcountry huts. By focusing on the necessities needed for survival in a manner that dissolves the physical and mental barriers that these factors can implement, the outcome provides a vision for alternative habitation in the wild.

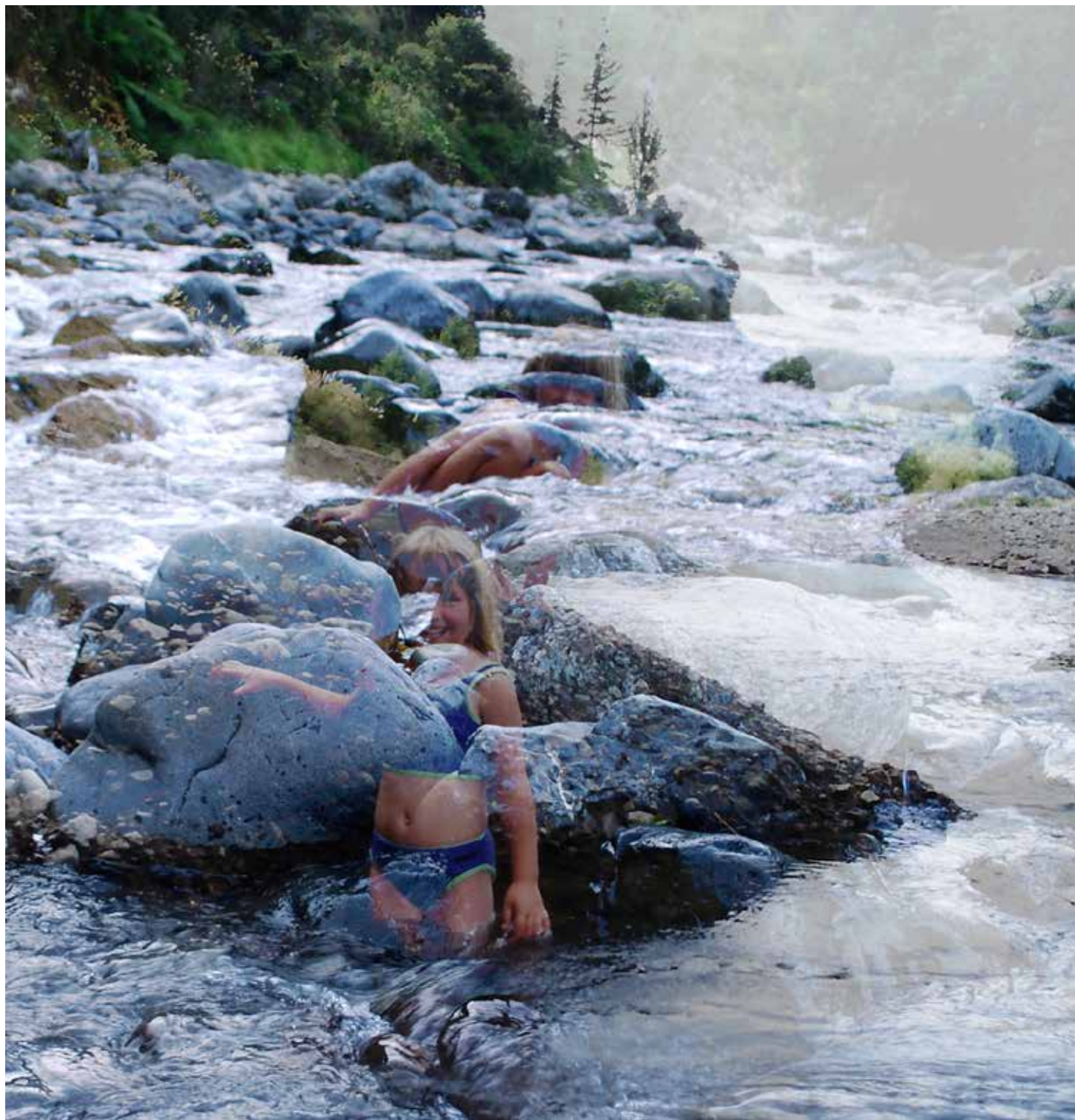


Fig 1. 02. Childhood memories at Vinegar Hill

Preface

Coming from a childhood constantly exposed to the outdoors, to now living the urban city lifestyle as a fairly jaded student, I struggle to maintain a connection to the outside world. Throughout my youth, I would always be out amidst nature, whether it was a weekend hike, camping with my scout group, kayaking with friends, or simply just building a tree hut at the park. Whenever I could, I would always be outside, and this came so naturally to me as a child.

Throughout my time at Victoria University, I've come to realise that I have a deep fascination for the natural world. I can not quite grasp the psychology behind the allure, but it remains undeniably present and ever-growing.

I am drawn to architecture that is not only within the natural environment, but also embraces its surroundings in every way.

As I progress through my education, I have been questioning the unexplainable desire I have to always create a connection with aspects of nature. As a Master of Interior Architecture student, I have struggled with the complexity of this concept.

We are often told that interiors is a box which we must design within. I am learning that interiors is not about being confined to certain restrictions. It is about perspective. To me, interiors is about the space you occupy, and the reaction you have within a space. Whether large or small, it is about the small connections and moments that are often neglected.



Fig 1. 03. Alanah and I on a site visit to Cone Hut

Acknowledgements

To the little lady who has inspired me

To the man who has supported me

To the girls who have encouraged and guided me

To the boy who kept me smiling

*& to Christina Mackay for your dedication,
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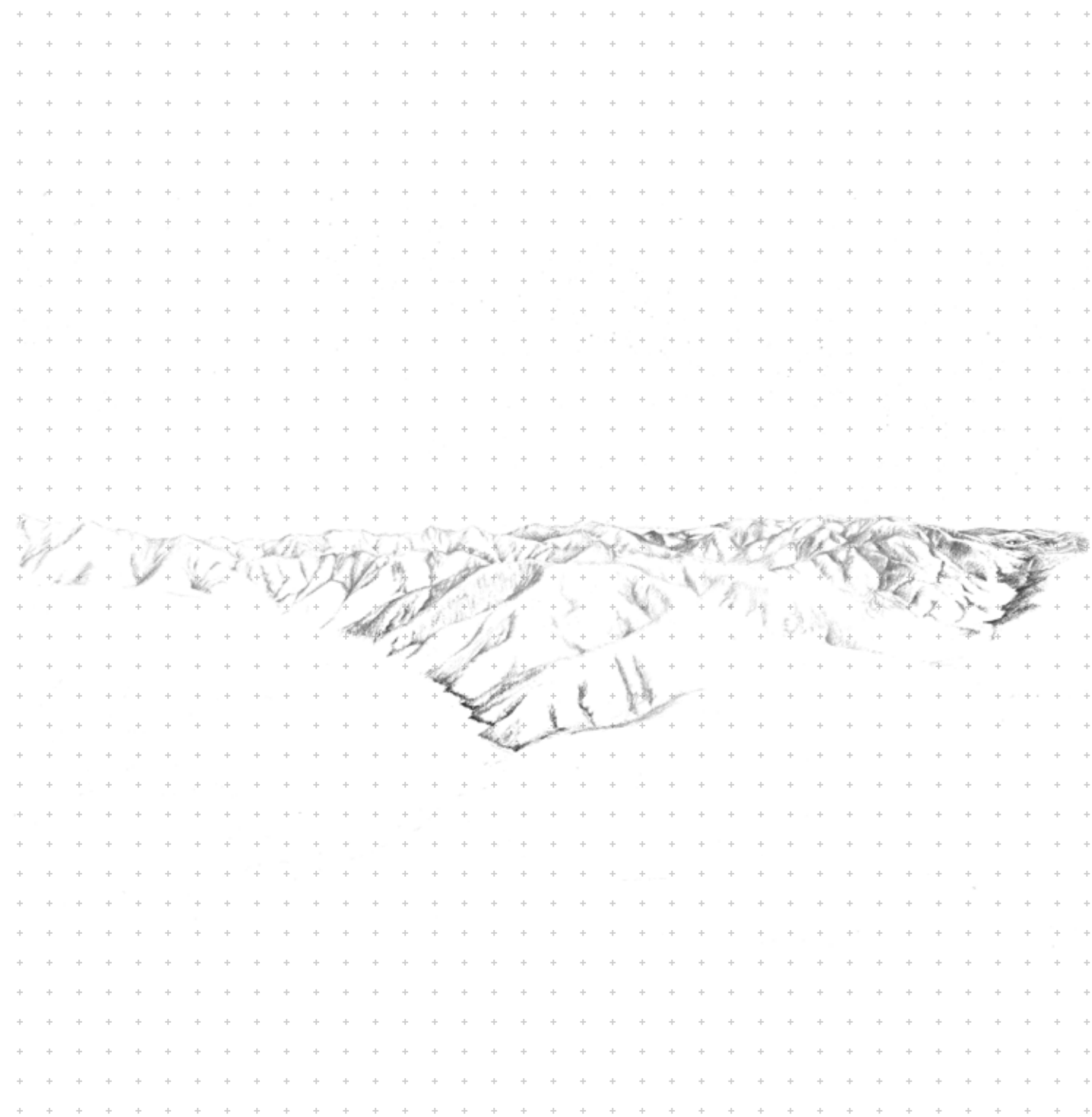


Fig 1. 04.

Authors sketch of Tararua Ranges

Introduction

Problem Statement

The Tararua Range offers a phenomenal wilderness experience for trampers seeking adventure and solitude. Amongst these ranges there are a multitude of backcountry huts, provided and managed by the Department of Conservation (DOC).

There is a great deal of history behind these traditional structures, with the oldest standing hut dating back to 1924. Understandably, there is also a lot of sentimentality and nostalgia intertwined within the notion of these huts. Consequently, as a nation we perceive this to be the common way to experience our backcountry, resulting in seemingly little progression with regards to architecture and it's potential to stimulate a sense of place within our own backyard.

Presently, there are two main categories of huts that you will come across within the Tararuas – Firstly, the era of the Tararua Tramping Club (TTC), and fellow outdoor enthusiasts, and secondly, from the era of DOC.



The T T C Era

The TTC's authentic, more historically significant and unique huts, were constructed by any means necessary in order to provide shelter from the elements of nature. Built and developed upon by hand over many years by the TTC, these structures display the true kiwi spirit.

It is easy to develop an attachment to these structures. The history embedded within them instils a deep connection between yourself and those who have come before you. Sitting within the confines of the hut walls, you cannot help but wonder about the conversations and interactions that were shared within the space. Fleeting friendships are created within these micro communities, between travellers temporarily intertwining their lives together as they share in food, equipment and company.



Fig 1. 05.

Heather Jock Hut

Fig 1. 06.

Cone Hut

Fig 1. 07.

Downes Hut

The DOC Era

Then there are the more recent structures of the DOC-era, designed by Pynenburg & Collins Architects. Although these newer huts provide the necessary requirements for a visitor, while also complying with building code regulations, I believe that their biggest downfall is their negligence towards facilitating a relationship between the occupier and their surroundings. Each experience is not unique as the design is dictated by the number of occupants, rather than the site. This disregard of site-specific design results in architecture that appears unconscious of its surroundings.



Fig 1. 08. Downes Hut
Fig 1. 09. Saxton Hut
Fig 1. 10. Downes Hut

DOC Public Survey

In 2016, 4,131 New Zealanders aged 18 and over participated in DOC's Public Survey, investigating their attitudes toward conservation and DOC facilities on public conservation land.

Main reasons for use of DOC recreation areas

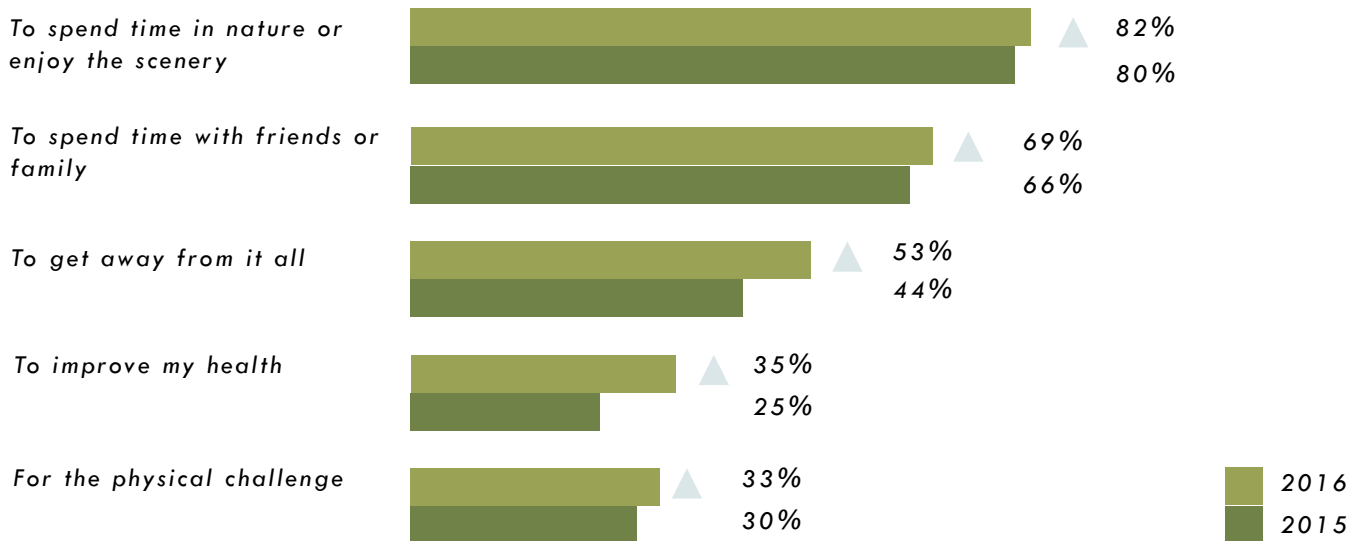


Fig 1. 11. Graph: Main Reasons for use of DOC recreation areas

These graphs reinforce the importance of New Zealanders' place in identifying with the surrounding natural environment. The main reason (82%) people use DOC recreation areas is to spend time in nature or enjoy the scenery. This is an increase of 2% from the previous year, indicating that New Zealanders' desires to be amidst nature is ever-growing, and therefore require the facilities to accomodate.

How connection to nature has improved life

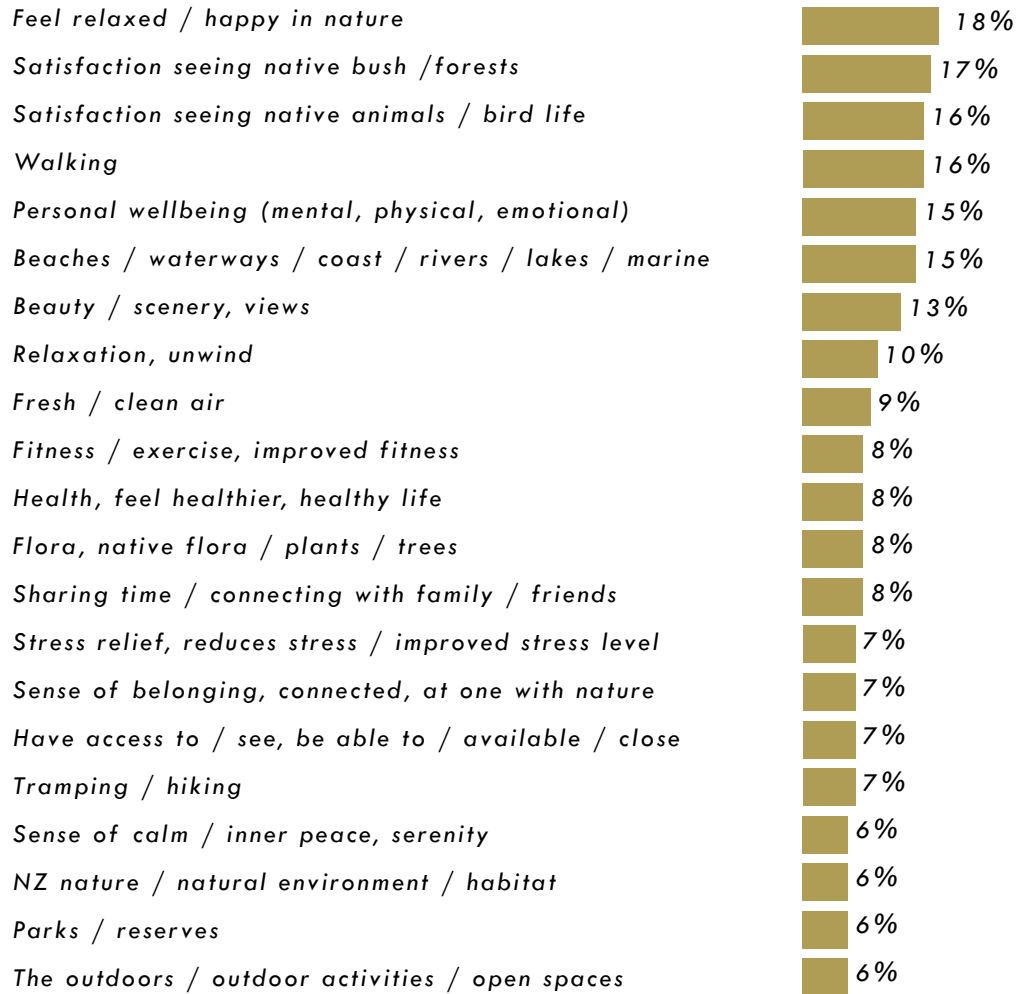


Fig 1. 12.

Graph: How connection to nature has improved life



Fig 1. 13. *Making contact*

It is one thing to provide a unique experience by providing only the basic facilities in a manner that creates self-reliance amidst this remote location; This concept is something that I wholeheartedly support, however the problem is that both designs hinder the emotive experience of the occupant. It is possible to create architecture that is simple, stimulating self-reliance in a way that is also immersive and sensitive.

The field of interiors is highly relevant with regards to creating a sense of place amongst nature. Focusing intently on the inhabitant's personal experience, providing an interior within the forest will enable architecture to stimulate the connection that is currently lacking within current backcountry huts.

This research hopes to enhance the field by diminishing the boundary between the interior occupant and the exterior natural surroundings, exceeding the general perception of the context of interiors.

All that would be required in order to facilitate this relationship is awareness, originality and vision.

Research Question

How can overnight shelter in the forest be designed to stimulate a personal connection with nature while inflicting minimal impact on the surrounding environment?

Research Aims

As New Zealanders, our backcountry is a strong part of our identity as a nation. We pride ourselves on the untouched beauty of our vibrant and wild land. It is imperative that we retain our connection to our natural environment, but we require the facilities in order to do so.

This research aims to design an alternate experience to the characteristically inward focused DOC backcountry huts. This alternate experience will facilitate a connection between the inhabitant and the surrounding natural environment by developing an interior experience that will immerse the occupant amongst nature.

Research Objectives

Develop architecture that is minimal in its presence and in the materials used, so that there is minimal environmental impact.

Use architecture as a device to enliven our connection between self and nature, dissolving the threshold between the interior and the exterior.

Develop an interior experience that focuses primarily on the perspective and interactions of the occupant - designing down to the small detail in order to influence and encourage the occupant to experience and appreciate the small moments.

Enable the occupier to experience their surroundings while being safe from the elements of the wilderness, while still retaining a sense of exposure to the wild.

Provide the means for users to undertake tasks needed to get by in a way that is articulate, but also poetic in its purpose, encouraging the occupant to be self-reliant amongst a beautiful environment.

Retain some sense of history and nostalgia of the old huts.

In a wider sense, this research proposes to challenge the current notion of backcountry shelter in order to advance the thinking for future designs, expanding the potential of DOC huts.

The intention of this thesis is not to create a tourist attraction, but a place for the tramping community and for those inclined to pursue an interest – for those people like myself, who are eager to get amongst New Zealand's backcountry, but who feel as if they lack the confidence and skill to do so.

This research investigation will take place at the site of Cone Hut in the Tararua Forest Park. This location has been selected for two main reasons – its history and proximity to wilderness.

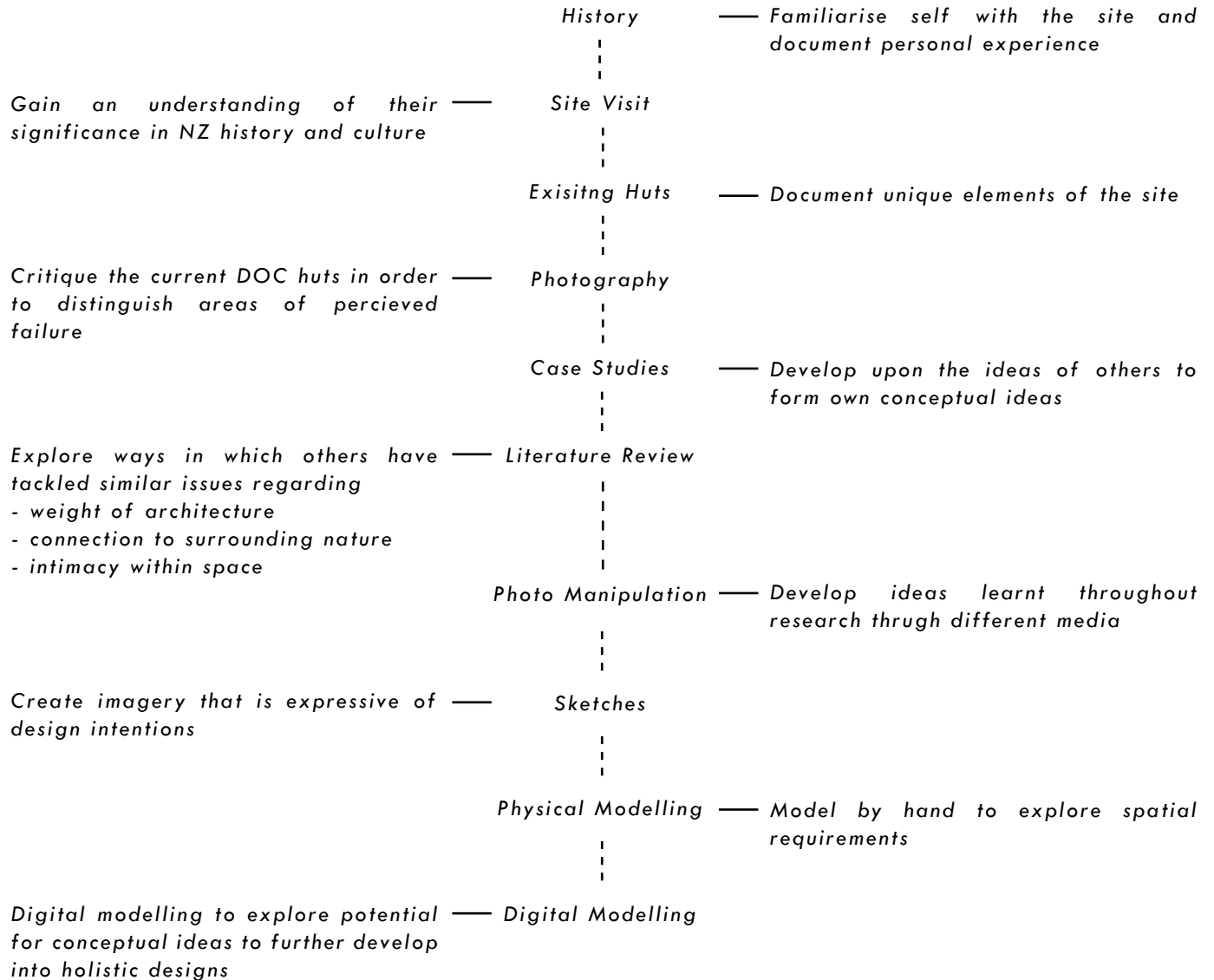
Scope of the Design Research

This thesis aims to develop an architectural experience, from the overall architecture down to the finer details of design.

As this is a Master of Interior Architecture thesis, the research and design outcome is primarily interior focused. As I do not have a comprehensive understanding for the overall structural elements, this is beyond the scope of investigation and will not be a strong focus of the research.

Some considerations of costs were considered when making design decisions; however detailed costs are beyond the scope of investigation.

Methodology



Site Analysis

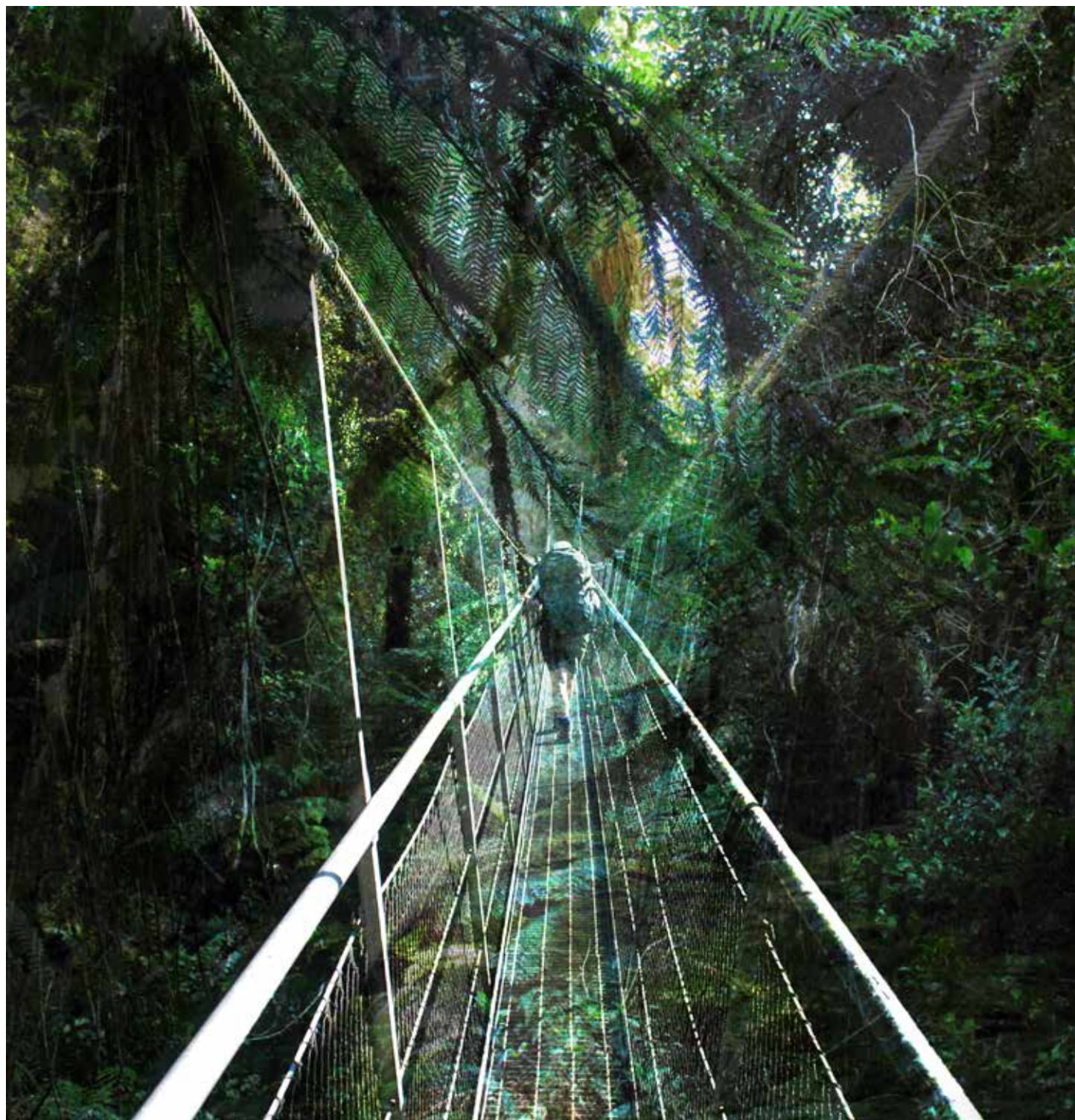


Fig 2. 01. *The beginning of our journey*



Tararua Range

For city-dwellers, it can be a challenge to feed their intrinsic thirst for nature. This thesis aims to provide a space for such people, providing the means for them to escape from the norm and lose themselves amongst nature.

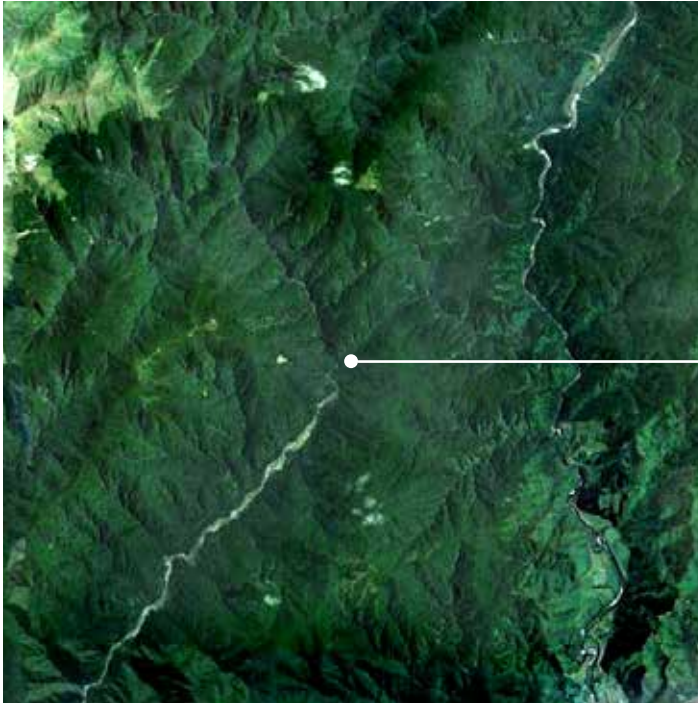


Fig 2. 02. Cone Hut located in the Tararua Ranges

Therefore, the proposed site is within the Tararua Forest Park in the Wairapa region, at what is currently known as Cone Hut.



Fig 2. 03. Cone Hut nestled amongst the dense forest

This site has the potential to foster a deep connection between humans and nature. The current state of the DOC cabins prove to be a site worth challenging. If successful, the development of these huts will not only benefit their users on a spiritual and mental level, it will also benefit the community of backcountry hut users by encouraging further use of such huts.



Fig 2. 04. Cone Hut

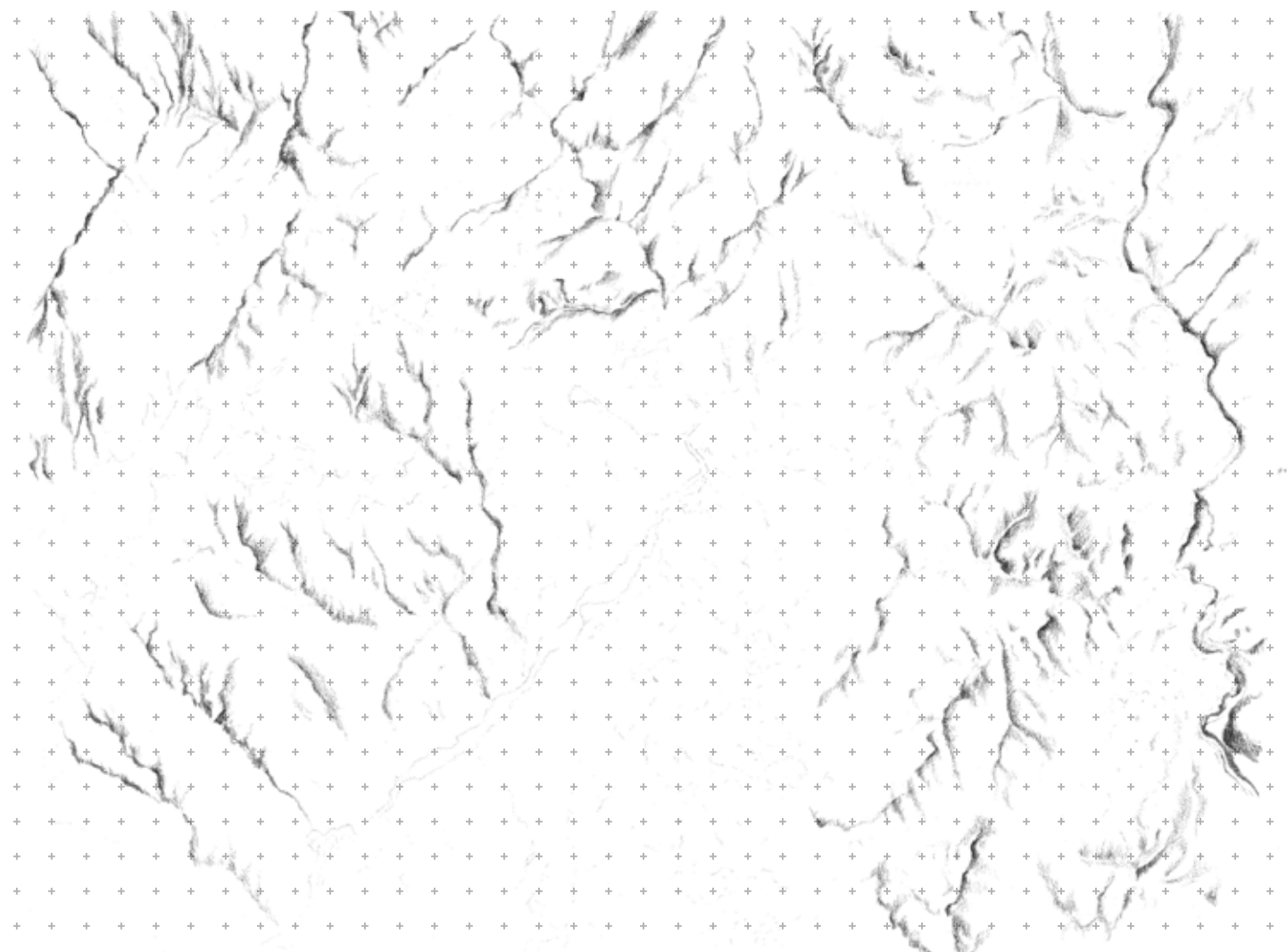


Fig 2. 05. *Author's sketch of Tararua Ranges*

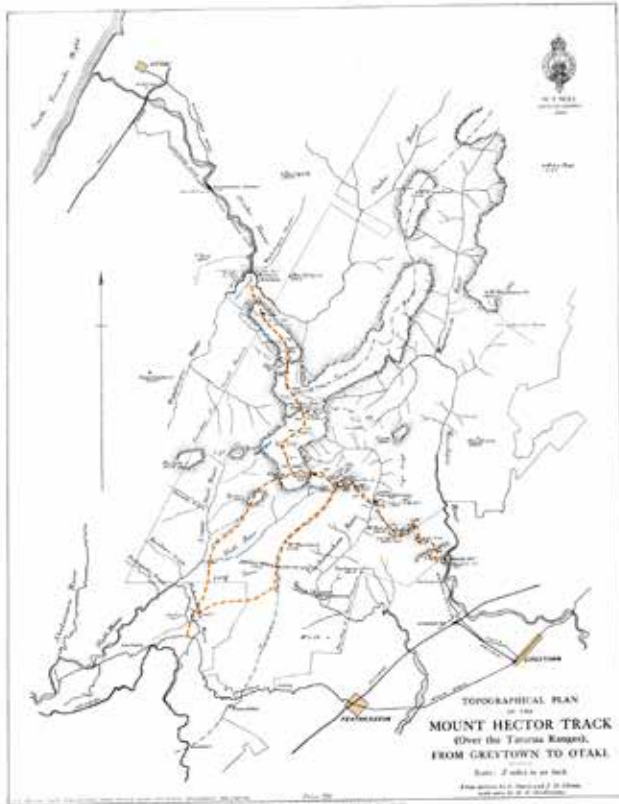


Fig 2. 06. Map Mount Hector Track 1924

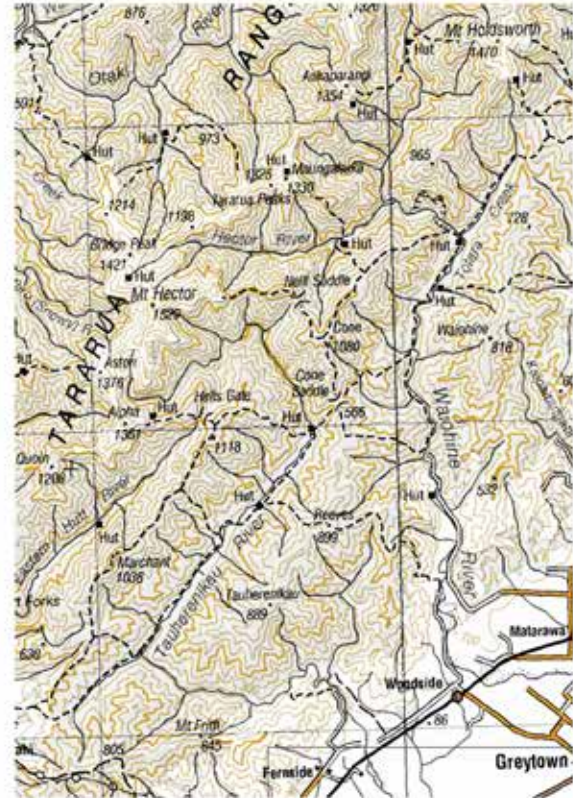


Fig 2. 07. Map of same area 2016

The comparison between these two maps shows the increase of tracks available to pursue.

Site Conditions

Topography

This site elevation profile allows us to gain an understanding of the hills that surround Cone Hut. As seen, there is a large variation of hills; however Cone is sitting fairly low in comparison to the immediate surroundings. This aspect affects the hours that sun reaches the site, depending on the time of year.

