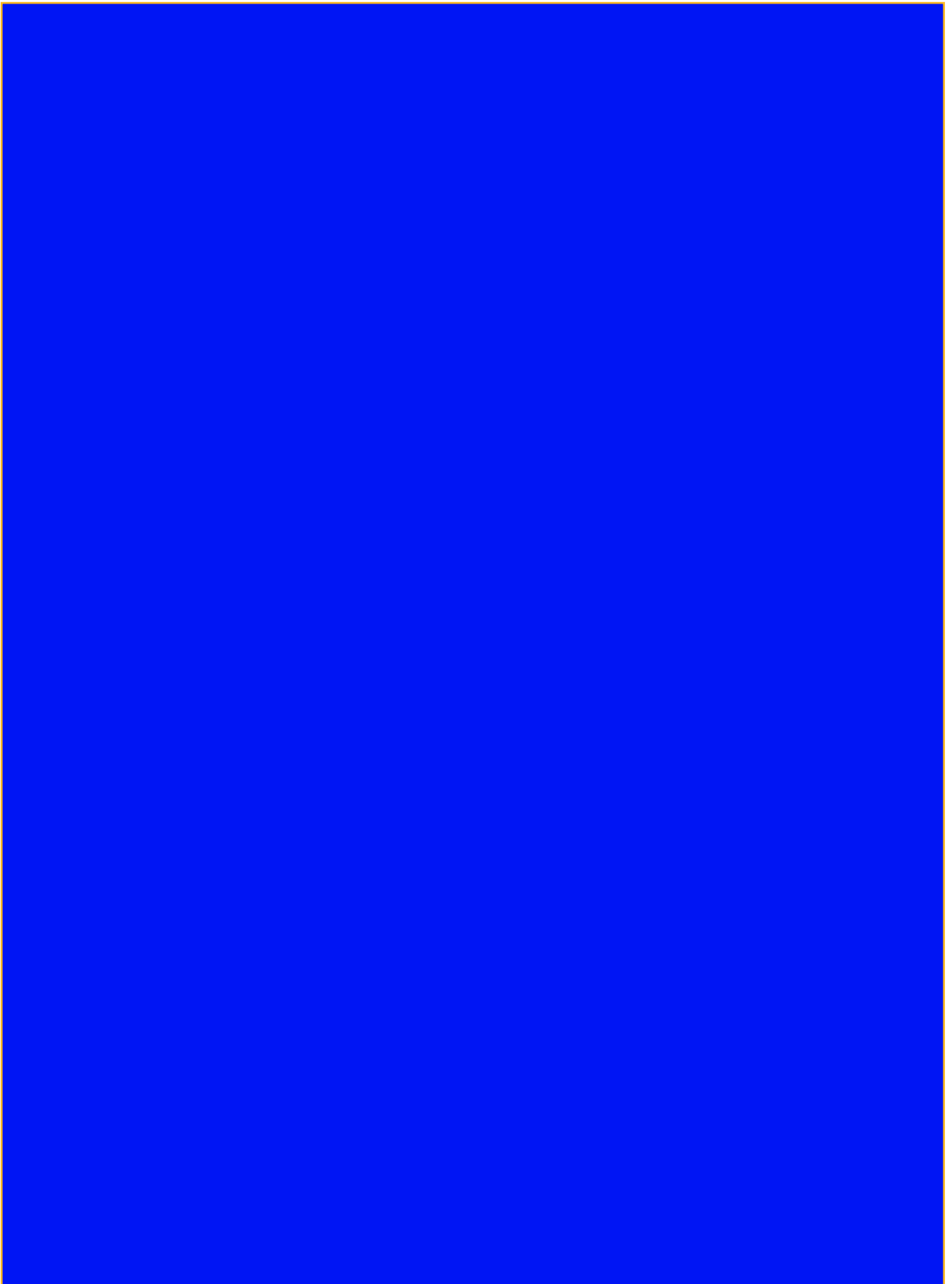


FROM PRINT TO PROPOSAL



FROM PRINT TO PROPOSAL: EXPLORING THE URBAN AND CULTURAL POSSIBILITIES OF HATAITAI

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A 120-point thesis submitted to Victoria University of Wellington
in partial requirements for the degree of Masters of Architecture
(Professional)

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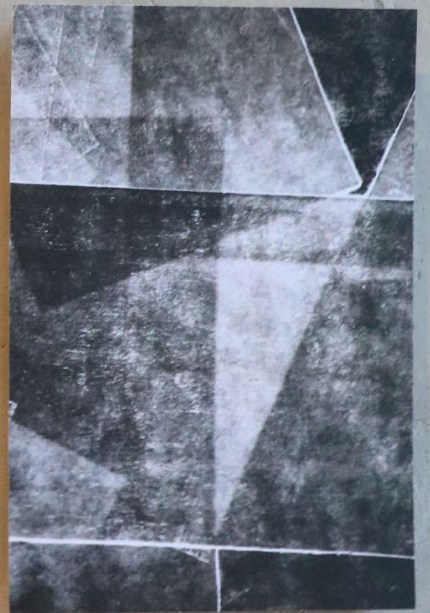
I dedicate this thesis to my mother, who always believed in me. I hope this would make you proud.

Thank you to my supervisor, Sam Kebbell. Your continuous support and guidance have been invaluable.

To my Art+Architecture stream cohort, Emily and Eleni, I'm glad we endured this exciting year together. I could not have done it without you two.

To my friends, family and flatmates over the past 5 years, thank you for the experience it has been. It has been gruelling but just as rewarding, I would not change a thing. Also, thanks to Bonobo, King Krule, Mall Grab and Mount Kimbie for the melodic support.





PREFACE

This research stems from my interest in visual art. When starting my thesis research, I was midway through an evening printmaking semester at the Inverlochy Art School (Wellington). This was my first attempt at learning printmaking. I enjoyed the practice and wanted to explore the limits of the printmaking process. Essentially, this research starts with a Print and ends with a Proposal.

ABSTRACT

I am interested in the synergy between art and architecture. Art is typically graphic and architecture is typically spatial. This research investigates how an exploration of both graphic and spatial techniques might inform architecture

I explore this synergy between graphic and spatial within the context of Hataitai, Wellington. This suburb has the opportunity to grow, physically and socially. This research proposes a Continuing Education Centre that promotes a new cultural hub. This proposal responds to the suburb's car-dependent nature and aims to enhance Hataitai's cultural resilience.

What graphic and spatial opportunities does architecture offer to improve pedestrian infrastructure and enhance cultural resilience?