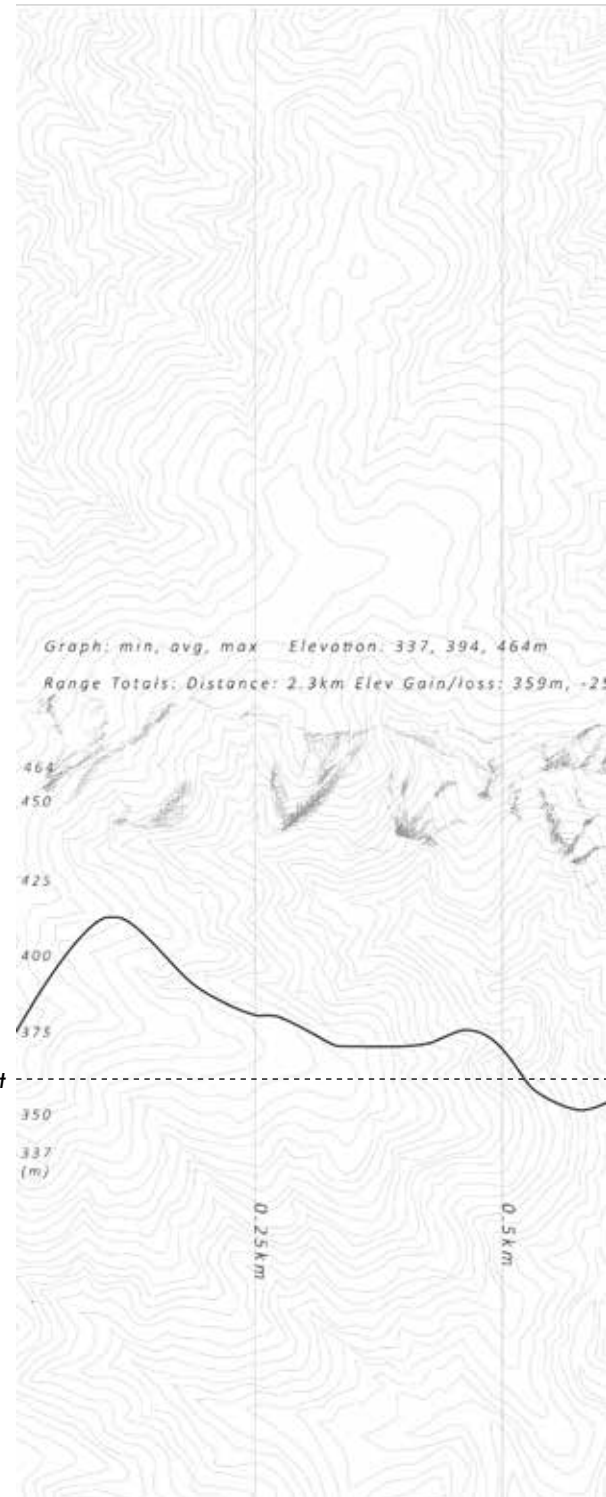
Access

Walking access to the site will be acquired along the Holsworth – Kaitoke Track, as shown in the image. There is no vehicle access.

Recreation

The rugged landscape of the Tararua Ranges is popular for recreational activities. Between 120,000 and 150,000 people visit the Tararua Forest Park each year. (Maclean)

Cone Hut



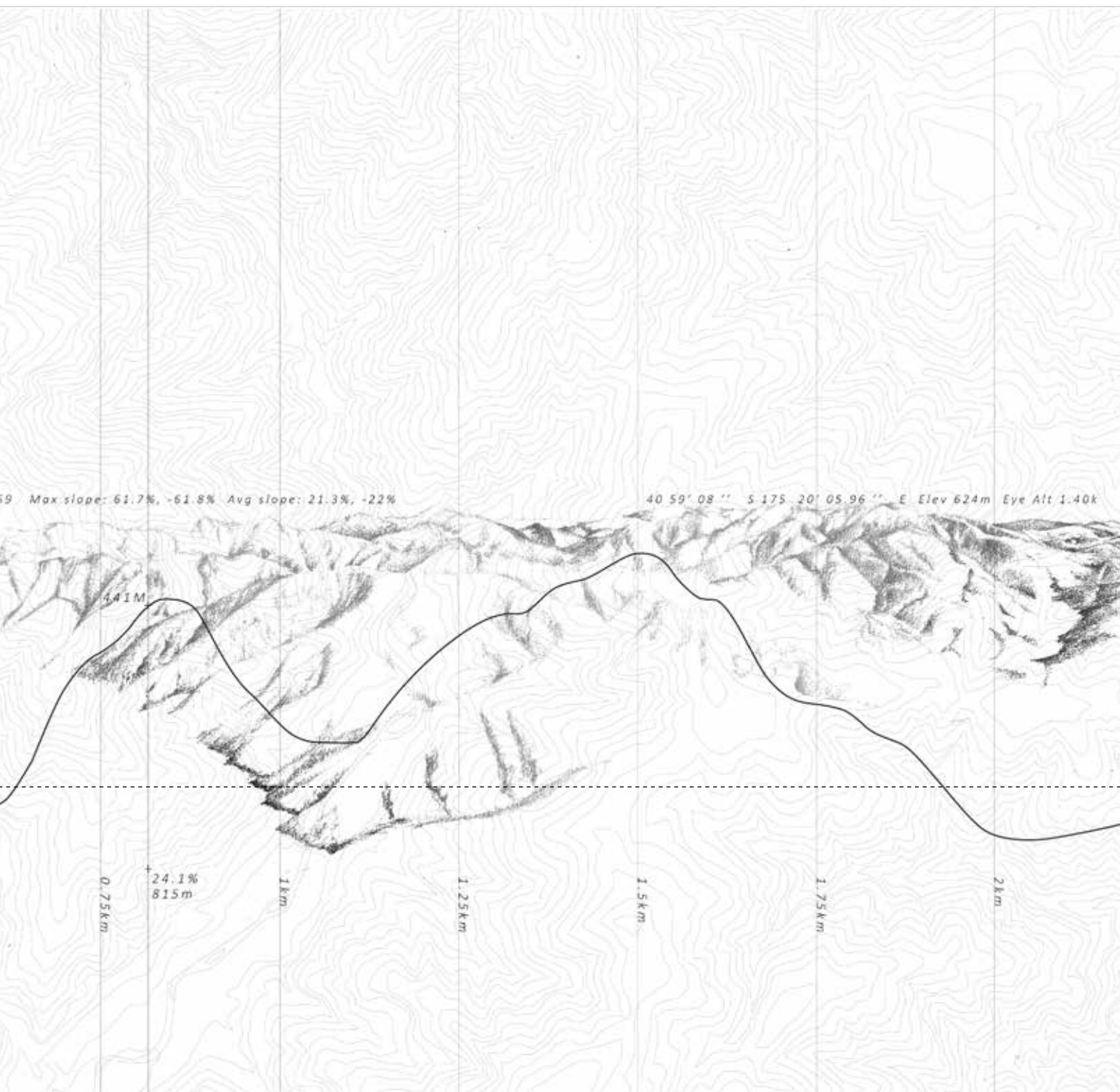


Fig 2. 08. Map showing elevation line of hills surrounding site

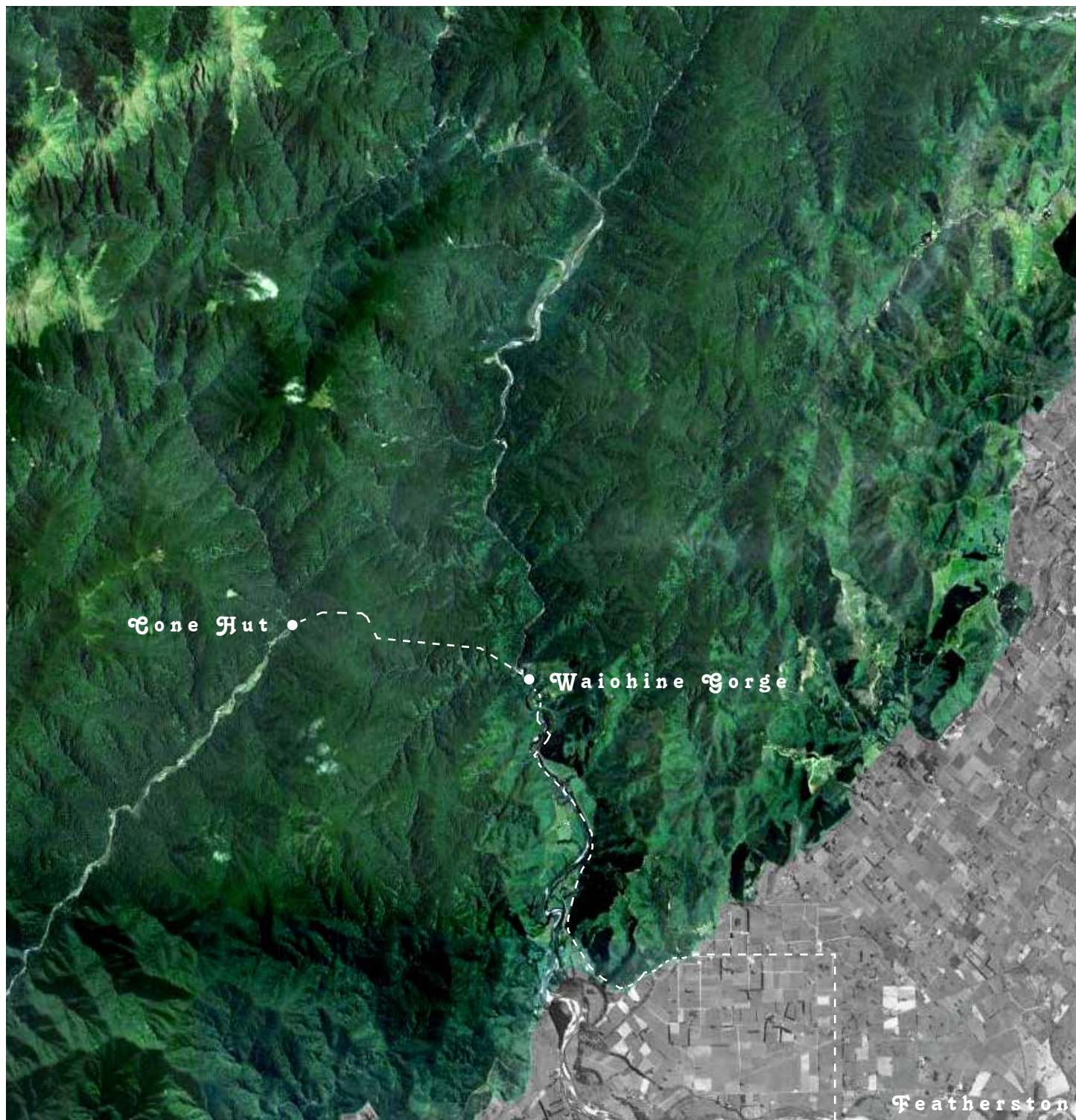


Fig 2. 09. The track to Cone hut (3.5 hour tramp)

Climate and Vegetation

The Tararuas are considered to be typically damp and windy due to their proximity to Cook Strait. The area receives annually up to 5,000mm of rain along the western slopes every year. These prevailing moisture-carrying winds are why the western side of the ranges are dominantly covered in conifers, ferns and shrubs. The Tararua ranges are diverse in vegetation, ranging from alpine tussock grasslands and subalpine shrublands to forests of miro, or beech or lowland broadleaf forests with emergent podocarps and kamahi. (Maclean) The Northern end of the Tararuas is typically tawa and micro indigenous woodlands, the southern end consists mainly of beech trees, and the western slopes supply a variation of species such as rimu, tarrier, matai, totara and kahikatea while the eastern side of the ranges is predominant in beech forest ("Vegetation in Tararua Forest Park").



Wildlife

There is a variety of bird wildlife within the Tararuas, including the bellbird, tui, kakariki, fantail, morepork and kereru. However pests continue to threaten our native species. ("Wildlife in Tararua Forest Park").



Fig 2. 10. Fantail
Fig 2. 11. Bellbird
Fig 2. 12. Tui

Pests

Possums are mainly vegetarians, but eat the flowers, fruits and leaves of plants that are key food sources for many native birds. Stoats are a key predator of many birds, particularly when they are nesting as they eat the eggs. Rats are also a constant source of predation, especially for the smaller forest birds such as bellbirds, robins, rifleman and fantails.

Clearing, culling and poisoning have contained pests and weeds, but none have been eradicated.

These pests, as well as mass clearing of forest habitats, and collection for museum specimens are factors that have led to New Zealand's dwindling native bird population. Such events have not only caused the extinction of the Huia, but the loss of kokako and kiwi from the Tararua Range. ("Conservation and pest control in Tararua Forest Park.")



Fig 2. 13.
Fig 2. 14.
Fig 2. 15.

Possum
Stoat with chick
Rat



Fig 2. 16. *Roots intertwined*

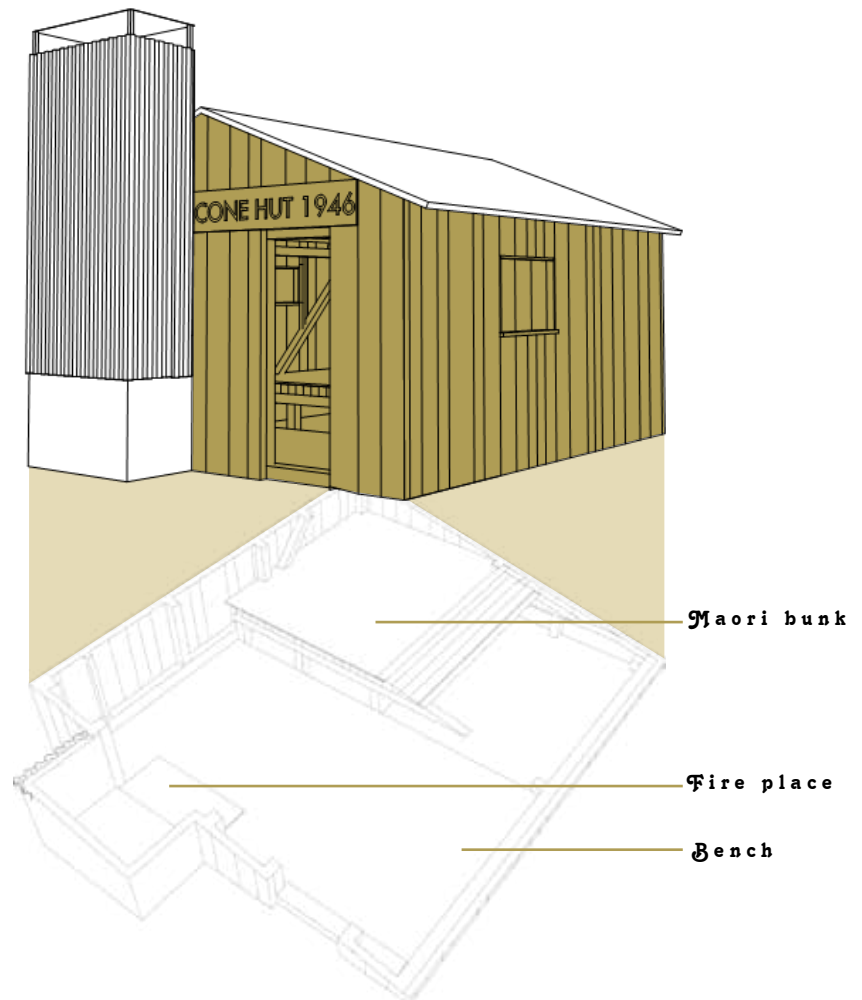
☪one Hut

Examination of the existing Cone Hut uncovered more information on the site.

Information was gathered from Ron Pynenburg's 1981 thesis 'Huts of the Mount Hector Track' and through my own personal experience.

*Be kind to the opossum
When e're you come across 'um
It lives on leaves and twigs and
nuts
And iron off the roofs of huts.*

*-Anonymous poem,
Cone Hut log book*





History

Looking quaintly picturesque amongst the yotara trees is Cone Hut. Built in 1946, Cone is the second oldest hut and the only remaining example of slab construction in the Tararuas, making it a historically significant piece of architecture.

By June of 1945, permission was granted to demolish the old Cone Hut, and have it rebuilt at another site. The new chosen site was to the left of the Tauherenikau River, at the base of the Cone Saddle Track where it would be free from flooding and closely located to a nearby stream.

The new Cone Hut was built with the intention that if it needed to be demolished, it wouldn't be a great loss to the tramping community. Therefore planning was very economical, with low cost and simple construction.

Despite ongoing maintenance, Cone hut deteriorated over time, before being restored in 1988 by members of the Tararua Tramping Club. 28 years later, the hut is still loved and appreciated by members of the tramping community. (Barnett, Shaun, Rob Brown, and Geoff Spearpoint, 171)

Fig 2. 18.

Cone Hut 1946

Fig 2. 19.

Cone Hut Construction 1945

Fig 2. 20.

Splitting and adzing timber

Fig 2. 21.

Cone Hut 1978

Construction

The construction was simple:

Totara slabs on a Totara frame and split Totara piles, shielded by an iron roof.

An eight foot deep Maori bunk was implemented to sleep up to twelve people at a time, with a three foot shelf above as storage.

The floor was originally constructed of large Totara slabs laid on a bed of shingle.

The fireplace was made of concrete, with an iron chimney.

Two windows and a skylight allowed for light penetration.

Totara slabs were salvaged from Top Tauherenikau and the old Cone Saddle Hut, allowing for timber and slab construction to be prepared on site. This consisted of sixteen piles, twenty four slabs and the roof purlins. Remaining materials were brought in from the road end, and other materials were salvaged from Top Tauherenikau and Cone Hut. With a large quantity of the materials being either free or donated, and labour being voluntary, the total cost of the development was £29.5.

Sunlight is diffused by the surrounding trees creating a colder and damper shelter than would be expected in open country. These trees do, however, provide shelter from rain and wind.

There is undergrowth close to the hut, especially on the west and north walls, which assists in the shading effect of the larger trees (Pynenburg 22).

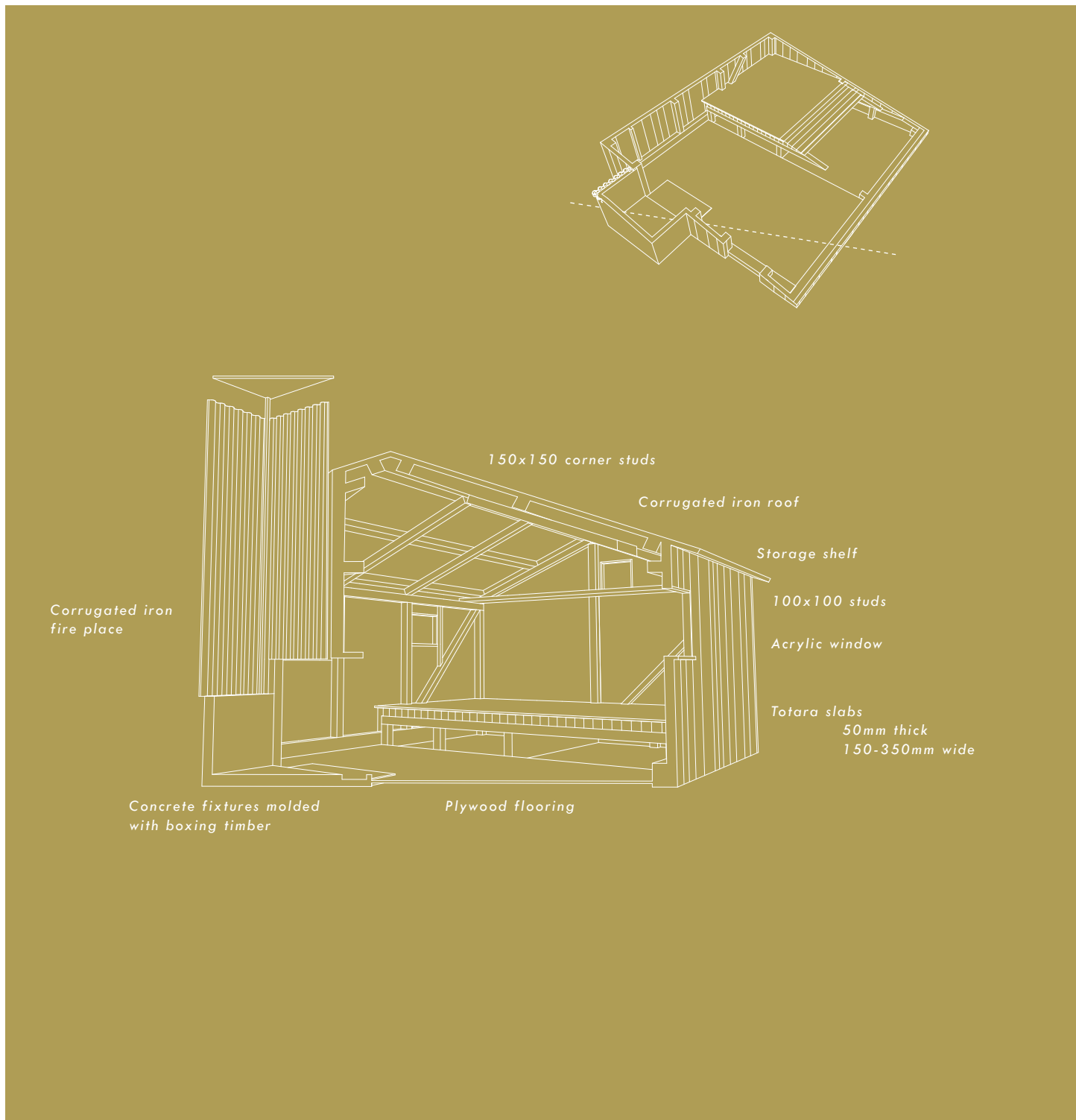
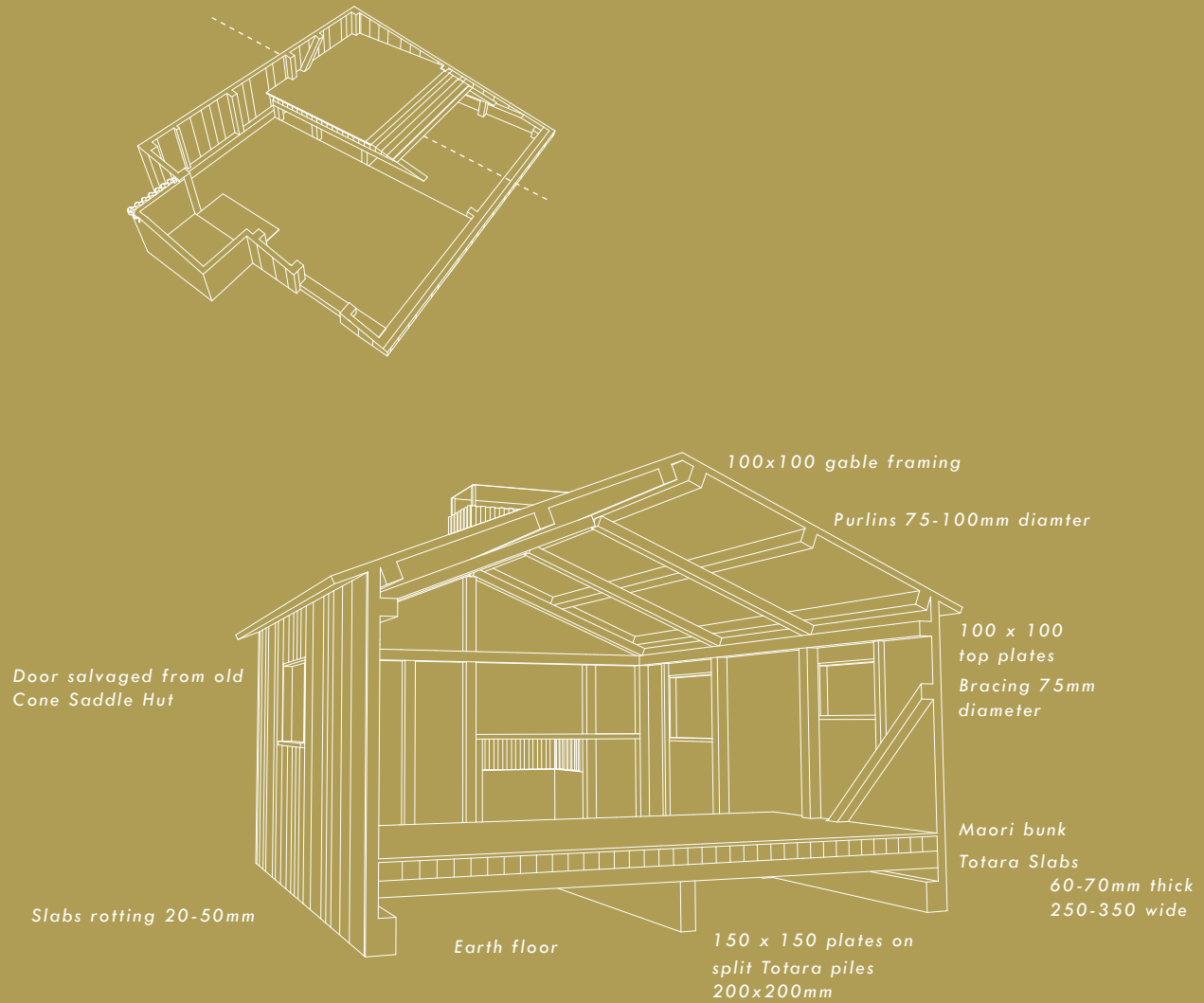


Fig 2. 22. Elevation of Cone Hut



Overall, Cone Hut exemplifies the ease in achieving necessary tasks without modern day conveniences.

Fig 2. 23. Elevation of Cone Hut



Fig 2. 24. *Low angle view of native bush near Cone Hut*

Shelter vs Exposure

From visiting the site, I developed a relationship not only with Cone Hut, but with the atmosphere of the environment. Spending an intimate period of time within the space, with no distractions, allowed me to take in my surroundings and develop a real sense of what it is like to inhabit the space.

Amidst the dense bush of the lower slopes of the Tararuas, Cone is an isolated location. Sheltered by surrounding hills and tall trees, little sunlight reaches the area, creating a dark and mildly damp environment. Not to say that this is a bad thing – it is one of the characteristics that is unique to the location. This nestles you within the nature, allowing you to experience it in its raw state. I personally believe that the smell of damp wood and leaves is one of the most revitalising senses that is experienced within the bush, and therefore this is an aspect that I feel is essential to embrace within the design.

In contrast to this, a five-minute hike down the track will lead you to the Tauherenikau River. From my experience, this area is much lighter and open, exposing you to sun and the breeze, paired with the sound of moving water. This is a pleasant space to spend a couple of hours. As you emerge from the dense bush and feel the warmth of the sun on your skin and the grass between your toes, you feel a contrast in sensation. This contrast is enlivening, conveying the true essence and purpose of the bush experience.

Earthy tones

Musty smell

The air of dampness

I am dry and sheltered

Submerged within an aged hollow of nature

This hut provides insight into my forebearers

Futuristic knowledge

Sheltered from the elements

The fire crackles, speaking

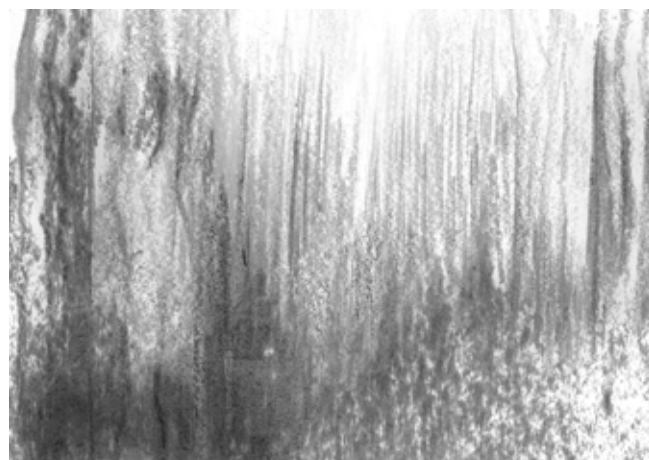
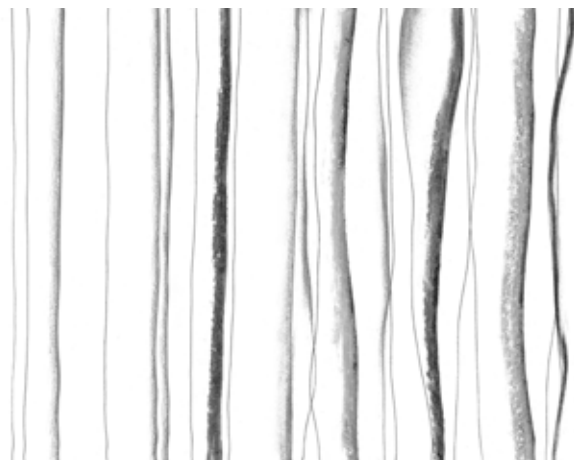
*Depths of the vast wilderness in my
surroundings*

The sun shall rest and so shall I

*The light dims, marking shadows and frames
of the trees silhouette*

The night mist turns to rain

*The pit patter of corrugated iron interrupts
my serenity*



Theory

Wild Heart is a collection of essays by trampers, scientists, conservationists, policy-makers, photographers, historians and writers, all searching to find an understanding of 'the wild'. Specifically looking at New Zealand's wilderness, it poses questions regarding the authenticity of our wilderness.

The following texts have influenced the theory that has driven the design philosophy behind this project, addressing issues with regards to the concept of wilderness; our place in the wild; and the act of gaining an intimate knowing of place. This literature looks more deeply into what drives our various understandings of wilderness, exploring what the wilderness can offer us collectively and individually.

While the following authors do not directly contribute to the field of interiors, their perceptions are imperative in developing the conceptual framework in order to progress with a design outcome.



Fig 3. 01. Deterioration - Photographic overlay

Concept of wilderness

Firstly, it is important to explore the elusive context of wilderness.

As author Robin McNeill puts it, “wilderness is where you find it”. It is subjective. It is a matter of opinion that cannot be clearly defined. Some people may find true wilderness within the vast ranges of the South Island, others may find wilderness within the confines of their own backyard (71). Wilderness has numerous meanings: as a place, as a legal definition and a perception. There are a multitude of factors that can influence a person’s sense of wilderness. The designation of topography does not merely define wilderness, it is an ever-expanding product of one’s own values and perceptions.

As a nation, we highly value the wilderness of our country. It is an important part of our psyche that is embedded within us as New Zealanders. This is evident in the amount of land that we have dedicated as public conservation estate. At present, over one-third of land is constituted as conservation estate and this percentage is continuing to grow (Abbott and Reeve, The Shape of Wilderness).

“Wilderness conjures up romantic notions of solitude and freedom, along with less than romantic notions of endurance and sweaty challenge” (McNeil 71)

Our Place in the Wild

The knowledge of New Zealand's backyard country and landscapes does not lie within government departments. Its knowledge lives with the ones who experience it – the people of the tramping, mountaineering and hunting clubs; the ones who seek to live and breathe for nature, whatever that may entail.

The Department of Conservation's outdoor recreational emphasis focuses on providing safe facilities in the front country and along the Great Walks. The provision of these facilities is often dictated by inappropriate building codes which have treated tramping huts as boarding houses. Some claim that these facilities are "overbuilt, if not luxurious" (Molloy 156). DOC's prioritisation to the front country has resulted in the decrement of facilities in the backcountry, displeasing many trampers in the process. Over-provision in the front country has resulted in more tourists frequenting these areas than kiwis. This expenditure focus on front country facilities is believed to be a result of governmental focus on the tourism industry. The sense of purism is a strong marketing ploy within the tourism industry of New Zealand. Supported by the grand transcendental views, this analogy of New Zealand's 'wilderness' focuses on the fantasy of nature. Individuals are encouraged to visit our national parks to witness our grand sceneries but neglect to depict the practicalities of being there. Facilities provide the illusion of isolation, but in reality they are evasive. (Molloy)

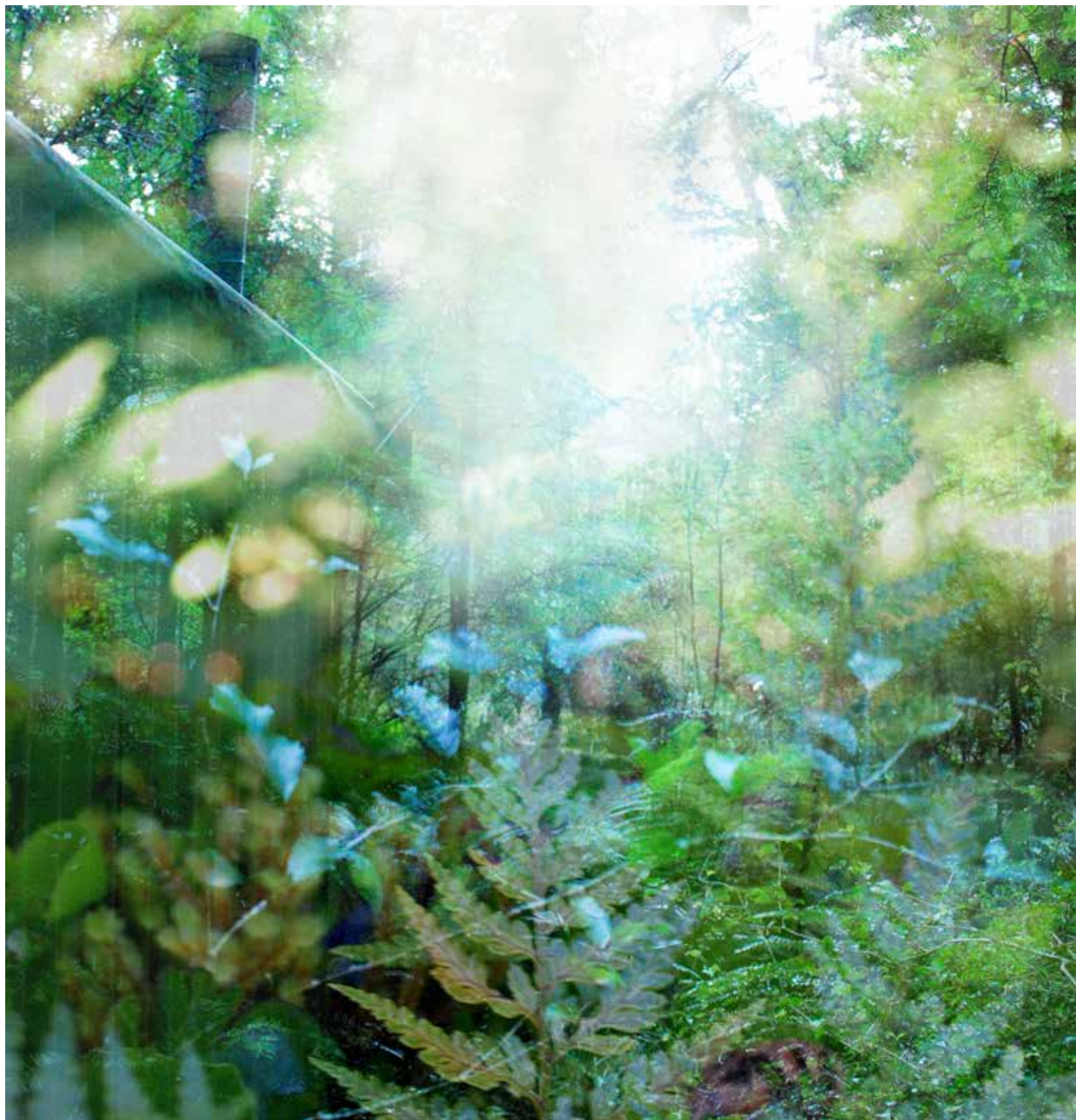


Fig 3. 02. *Light streams through a void amongst dense bush - Photographic overlay*

It seems that there is a larger appreciation for grand sceneries compared to the minute details of the wilderness. Much like in architecture, we tend to forget that it is often the smaller details that add to our overall appreciation for something - small things that stimulate the senses - like the smell of damp leaves, the sound of a tui call, a gentle breeze on damp skin. It is in these intricate details where we find nostalgia and appreciation for the things that we often take for granted in our progressive society.

The uniform solutions provided by DOC are a revealing indication of how we understand our place in our own land. Despite our affection for the wilderness, we have neglected to allow the architecture to evolve out of its environment: "Generic solutions are superimposed over, rather than drawn from, the land" (Abbott). It is the architecture, the very thing that we occupy and surround, that becomes an obstacle in our experience and our identification with the land. It is this ever-present separation that hinders people from becoming a more integral part of the ecologically indigenous qualities of this country (Abbott 182).

An Intimate Knowing of Place

Robin McNeil poses the question,

“Wilderness leads a precarious existence in modern times and we need to protect it, but, I wondered, is it necessary to destroy wilderness in order to save it?” (73)

Much like everything, there are boundaries that need to be distinguished with regards to complying with sustainability, and achieving the design intent both physically and psychologically.

“Simple nostalgia for an idealized past is a tacit feature of many perspectives on wilderness” (Abbot, Reeve 203).

I personally feel that as a nation, the image that we retain is damaging as it limits our perspective on our capabilities within the wilderness. We do not need to conceive wilderness as having a past more authentic than its current state, as if our exploration is contributing to its demise. That fear should not need to be instilled into us; rather, we need the encouragement to explore our own backyard. Our collective nostalgia for times past needs to be altered, or at least developed upon in order for responsive outcomes to be imagined.

Abbott refers to Geoff Park through his opinion that New Zealand can be split into two different landscapes – one being the land that has been so transformed that native species are absent; and the other, the land that is devoid of humans. The disconnection between these two landscapes highlights Park’s ambitions to seek out the ‘middle landscapes’ where the boundaries can be blurred and contested. It is perhaps natural to assume that these ‘middle landscapes’ occur along the boundaries of the two opposing landscapes, although this is not the case. This middle landscape occurs where people and the environment meet – the juxtaposition of interface. For instance, as the foot walks the ground, as a boardwalk follows a river’s edge, as the hut becomes its surroundings, or perhaps, in the way we cook a meal (Abbott 12).

For example, it is argued that the use of fires for cooking has environmental consequences. Fires use up wood, destroy insects and other animal life, and they can scar sites with remnants of charred fireplaces. As advocated by the New Zealand Mountain Safety Council, using a portable cooker is the current best practice. Abbott believes that the blackening of a site should be discouraged, but he challenges the idea that the act of building a fire is unsustainable. He argues that use of a portable cooker limits the relationship between the user and the environment; by implementing sophisticated technology, the role of wilderness is relegated to merely a setting to use the technology. Such technology may be superior in regards to fuel efficiency, yet does not elicit a more intimate knowing of place. The act of building a fire has been learnt in the environment that it is practiced, rather than the store from which it was bought. Through the process of finding fuel from the forest, knowledge is gained, and the intimacy is reinforced. (Abbott)

Anthropologists Tim Ingold and Terhi Kurttila describe how this process of becoming knowledgeable about specific places derives from the activities undertaken there. Places become characterised by the qualities that are associated with the actions taking place, and through these actions we instil a sense of belonging. An intimate knowing of wilderness is derived by what we do in such places (Abbott).

In this vein, the elevated boardwalk, the bulldozed valley track, the identically prefabricated hut, the generic track marker, even the equipment that we bring with us into the wilderness, all script a performance of people as visitors and aliens in our public land and waters... Our current relationship with conservation lands is being shaped by an increasing number of facilities and technologies whose function is to mute the environment's capacity to routinely direct our actions. We have blunted the capacity for place to challenge and influence who we are (Abbott 187).

As well as the learning through action, it is important to develop character through physical challenge. The challenge of testing one's limits is an integral part of the tramping experience.

"Each footstep on the mountain isn't just a means to an end – but a unique event in itself... to live only for some future goal is shallow: it is the side of the mountain that sustains life, not the top (Molloy 154).

Like the 'middle landscape' between the people and the environment, there is also middle ground between retaining the physical challenge, and enabling a comfortable experience for the adventurer. Molloy discusses his need to defend the preservation of wild places from accusations of recreational 'elitism'. Others had concerns for the older, less fit, handicapped and inexperienced people that were not able to take on such a challenge, questioning why easier access was not implemented into the wild. Molloy agrees that roads, tracks, bridges, huts and helicopter landing pads would provide easier access for the community, but questions the possibility of the wilderness experience when there is no wilderness (154).

Molloy refers to Sir Edmund Hilary when he quotes,

"we must also retain our wilderness areas where nature can develop in its own calm way and where only those humans who are prepared to walk and sweat a little qualify to go."

In order to retain a sense of wilderness, the action of striving for one's own personal endeavours must be maintained. This concept is complicated in its diversity as different people require different challenges in order to attain a sense of wilderness. It is imperative to encourage diversity amongst this niche community, in order to promote and sustain future exploration. (Abbott, Reeve)

"The challenge is not to diminish, by rather to foster, engagements in which both the quality of the experience and its capacity to shape us are enhanced" (Abbott, Reeve 203).

As an interior designer, I am in a position to stimulate change by providing an alternative architectural perspective. There is opportunity to shape future perspectives on their individual place within nature and their respective intimate relationship. Design can be enhanced by relating nature to the experience, through the incorporation of its material, emulation of its form, atmosphere, and history – ultimately creating site embracing architecture that appears to have grown from the ground.

Thick Edge:

Architectural Boundaries and Spatial Flows

*Professor Iain Borden of the Bartlett School of Architecture is a specialist in architecture and urban culture. His article **Thick Edge: Architectural Boundaries and Spatial Flows** looks at the social and spatial dynamics that are influenced by architectural boundaries. Although his focus is on the urban realm, his theory is still relevant to any architectural boundary, and therefore can be applied to the interior/exterior threshold. Borden analyses the effects both physically and psychologically that a border creates.*

His study looks at the church of Holy Trinity in London. A theatrical curved façade encloses a semi-circular entrance, creating a stage and drawing in visitors. Abandoned as a place of worship in 1991, this soon became a sitting and sleeping place for the nearby homeless. Composing their own illegal real estate out of clothes and cardboard, they transformed the space to a public yet private domain. This was a place of refuge for the homeless, until a three metre high plane of wood was erected around the building. This does not necessarily shut the building off to people, but it creates a boundary through space, repelling the unwanted by creating a socio-spatial hierarchy. To the homeless, this was a divisive boundary, demonstrating the social effects that architectural borders can convey without regard for the psychological or emotional implications. (49)

Borden questions the socio-spatial nature of the boundary, stating that "Architecture has too often been conceived solely as the product of design intention, from which social effects simply follow" (50). The Holy Trinity screen changes the historical nature of the experience. The visitor questions their place amongst the architecture, rather than physically barring them, controlling property and social relations through physicality (Borden).

Summary

In the boarding up of the church to deter the homeless, a physical form provides credit to the argument of raw wilderness, in the sense that a bulldozed track being constructed for the security and safety of newcomers into the wilderness is in effect a physical boundary for which we as humans have implemented traits of our urban social structure onto that of nature and the wilderness adding controls to 'wilderness'.

Borden's concept applies to Park's theory regarding boundaries of disconnection between the two landscapes and the desire from the two opposing views of which one seeks to allow the wilderness to be raw and untouched, experienced only by those with the ambitions and physical integrity to witness and absorb this spatial category – contrary to the other that seeks to allow the wilderness to be adapted for all to experience, subtracted of the adreanlin and 'fight' of the reward given by raw wilderness.

This thesis focuses on the 'middle landscapes' where the boundaries of these opposing categories can be blurred and which design outcomes seek to rejuvenate and mediate the inbetween highlighting the innate intimacies interior architecture detail has to offer the design world.

Programme Analysis

DOC Backcountry Huts

In order to form a brief for the overnight accomodation in the forest, firstly, the facilities of present DOC huts are described and critiqued.

The current DOC huts will act as a design driver, indicating the ways in which they fail to maintain a relationship with the natural environment.

Existing DOC Hut Categories

Fig 4. 01. Luxmore Hut



Great Walk Hut

Bunks or sleeping platforms
with mattresses
Toilet
Water supply
Hand washing facilities
Heating (fuelled)
May be cooking facilities
and a hut ranger

Fig 4. 02. Angelus Hut



Serviced Hut

Bunks or sleeping
platforms
with mattresses
Toilet
Water supply
Hand washing facilities
Heating (wood stove)

Fig 4. 03. Bluff Hut



Standard Hut

Bunks or sleeping
platforms
with mattresses
Toilet
Water supply
May have heating

Fig 4. 04. Poulter Bivvy



Basic Hut/Bivvy

Very basic shelter with
limited facilities and
services.
Sleeping mat required.

Hut Facilities and Services

Bunks in bigger huts are often sleeping platforms that are a width of 75cm.

Toilets are usually 'long drop' or composting.

Candle holders are provided (not candles).

Where heating is provided, fuel is either gas or wood and is available at some huts in peak season. An axe or saw is often provided at huts with wood heaters.

Water is often supplied from rainwater or streams. This must be boiled for 3 minutes before being consumed.

Wardens or rangers visit huts on a regular basis to check that visitors have the appropriate hut passes. They can also provide information about track conditions, side trips, hazards, weather forecasts and also help to ensure that huts are clean and tidy.

An intentions book is supplied and is required to be filled out to assist in search and rescue operations and also to provide information on how often the huts are used.

Backcountry huts do not have:

- *Any food, cooking utensils, pots or pans*
- *Sheets or blankets*
- *Rubbish collection*
- *Showers*
- *Toilet paper*

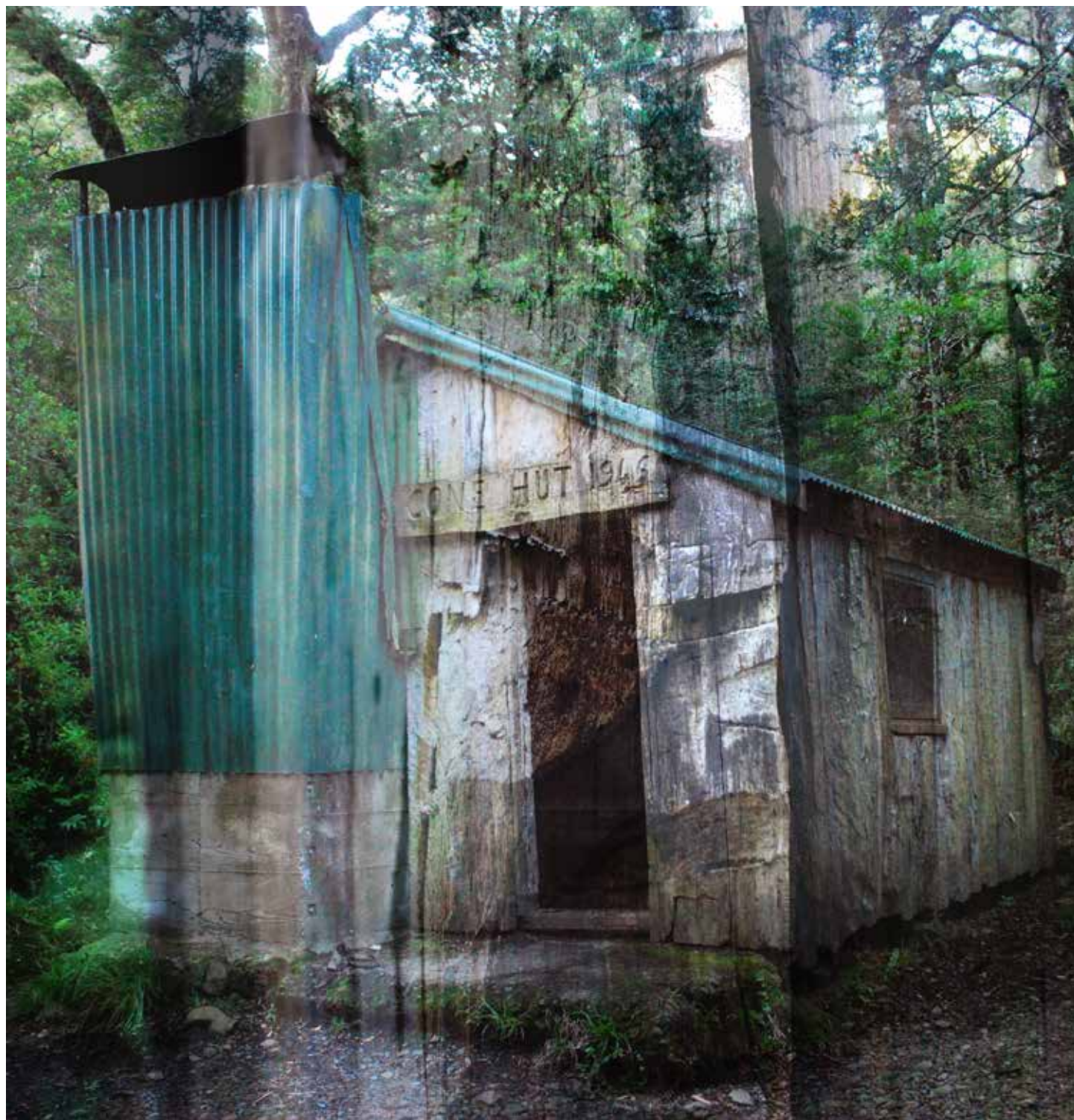


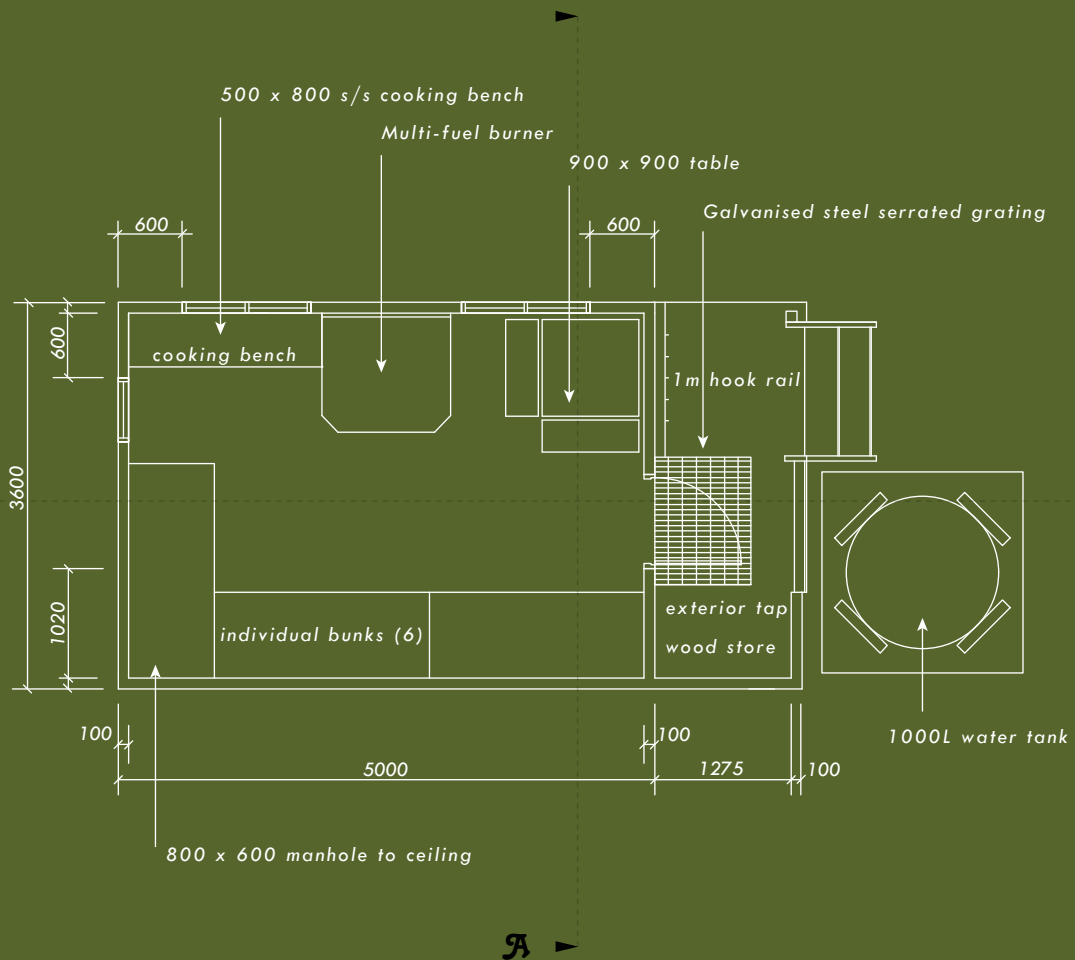
Fig 4. 05. *Adzing of timber for Cone Hut*

DOC Hut Drawings

The following drawings represent the typical Department of Conservation Hut model that is used as a basis for designing all of their 6 bunk huts.

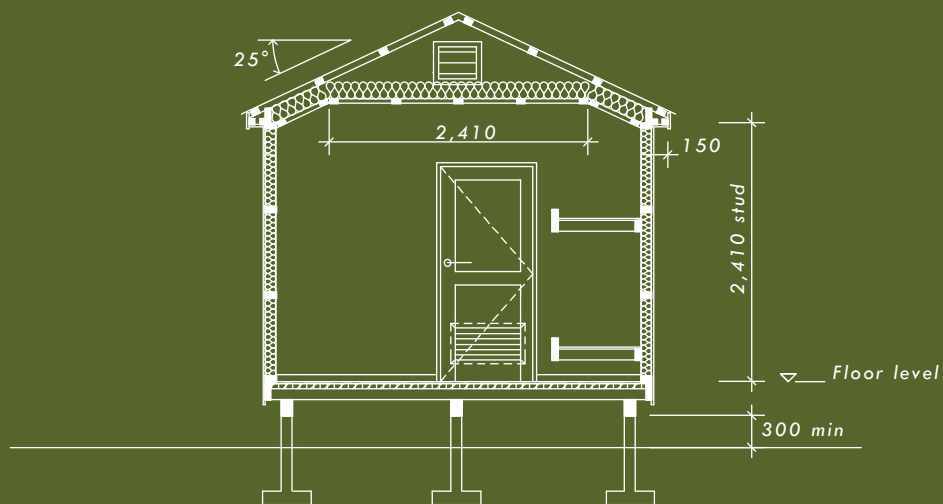
These drawings have influenced the design by assisting in defining what essentials are required within the hut, as well as inspiring practical aspects.

Original copies of the drawings may be found in the appendix ("Hut Procurement Manual Part B.")



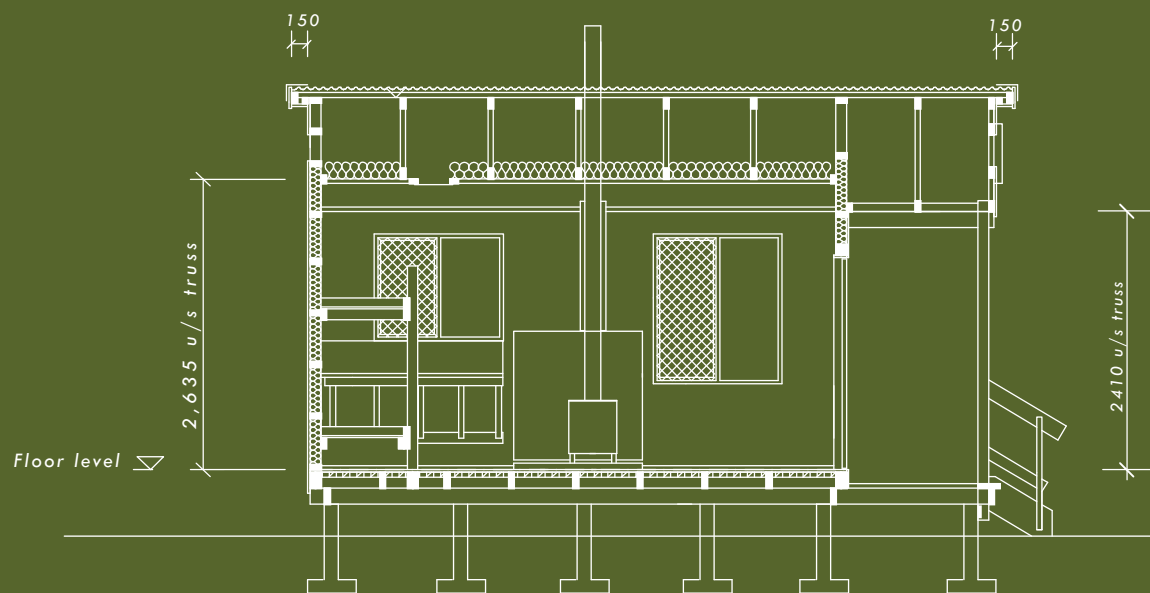
Floor Plan

Scale 1:50



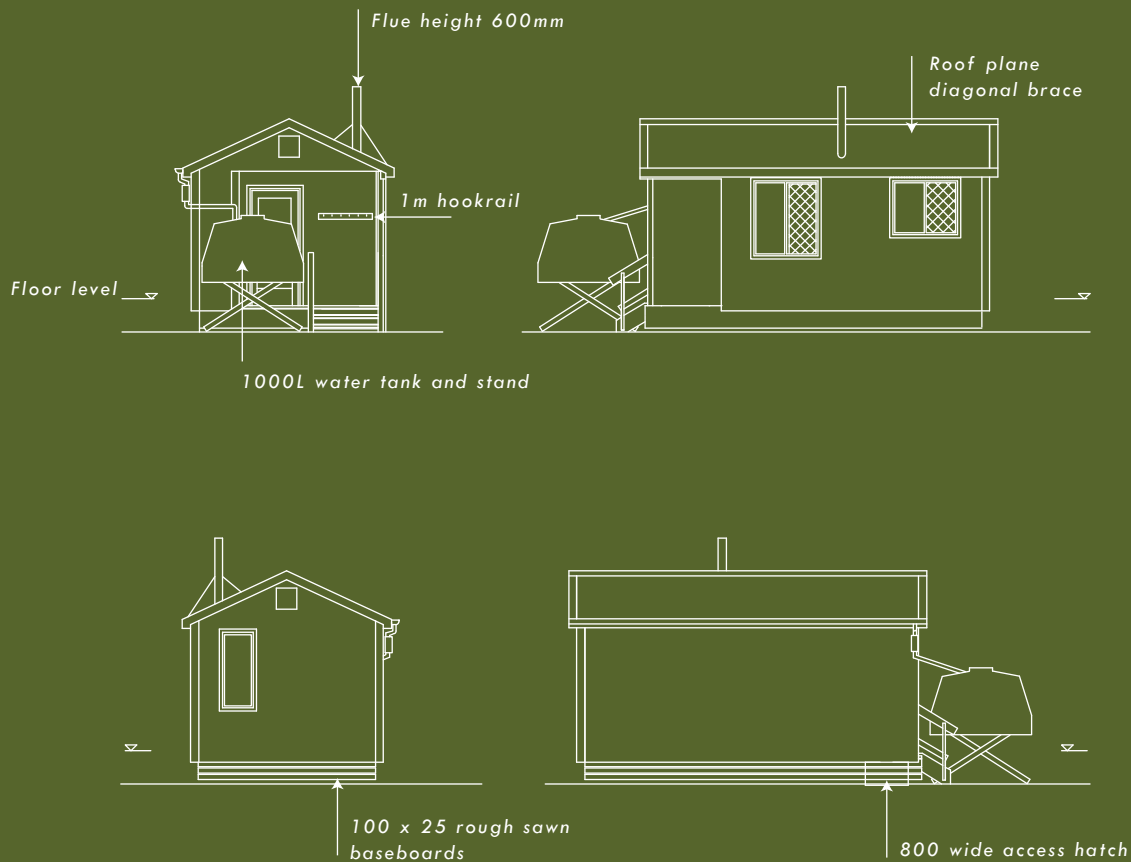
Section A

Scale 1:50



Section B

Scale 1:50



Exterior Elevations

Scale 1:100

Proposed Alternative

Protection Requirements

	Privacy	Rain	Wind	Insect	Pest	Insulation
Pack off						
Boots off						
Wash mud						
Change clothes						
Put away						
Have a rest						
Set up bed						
Store wood						
Make inside fire						
Store water						
Prepare food						
Sit and eat						
Wash dishes						
Outdoor fire						
Make hot drinks						
Undress						
Sleep						
Bathe/refresh						
Pack up						
Toilet						

Fig 4. 06. Table: Daily motions

	Privacy	Rain	Wind	Insect	Pest	Insulation
Muddy area						
Change area						
Sleeping						
Living area						
Kitchen area						
Dining area						
Outside storage						
Outside shelter						

Fig 4. 07. Table: Protection requirements

These tables are representative of the daily common activities occupants will encounter, indicating the physical requirements that must be considered throughout the design process. Developing areas and the design considerations required.

Facility Requirements

<i>Activities</i>	<i>Actions</i>	<i>Requirements</i>
<i>Arrive</i>	<i>Take off pack Shed dirty gear Change into comfortable clothes Cleanse and refresh</i>	<i>Easy access storage 'Mud room'</i>
<i>Relax</i>	<i>Sit down and put feet up Read Plan</i>	<i>Seating Desk/table</i>
<i>Feed</i>	<i>Have a cuppa Cook dinner Make breakfast</i>	<i>Cooker Bench space Storage</i>
<i>Gather</i>	<i>Sit by the fire Play games Have a drink or two</i>	<i>Fire area Seating</i>
<i>Sleep</i>	<i>Going to sleep Sleeping Waking up</i>	<i>Beds Minimal storage</i>
<i>Bathe</i>	<i>Shower Clean teeth Wash face</i>	<i>Water supply</i>
<i>Toilet</i>	<i>Toilet</i>	<i>Long drop</i>

Fig 4. 08. Table: Facility requirements

Occupation Requirements



Fig 4. 09. Table: Layout Requirements

Structurally, the rainforest is considered to have five strata: three tree layers, a layer of shrubs and a ground layer of herbaceous plants. Occupation could have a similar hierarchy.

Project Brief

On the basis of the review and critique of DOC hut specifications and my own personal experience of over-nighting at Cone Hut, the following project brief was formulated.

Project purpose:

To provide overnight accommodation for trampers

Architectural purpose:

Architecture tends to pose a heavy weight on the surrounding environment. I intend to explore the concept of architectural weight in a native natural setting to develop an experience that is architecturally light while being attentive and responsive to the surrounding environment. Using architecture as a device to enliven our connection between self and nature, dissolving the threshold between inside and outside to reevaluate how we occupy architecture from an interior perspective: designing to encourage the occupant to experience and appreciate the small moments.

General

Number of occupants:

Maximum of 10 people

Period of stay:

Overnight (1-2 nights)

Flexibility of use:

Open and exposed when in use, but able to be closed and secured when not in use. Periods of use will fluctuate heavily depending on weather conditions and season. The space must be rigidly secured to protect against potential severe weather; however it must be flexible to offer an outside connection through varying weather conditions. This will require unique and thoughtful design decisions that will tend to the intent of the design.

Atmosphere:

The role of architecture in this specific project is to dissolve the threshold between the interior and exterior. The surrounding bush will act as the 'shell' of the building, allowing nature to grow into the architecture. The architecture will be designed in a way that brings the nature to fruition for the occupant.

Future potential:

The overall space will be designed with future ecological development in mind. Sustainable design is an important aspect of this design process and will be considered continually throughout. The current ecological state of the Tararuas has potential for improvement as it is currently depleted. If the number of pests are reduced as intended, then the natural wildlife of the area has potential to flourish. This may mean an increase in birdlife, affecting the state of the environment, and current requirements for the building. Contemplation for future requirements needs to be implemented if this piece of architecture will have a sustaining presence within New Zealand.

Spatial

Approximate size:

Minimum 18m²

Type of spaces:

There will be spaces for varying functions: arrival, resting, socialising, sleeping, food prep, dining, and bathing. These may be separated or connected based on design conclusions and opportunities that arise from preliminary design investigations.

Building **A**pppearance

Material choices:

Materials chosen will be determined by sustainable principles, selecting materials that will have a minimal impact on the surrounding environment and be recyclable or bio-degradable. In order to achieve architecture that is light, thorough attention to material selection is crucial and must be investigated through design tests. The material palette will consist of few materials, limited to what is necessary within the design intent.

Simpler design solutions will be investigated with regards to energy and water. Practical tasks are an inevitable part of the tramping experience. To take away this aspect with modern day conveniences would only hinder the experience by distancing the occupant from the nature around them. Practical aspects must remain a part of the everyday experience. These tasks create moments to dwell in nature, rather than merely view it from a distance.

Energy Use and **S**ustainability

Water:

Water will be collected from the nearby stream or river for any purpose of use. This includes consumption, washing and bathing. Greywater will be disposed of through a soak pit, where the wastewater will slowly soak into the ground, where it is naturally cleaned as it infiltrates the surrounding soil.

Lighting:

Lighting will follow the same standard as the DOC huts. Candle holders will be provided, allowing the occupant to light the space naturally with a simple naked flame.

Heating:

Heating will follow the same standard as the DOC huts. Wood burners will be installed, allowing the occupant to heat the space naturally to a level that is sufficient. The task of collecting fire wood will establish further connections with the surrounding nature.

Insulation:

Insulation will be incorporated into the design where necessary. This will only include sleeping and living areas, and will not be used where thermal comfort is not required for the activity, e.g. pack storage.

Glazing:

Double glazing will be used where practical to retain heat and protect from cold, while maintaining a view to the outside.

Pest Management

Pest management is not generally a topic that people want to consider within a design context. However, in the bush this is a serious concern. My experience at Cone has made me aware of the importance of feeling secure within the space that you are in, especially when you require a decent sleep to persevere with the long journey ahead of you. The topic of pest management needs thorough consideration before we progress with design development. Rats, mice, possums, sandflies, mosquitoes have the means to penetrate the dwelling if precautionary action isn't applied. Not only does precautionary action have to occur, but it needs to comply in a manner that does not hinder the intent of the design.

Rather than exterminating the pests within the interior, the design should develop ideas to:

- 1. Prevent penetration to interior*
- 2. Provide facilities to prevent attraction*

In order to provide facilities to prevent attraction, the following consists of design requirements that must be implemented:

All areas must be easily accessed for easy cleaning.

Pest resistant enclosures must be incorporated for storage of food and other perishable objects.

Mud room:

The mud room will be a fairly open structure as it will be a transitional space between the journey and the retreat. The purpose for this space is to offer an area where the occupant is able to take off their pack and boots, and potentially wash the mud away. This space therefore requires hooks and storage for the packs and boots, an area where the occupant can briefly clean themselves (using collected water), steel grated flooring to allow mud, dirt and water to drop back through to the earth, with mild protection from wind and rain.

Bunkroom:

The bedding situation will consist of six standard beds within the main house and two off-site multifunction sleeping rooms. Sleeping rooms will accommodate for two people per room, with foldaway beds to create living space. This space can be used at the occupant's discretion, whether it be a couple after an intimate night, or one person seeking isolation.

Kitchen:

The kitchen space will offer basic facilities, providing equipment to enable the occupant to achieve the necessary tasks. There will be no water supply, in an attempt to influence the practical aspects into the daily routine. Design aspects to consider include:

- a transportable basin for washing dishes that can be emptied when needed (as there will be no waste system)*
- a kitchen bench for preparing food*
- a nearby fireplace for boiling water and heating/cooking food*

Interior Social Spaces:

Resting requirements will be simple. There must be enough seating for 10 people. This may be transformable space that can be altered according to the needs of the occupants. Surface areas will need to be implemented into the design, providing space for drinks and plates to rest on. Small design considerations will influence the comfortability.

Design features

Socialising:

The primary social space will be the outdoor seating and fireplace. This will be a communal space that will enable social interaction amongst different people. Campfires have the power to connect people together, encouraging one another to share stories and create new bonds.

Dining:

In order to accommodate for up to 10 people in any weather condition, the design for a dining area must be flexible. When the weather is warm, occupants will most likely prefer to dine outside; however if the weather is not ideal, the interior space needs to be able to accommodate for up to 10 people to be dining at one time. The design should not hinder the social interactions of the occupants; it must facilitate social needs while adhering to the design intent.

Bathing:

Secluded and a small distance away from the immediate site, a simple means of bathing will be provided. This will consist of a small bath-like basin in close proximity to the river, allowing the user to collect water to fill the basin as a bath, or to pour the water over themselves like a shower.

Toilet:

The toilet will be outside, away from the immediate site. It will comply with DOC standards with regards to hygiene, but will be designed with the architectural intent in mind.

Access

Security:

The space will be primarily lockable, with access gained via a combination code that can be acquired through the Department of Conservation.

Accessibility:

The space will be designed for persons that are willing and able to physically access the space. As the site is considerably difficult to travel to, and is not wheelchair accessible, the design will not need to comply with wheelchair regulations.

Project Review

The following case studies present ideas regarding design initiatives and solutions, offering inspiration for functionality, materials and conceptual ideas.

Wetland Folly Herbst Architects

*Location:
Medlands Beach,
Great Barrier Island, NZ*

Architectural team Lance and Nicola Herbst were approached by Andi and Jason Ross, proposing that they design a rudimentary shelter constructed from readily available materials for their family bach.

Described as a 'folly' to capture the feeling of lightness felt in designing the independent structure, this project is a practical outdoor room hidden down a slope overlooking the wetlands. Beauty was the priority of the design brief, with the idea in mind to create a shelter driven by poetic notion.



- Fig 5. 01. Openings*
Fig 5. 02. Inside/outside dining
Fig 5. 03. Seating and opaque polycarbonate windows
Fig 5. 04. Exterior cladding and fire place



The family had owned the bach for a little over a decade; however it was proving to be impractical for social occasions as it did not offer any space to have friends over. As for rainy days, this would cause the family to feel cabin fever when they were confined to the indoors.

The couple did not want to compromise on the integrity of the old bach. They wanted to retain its authentic value, and instead build "a simple space that could be opened up on great days."

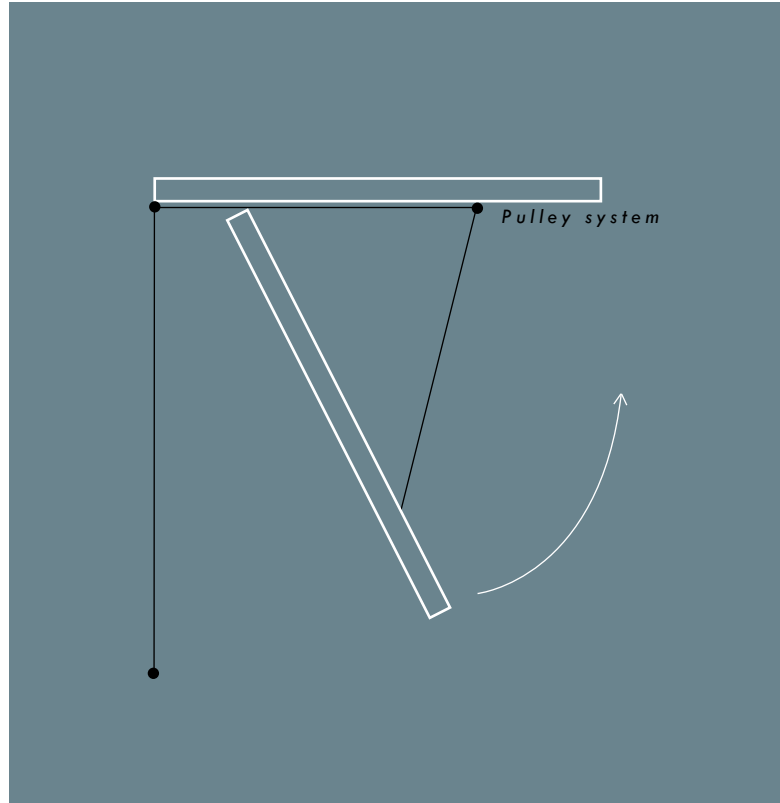


Fig 5. 05.

Polycarbonate windows exterior view

Fig 5. 06.

Polycarbonate windows interior view

Fig 5. 07.

Polycarbonate window pulley system diagram

The folly provides merely shelter from the rain and a fire to cook on. It is basic, but details have been thoughtfully considered to allow adaptation. Manuka sticks wrap around the pine frame across the roof and eastern side, creating a dappled sunlight. A layer of polycarbonate sheets sit above to keep out the rain. The northern and southern Cedartech wall panels (band-sawn gaboon pressed into radiata ply) can be slid open or closed dependant on the weather. The western side comprised of three polycarbonate panels have been designed with a rigging system adapted from yachts. This allows the panels to be raised or closed depending on the weather conditions. The interior is simple, including long benches, a wooden table and the structure's framework that doubles as shelving. Cooking occurs over a grill placed over the embers of burning wood from a wok below. Solar-powered lights provide illumination of the space at night. It is estimated that the whole project cost about \$40,000.

*“New Zealanders do it the best – when they switch off, they switch off. They really appreciate what’s around them and their environment... It’s nice to be able to go back to the basic stuff, and that building does it for us. We sit there and connect as a family”
 (“The Bare Essentials”).*



The Hunter's Retreat Vardehaugen

*"The Hunter's Retreat is based on the most fundamental of
all human traditions:*

the gathering around campfires."



Fig 5. 10. Hunter's Retreat physical model

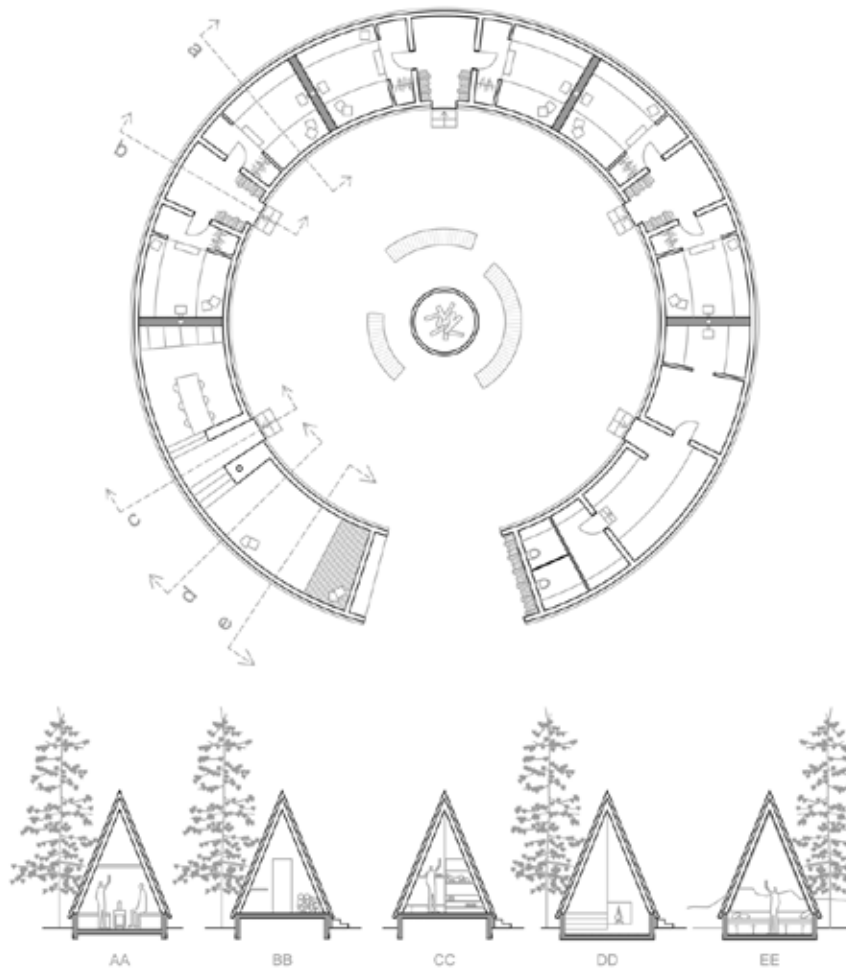


Fig 5. 11. Plan view and sections

Perceived to be the origin of modern society:

- Gathered around
- Developed languages, traditions and community
- Learned how to control fire

The Hunter's Retreat is a mountain dwelling inspired by this phenomenon:

The building folds around a fireplace creating a small circular atrium. As soon as the fire is lit and the hunters gather around the flames, shadows start dancing on the walls behind them.