I use the design proposal as a vehicle to investigate how art-led experimentation could influence the architectural language and design. I use printmaking as a creative starting point to explore the possibilities of art-led experimentation. From the prints, I investigate the ambiguity of depth and flatness, I then develop experimentation through physical modelling, hand drawing and digital modelling. The resulting design expands a weakly-defined pedestrian network and enriches the cultural fabric through an architectural language that explores both spatial and graphic overlaps.

Keywords

Art, Architecture, Graphic, Spatial, Ambiguity, Overlap, Hataitai, Culture, Resilience, Pedestrian, Education

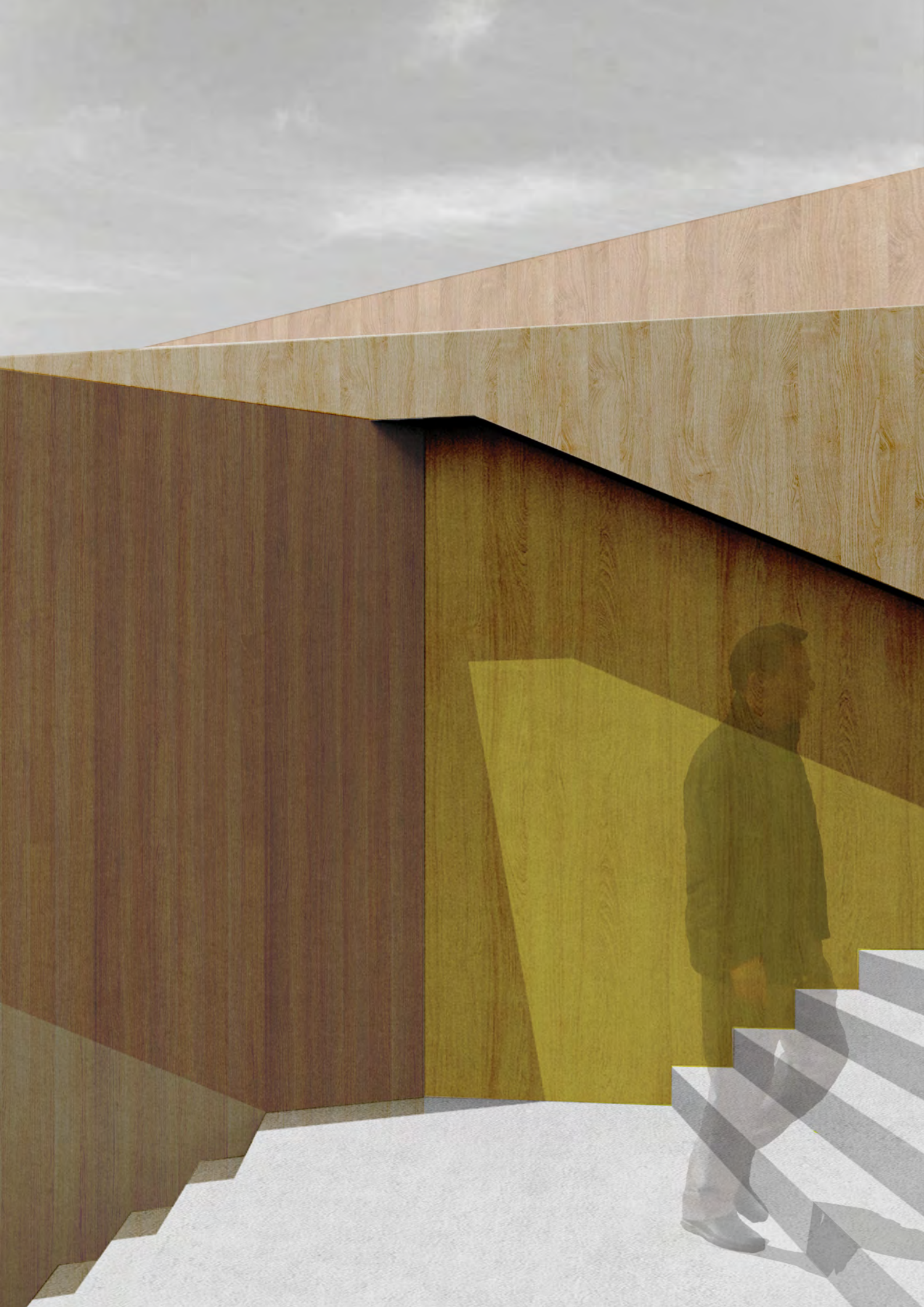




Figure 4. Collagraph print study series 002

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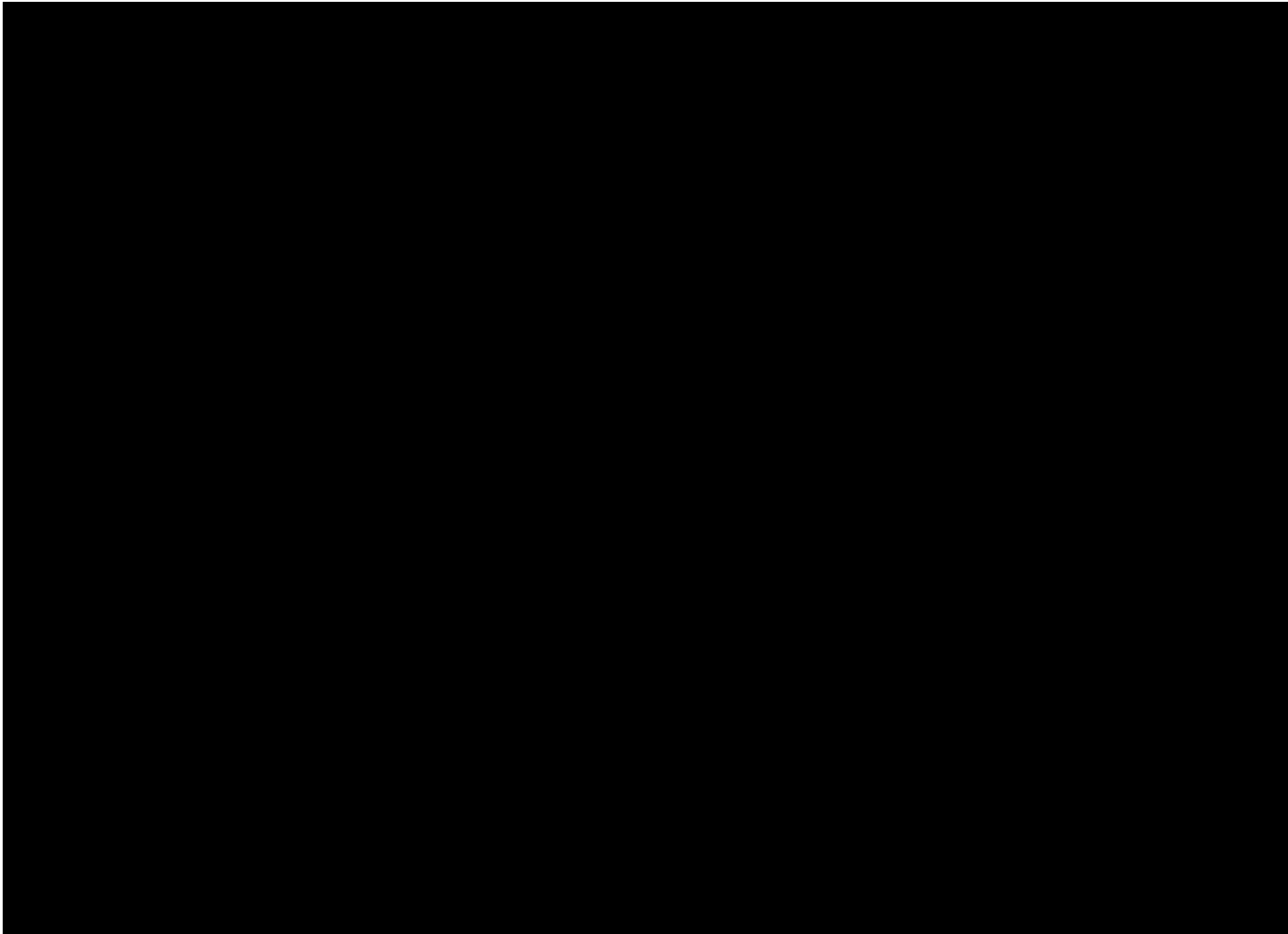