Fig 5. 12. *Physical model displaying common room*

“Today campfires still have the power of connecting us to something fundamentally human: They make us sit together and tell each other stories.”



Fig 5. 13. *Physical model displaying log storage*

- Row of A-shaped cabins
- Common room
- Equipped with
 - Small stove
 - Two beds
- Wood storage

The Curly Cabin Vardehaugen

Location: Norway



Fig 5. 14. Material palette

The curly shape and the colours of the cabin are both inspired by the local birch trees.

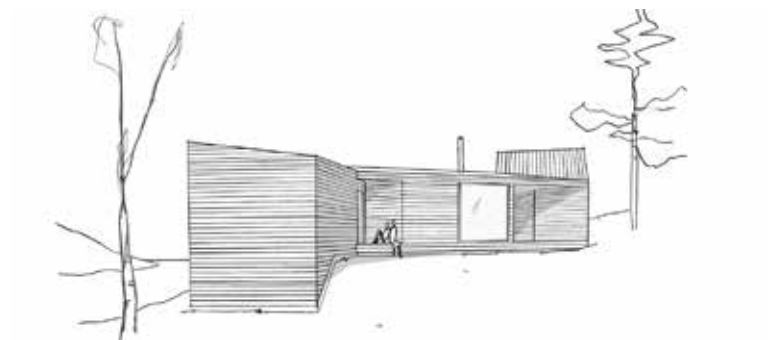
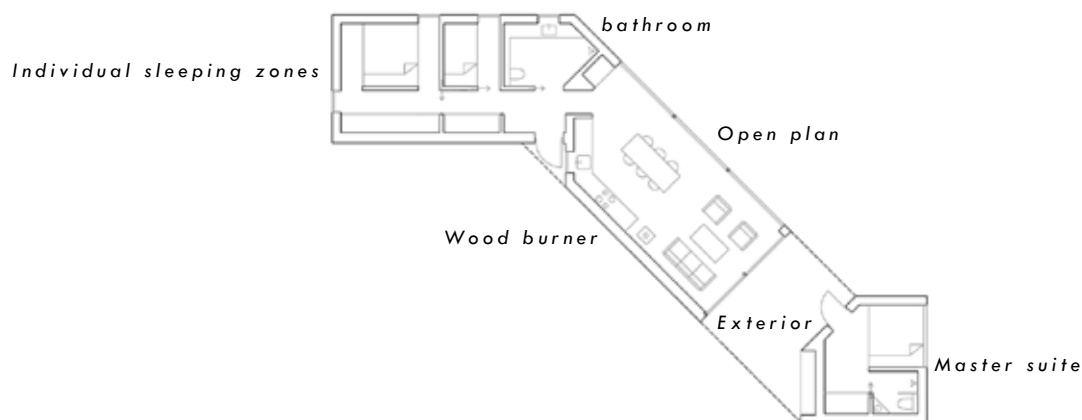


Fig 5. 15. 3d sketch of proposed design

The overbuilt terrace connecting the main volume to the annex frames the ocean view and connects the protected area behind the cabin to the larger landscape.



Curves with the hill topology

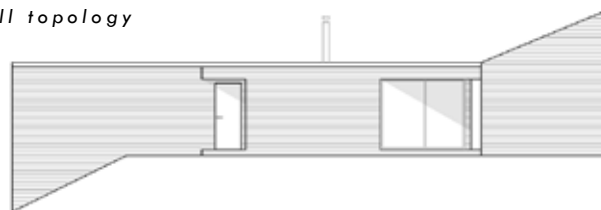


Fig 5. 16. Plan and elevation of proposed design

The body of the cabin follows both the horizontal and vertical curves of the local terrain.

Tiny Retreat Fo4a Architecture

Location:
Sarajevo, Bosnia



Fig 5. 17. Tiny retreat render



Fig 5. 18. Tiny retreat render

This architecture exemplifies ancient traditions extracted into architectural form. It is a modern wood framed building representing the typical old home structure of the old Bosnian village, Lukomir village, "last Bosnian village". The timeless construction and materials used elegantly portray the spirit of the historic village homes.

Nature is brought in through the large openings and floor-to-ceiling windows, immersing the occupant within the mountain ranges.

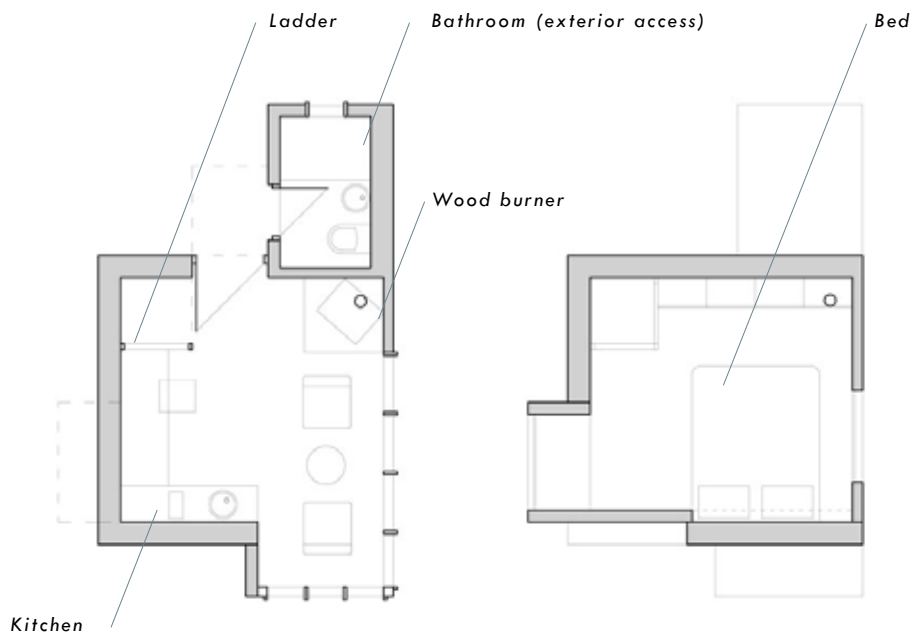


Fig 5. 19. *Tiny retreat plans*

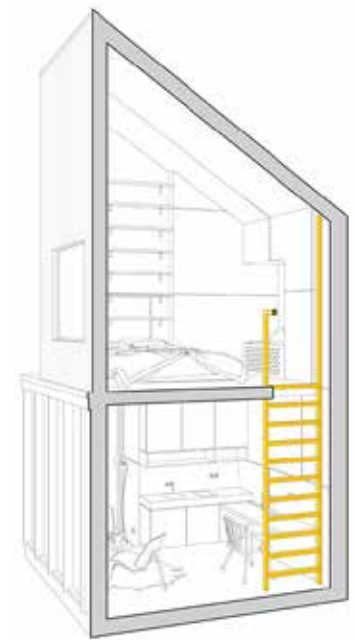


Fig 5. 20. *Tiny retreat elevation*

The main focus behind the project was minimalistic design and minimal investment.



Fig 5. 21. Wood burner



Fig 5. 22. Living space



Fig 5. 23. Living and kitchen

This sleek and simple material palette consists of large grained wood sheeting, creating a warm yet clean environment.

The exterior palette was inspired by an elderly local woman, displaying the beauty of age through charred wood siding.



Fig 5. 24. Bedroom



Fig 5. 25. Bedroom exterior view

A Cabin 56 Years in the Making

Jim Olson

Location:

Longbranch, Washington



Fig 5. 26. Bedroom exterior view

What started out as a bunkhouse in 1959 has expanded as the architect and owner has explored his ideas about interaction between shelter and nature. Adding layer by layer, he weaves the old with the new in order to make something that looks as though it grew there. Rather than cutting down the trees, he has built around them, integrating within the woods that surround (Casimiro).

The colours and materials used within the cabin are neutral tones of beige, allowing the green surroundings to be the focal point of the interior.

This simple material palette consists of wooden framing, plywood lining, steel columns, interior fir flooring and an exposed roof structure.

Essentially a series of boxes, the rooms are brought together under one roof, creating a single form grounded into the hillside.



*Fig 5. 27.
Fig 5. 28.*

*Moss growing upon wooden framing
View overlooking nature*



*Fig 5. 29.
Fig 5. 30.*

*A desk positioned to look outside
Elongated view down hallway*



Fig 5. 31. Bathroom embedded in nature

This image captures the essence that I aspire for the design. Even the bathroom has been given careful consideration for its connection with the exterior. To get to the bathroom you need to step outside of the house, yet it is still connected by structural elements.

Strategically placed sliding doors, windows and a domed skylight over the bed provide constant contact with nature.

*The design accommodates three mature trees that have been allowed to grow through openings in the deck, one of which exits through an opening in the roof.
(Casimiro)*



*Fig 5. 32. Looking into the lounge from exterior
Fig 5. 33. Skylight over bed*

These precedents have foremost provided inspiration for materials and atmosphere. Overall these have assisted me in developing an idea for the aesthetic that I aim to acquire, while also providing some practical considerations.

- *Material*

Affordable, lightweight materials such as timber and polycarbonate that can be easily constructed and be elegant through simple design.

- *Palette*

A neutral colour scheme that does not detract from the exterior elements, while maintaining a natural and light aesthetic.

- *Ideas regarding social environments and aiding in connection (natural connection, environmental connection and the connection between humans)*

These case studies have shown the effect that consideration for the surrounding nature can provide, further motivating and encouraging the exploration of this concept.

The precedent study highlighted qualities I envisaged for the forest shelter. These qualities seem at the edge of architecture. I looked to the work of artists Tracie Cheng and Michele Reginaldi for further inspiration.

Tracie Cheng

Tracie Cheng is an architectural graduate, who while studying, discovered her love for art and design. Her pieces are a play on space and depth, structure and fluidity, interweaving lines and paint to evolve into something unexpected. She aims to draw her audience in by provoking them to question the meaning of her work, while simultaneously providing a sense of understanding and contentment. Her love for art and design has led her to understand how it has the power to enhance spaces and better experiences ("Tracie Cheng Art").

"There's more than meets the eye."

- Tracie Cheng





Fig 5. 40. Author's interpretation of artist's work within site

- Fig 5. 34. 'Close Enough'
 Fig 5. 37. 'Patient Endurance'
 Fig 5. 38. 'Saints'
 Fig 5. 35. 'Great Divide'
 Fig 5. 36. 'Where You Go'
 Fig 5. 39. 'Permissible Trace'

Michele Reginaldi

Michele Reginaldi is an Italian architect and visual artist who in the 1980s began a series of form studies. This series of over 120 individual pieces, referred to as 'Constructions', vary in shape and size but are all made of brass. Within this series there are four categories - morphologies around the circle, morphologies of verticality, light structures and constructions for architecture.

The category that I felt connected with this certain project was his Morphologies of Verticality, which derives from his questions and exploration of proportions ("Costruzioni")

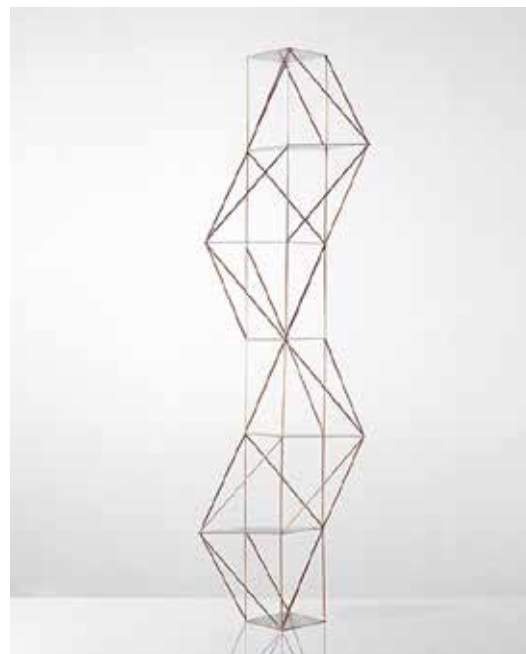
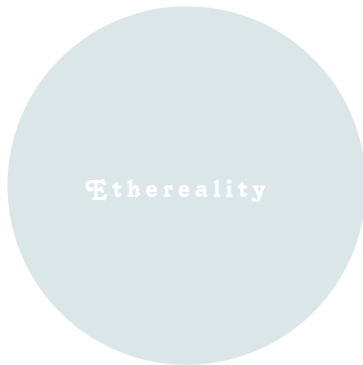


Fig 5. 41. V-018
 Fig 5. 42. V-019
 Fig 5. 43. V-020
 Fig 5. 44. V-021

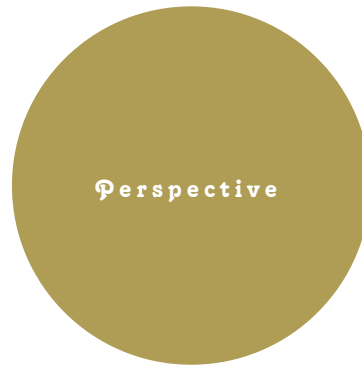
Morphologies of Verticality

The three key design ideas:



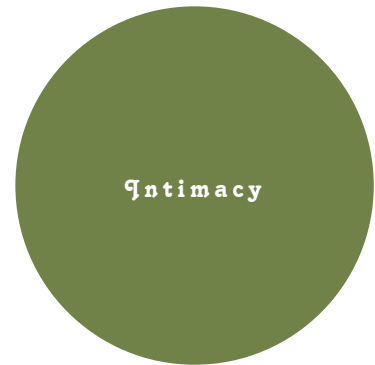
Light, airy, delicate, refined.

Looking at the structure of the space, using the minimal amount of material in order to create light architecture. Case studies and design exploration will examine tensile and light structures in order to develop an understanding for this concept.



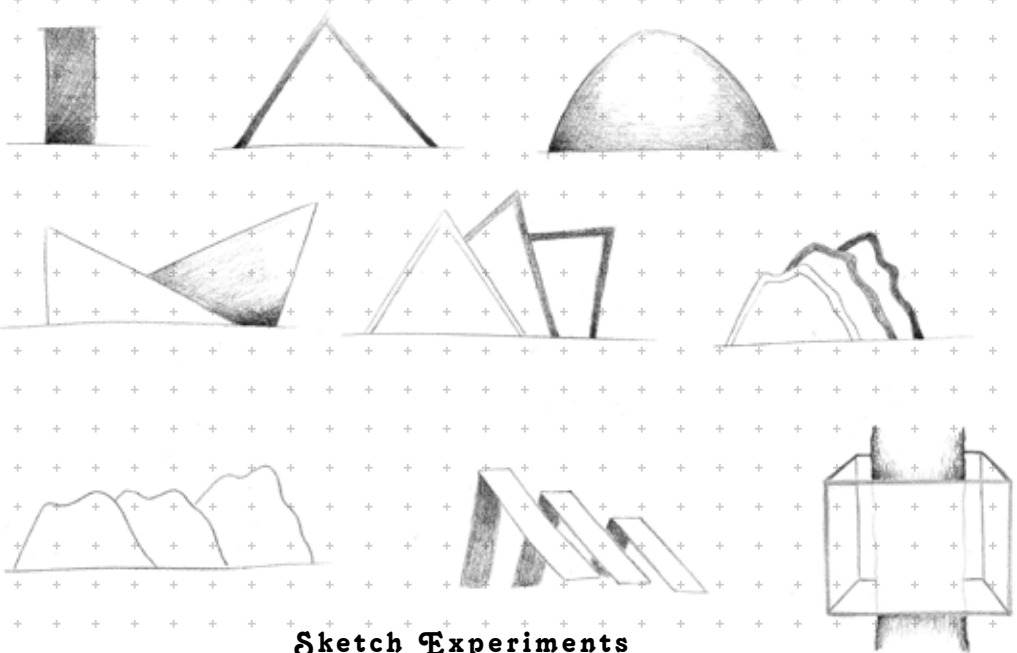
Affection, familiarity and understanding.

This refers to the small but important moments that will be experienced during the visit. This will consider all the senses (sight, smell, sound, touch and taste) in order to develop a responsive design.



Visible scene and spatial awareness with a direct focus on how the interior is creating a connection to the exterior.

This entails considering the perspective of the occupant in all moments in order to create an internal space that follows the architectural purpose



Sketch Experiments

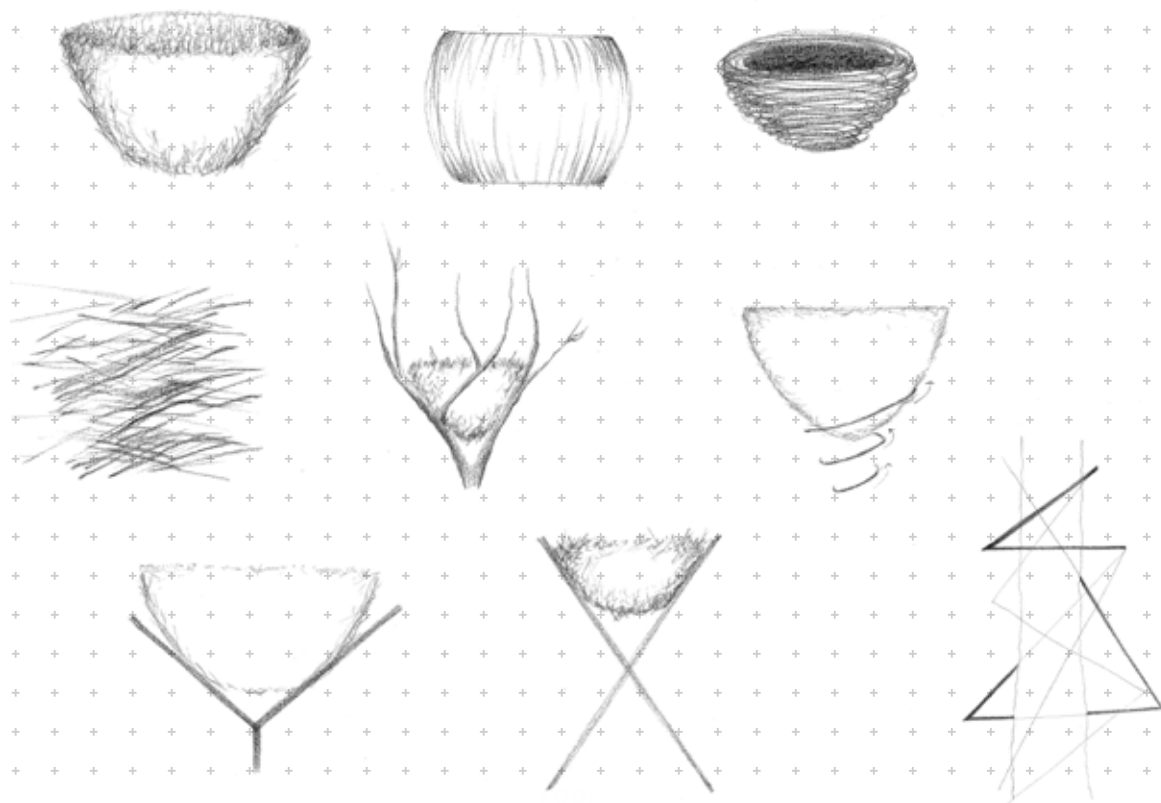


Fig 6. 01'. Sketches of forms of shelter

Concept 1: Mountain Crest

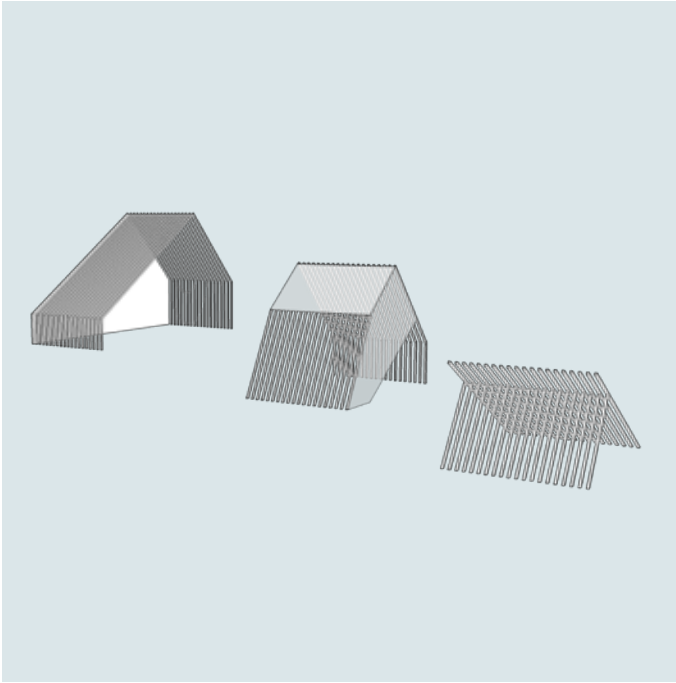


Fig 6. 02. Mountain crest digital model

The mountain crest as a concept was a vague interpretation of the forest as architecture, creating some interesting overall forms. The concept does not reflect the ideas of the design intent so it would be a struggle to follow through with this concept when it comes to detailed design.

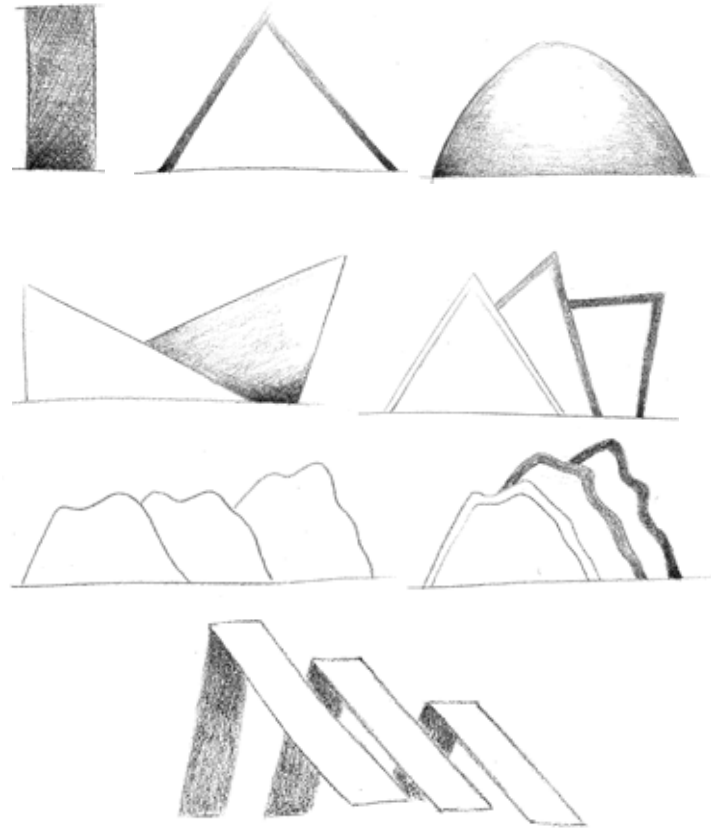


Fig 6. 03. Mountain crest concept sketches

Concept 2: Stratification



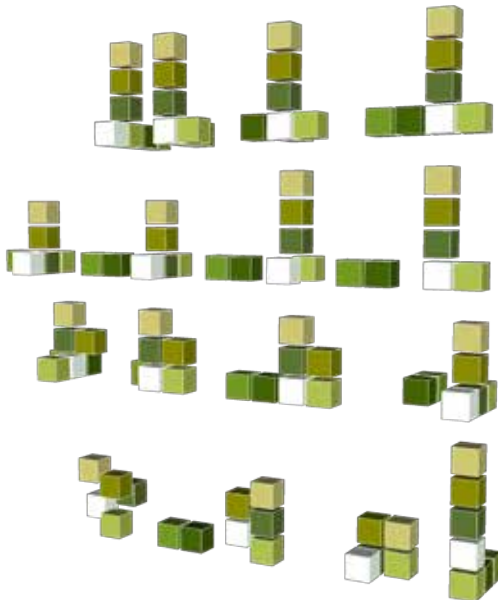
Emergent
(*Sleeping*)

Canopy
(*Socialising*)

Sub-canopy
(*Feeding*)

Understorey
(*Entrance*)

Seedlings & Leaf Litter
(*Exterior*)



Stratification refers to the vertical structure of vegetation, categorised into layers according to height. Each layer is inhabited by different animal and plant communities.

This inspired a concept that reflects this nature of layering, by creating a tall structure that mimics the layers, defining each social area.

The theory behind this concept has allowed me to logically explore spatial arrangement.

Fig 6. 04.

Image displaying idea of stratification

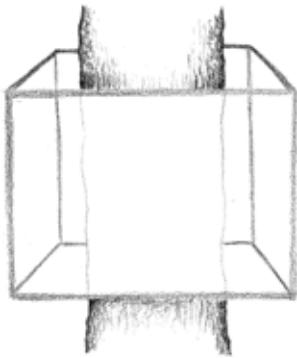
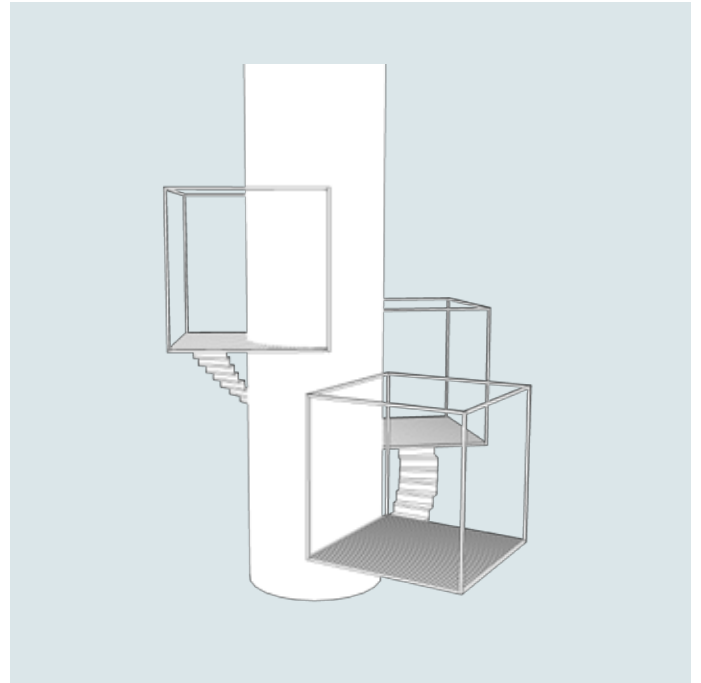
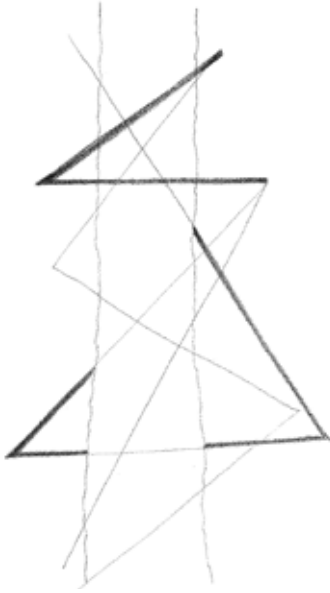
Fig 6. 05.

Stratification digital model

Fig 6. 06.

Study of potential spatial arrangement

Concept 3: Tree House



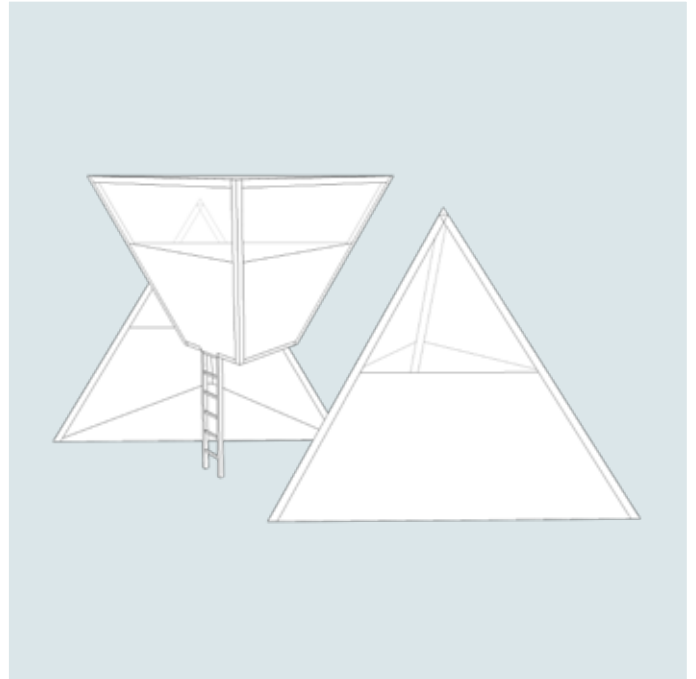
The treehouse concept brings together ideas from both the stratification and bird's nest concepts. As you progress through each social space you become intertwined with the surrounding nature, climbing high into the trees to become fully immersed.



Concept 4: Bird Nest



Fig 6. 09. Collection of concept sketches



The concept of a bird's nest was inspired by New Zealand's current state of wild birdlife. My time in the bush exposed me to the reality that our bird population in our native environment is dwindling. The demise of our birdlife is evident as you are unable to hear the birds. This realisation is devastating but it is not aparent until you personally witness the eeriness that it creates. The purpose of this design was to create a nest-like structure that will lift the occupant up into the trees where it will be hauntingly obvious.

Sketches have attempted to explore ideas relative to bird's nest:

Collected/found materials
Supported by branches
Small peep holes

Exploratory Modelling

Tensile Structures

Using straws and string, I have explored the potential of light architecture. Developing an understanding for cross-bracing is important as it offers strength and durability with a minimal architectural impact. As we see through these models, the initial structure is weak and fragile. When cross-bracing is implemented, the structure is aligned and stability is enforced. The third model theoretically depicts cross-bracing in a holistic form. This particular structure is not aligned due to different tensions in string; however the form resists movement as pressure is applied. Overall, this series of models highlights the light yet influential qualities that cross-bracing can provide.

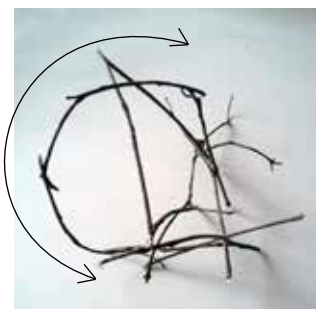


Fig 6. 10. Structure without cross-bracing
Fig 6. 11. Structure with cross-bracing
Fig 6. 12. 3D structure with cross bracing

Manipulation Modelling



Using twigs I have explored form through the manipulation of natural elements. This exercise developed an understanding for potential contours of the architecture while experimenting with the adaptability and strength of the twigs.



Bending



Stretching



Twisting



Crossing



Elongated



Intertwaving



Tangling



Pause

In the midst of a design lull, I decided it would be best to take another trip to Cone Hut in order to gain some much needed inspiration.

These photos were taken on my second and last site visit to Cone Hut on the 20th of November 2016.

The large earthquake of 2016 had occurred only one week beforehand, followed by immense rainfall and flooding throughout the Lower North Island.

Using a camera has allowed me to focus on select aspects within the bush, provoking my mind to narrow in on the small details that would undoubtedly be missed without this tool in hand.

"Take only photos and leave only footprints"



Fig 5. 45. *Movement*

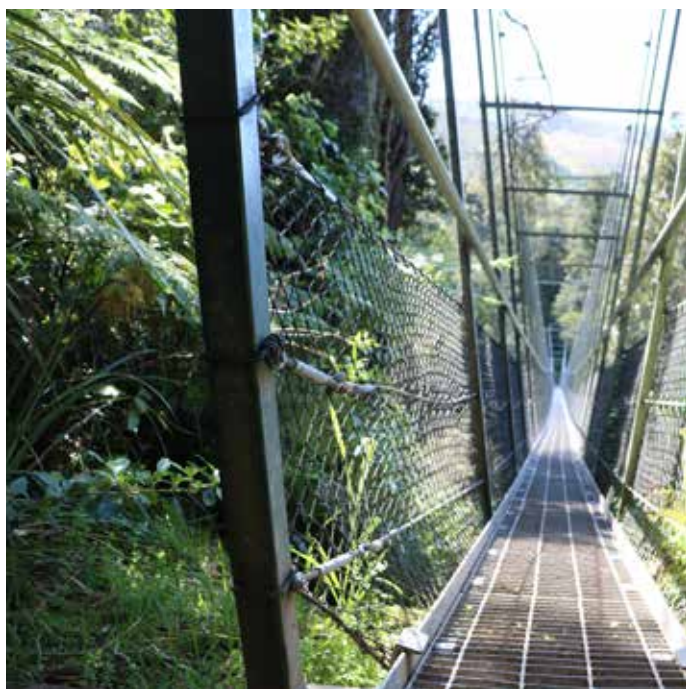


The journey to Cone Hut begins with a suspension bridge across the Waiohine River. This bridge offers inspiration for tensile architecture as it is a notable example of a structure that is strong and durable, but also minimal with regards to materiality as well as its impact on the surrounding environment. This bridge is the largest of its type, measuring at 124m long over a 40m deep gorge (Ford).

Tension wire is the main support within this structure yet it is relatively unnoticeable amongst the bush.

The strength of the suspension bridge is subtle and unobtrusive.

Netting secures the person while allowing for a view below that is only partially obstructed.

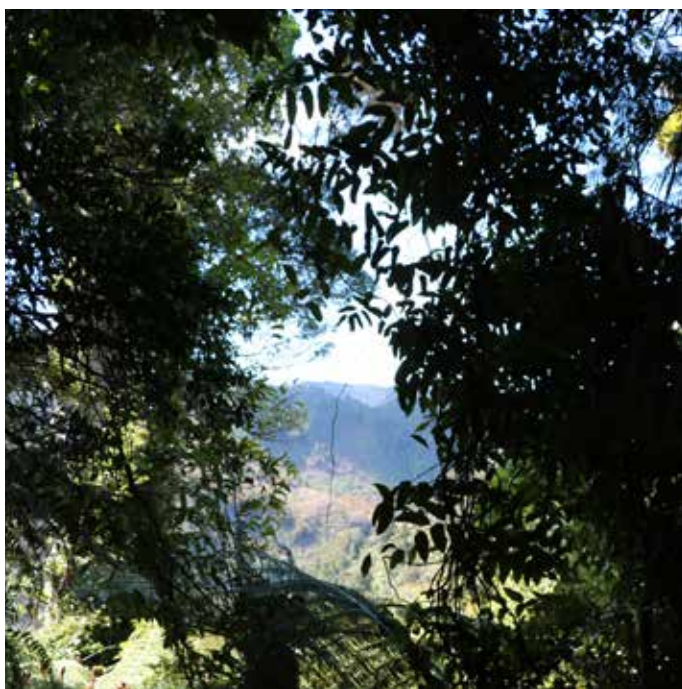
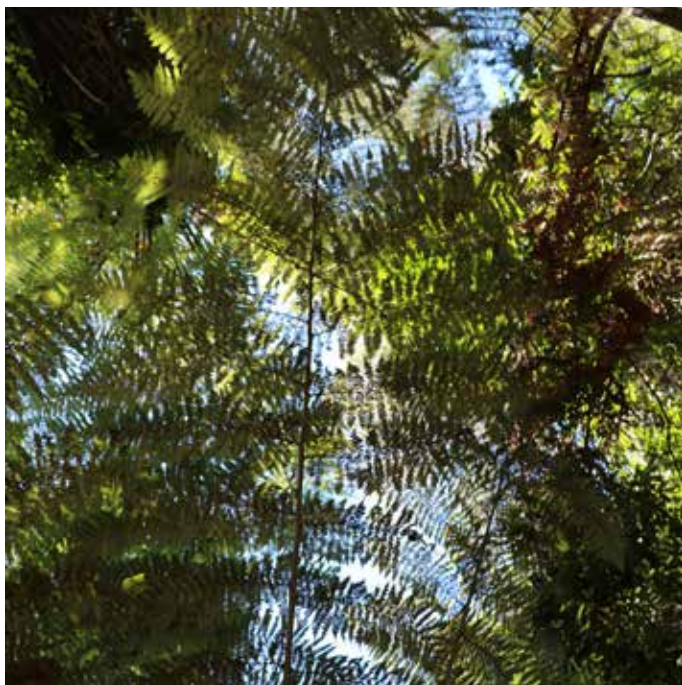


It is an incredible feeling to be suspended so high above, on a structure that moves as you move. It creates a strong reaction of vulnerability juxtaposed with absolute freedom.

The platform of the bridge is steel grating. This material is solid but open, providing a sense of safety while allowing you to view the extensive depth directly below you.

The bridge sits unobtrusively amongst the bush that surrounds it. Allowing you to remain as close to the bush as possible while being secure.

This streamline bridge design is relatively discrete despite its vast size. This is due to the strength in the materials used and the simple and minimalist design.

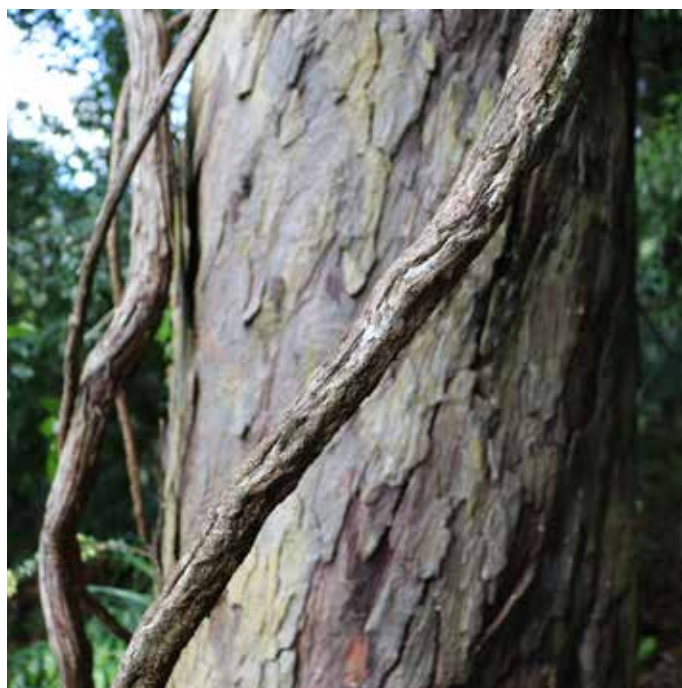


*Fallen shrubbery
covers the ground,
creating layers upon
layers of decay,
ultimately feeding
back into the soil and
producing new life.*

*The worms-
eye perspective
amongst the trees
creates beautiful
patterns of greens
and browns*

*Much of the journey
consisted of a steep
uphill climb. Using the
roots as our steps, we
hauled our bodies and
our packs up using our
wit and surroundings.*

*Amongst the dense
bush, there were
hints of landscape
views, framed by
the surrounding
trees.*



The colours within this fallen tree create an extraordinary colour palette of different browns, oranges, greens and greys within each layer – something so detailed, yet often neglected.

Life grows on the surface of the decaying wood. On the same log, different markings show the texture of wood beneath the exterior bark.

This image depicts the nature of weight of the pack, and the incline to dump it wherever is easiest.

Tree vines create shapes that are beautifully natural yet linear. From an interior perspective, this particular vine speaks a language of a handrail.

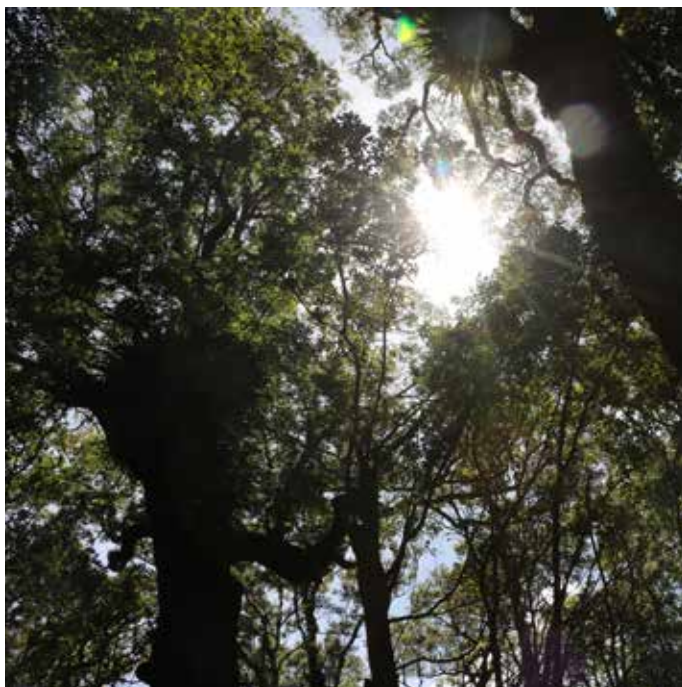
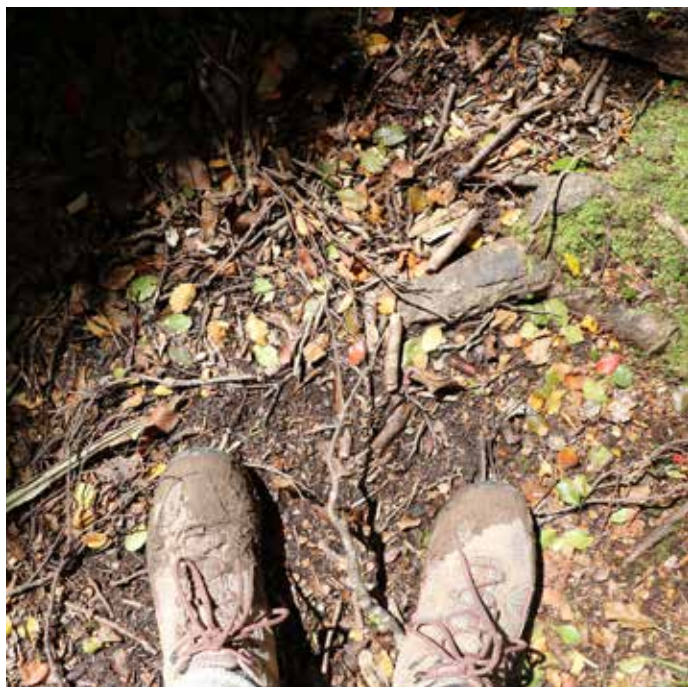


The colour palette within the bark of this one tree is unexpected. Shades of purples, specs of yellow and hints of blue are not what you would typically expect from New Zealand's native bush. The cracking of the bark suggests aging.

The bush is constantly growing. Small scale growth occurs on the surfaces, and this is an aspect that we rarely consider when we think about the bush. It is in these small details where we find rare but immense beauty.

This aged tree has a tender surface, softened by the shadowy and damp atmosphere. The damp surroundings of the bush are a good environment for moss to grow.

Roots and vines wrap themselves around the tree trunk, creating a tangled mess, catching the fallen foliage.



*Roots create
stepping stones,
allowing you to
tread on solid
ground and envision
a path that will take
you forward.*

*These orange triangular markings
direct you along the track,
reassuring you that you are still
on the right path. If there are not
any of these in sight, it is best to
backtrack to the assured path. It
does not pay to be overconfident
in the bush. One wrong turn has
the potential to lead to disaster.
It is essential to keep your wits
about you, and remain focused at
all times.*

*Mud can be deceptive on the
track. Sometimes you do not
know whether you are going
to be safe and carry on
moving, or if you are going
to sink 100mm deep. On this
track it is inevitable that you
are going to get muddy, no
matter how hard you try to
avoid it.*

*The dense bush keeps you
relatively sheltered through
most of the journey. This
photo was taken on the
ridge before the drop down
to Cone. Here is where
the bush was at its most
sparse, allowing the sun to
penetrate.*

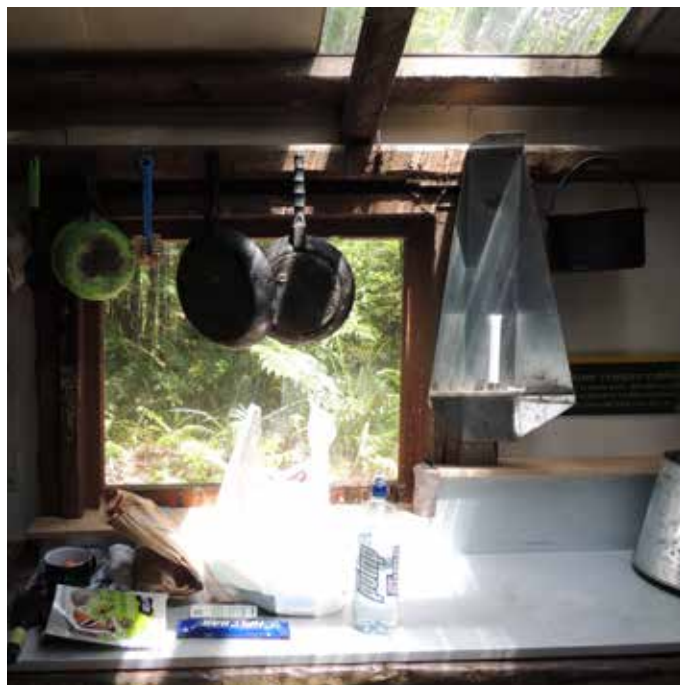


This fallen tree depicts the power of natural forces. We came across a few fallen trees on our journey, which would block our path and cause us to find an alternate route. It is unsure when this particular tree fell; however it may have been due to the earthquake and flooding within the previous week as it appeared to be a fairly recent fall.

The way in which this wood came to be like this perplexes me. I cannot even imagine how this occurred, but I find its rarity very beautiful. These lines within the wood that look as if they have been carved there are highlighted by the moss that grows in the voids.

Another fallen tree. The most fascinating thing I find about this picture is where the wood has come apart in a way that creates a wave-like curve.

I can only assume that it was members of the TTC who lay down these wooden stepping stones in the particularly swampy areas of the track. It made it considerably easier for us when ideas like this were implemented as there was a fair amount of off-track venturing in order to make our way around the deeper mud and puddles.



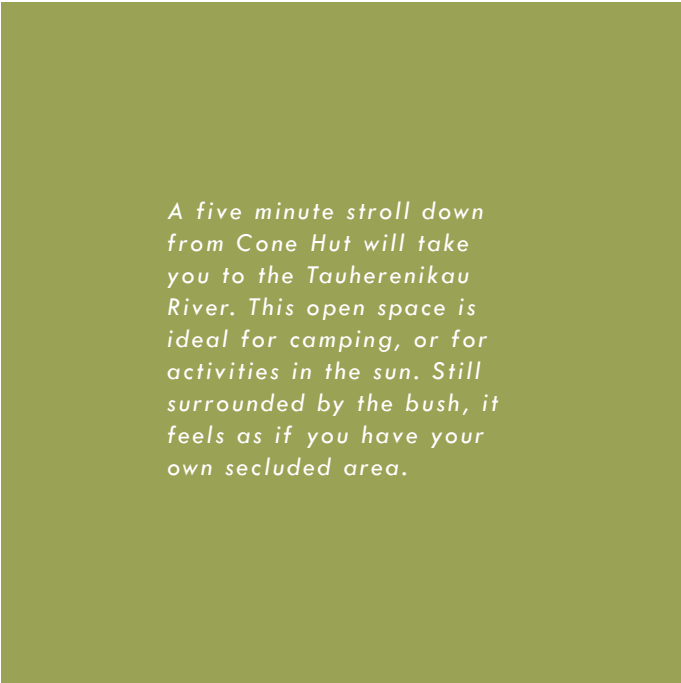
At last, we had made it to Cone Hut. Since my last visit, members of the TTC had done a maintenance visit, fixing up a few issues that were present. The most notable change was the new corrugated plastic that was installed on the roof. Beforehand, this roofing had become opaque with dirt and fallen shrubbery. Now you are able to see the trees that surround you. This made a huge difference to the way we experienced the space.

The next difference that I noticed was a new galvanised mild steel bench that had been installed on top of the original, but rusted, steel bench. Such a simple addition that made the experience more pleasant as it offered a clean surface to cook on.

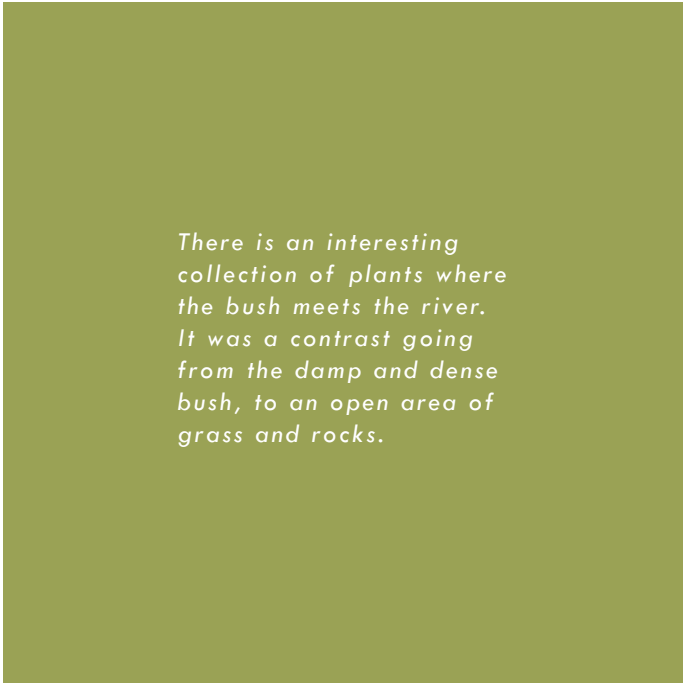
The bedding still remains as a selection of mattresses on top of a Maori bunk. This may not be the most comfortable solution, but it is a practical and durable one. Here we see these mattresses are stacked to air.

The new corrugated roofing affected the lighting of the space, creating dappled sunlight that changed the space dramatically. Creating this visual connection to the surrounding bush enhanced a sense of vivacity.

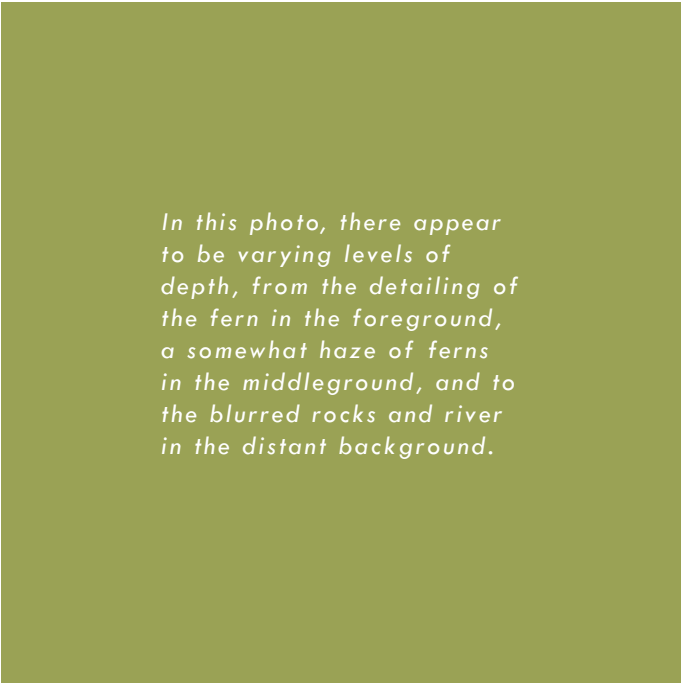




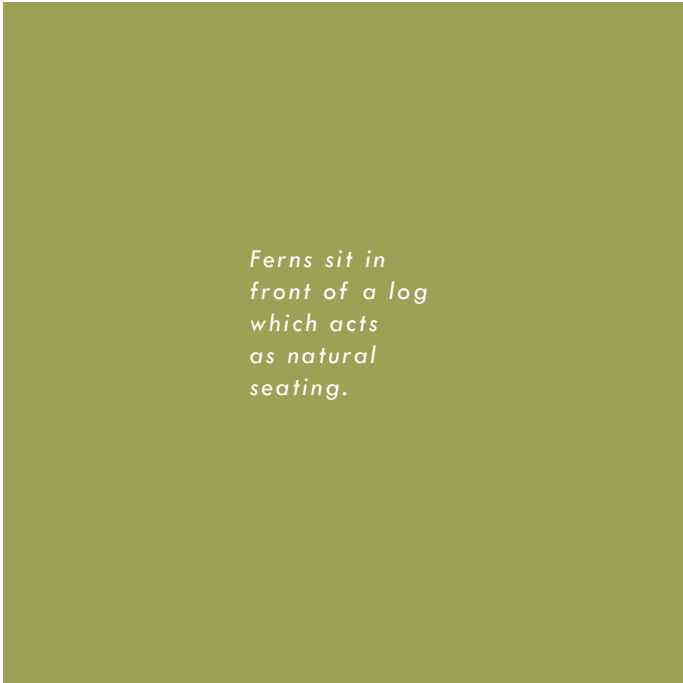
A five minute stroll down from Cone Hut will take you to the Tauherenikau River. This open space is ideal for camping, or for activities in the sun. Still surrounded by the bush, it feels as if you have your own secluded area.



There is an interesting collection of plants where the bush meets the river. It was a contrast going from the damp and dense bush, to an open area of grass and rocks.



In this photo, there appear to be varying levels of depth, from the detailing of the fern in the foreground, a somewhat haze of ferns in the middleground, and to the blurred rocks and river in the distant background.



Ferns sit in front of a log which acts as natural seating.

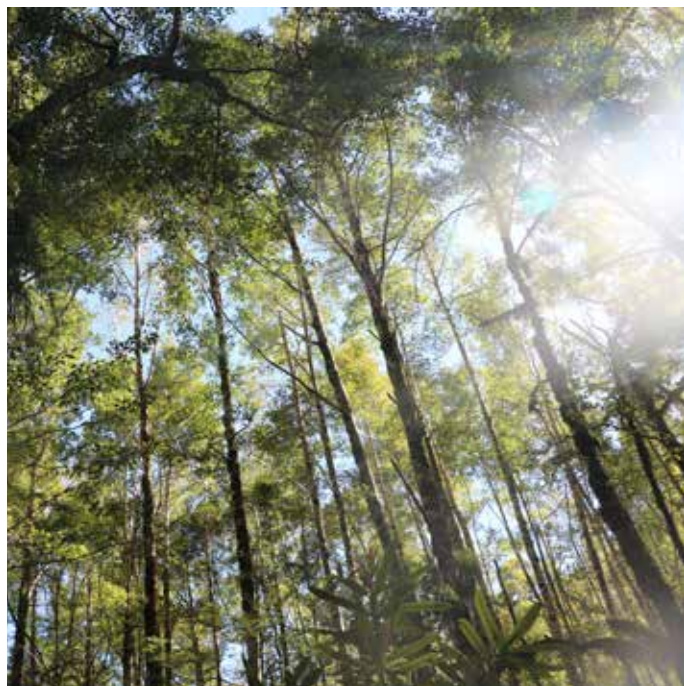
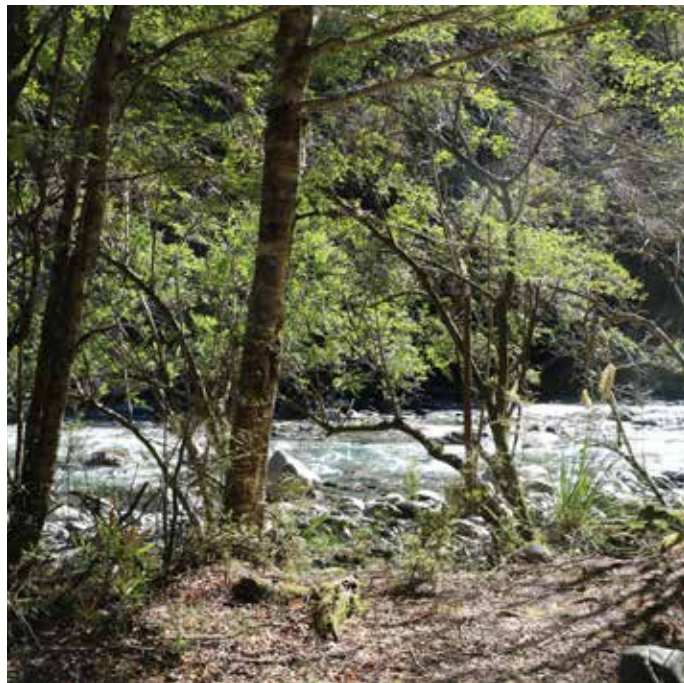
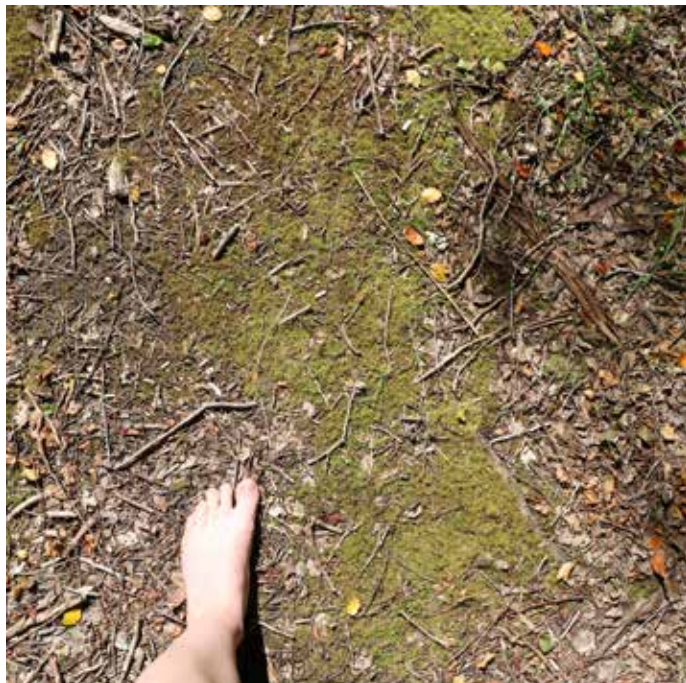


*Quirky linework
is formed by
this interesting
plant.*

*One of the most
pleasant aspects
of having the river
nearby is the sound
of the water as it
flows downstream.*

*We took this
opportunity to shed
our boots and our
layers and indulge
in some much
needed vitamin D
and relaxation.*

*A collection of
varying natural
elements that
have fallen to
the ground.*



In a stark contrast to the heavy boots I had been wearing for the previous 4 hours, it was a treat to expose my feet to the natural elements below me.

Another small area opens up to the river, leading you down

This vast open space provides an alternative area to the dense bush. An ideal place to set up a tent on a sunny day.

Elongated trees surround this area but do not create a shell from the exterior. Although there are many trees, it is still a light space, partially perforated to create dappled lighting.



*A beautiful view,
looking up through the
branches to a clear
blue sky.*

*Moss-covered
stones sit
comfortable
amongst the
sand and plants,
providing natural
seating.*

*Cool water
rushes through
the valley,
inviting you in
for a dip on a
hot afternoon.*

*The pale blue
colouring of the
water is reflected in
the nearby stones.
The colour palette
here is subtle but
diverse.*



*Intricate
detailing and
colour palettes
are visible if
you look close
enough.*

*Roots provide a
natural staircase
to help you
carry on with
your journey.*

*A camera is a
powerful tool that
can allow you to
manipulate a view
to more than it
appears.*

*Here the leaves
are blurred,
creating a
distortion in
appearance.*

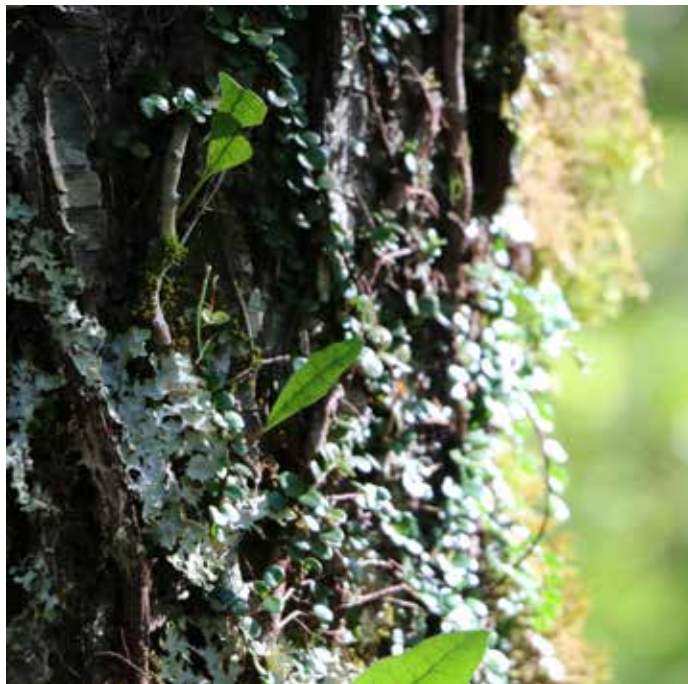


*Nature has
produced a
spongey ground,
idyllic for
resting amongst.*

*A fireplace created
from past visitors,
all contributing and
helping the next to
follow - the true
tramping spirit.*

*The handiwork of
Taratua Tramping Club
members on display
seventy years on.*

*Dappled sunlight
upon an aging
corrugated iron
fireplace.*

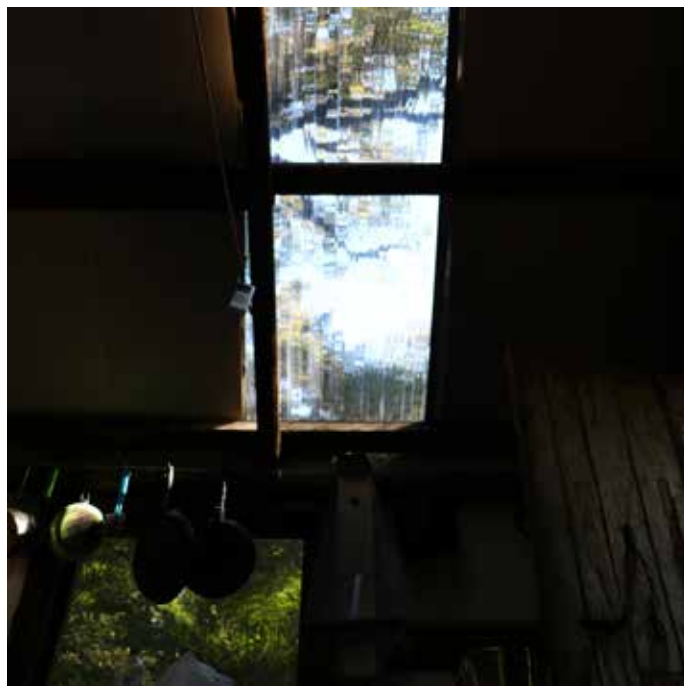


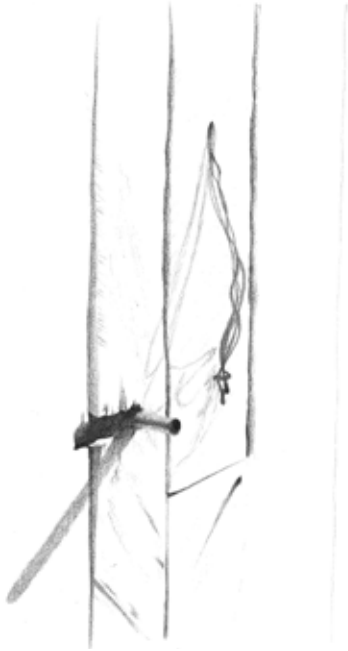
*An abundance
of different
species grow
within the tiny
voids of every
surface.*



*Adzed timber -
an old technique
of cutting,
displaying the
history of this
hut.*

*Logs and twigs
sit in the shed,
collected by past
visitors making
their contribution
to the site.*

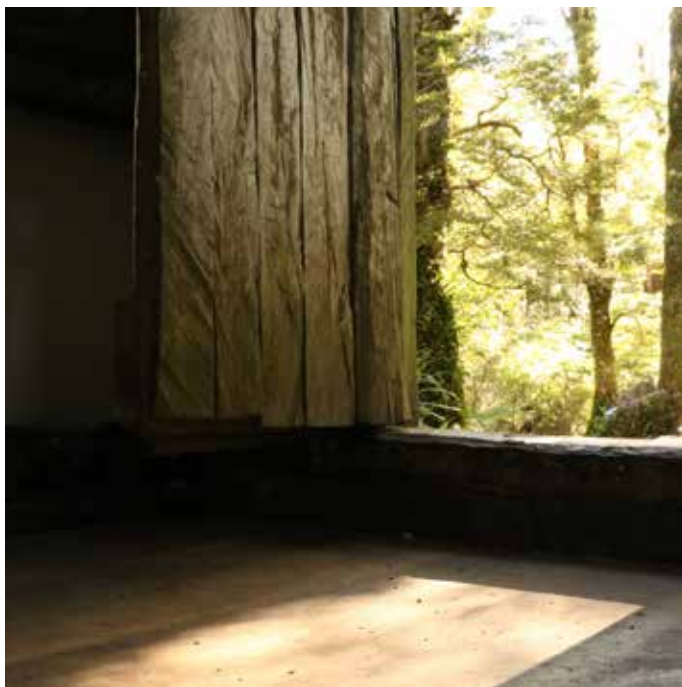
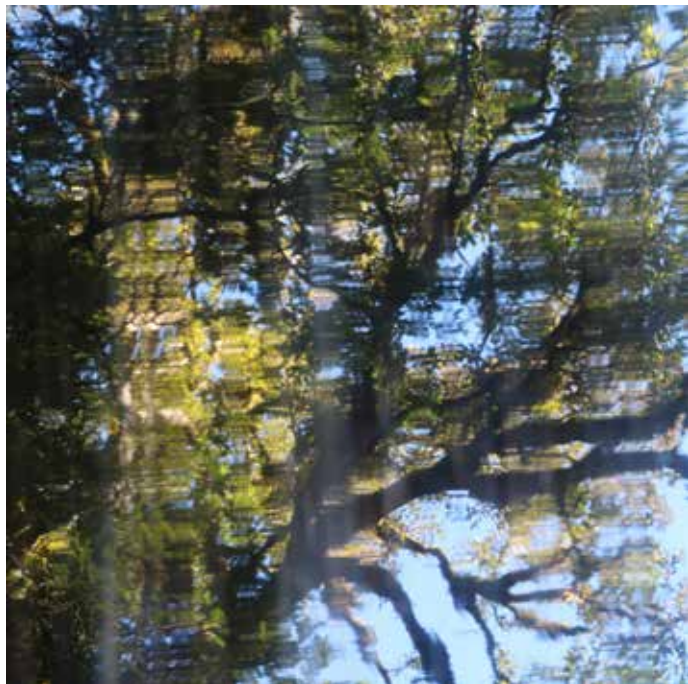




Simple techniques, details and materials that have lasted through the years.

Nothing can hinder the growth of life in the bush.

Newly implemented clear corrugated plastic brings new life into the dark hut, allowing light to penetrate and for the occupant to see the trees. Personally seeing the difference that this one addition has made really shows the effect that exterior openings have on a space.



*A close up view
on the view
through clear
corrugated
roofing.*

*Dirt and dust lie
on a plywood
floor - easy
enough to clean,
a quick broom will
do.*

*A rope fashioned to
high beams allows
occupants to dry
clothing and hang
food above - a new
addition from the
Taratua Tramping
Club.*

*Sunlight hits the
floor of Cone
Hut as it begins
to set behind the
surrounding hills.*

*The fire crackles,
providing us
with warmth and
comfort on a cold
and windy night.*

*Traces of those
who have passed
through Cone,
leaving their
insights and
memories before
carrying on.*

*The outhouse sits hidden
amidst the bush with the
words 'Punga House of
Pohy' inscribed into the
door - displaying a bit
of character and humour
from visitors of the past.*

*The name 'Punga
House of Pohy' was
coined due to one
of the walls of the
loo being made
entirely out of
punga stumps.*

Programme Layout



Fig 6. 01. *Collection of models*

These models were crafted by hand to explore spatial dimensions and practical aspects, built with the idea in mind that that each individual space would be designed as a single entity in order to define unique spatial requirements.



Fig 6. 02. *Overlay of hut photograph and development models*

Mud Area

The mud area will act as a transition space between the journey and the retreat. Offering hooks to hang packs and wet items, and shelving for storing packs, boots and gear, this space will be a messy area where people will be able to shed mud, dirt and water before entering inside.



Fig 6. 03. Model of mud area

Kitchen

The kitchen space will provide the absolute essentials required to fulfill daily tasks. This is to influence the occupant to participate and engage in practical actions required within the bush. This includes tasks such as fetching water from the nearby stream and building their own fire to heat water and cook food.

There needs to be both an indoor and outdoor space to accommodate for different weather scenarios. Good ventilation is necessary to avoid steam and smoke build up.



Fig 6. 04. Model of kitchen - interior

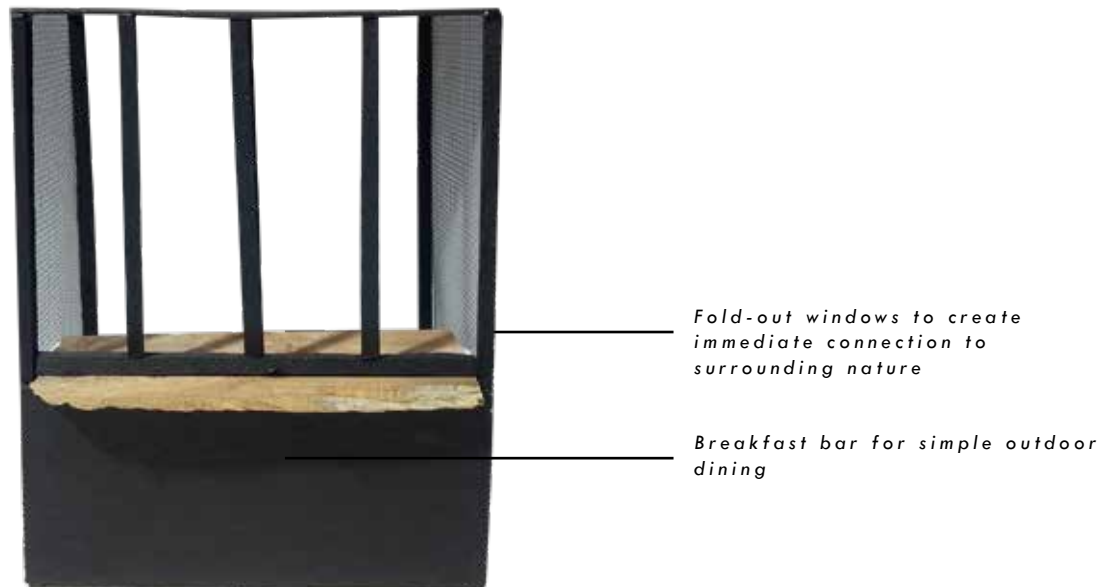


Fig 6. 05. Model of kitchen - exterior

Dining Area

The dining area will require open and adaptable space suitable to cater for potentially a large group of people or one or two at a time.

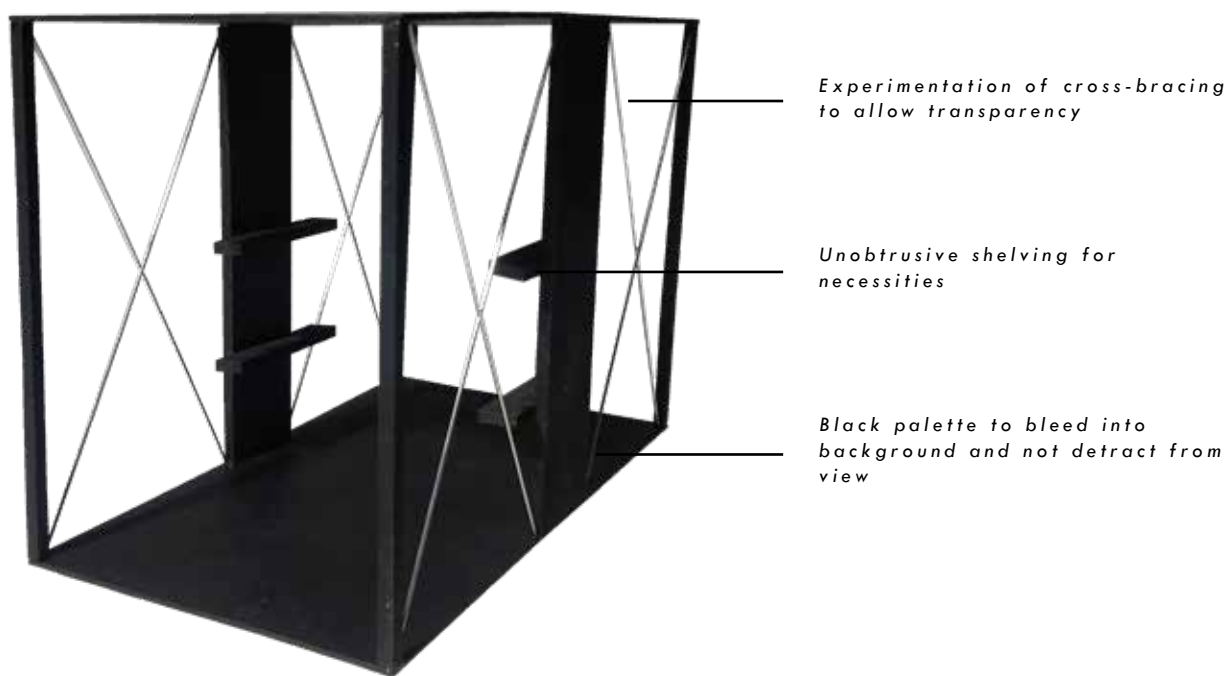


Fig 6. 06. Model of dining area

Living Area

The living area will influence social interaction between occupants to instil a sense of friendship and belonging.

This will require adaptable furniture and plenty of space to accommodate a large number of people.