Figure 5. Map of Wellington (1880), Hataitai then “Evans Bay District”

INTRODUCTION

RESEARCH OBJECTIVES, PROPOSITION AND AIMS

The research starts at the densification of Hataitai, Wellington. The suburb sits only 3.5km Southeast of Wellington's city centre, yet, Hataitai is predominantly car-dependent and has a low density.

As seen in the 1880 Map of Wellington, Figure 2, Hataitai (then Evan's Bay District) was one of the last plots of land to be developed. Up until 1901, this land was conveniently located farm, useful location for a farm because of the lengthy commute over the Town Belt (200m high) to reach the city centre. In 1907, the Hataitai Land Company started to sell parcels of land for development. With the slow urbanisation of the suburb, the land was gradually filled with spacious standalone homes and the roads were built to follow the contours of the hill. The incremental growth of Hataitai was never a wilful attempt to make a thriving urban environment. At the time there was no urgency to fill the space or accommodate for the rapidly growing population yet, now there is.

My first objective is to expand Hataitai's pedestrian infrastructure. Since the roads were built to follow the contours of the hill, this created long blocks that are more suited for cars. The suburb flourished after 1907 when the new tram tunnel created a link from Hataitai to the city (Maclean, 2016), making transport at an urban scale easier. However, this did not change the car-dependent nature of transport within Hataitai. This context sheds light on the my objective to intensify Hataitai through its pedestrian infrastructure. This initial objective aims to offer Hataitai an improved pedestrian scheme that works at an urban and human scale.

My secondary objective is to enhance Hataitai's cultural resilience through the connection of diverse cultures and generations. By cultural resilience, I mean the notion that a community's members value each other and their environment. Cultural resilience is a concept that a community is motivated to overcome difficulty collectively and want to protect/develop what they have. With the current development of the Hataitai Bowling Club, there is potential to expand this scheme to create a new cultural hub with my proposal of a Continuing Education Centre. The possibility of a Continuing Education Centre could connect diverse generations, cultures and values through its educational program and architectural form.

To investigate these objectives, the Continuing Education Centre is used as a vehicle to explore the experimentation through an art-led experimentation approach. This approach uses printmaking as a starting point and various design experiments stem from that. Essentially, this research investigates how art-led experimentation could develop an architectural language of overlap that improves pedestrian infrastructure and enhances cultural resilience.

Overall, this research aims to:

- Explore a pedestrian-friendly pathway system for Hataitai at an urban and pedestrian scale.
- Enhance Hataitai's cultural resilience by connecting diverse cultures and generations through program.
- Explore how art-led experimentation can influence an architectural language of overlap.

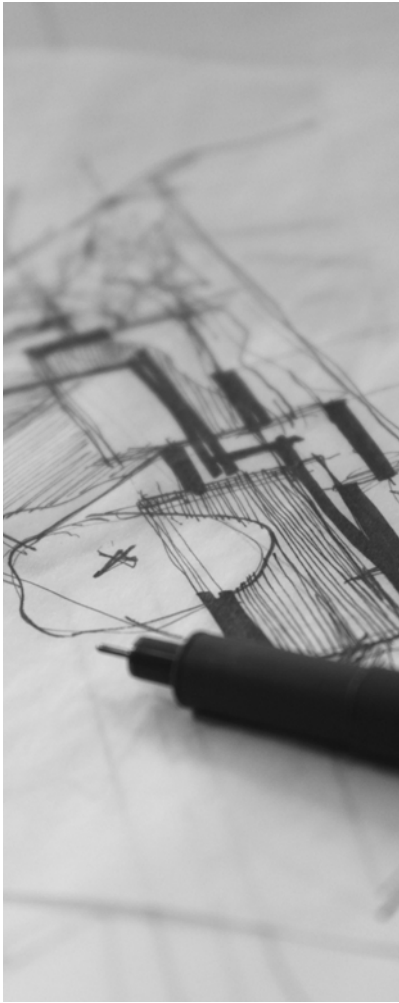


Figure 6. Methods collage

METHODS

This research has been predominantly explored through a repetitive cycle of doing and discussing.

Through art-led experimentation, I produced an array of iterative design experiments using various mediums and processes including printmaking, model making and drawing. This approach produced a valuable library of work to contemplate. I used my intuitive thinking to make design decisions: I did what I felt was right and then adjusted the outcome based on discussions and personal reflections.

I explored ideas through dialogue with fellow stream researchers (Eleni and Emily), my supervisor (Sam Kebbell) and three Wellington-based artists (Billy, Wayne and Grant). This dialogue occurred everywhere from the university campus to local art galleries, to sidewalks of suburban Wellington streets. These discussions were mainly based around the art + architecture cohesion but often drifted to side topics such as urban planning and painting. The conversations allowed for a healthy debate (with multiple opinions and perspectives) about the tensions between art and architecture (artist and architect). This dialogue gave me a richer understanding of my topic as a whole.

I critically reflected on my process, through the drawing and revision of content. I reflected by comparing my work to existing artists and architects (including Gordon Walters and Preston Scott Cohen), through dialogue (with Sam, Eleni and Emily) and by further design experimentation. I also based my reflections on theoretical context (László Moholy-Nagy and Mies van der Rohe) but, I predominantly reflected through questioning my actions, my process and the discipline (specifically concepts on material operation and spatial ambiguity).

I also participated in the curation of three public exhibitions throughout the research, each exhibition helping navigate the research and improve my understanding. These exhibitions (Print exhibition, Hataitai public exhibition and the Seoul Biennale of Architecture and Urbanism exhibition) will be discussed within separate chronological interludes throughout Chapter Two.

Throughout this repetitive cycle of doing and discussing, I was able to contemplate the work, make new versions and then compare the two. This allowed me to understand the criteria that I was working in. Therefore, allowing me to build a continuous framework that helped my navigation through the work. Throughout this process, I have made tacit knowledge of how I design explicit.

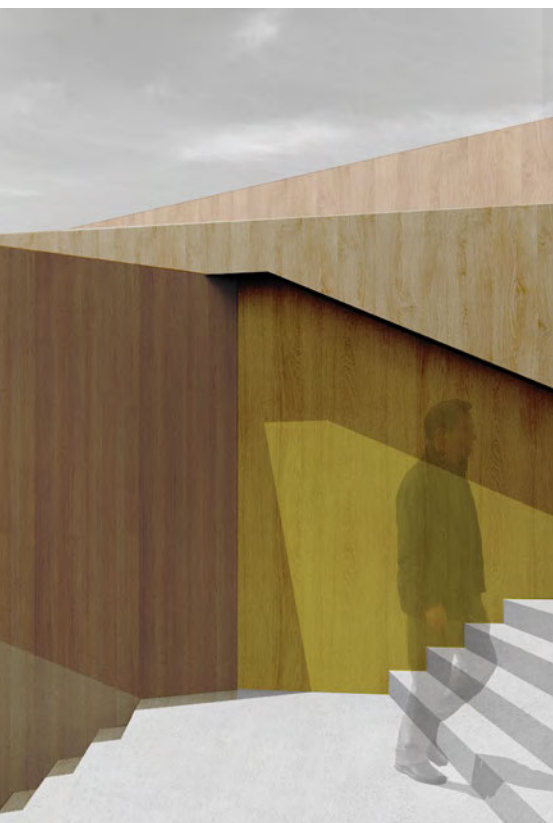


Figure 7. Exterior render of intersecting volume

DESIGN PROJECT OVERVIEW

The design proposes a Continuing Education Centre based in Hataitai, Wellington. Located at 112 Waipapa Road the design aims to enhance cultural resilience by connecting generations, diverse cultures and values through learning.

The program allows for an abundance of opportunities for interaction between generations and cultures. Some of these learning activities include dance classes, art classes, yoga, technology classes, poetry readings, plays, lectures, seminars, digital learning, language classes and early learning. The architecture promotes this collective learning through its interlocking spaces that can accommodate multiple parties at once.

The architecture pushes the layering, intersecting and combining of structure, form and colour to create varying intensities of ambiguity. This ambiguity is created from the manipulation of form creating a sense of uncertainty between depth and flatness, producing a language that could be understood in more than one way (such as in Figure 8). The form creates an engaging experience that responds to the wider context and enhances pedestrian circulation.

The architectural language overlaps between graphic and spatial. The architecture has pictorial qualities (such as Figure 8) that question the ambiguity of depth and flatness. These pictorial qualities are within a spatial essence, you can walk around and witness the operation through embodiment.