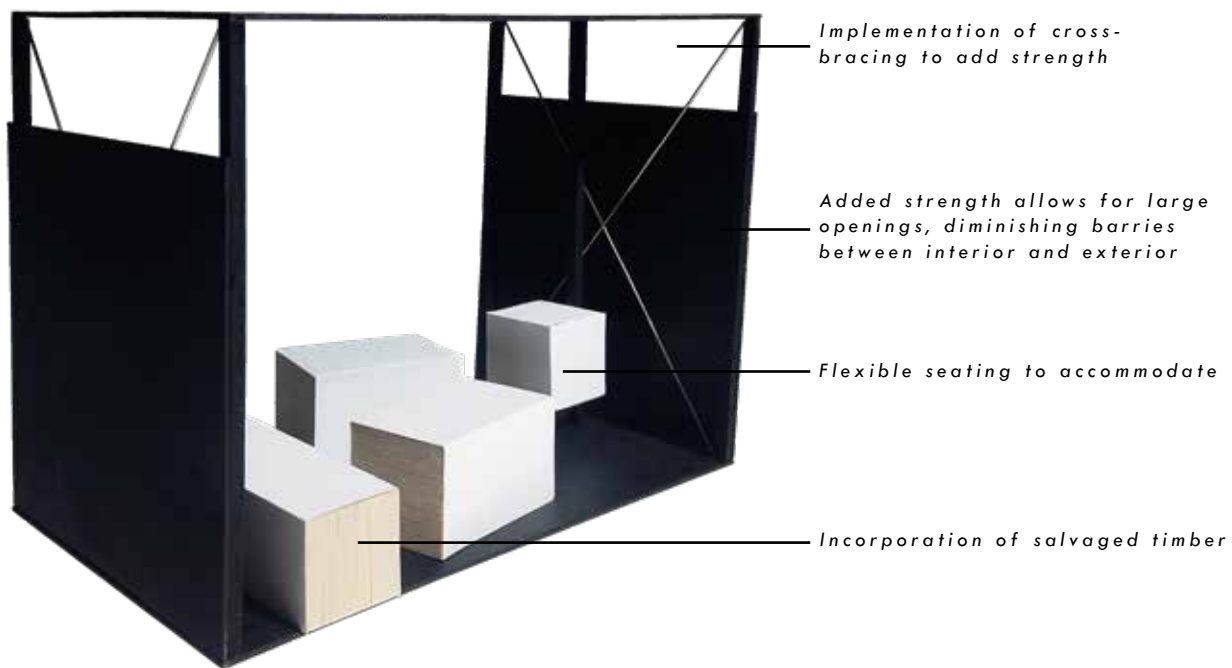


Fig 6. 07. Model of living area

Sleeping Area

The stand alone sleeping area will be a place where the occupant can connect with nature.

There will be a distinct connection to the exterior that will enable the occupant to feel as if they are sleeping amongst the trees.



Fig 6. 08. Model of bunks



Fig 6. 09. Model of bunks



Fig 6. 10. Interior perspective

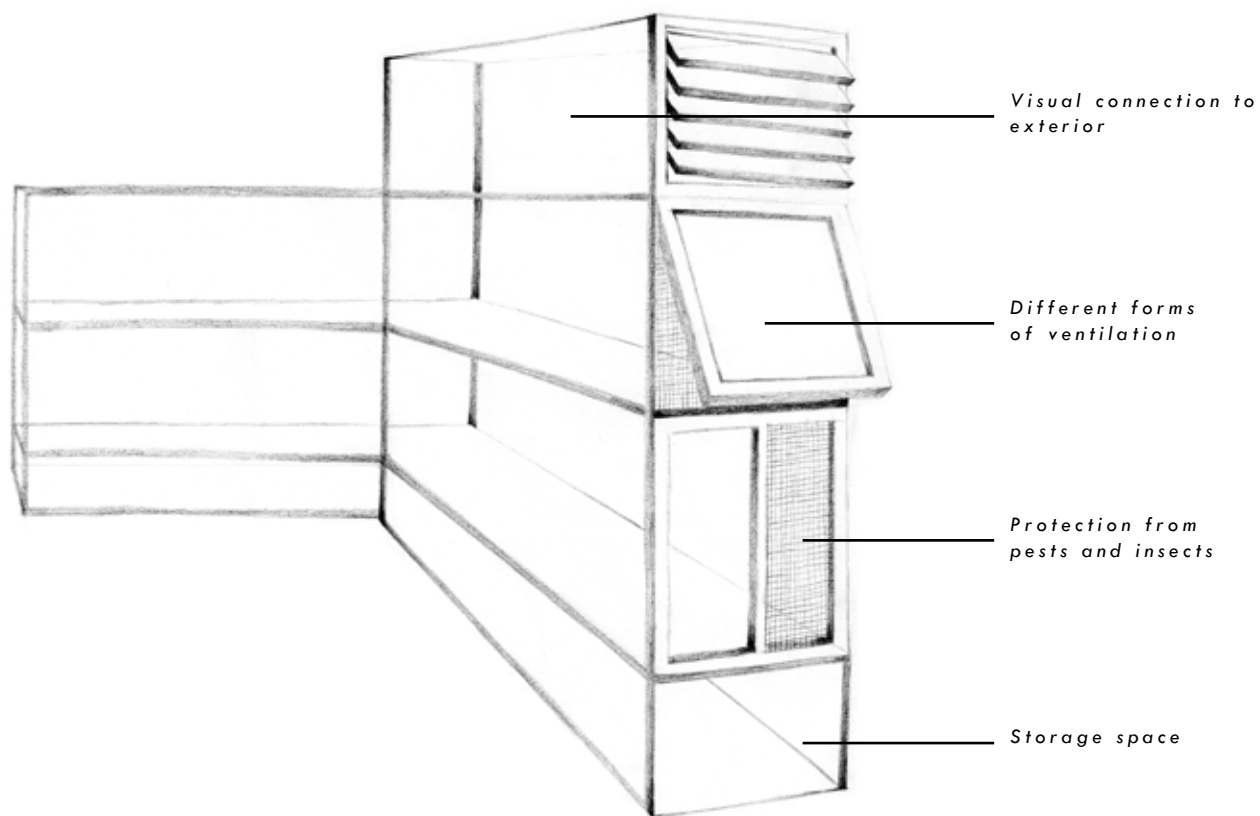


Fig 6. 11. Author's drawing of bunks



Fig 6. 12. "Immersion" - Photographic overlay

Stair Development



Fig 6. 13. *Myself, using my body to pull myself up the hill*

The stairs are an important aspect within the scope of this design. The stairs represent the journey – reflecting the motion of tramping through the wilderness, raising heavy boots high to reach the next root, and the constant perseverance that it entails.

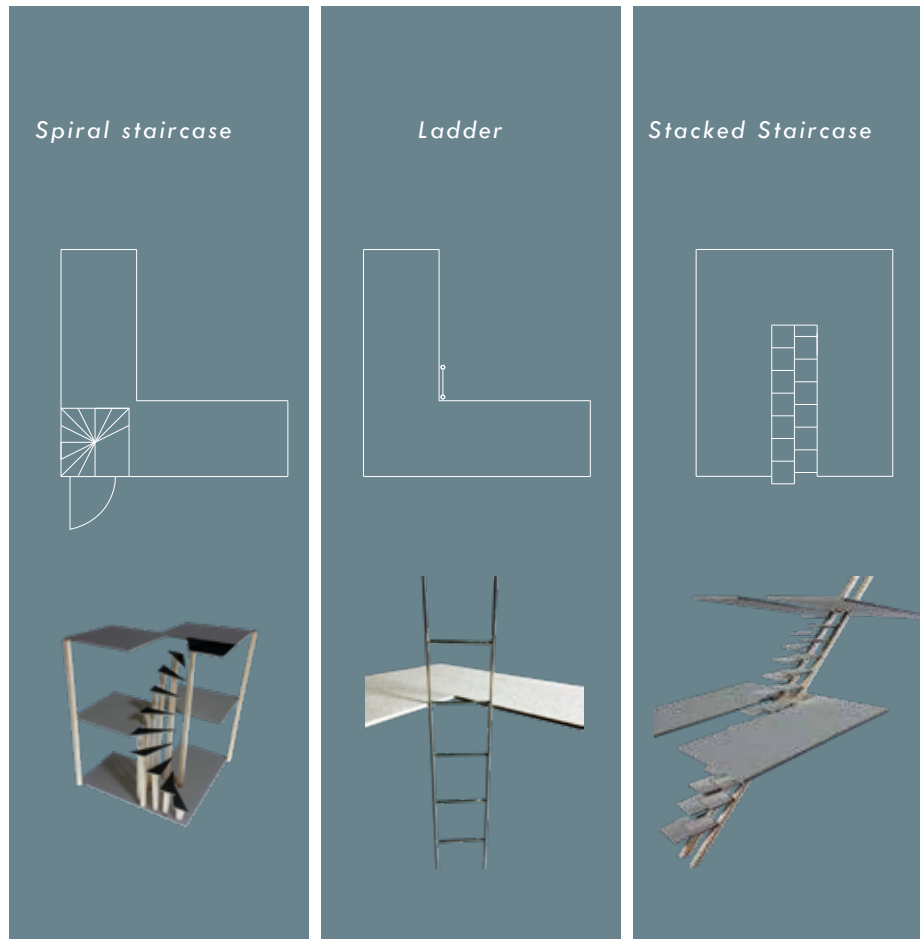


Fig 6. 14. Spiral staircase diagram and model
 Fig 6. 15. Ladder diagram and model
 Fig 6. 16. Stacked staircase diagram and model

Spiral staircase

This model of a spiral staircase shows how you can incorporate stairs within a minimal area.

However this particular model is not functional in this situation as it does not allow for easy access to both sides. It may also cause some difficulty if attempted with a pack.

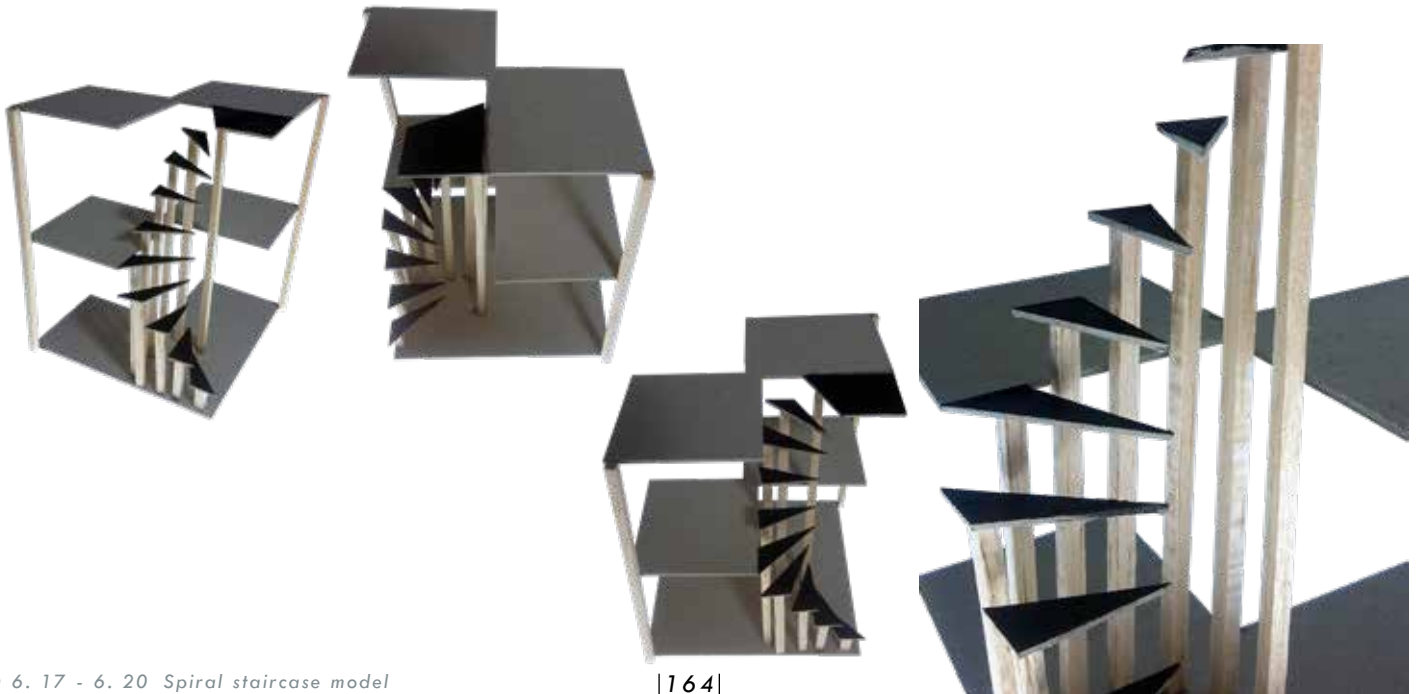


Fig 6. 17 - 6. 20 Spiral staircase model

Ladder

This model investigates the potential for a simple ladder as the mode of access through levels between bunk beds. The purpose of this model and the following diagrams was to find the easiest way for one to get on and off without difficulty to avoid harm.



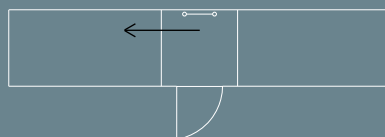
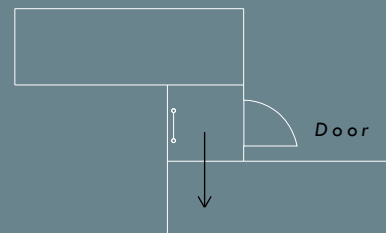
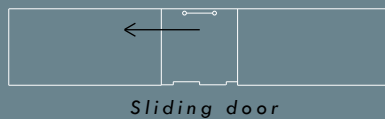
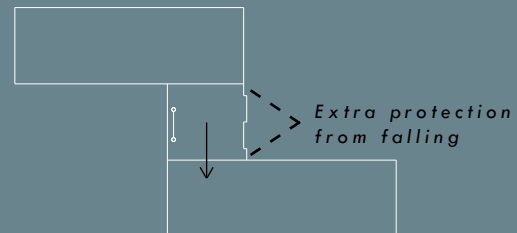
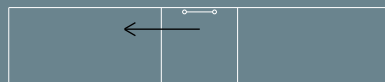
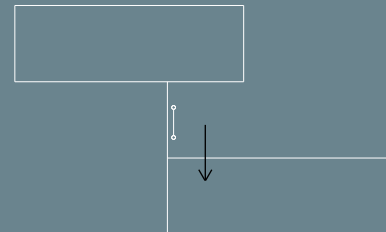
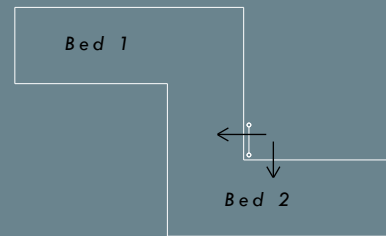
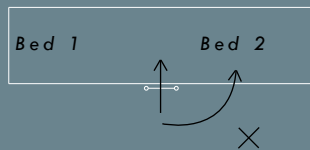


Fig 6. 25. Diagram exploring ladder layout

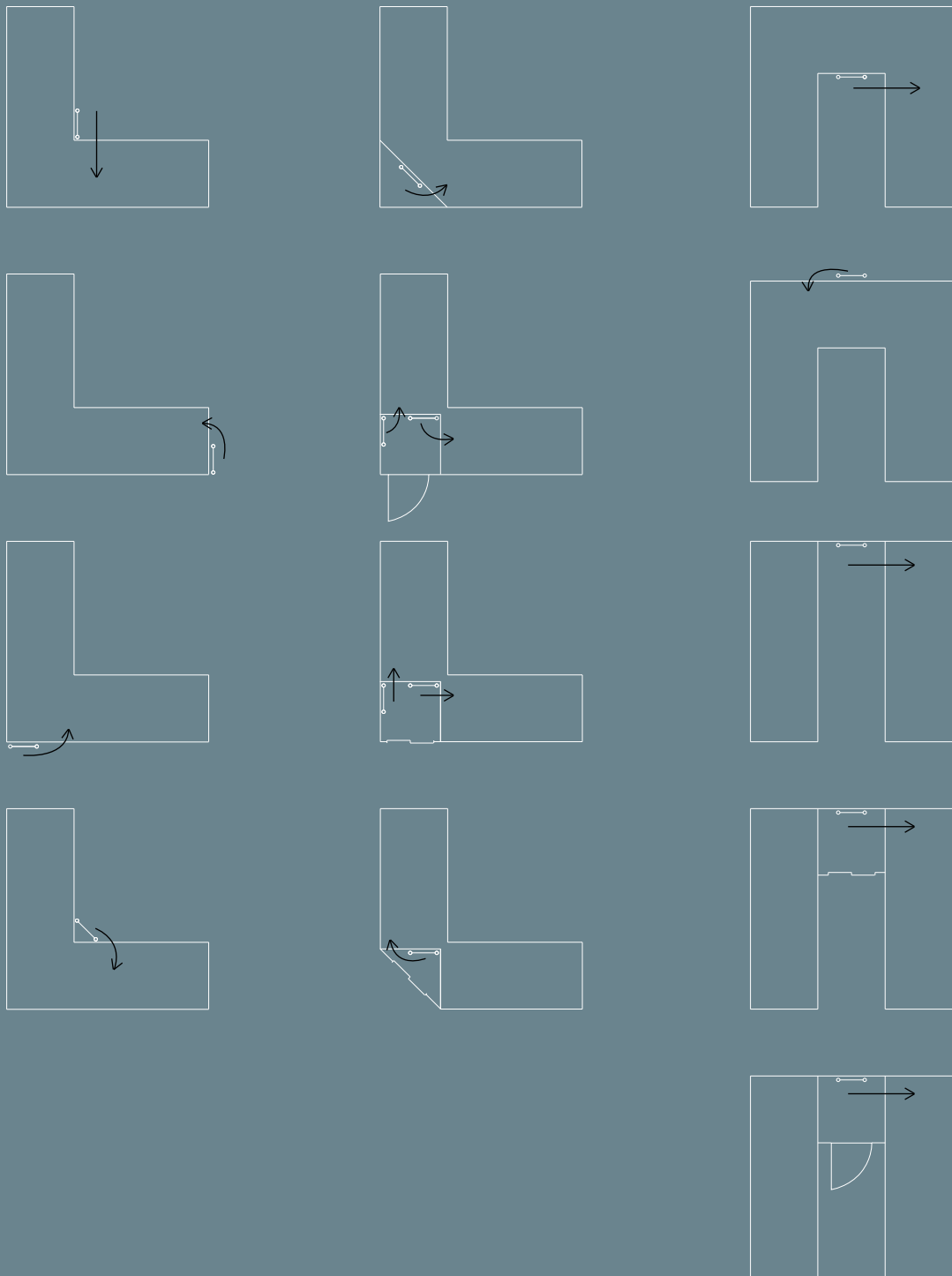
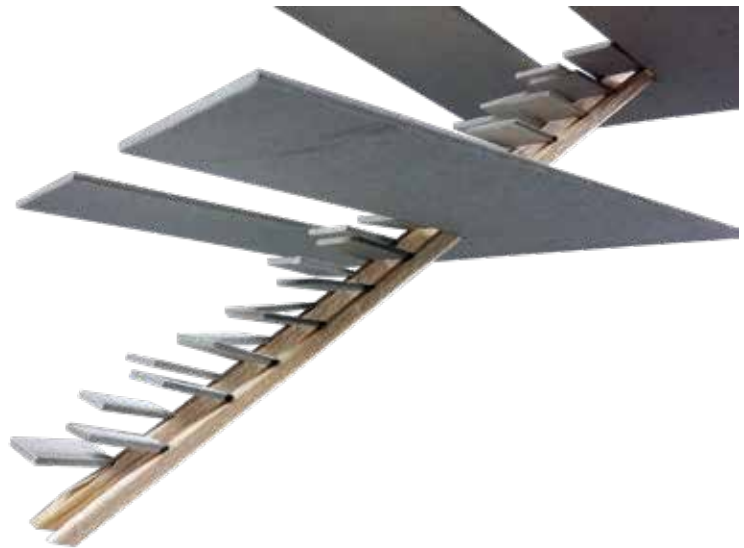


Fig 6. 26. Diagram exploring ladder layout

Stacked Staircase



This model was produced to gain an understanding of stacked stairs and the functionality of them within this particular space. Not only is this option suitable for the context, it creates a dynamic design aspect which can influence overall design.

A stacked staircase shortens the length of the staircase by providing one small step for each foot, alternating so that the minimal floorspace is used - offering twice the height for less distance.

Fig 6. 27.

Stacked staircase model

Fig 6. 28.

Stacked staircase model

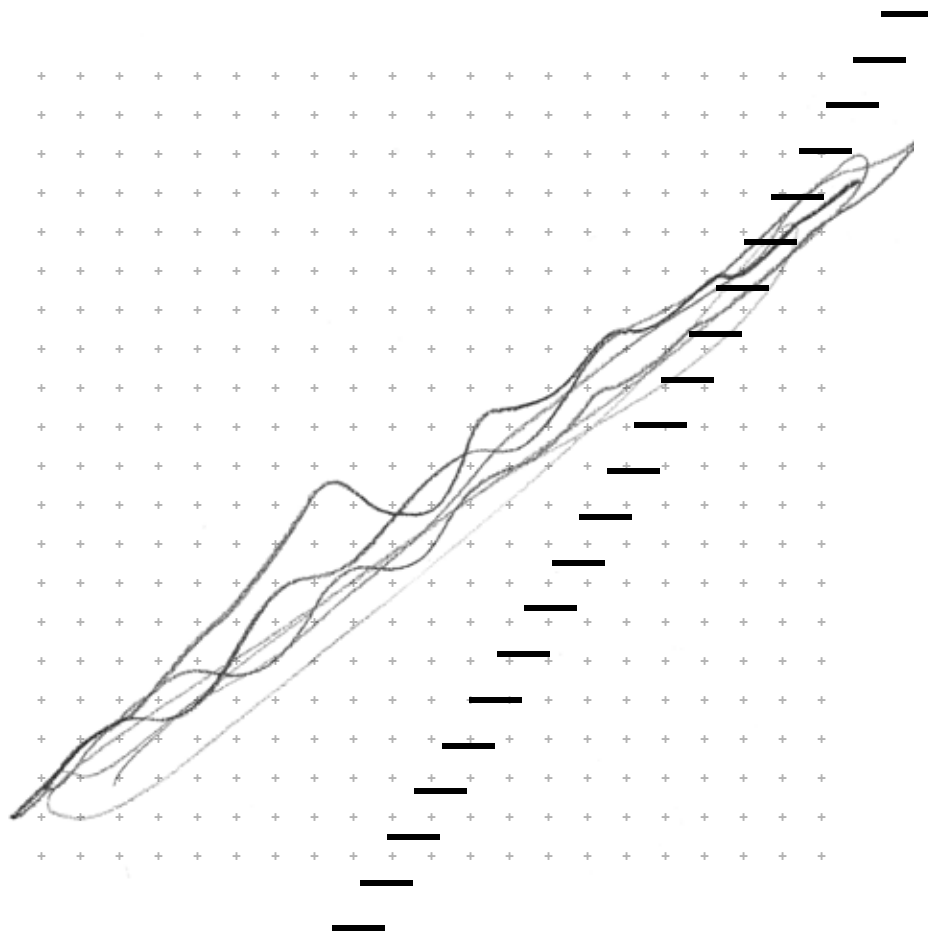
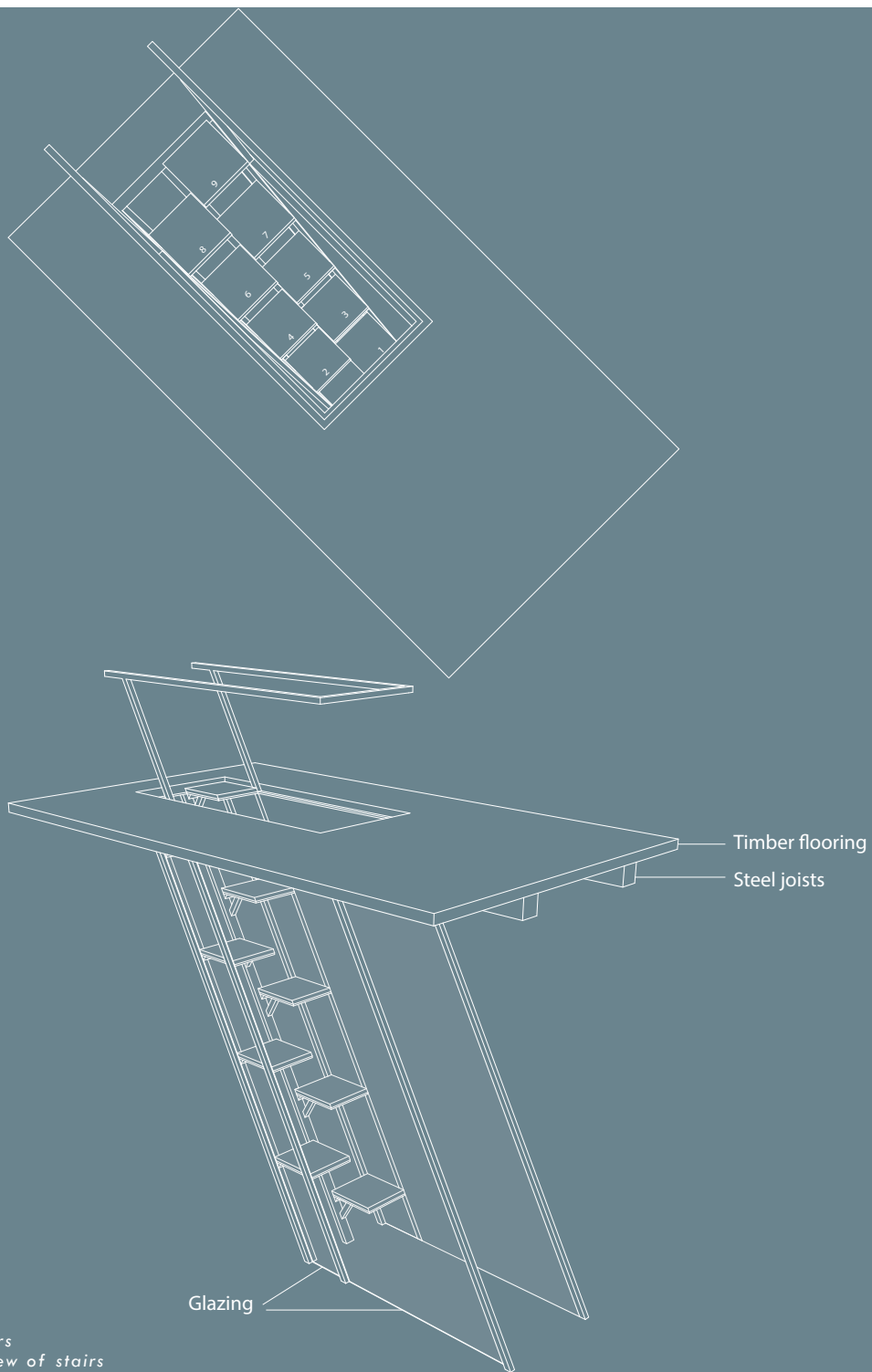
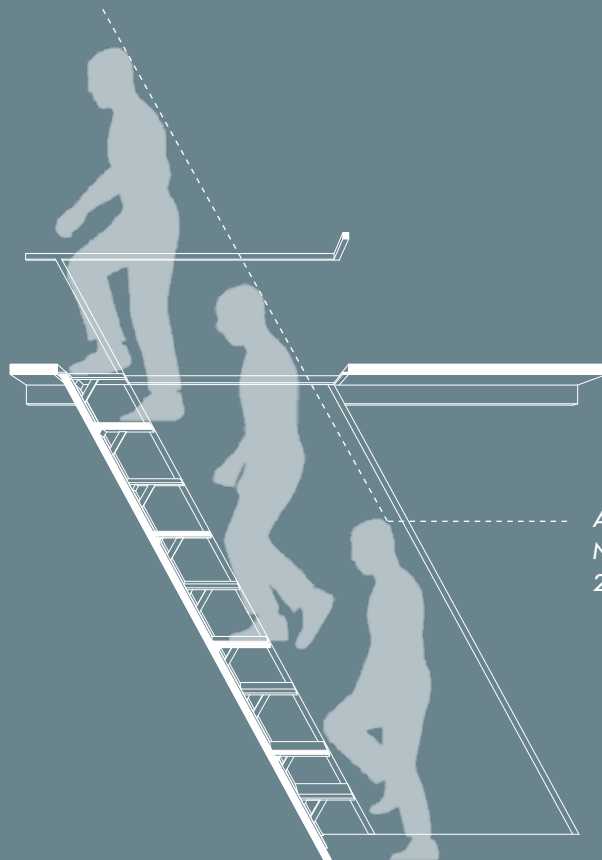
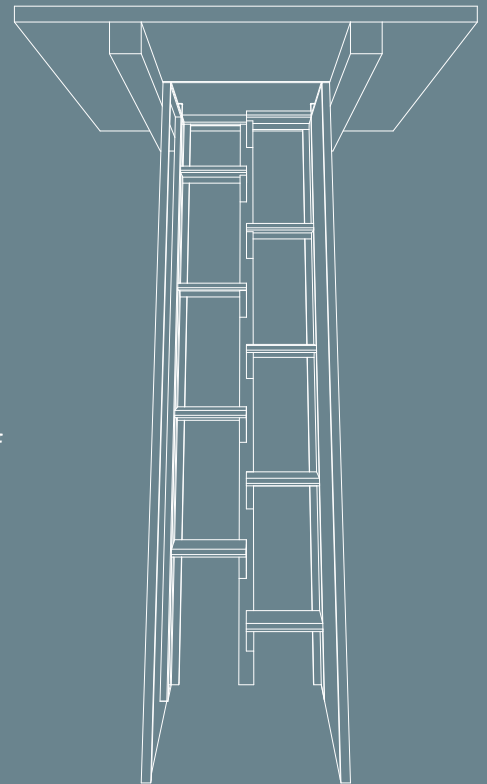


Fig 6. 29. *Sketch conveying feeling of vertical tramping*





*Avg height of
NZ male age
20-49*



*Fig 6. 32.
Fig 6. 33.*

*Section of stairs
Perspective looking towards stairs*

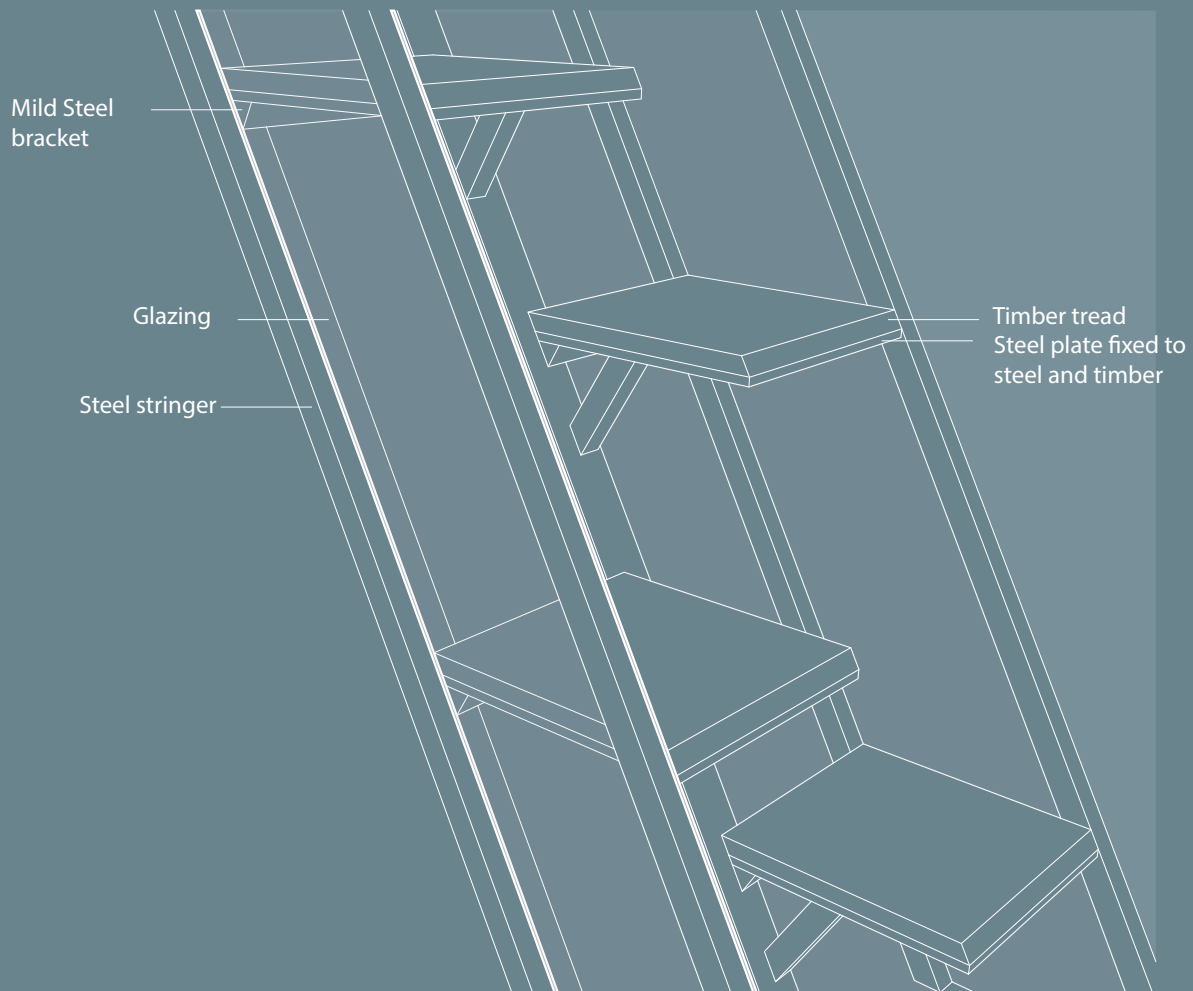


Fig 6. 34. Detailing of stairs

Spatial Development

Experimental Model 1

This model was a development upon the stacked staircase, combining the angle of the stairs with the notion of cross-bracing to develop a structure resembling the work of artist Michele Reginaldi. This design is not particularly practical; however the angles of the cross-bracing allowed it to stand without extra support. By not hindering the design with technical aspects I have created a starting point for developed design.



Fig 6. 35.

Experimental model

Fig 6. 36.

Michele Reginaldi - 'Constructions' v-021

Fig 6. 37.

Experimental model in site

Experimental Model 2

This concept tried to incorporate the staircase into a more practical design, while attempting to maintain a similar aesthetic to the previous model, developing from the inside out to prioritise the interior aspects above the exterior shell.