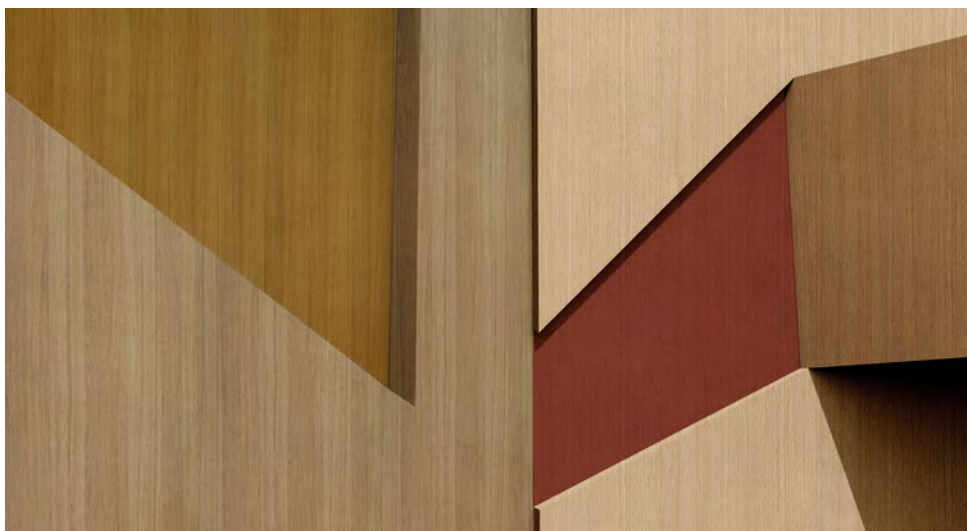


Figure 8. Exterior render close up

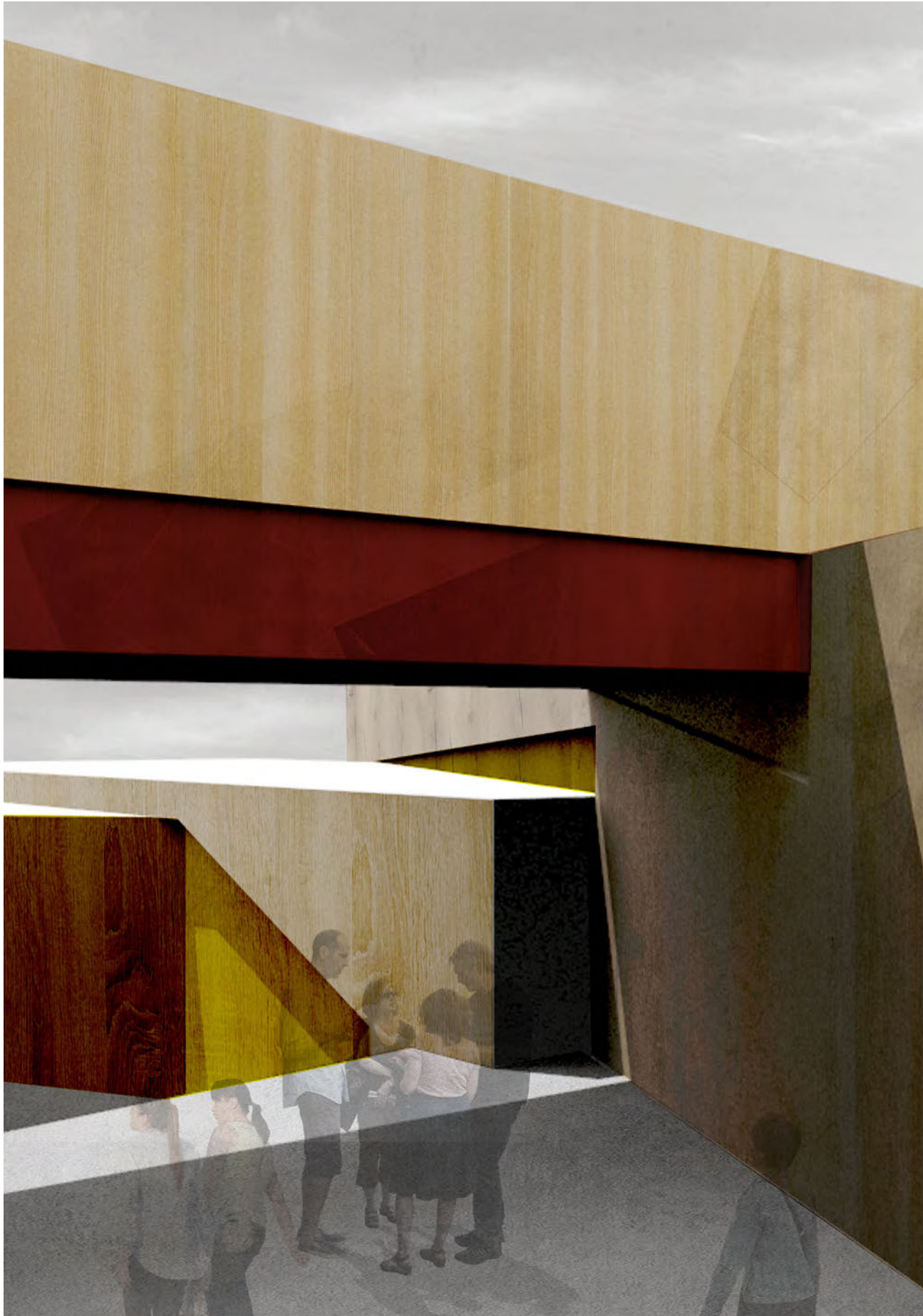


Figure 9. Exterior render

SCOPE

The scope of this research is limited to the selected site (112 Waipapa Road) in Hataitai, Wellington. The program of a Continuing Education Centre establishes the scale of the design. The research uses the program as a vehicle for speculation.

The research predominantly focuses on the architectural and visual language. The experiments tease out an aesthetic or architectural language that is both graphic and spatial. I believe this exploration may have technical and practical gaps within the project but, this does not limit the area of research I engage with. The finer resolution of these gaps would not strengthen my research into aesthetics. It less to do with the construction and logistics of the architecture, but more to do with the process and visual language that I created.

The research speculates between scales, predominantly between the urban and human scale. The scheme responds to the immediate site and wider Hataitai.



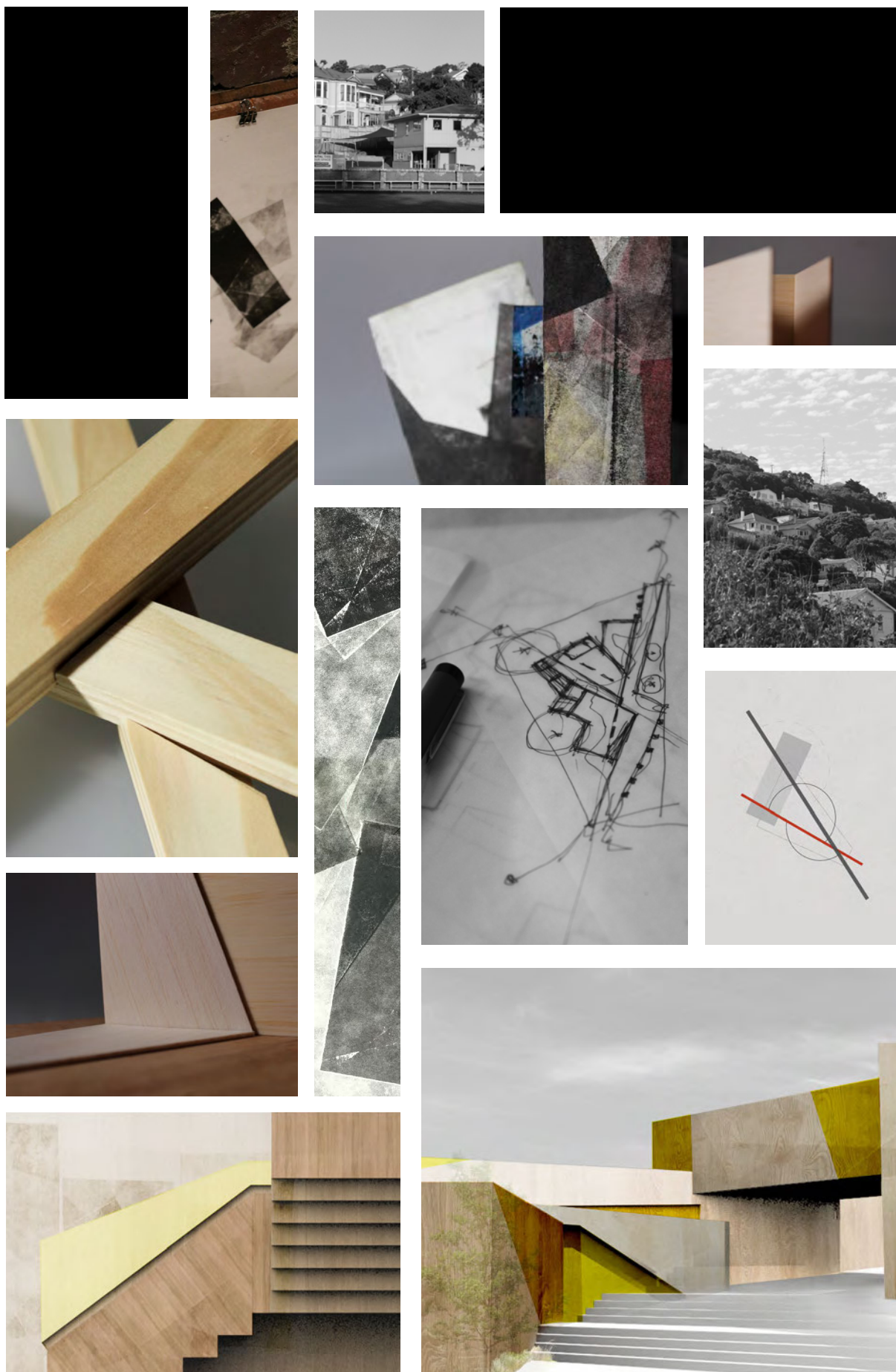


Figure 11. Thesis structure photo summary

THESIS STRUCTURE

Chapter One: Context

Bauhaus - The Artist and the Architect
Case Studies
Hataitai Overview
Question Collection

Specific relevant existing knowledge is defined in this chapter. This discussion on Bauhaus and Hataitai's natural and built environment sets the framework for the rest of the research.

Chapter Two: Actions

Experiment One - Print
Experiment Two - Layer
Experiment Three - Intersect
Experiment Four - Combine
Experiment Five - Plan

This chapter reveals the majority of the work produced for this research. In this chapter, I will describe the majority of my approach, actions and process throughout the research. Each experiment explores a key concept through the art-based exploration. This also chapter contains three separate interludes that analyse the curation of three exhibitions I worked on. I will discuss the curation and how these exhibitions have supported my research.

Chapter Three: Findings

Ambiguity, Variation and Intensity
The Frame
Between Graphic and Spatial
From Print to Proposal

The findings and discoveries of the research are highlighted in this chapter. I discuss various design implications and what they mean for my research and the discipline.

Chapter Four: Conclusion

Summary
Critical Reflection and Further Research

This concluding chapter summarizes and reflects on the findings.



30
Hataitai
Shopping
Village





001

WHAT DO
WE ALREADY
KNOW?

CHAPTER ONE: EXISTING KNOWLEDGE

Bauhaus - The Artist and the Architect

Case Studies

Mies van de Rohe - Barcelona Pavilion

Herzog & de Meuron - VitraHaus

Preston Scott Cohen - Tel Aviv Museum of Art

Hataitai Overview

Question Collection

BAUHAUS - THE ARTIST AND THE ARCHITECT



Figure 13. László Moholy-Nagy

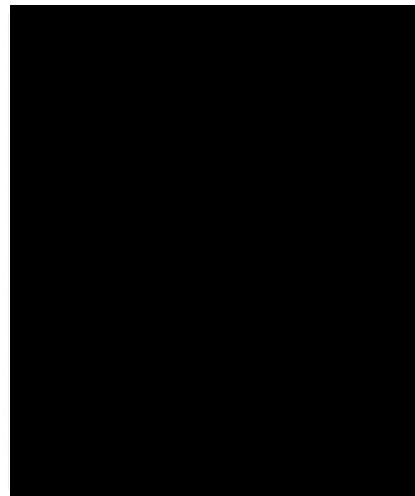


Figure 14. Ludwig Mies van der Rohe

Throughout this research, Artist **László Moholy-Nagy** and Architect **Ludwig Mies van der Rohe** became of particular interest to me. The concepts and visual techniques that these two designers used became relevant to my research process, László's art and Mies's architecture. To expand on this I will discuss the designers' backgrounds (how they got to Bauhaus) and the relevant concepts used. Then I will discuss these two designers impact on the Bauhaus, and I will raise some questions about their union.

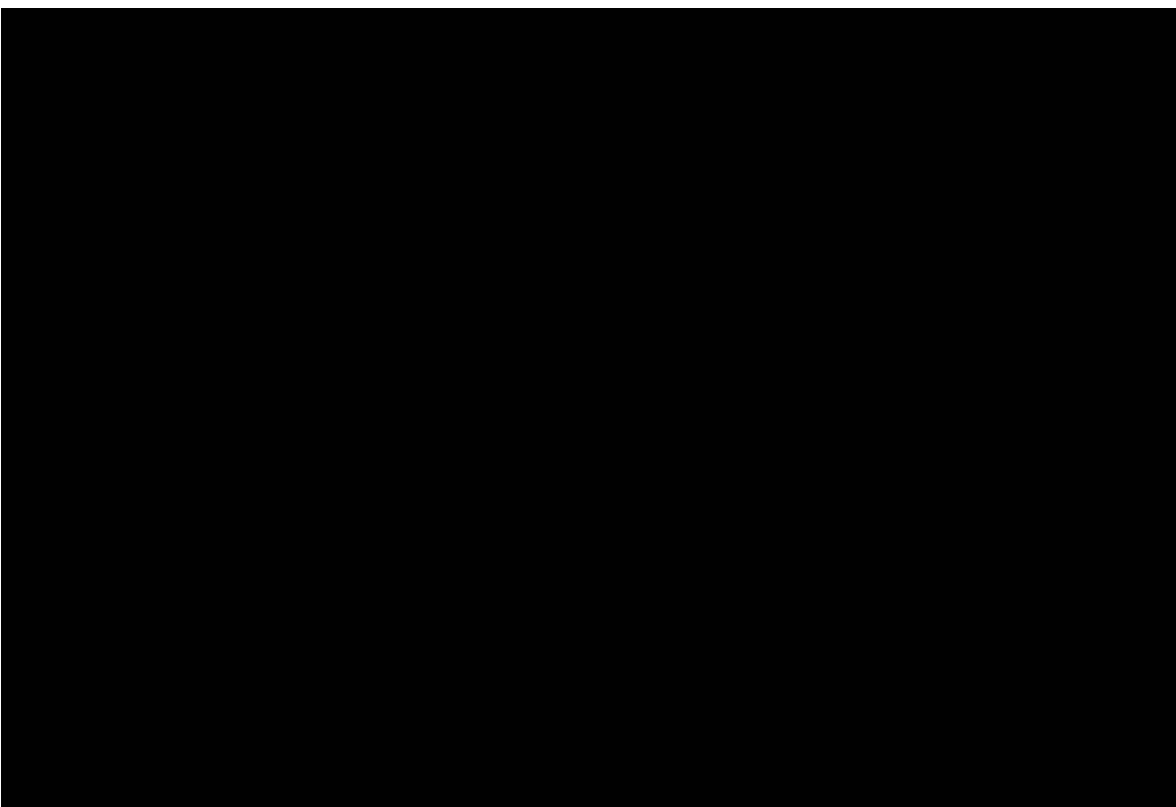


Figure 15. Bauhaus, Germany

LASZLO MOHOLY-NAGY

On February 13th 1923 Walter Gropius appointed László, painter and photographer, to teaching staff (Bordhardt-Hume, Albers & Moholy-Nagy, 2006). László Moholy-Nagy taught the preliminary course at the Bauhaus from 1923-1928. Josef Albers assigned László to give the *Vorkurs* (compulsory preliminary course for new students) a new direction. *Vorkurs* aimed to teach new students a process of exploration with material, colour and abstract form.