Experimental Model 3

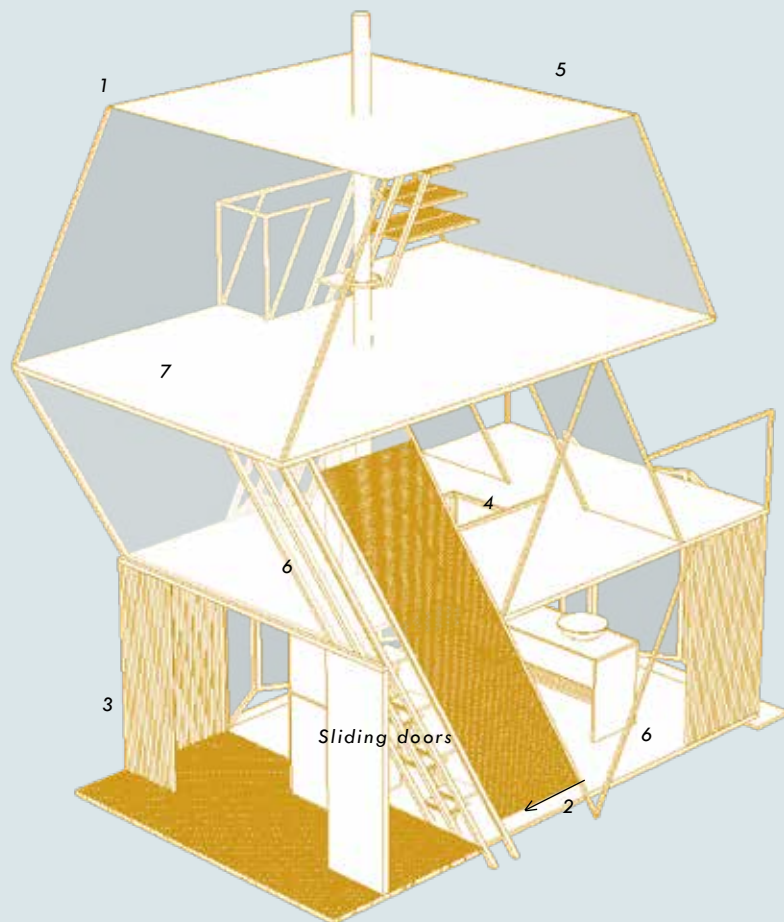
Critique and Analysis

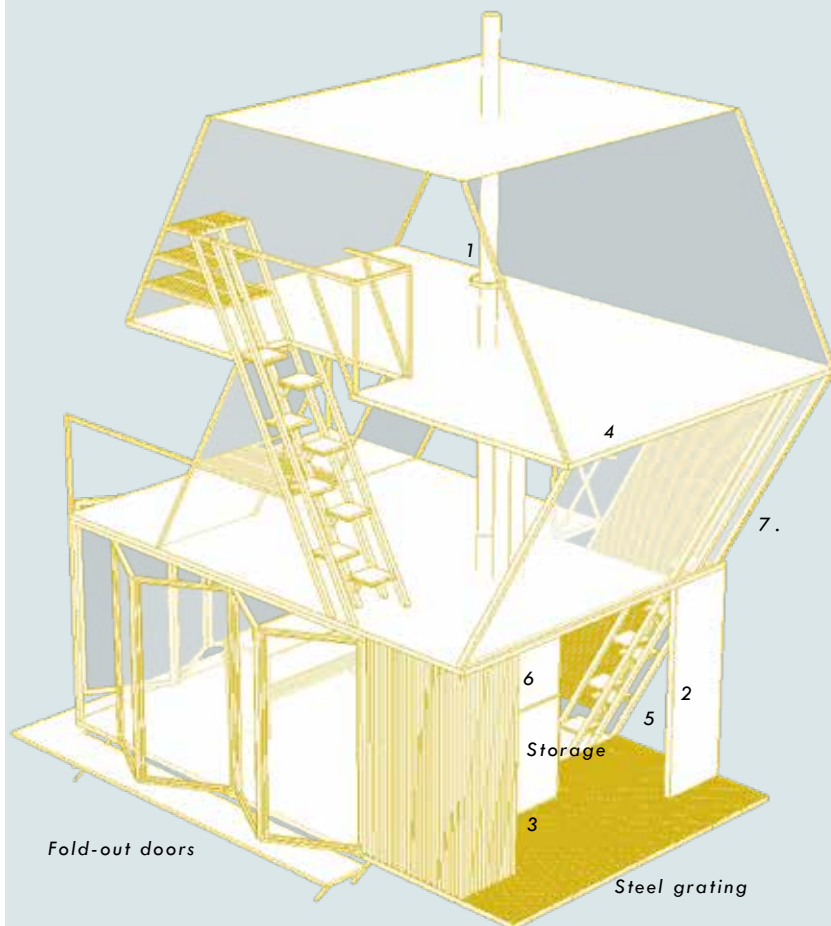


1. Overall form feels very rigid and heavy - the shell will ideally blend in more with the natural surroundings
2. Not necessary to have staircase inside - shift to exterior in order to retain warmth and protection
3. Mud area does not need to be closed off from exterior - can implement doors between mud area and kitchen
4. What if you want to drink tea in the living area? Should there be easier access to the second level?
5. Roof needs to be sloped to enable rain and leaves to fall to the ground rather than provide another maintenance issue
6. Living space is exposed to exterior - it is necessary to define this partition



8. Dynamic angles are created by staircases - Need work with these line forms
7. Computer cut cladding will allow for easy preparation of flooring and walls





1. Flue could double as main support. Structure required up the length of the flue

2. Need to implement protection between flue and surroundings, ie gap between flue and wooden floor, shield to protect occupants from touching

3. There is no changing area

4. Flooring needs to be thicker to provide enough support

5. Could be used as a storage for firewood

6. Large and bulky storage cubboards are probably not necessary

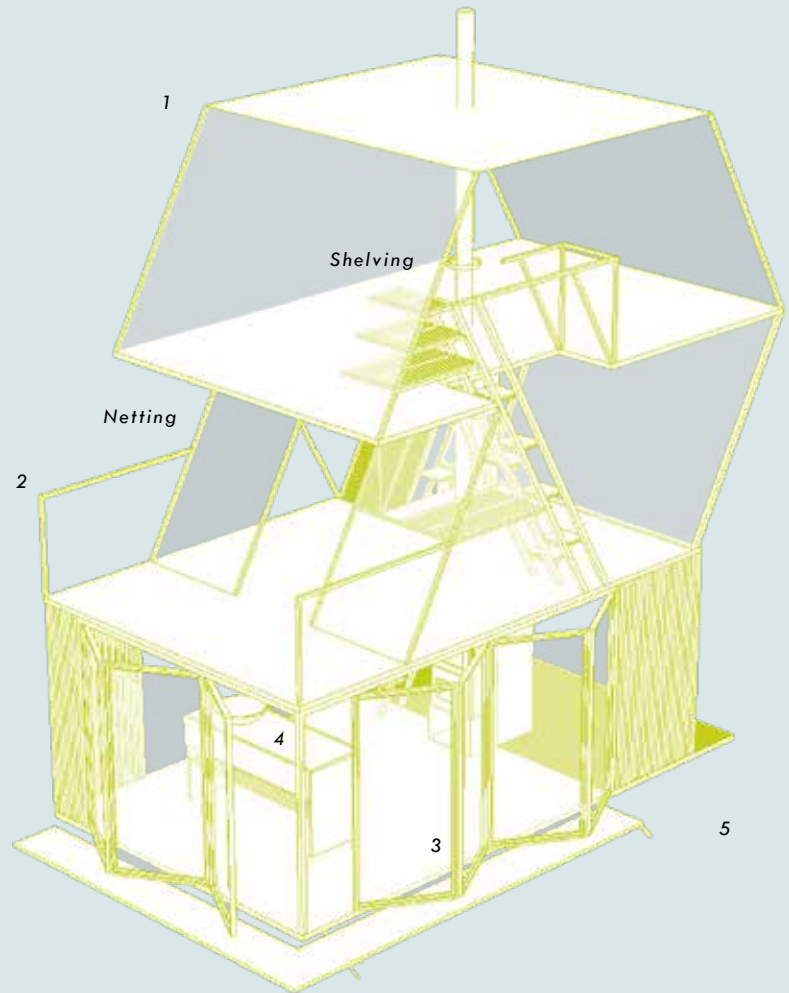
7. Angled lines create angled windows, providing a different perspective looking up into the trees or down to the bush, mud and life below



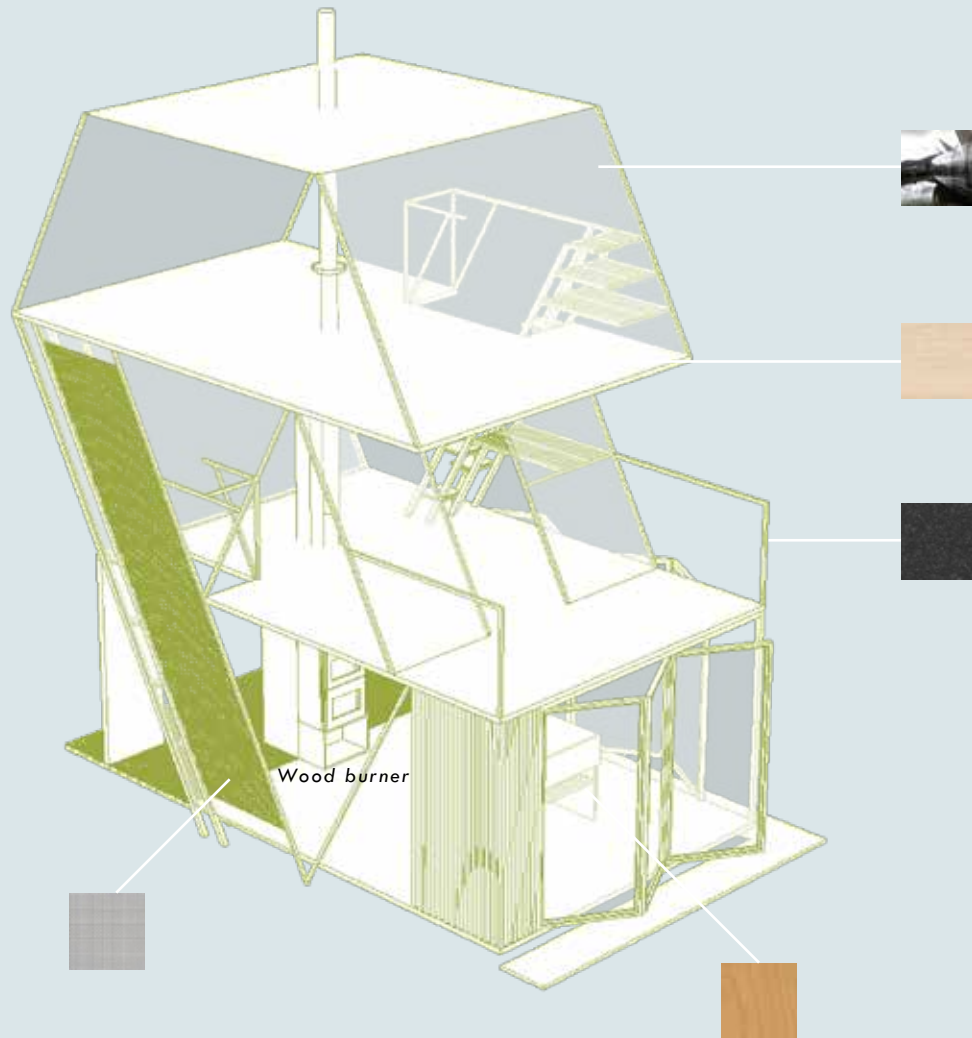
1. *Implement way to welcome birdlife*
2. *There is no barrier to keep people from falling*
3. *The folding doors do not need to be glass - can be a cheaper and lighter material that still lets light in eg polycarbonate or netting*
4. *Table could be made using less material*



5. *Inspired by tents, this angled wall is netting that is able to be rolled up or down. This does not protect from cold or wind, it merely provides protection from pests when necessary*



Materials selected have been chosen for their practical qualities in strength and durability, and their simple, raw aesthetic. By incorporating subdued textures and colours, the surrounding nature is brought to fruition



Material Palette



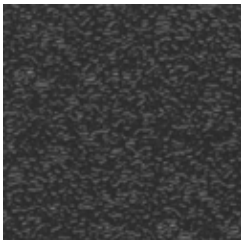
*Silver Beech
Timber*

Silver beech timber is the timber found on site. This was the material used to build Cone Hut and so I feel that it is appropriate to implement salvaged materials within the modern design. This timber will be used for furniture peices such as the kitchen table.



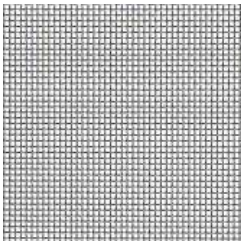
*Cross Laminated
Timber (CLT)*

CLT consists of three, five or seven layers of timber, glued at right angles to one another in order to form a stable and rigid panel. Manufactured to custom dimensions, this material can be cut to shape. This will be the material used for flooring and walls due to its strength and stability. Left exposed as interior panelling, this will add to the raw material palette ("Cross-Laminated Timber").



*Black
Galvanised
Steel*

Galvanised steel is protected from corrosion, is relatively cheap, and has a long and reliable lifespan. Galvanised steel will be used to build the structure due to its strength



*Architectural
Woven Mesh*

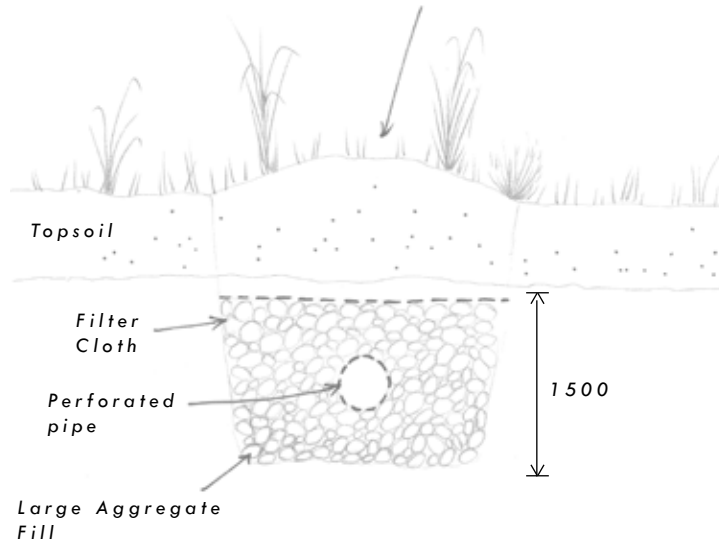
Stainless steel woven mesh is to be used where safety and protection from pests is of concern, but exposure is not. This material will allow for ventilation and the sensation of a light breeze.



*Palsun UV -
Polycarbonate
Sheet (clear)*

Polycarbonate sheeting is high impact resistant, has good clarity, high light transmission, is water & UV resistant, fire resistant, easy to fabricate, and lightweight, making it a perfect substitute for glass for this particular deisgn ("Plastic Sheets.").

Waste water



To follow suit with the nature of the design intent, regarding the need for practical tasks to be enforced, there will be no running water system implemented into the design. Therefore there will be no need for a greywater system or septic tank. There will be a soil soakage pit that will naturally filter waste water into the surrounding soil.

A soil soakage pit works in this way:

Perforated dose lines (100 mm diameter) are laid in a trench filled with aggregate and covered with a layer of topsoil. Effluent trickles through the aggregate into the surrounding soil (Swiss Federal Institute of Aquatic Science and Technology).

As well as being the disposal area for wastewater, there will be another soil soakage pit available for people to 'shower'. In this context, showering will simply consist of a jug of water available for them to pour over themselves to wash. The other alternative is to use the river, a five minute walk downhill. This shower area will be designated within the bush in order to create privacy while offering a unique and meaningful bathing opportunity.

The Outhouse

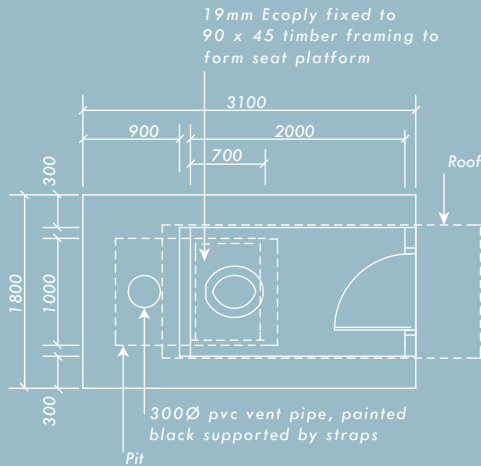


Fig 6. 50. Plan view

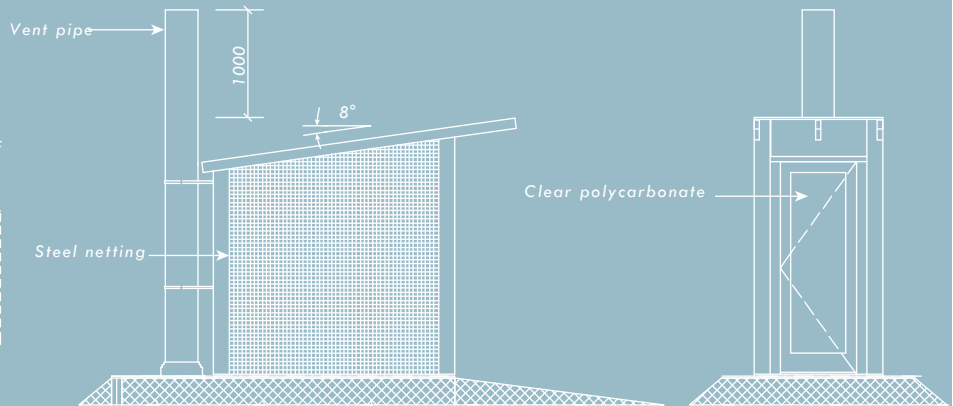


Fig 6. 51. Elevation

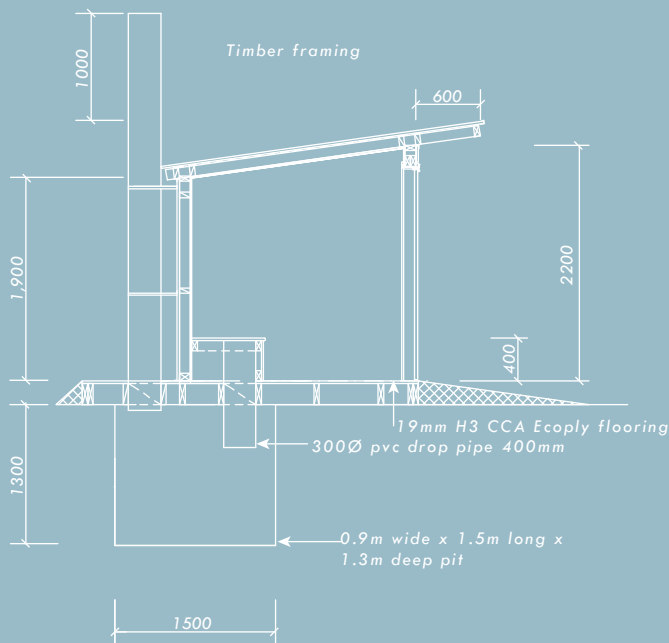


Fig 6. 52. Section

The toilet shall follow suit with the majority of the guidelines provided by DOC. However it will not be enclosed as the usual DOC outhouse would. It will comply with the design intent by creating a fluid connection to the outside. Going to the bathroom in nature does not need to be a clinical thing. The natural act does not require four walls and a door, and so this toilet does not either. It will follow the standard regarding the physical longdrop, but the surrounding structure will not comply.



Fig 7. 01. Section



Fig 7. 02. Section

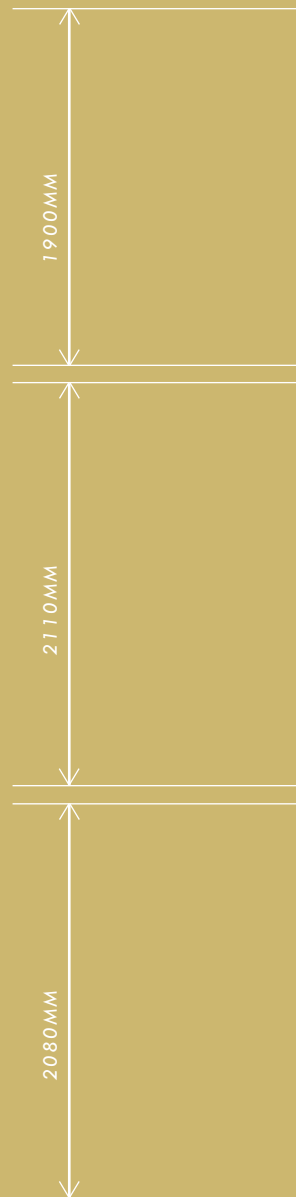
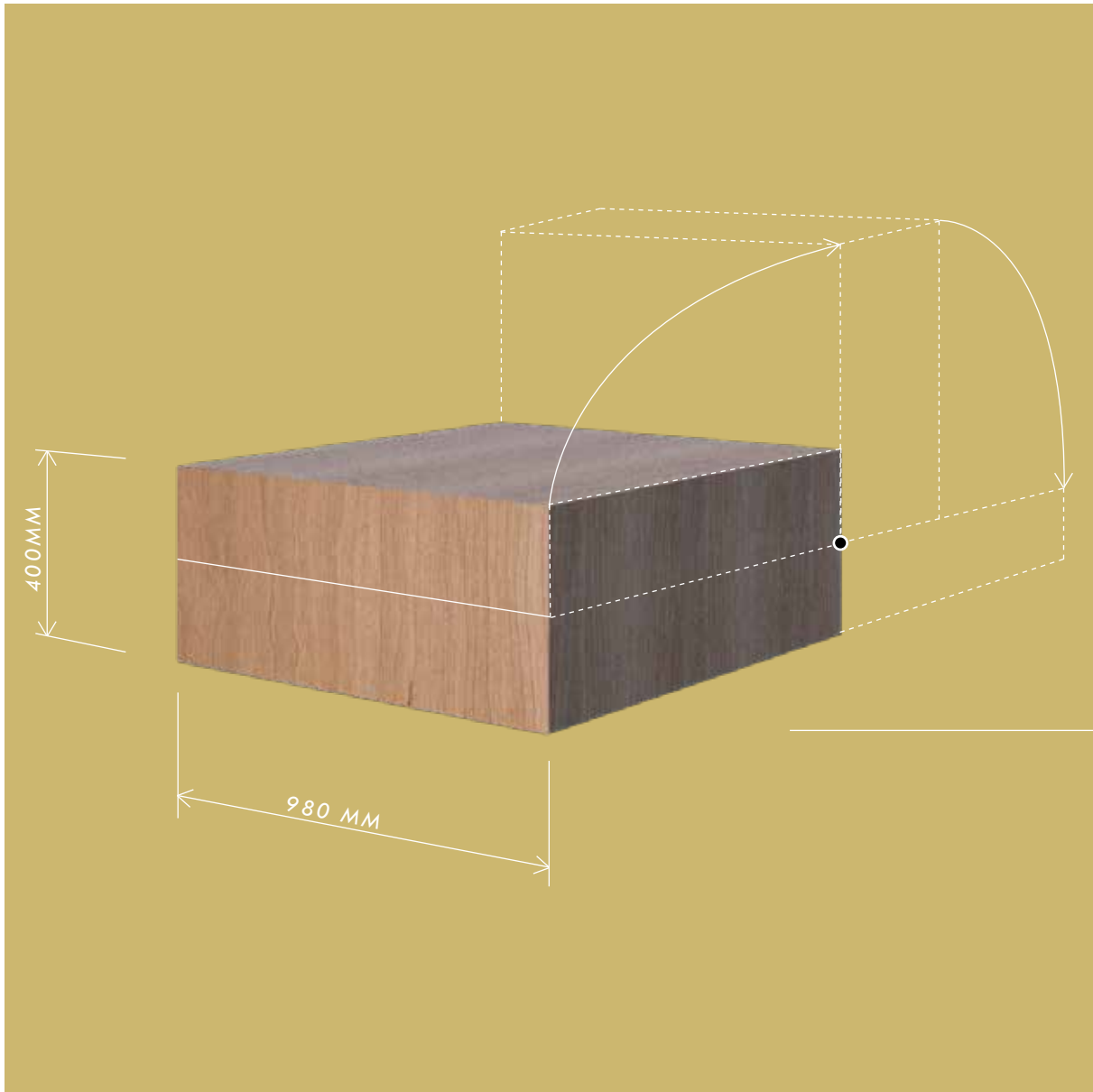


Fig 7. 03.

Section





This seat folds out to create a supported seat as well as a platform for sleeping on if necessary.



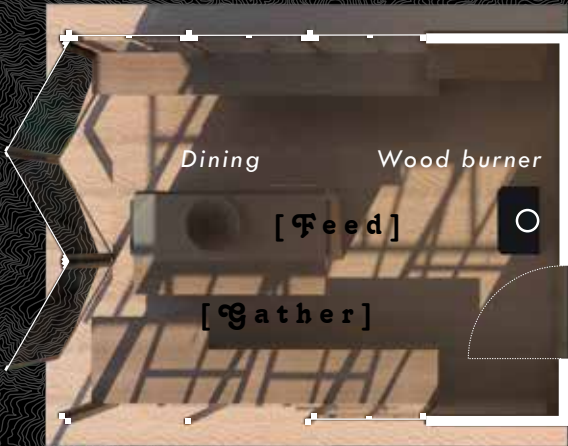


Level One

- *Mud Area*
- *Dining*

North ^

Stream ^



Campfire area

⌞ River

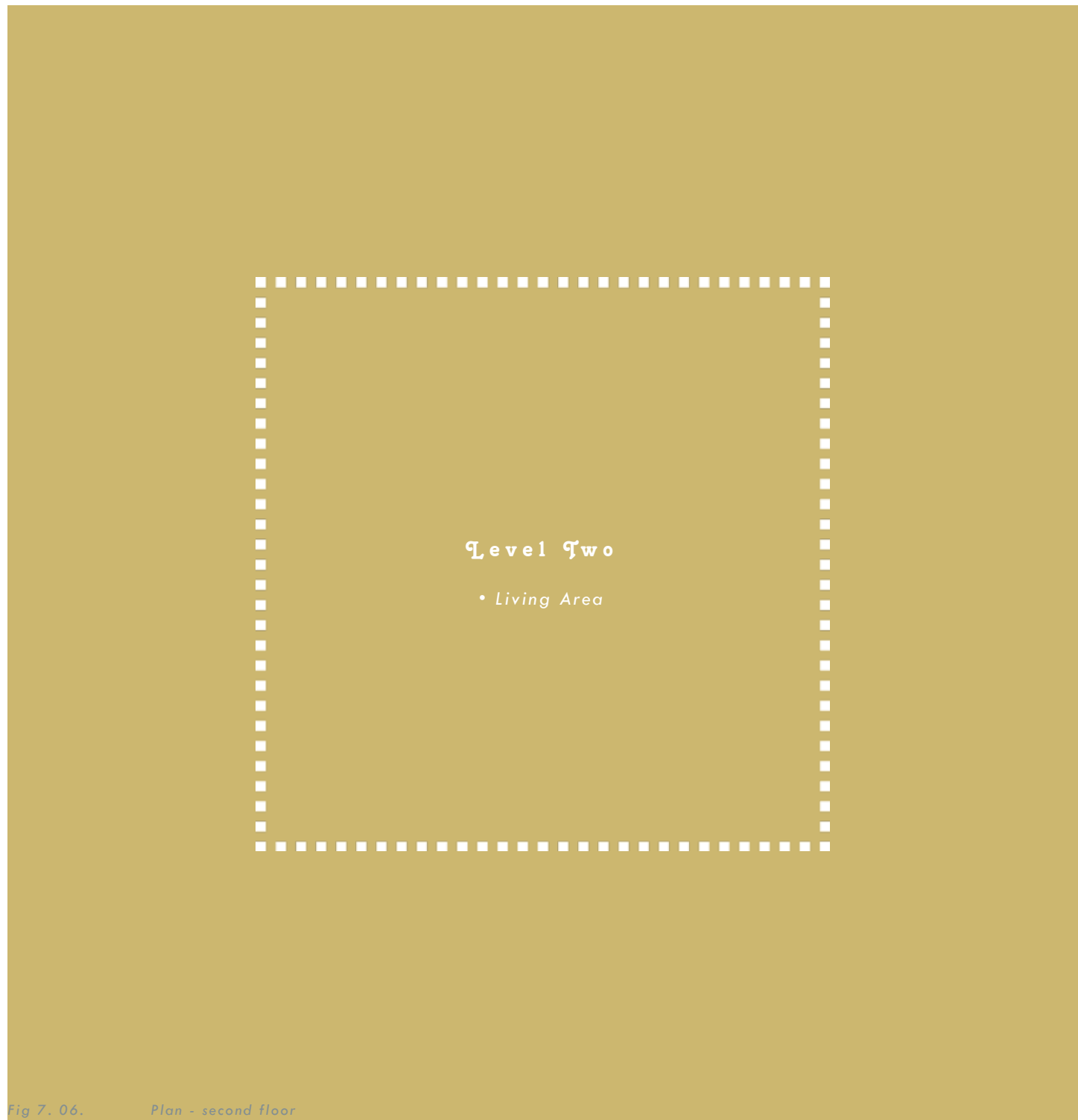
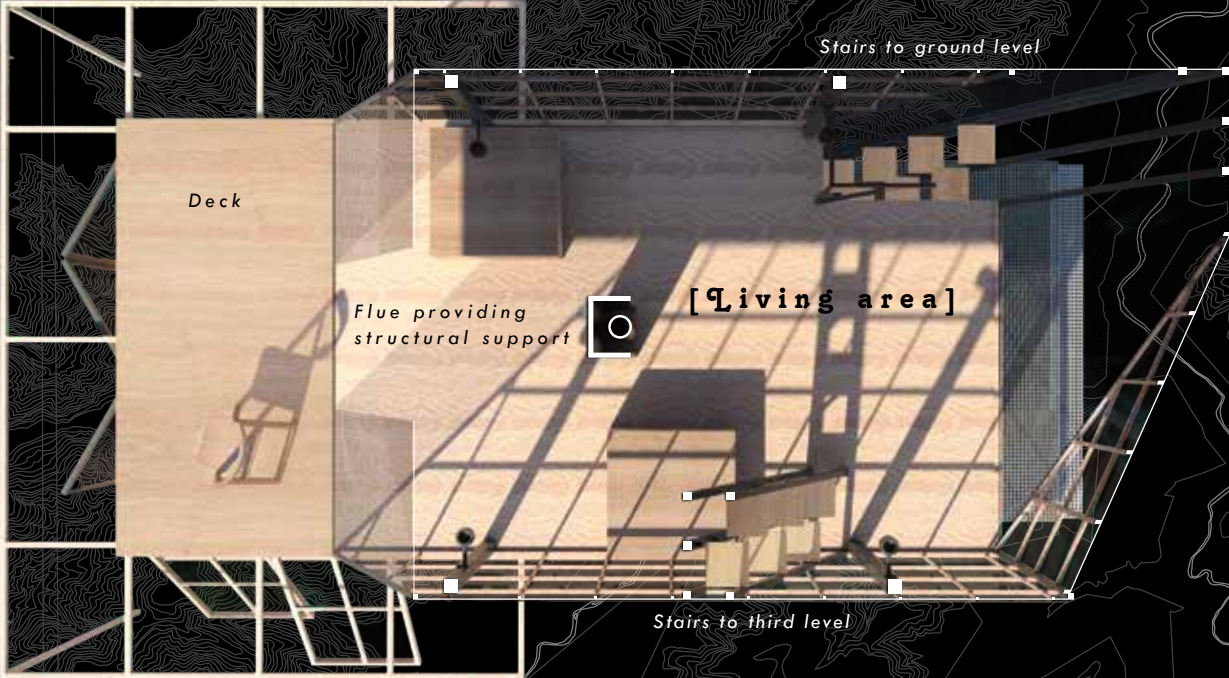


Fig 7. 06. Plan - second floor

North ^

Adjustable window support also provides support to hang hammocks if desired



Stairs to ground level

Deck

Flue providing structural support

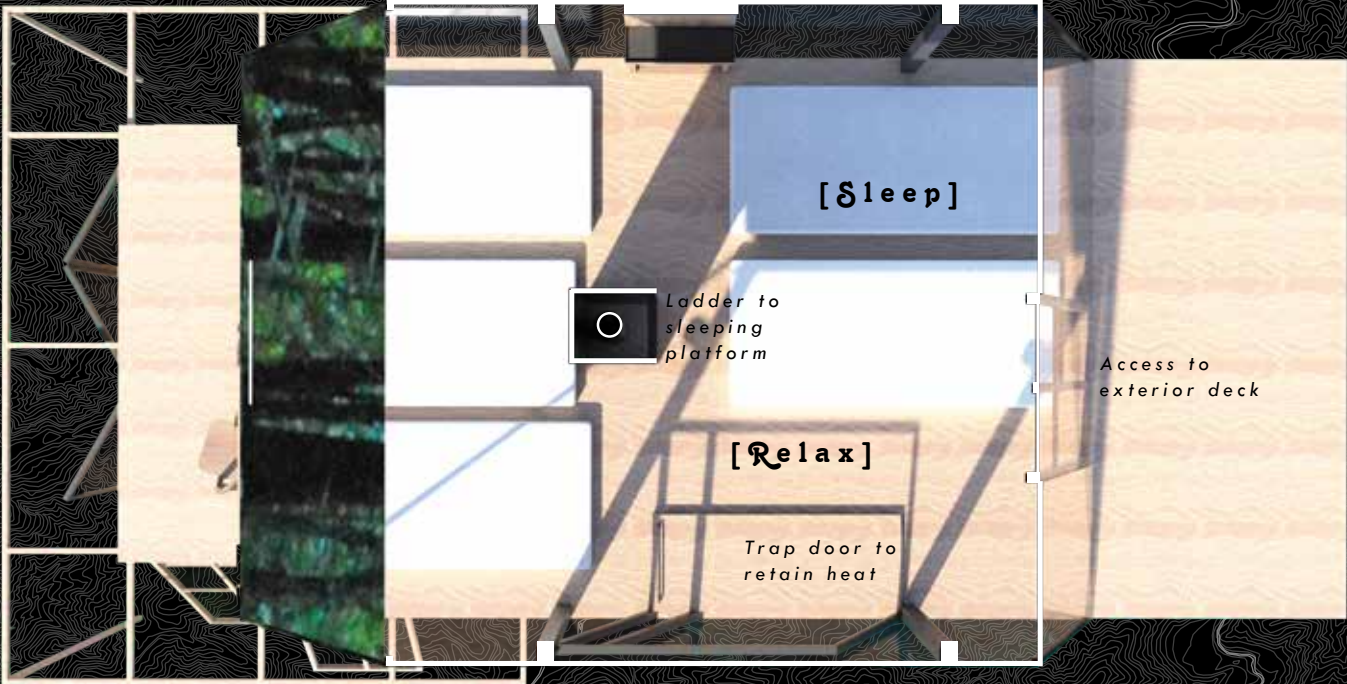
[Living area]

Stairs to third level



Fig 7. 07. Plan - third floor

North ^



[Sleep]

Ladder to
sleeping
platform

Access to
exterior deck

[Relax]

Trap door to
retain heat

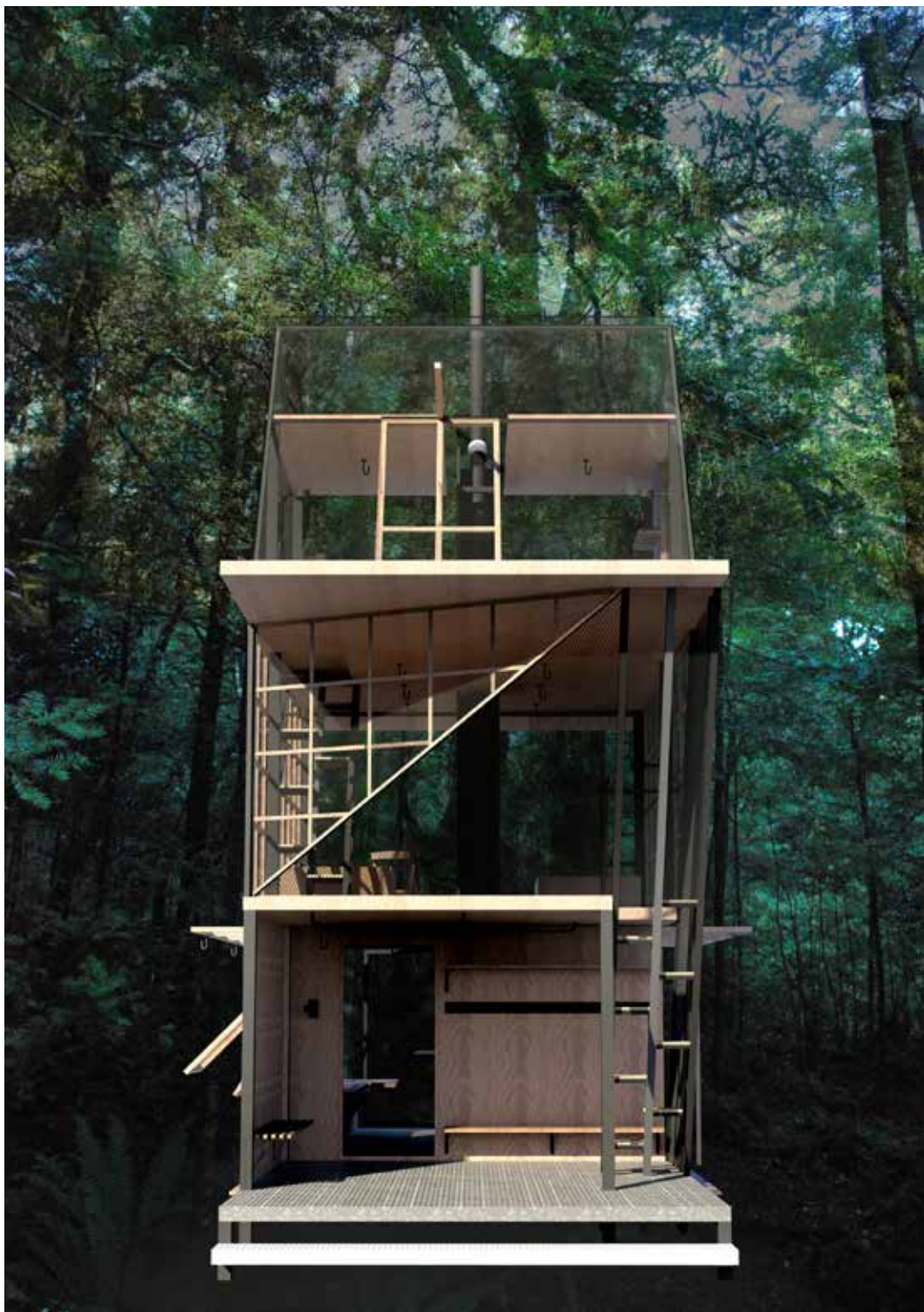


Fig 7. 08.

Front view

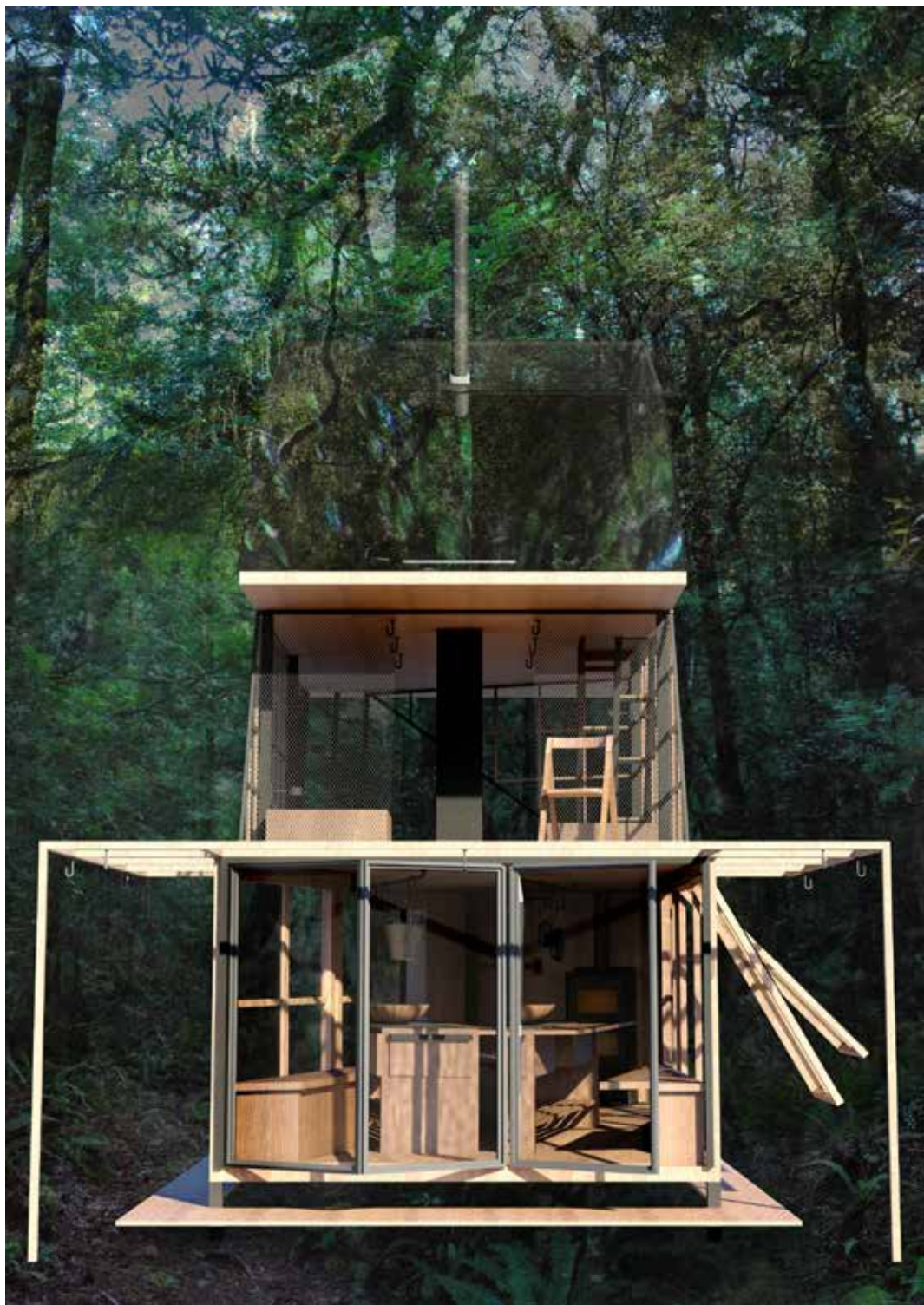


Fig 7. 09.