The classes László taught at Bauhaus were predominantly based around material property. The *Vorkurs* was directed toward the development and enrichment of feeling, sensation and thought (Moholy-Nagy & Hoffman, 1932). This manual learning aimed to encourage experience with the material: a grasp of the materials through actual experience of its possibilities in plastic handling (Moholy-Nagy & Hoffman, 1932). Typically, László would penetrate the performance of a given material or medium, extract the key properties of its structure, reconceive them as general principles, and then push them as far as they might go (Foster, 2006). He predominantly produced this analysis with metalwork or painting.

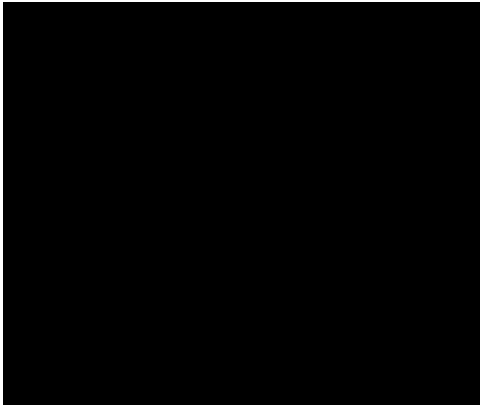


Figure 16. A 19 (painting)

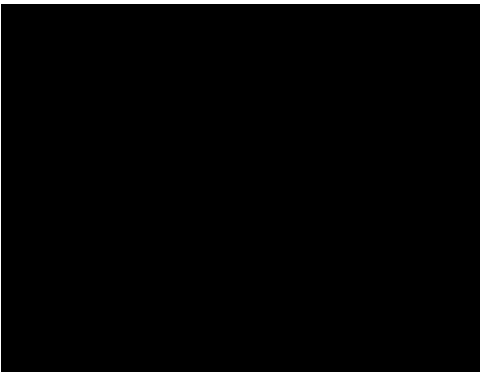


Figure 17. Konstruktion Z I (painting)

László Moholy-Nagy's paintings are what I am most interested in, his concepts focus on transparency and light. His idiosyncratic types of constructivist paintings, characterised by their emphasis on light (Bordhardt-Hume, Albers & Moholy-Nagy, 2006), have an operation of visual transparency. This means his work emphasises visual transparency over solidity. For example, in Figure 16 the black and red cross motifs overlap each other, this overlap is defined by the lighter maroon colour. This opaque overlap gives a sense of layered transparency. It also gives a sense of movement through its shifted triangles. Another example is Figure 17, where the geometric shapes seemingly float on top of each other, this creates a pictorial depth (Bordhardt-Hume, Albers & Moholy-Nagy, 2006) where the 2D painting gives a 3D impression. These overlapping translucent planes create this a visually ambiguous assemblage. both of these paintings create a graphic quality of depth that is pictorial, but there is no literal spatiality. I am interested in this particular concept between graphic and spatial and the notion of ambiguity.

MIES VAN DER ROHE



Figure 18. Mies's drawing of the Barcelona Pavilion

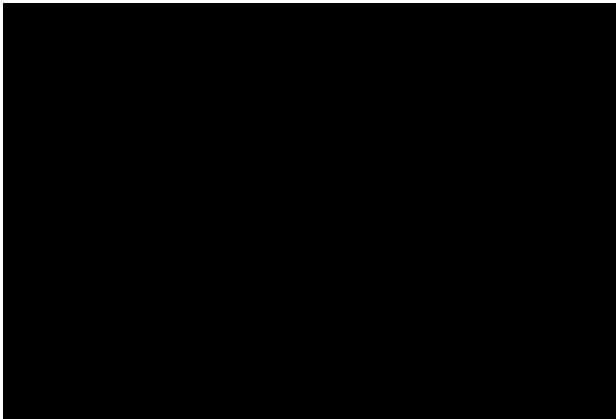


Figure 19. Image of the Barcelona Pavilion

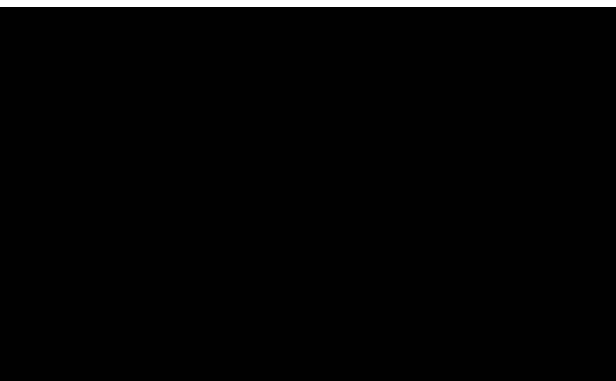


Figure 20. Symmetrical marble

Mies was the last running director of Bauhaus from 1930 until its enforced closure in 1933. Mies was appointed director in place of Hannes Meyer, who was dismissed for political reasons (Schulze & Windhorst, 2012). During Mies's time at Bauhaus, he altered the school system in response to the pressures of potential closure. The curriculum became more conventional, the experimental work was reduced, the workshops were combined and *Vorkurs* (preliminary course) was eliminated (100bauhaus). The Bauhaus closed in 1932 by a new council with a National Socialist majority, resulting in Mies's dismissal.

Mies van der Rohe's architectural creation of ambiguity and transparency through material operation is what I am interested in, particularly within the Barcelona Pavilion. Mies designed the pavilion to be a representative space. One of Mies's basic principles is visible in this design: that walls on a static platform appear mobile and can be displaced in a relationship to each other (Berger & Pavel, 2006). This was achieved by wall surfaces (marble inlays included) being displaced and running past each other (Figure 19). The open plan design, materials and reflective surfaces blurred the boundaries between spaces. Mies uses marble to enforce this idea of reflective transparency. The symmetrical marble that covers various walls (Figure 20) illuminates when exposed to light. This illumination reflects light and creates a spatial ambiguity that blurs the boundaries between walls and entities (Figure 19). The ambiguity and transparency that Mies created relies on reflection and transparency through marble and glass. I believe Mies has successfully mastered this technique, I want to challenge this concept and create ambiguity through solid.

Mies also has created architecture that is spatial and graphic. Predominantly architecture uses ornamentation to create a graphic quality, but Mies uses material surface to achieve this visually. The pavilion is both spatial and dimensional. I reflect on this spatial and graphic aesthetic and also explore this concept with material and texture, but not with literal transparency and reflection.