Back view



Fig 7. 10. *Render of mud area*

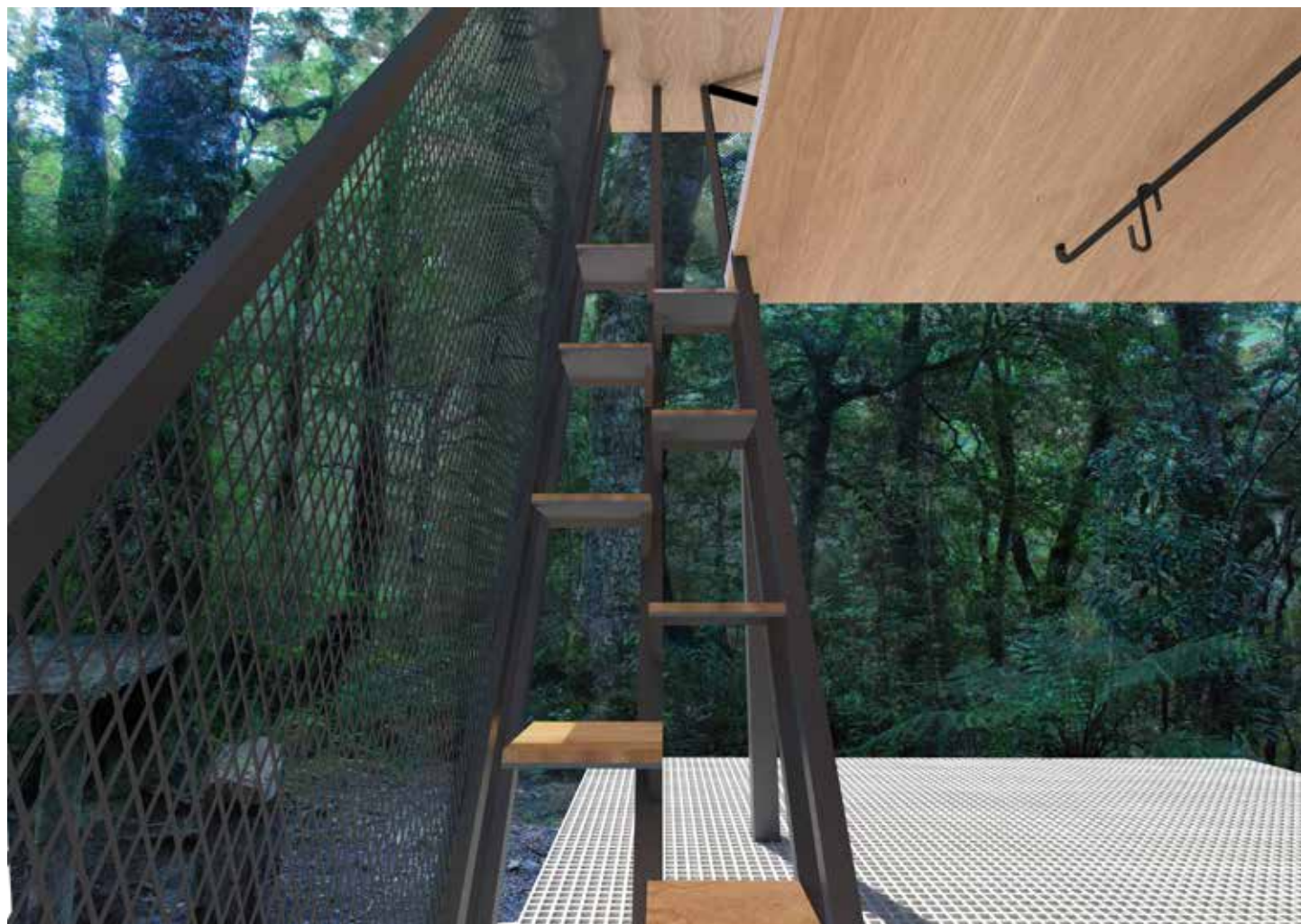


Fig 7. 11. *Render of stairs*



Fig 7. 12. *Render of kitchen*



Fig 7. 13. *Render of kitchen*

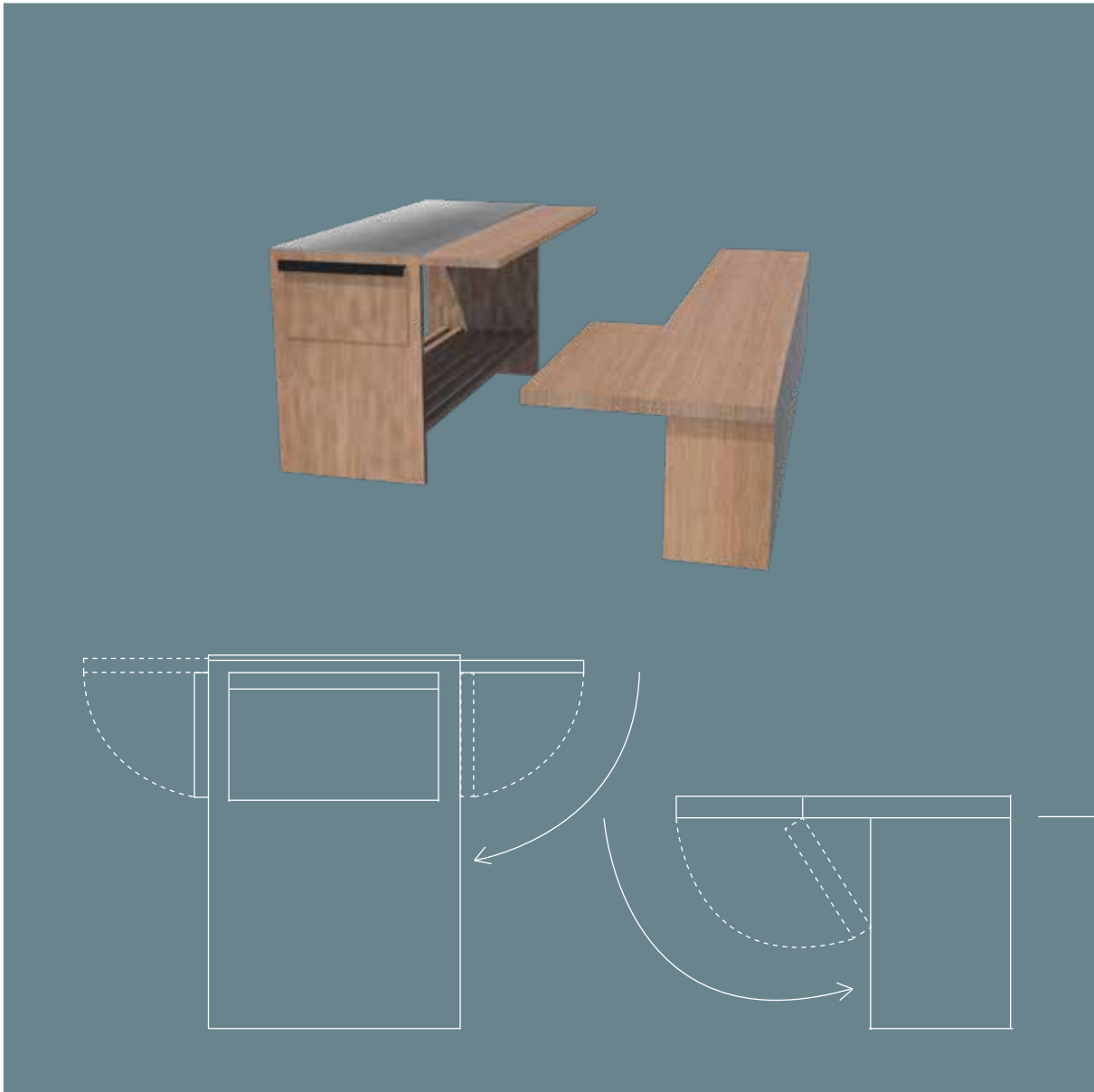


Fig 7. 14. *Diagram of kitchen bench and seating*



Fig 7. 15. *Kitchen seating*

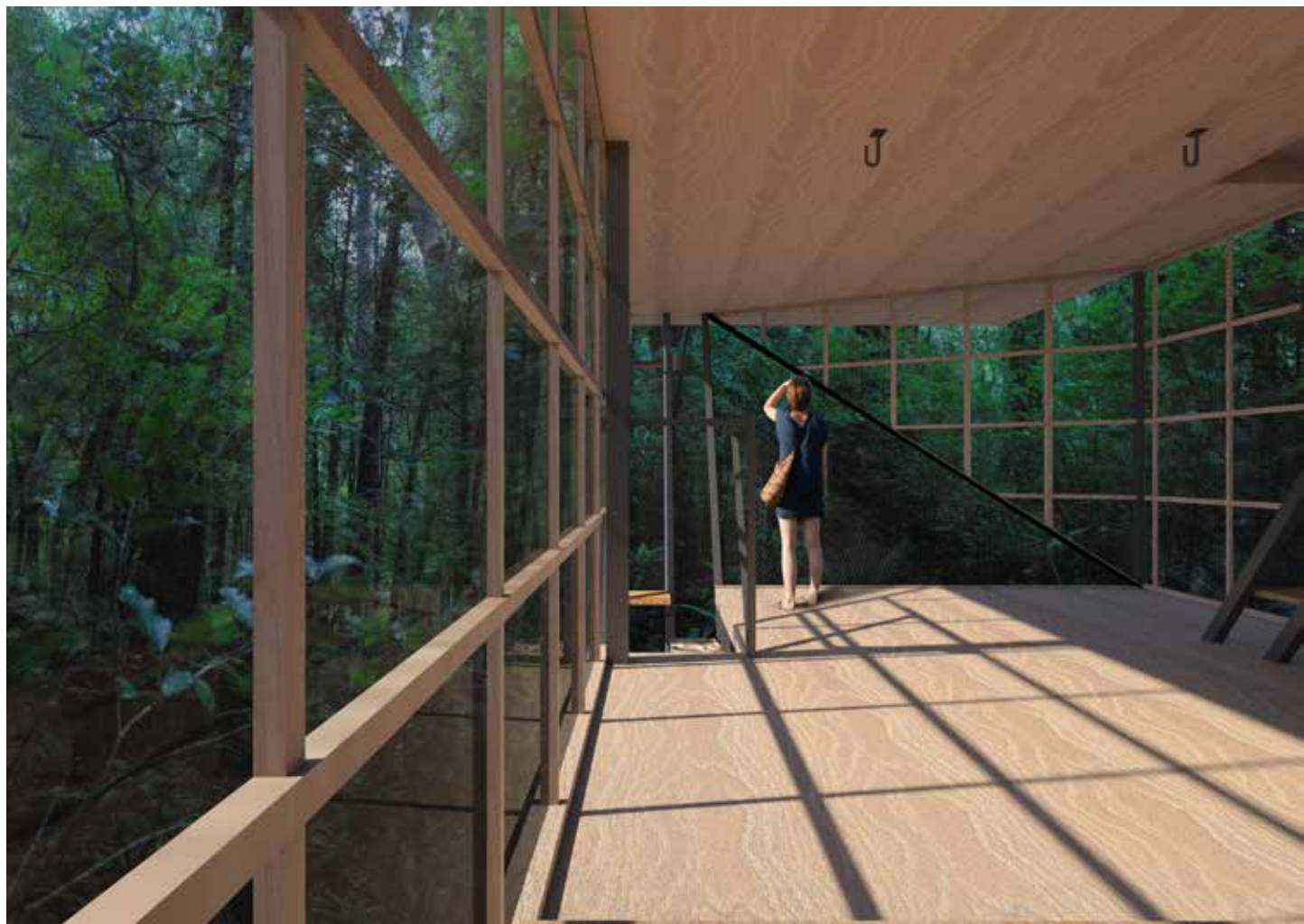


Fig 7. 16. Living area



Fig 7. 17. *Living area overlooking surrounding trees*



Fig 7. 18. Living area

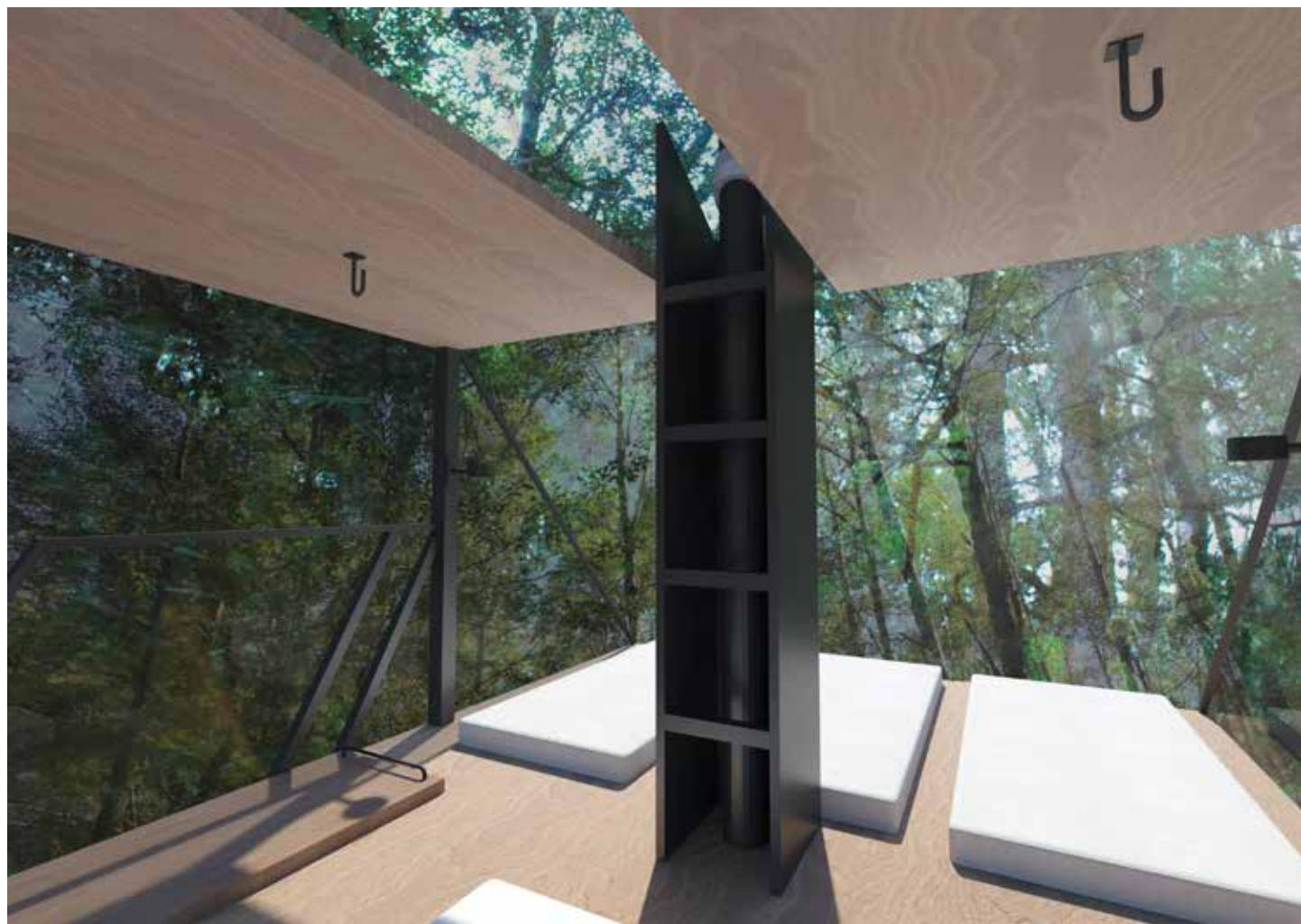


Fig 7. 19. Sleeping area



Fig 7. 20. *Sleeping area*



Fig 7. 21. *Sleeping area loft*



Fig 7. 22. *Living area at night*

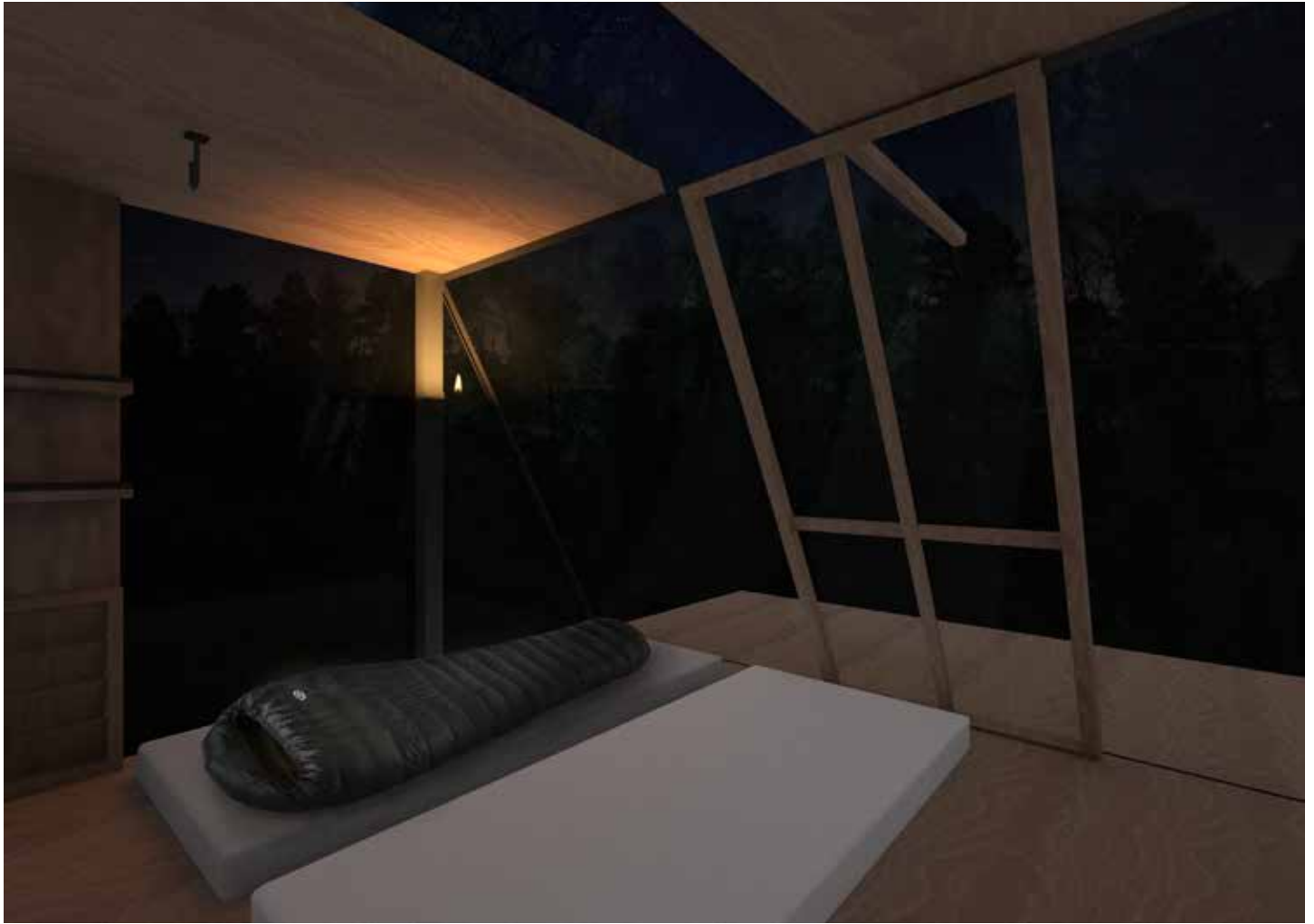


Fig 7. 23. *Bedroom at night*



Fig 7. 24. Kitchen at night

Conclusion

Reflection

I began with the idea that I would do something in order to change the current state of huts in our backcountry.

I knew that it would be a personal journey, relating to my internal desire to always create meaningful connections with the natural world. Wherever this desire stems from, I feel that I have explored an area of interest that is truthfully something that I care deeply about.

My views may differ entirely to those with a lot more experience in the pursuit of tramping, but I feel as if it is imperative to explore this concept from my own unique perspective as an interior architectural designer.

By looking at the statistics regarding New Zealand's affiliation with nature, it is clear that their desires are not being met through the facilities provided.

Design outcomes have sought to utilize interior architecture as a means to enliven the connection between the interior and the natural surroundings – the nature that is physically close, but often never embraced for their intrinsic and intimate qualities.

By visiting my site in the early stages of the process, I developed an immediate affinity with the site. This relationship influenced my intentions, provoking me to design specifically for the qualities of this space and for the history embedded in it.

To try and encapsulate my ideas into words, I narrowed it down to just three - Ethereality, Perspective and Intimacy.

I have continuously tried to measure my decisions against these three words in order to reflect on the initial design objectives.

Minimal Environmental Impact

The way in which I have implemented minimal environmental impact includes using a minimal amount of materials. I have attempted to make informed decisions regarding what materials are suitable for the purpose, but are also cost effective and non-polluting in the environment.

Connection between Self and Nature

The most vital way that I have tried to revive the occupants' connection to nature is through the senses. Due to the open nature of the design, the interior is susceptible to all the surrounding sights, sounds and smells – the swaying of the trees in the wind, the wild ferns, the decaying logs; the rustle of branches, flow of water, scurrying of possums, raindrops on leaves, song of the tui; the smell of damp leaves and wet mud; a gentle breeze, the heat of the sun.

Perspective and Interactions

The experience focuses largely on the threshold between the interior and the exterior, and the potential to create connection between the two. The interactions of the occupants have largely been dictated by the designed experience, as it influences practical initiative through minimalist design. The second site visit uncovered intimate details for the final design concept. This has given potential to enrich the final conceptual design, further than its current state.

The design has taken the standards of DOC into consideration in order to develop a brief that I personally feel is appropriate for the context. The intention of this thesis was not to disregard the traditions and guidelines of the past, but to adapt them with our evolving society. There is potential for the developed design to be of a higher safety standard; however this aspect was not thoroughly investigated. It has been important to keep in mind that as this is an interior project, I have designed an experience rather than a holistic piece of architecture. It has been difficult to find a balance between safety and exposure. There will always be varying opinions in what is practically necessary, and what will feed the soul. In this context, I have followed the design intention and generally leaned toward the solution that has been expressive of the brief. An example of where I feel that I have struggled to find balance is the second level of my design, which is an area that is exposed to the elements of nature due to the choices of materials used. Here is where I have simply used netting to protect from pests, therefore allowing some wind and rain to enter if weather conditions are undesirable. This means that the space can be used when the weather permits. On fine days it has the potential to be an extraordinary sensory experience.

Self-reliance in Practical Tasks

The design influences practical initiative by not providing unnecessary luxuries. Tasks are simplified to their essence – tasks such as cooking food, collecting and boiling water.

History & Nostalgia

I have attempted to retain a sense of history through the implementation of salvaged timber from cone hut. This timber is used on the furniture items such as seating as people will closely interact with these. Nostalgia is reflected through the simple design of benches and seating – going for a functional and simple aesthetic.

It is important to often perceive things in a way that is not practical. Practicality can be limiting in imagination. By freeing your mind from restrictions you are enabled to think outside the square and utilize thoughts and ideas to their full potential.

Making intuitive decisions, rather than practical ones can lead to new and inspiring things.

Minor problems within this design can easily be solved. By not letting these issues define the design, it has allowed the overall design to develop beyond its practical limitations.

The final design images are successful in creating an inspirational vision for alternative habitation in the wild.



Fig 7. 25. *Ethereality*

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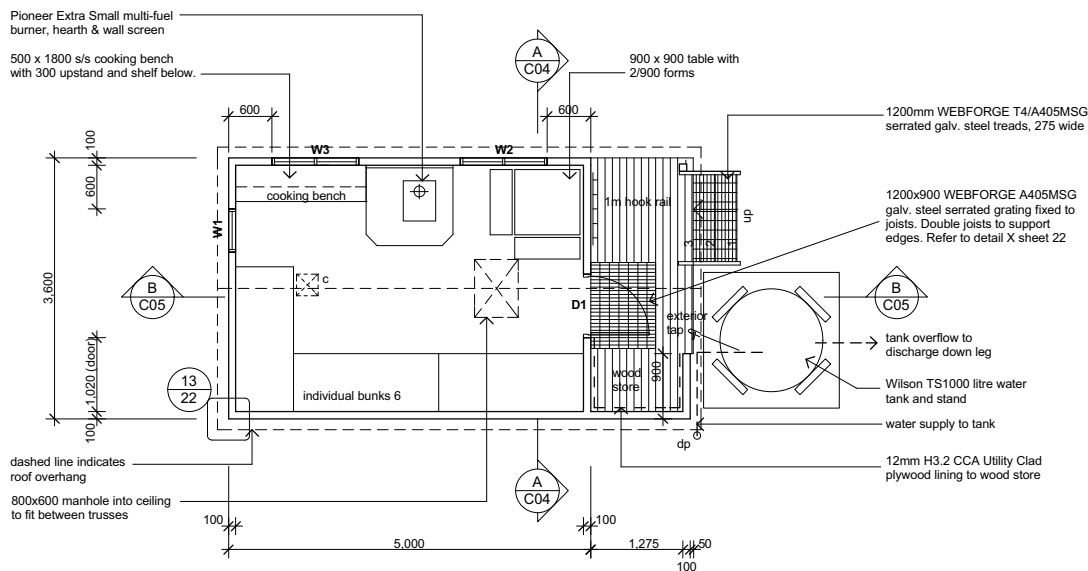
Figure List

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
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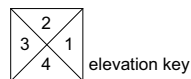


floor plan

1:50

note:

1.  indicates 300 x 300 HOLYOAKE ceiling vent grill, model EC-125



4.0	First Issue	Mar 09	-	-
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Drawing Issue and Amendments

V4.9 Standard Visitor 6 Bunk Hut - Appendix B1.2



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PROJECT HUT NAME

LOCATION LOCATION NAME
NATIONAL PARK NAME

AREA OFFICE AREA OFFICE NAME

SHEET CONTENTS

floor plan

1:50

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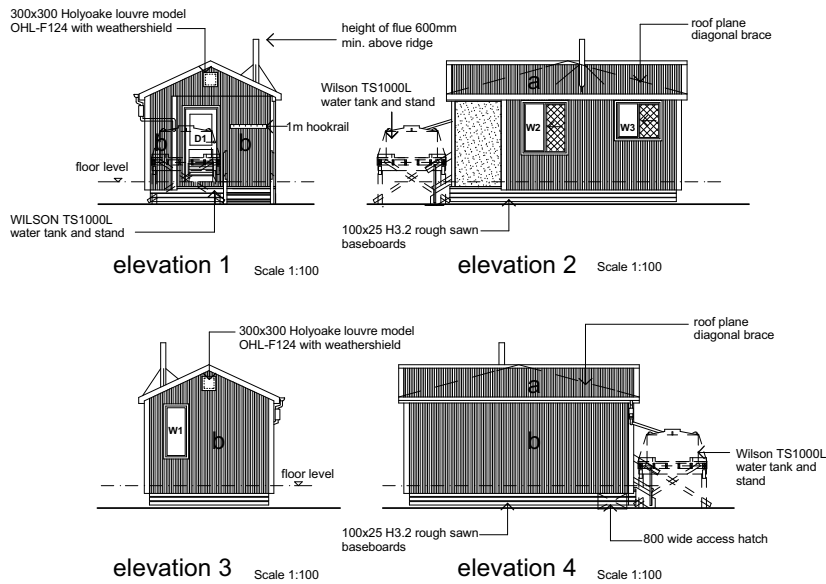
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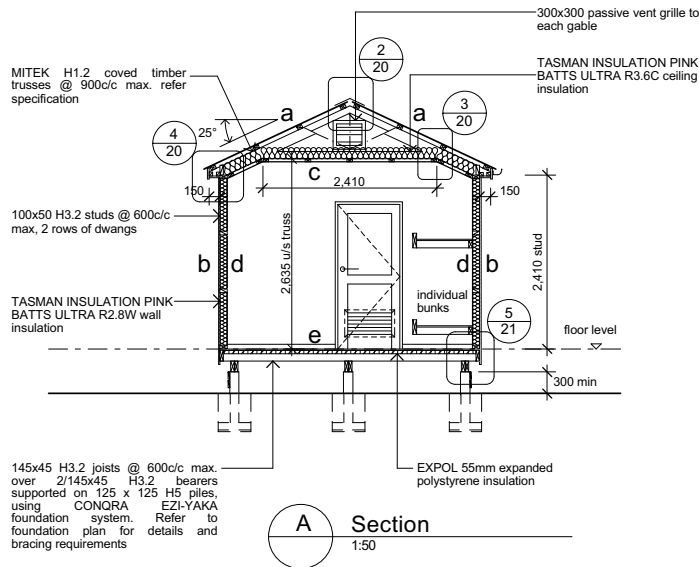
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- a COLORSTEEL ENDURA 0.40BMT CORRUGATE PROFILE roofing over TASMAN INSULATION FLAMESTOP 660 building paper over 70 x 45 H3.2 purlins on flat @ 800c/c max. evenly spaced.
- b COLORSTEEL ENDURA 0.40BMT CORRUGATE PROFILE cladding over TASMAN INSULATION BITUMAC 860 building paper over timber framing. Refer to floor plan for framing sizes & c/c.
- c CHH 9mm ECOPLY CD grade untreated ceiling lining over 70 x 35 H1.2 battens @ 600c/c max.
- d CHH 9mm ECOPLY CD grade untreated wall lining with 10mm gap to flooring.
- e CHH 19mm ECOPLY CD grade H3.2 LONGSPAN flooring F8 over timber joists. Refer to foundation plan for sub floor framing sizes & c/c.
- f 90 x 35 H3.2 grip tread decking, grip side up, even nail spacing. 10mm gap between first piece of decking and wall cladding. Refer to foundation plan for sub floor framing sizes & c/c.

4.0	First Issue	Mar 09	-	-
REV No	DESCRIPTION	DATE	OWN	CRD
Drawing Issue and Amendments				
VA 0 Standard Visitor 6 Blunk Hut - Appendix B1.2				
				
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PROJECT	HUT NAME			
LOCATION	LOCATION NAME NATIONAL PARK NAME			
AREA OFFICE	AREA OFFICE NAME			
SHEET CONTENTS		SCALES		
elevations		1:100		
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DATE	xyz	xyz	xyz	REV No.
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("Hut Procurement Manual Part B." 40)

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Material Note:

- a COLORSTEEL ENDURA 0.40BMT CORRUGATE PROFILE roofing over TASMAN INSULATION FLAMESTOP 660 building paper over 70 x 45 H3.2 purlins on flat @ 800c/c max. evenly spaced.
- b COLORSTEEL ENDURA 0.40BMT CORRUGATE PROFILE cladding over TASMAN INSULATION BITUMAC 860 building paper over timber framing. Refer to floor plan for framing sizes & c/c.
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4.0	First Issue	Mar 09	-
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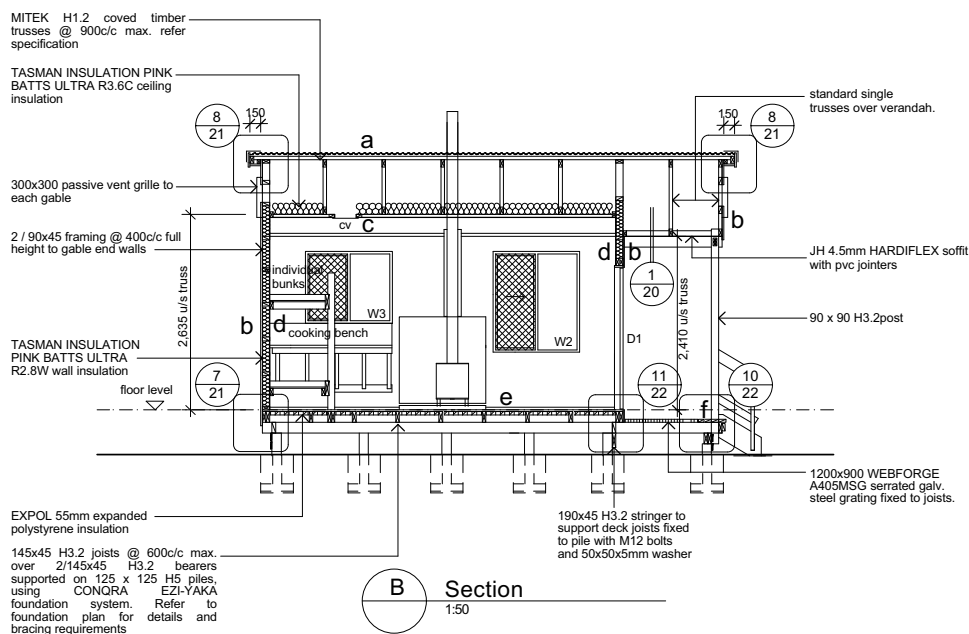
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 ("Hut Procurement Manual Part B." 42)

Material Note:

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- f** 90 x 35 H3.2 grip tread decking, grip side up, even nail spacing. 10mm gap between first piece of decking and wall cladding. Refer to foundation plan for sub floor framing sizes & c/c.

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Drawing Issue and Amendments

V4.0 Standard Visitor 6 Runk Hut - Appendix R1.2



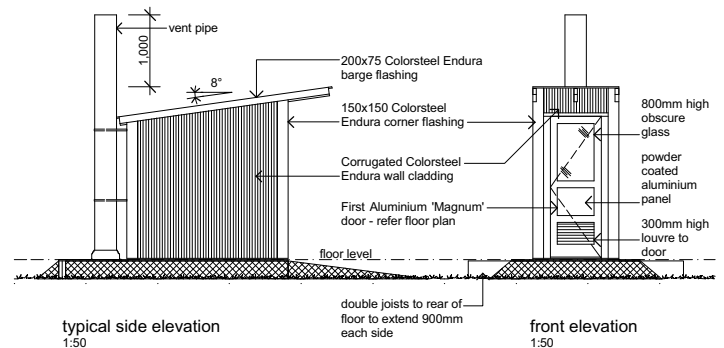
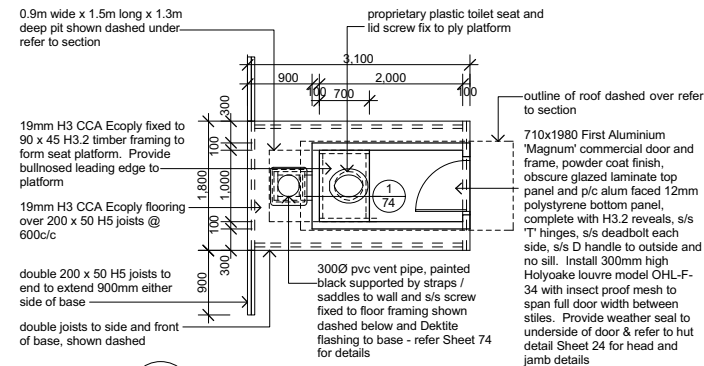
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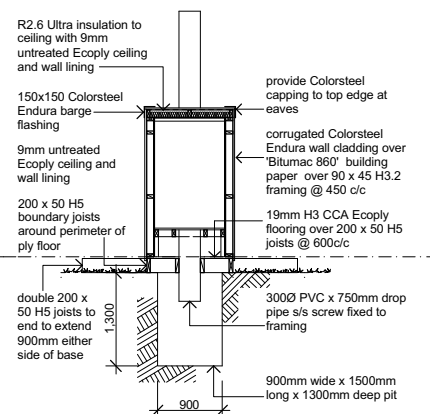
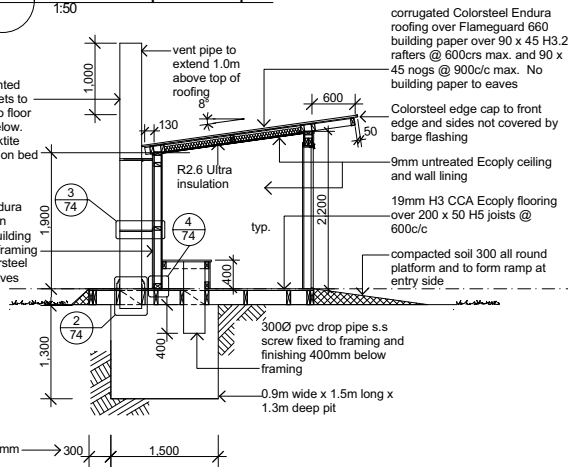
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AREA OFFICE		AREA OFFICE NAME	
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V4.0 Toilets Appendix F.1				
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Contractor shall check all Dimensions on site prior to construction				
PROJECT HUT DESIGN MANUAL TOILETS				
CLIENT DEPARTMENT OF CONSERVATION		SHEET CONTENTS		
standard pit toilet - colorsteel cubicle		1:50		
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 ("Hut Procurement Manual Part F - Toilets and Grey Water." 11)