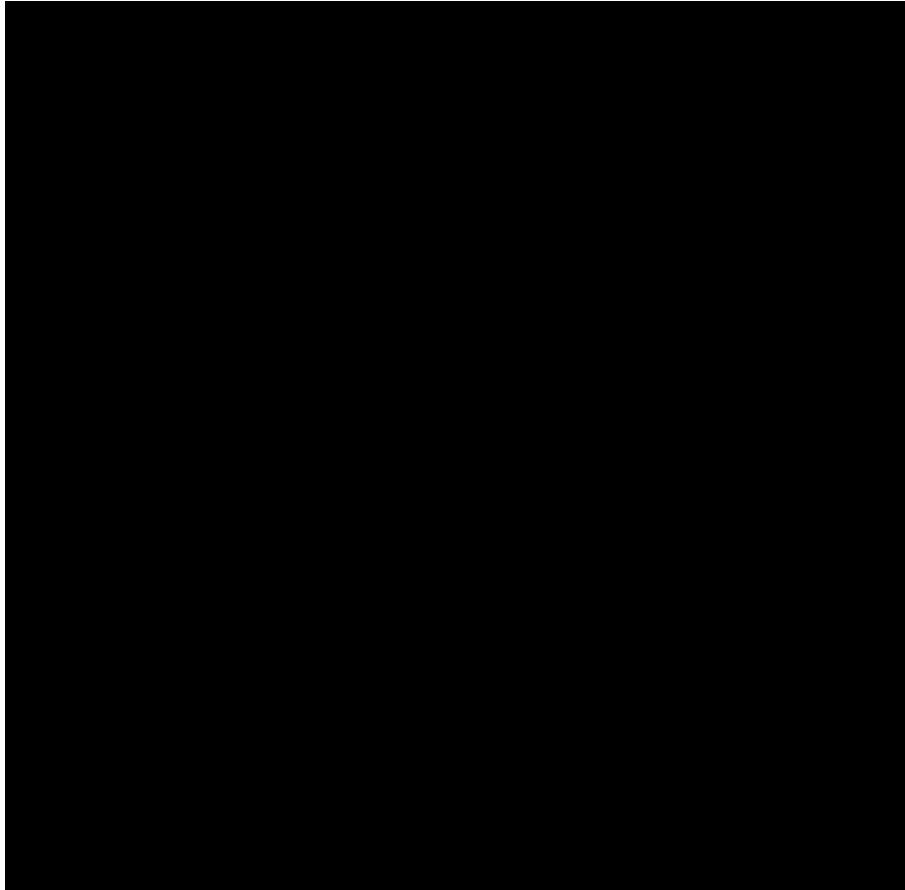
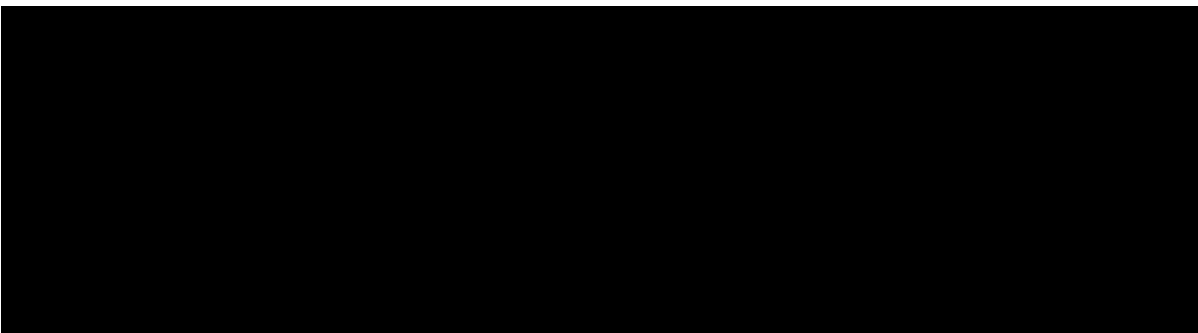
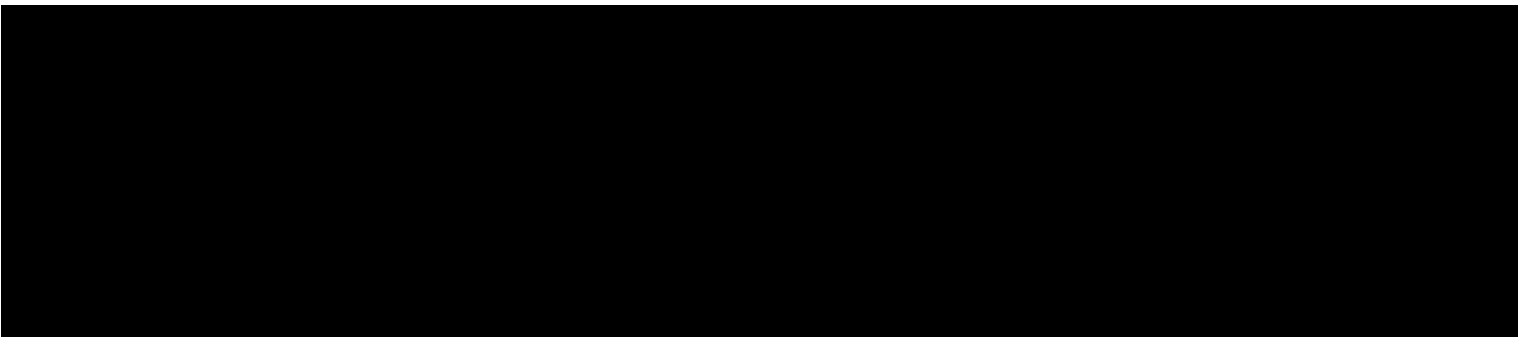
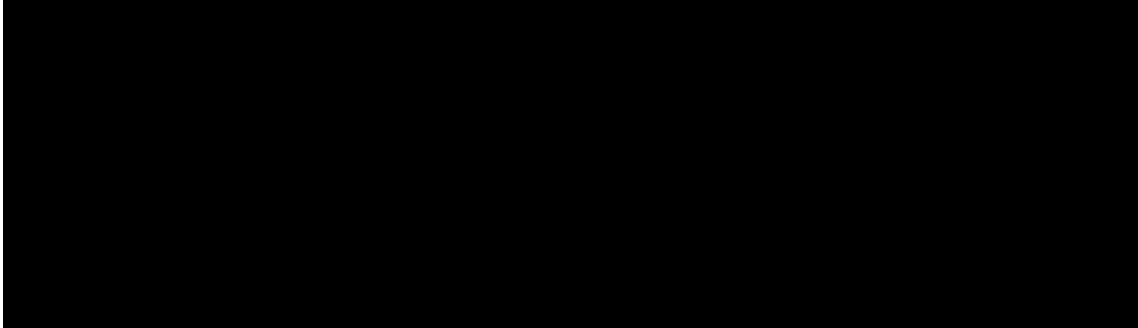


Figure 21. Bauhaus

BAUHAUS

László Moholy-Nagy and Mies van der Rohe. The artist and the architect. They have their artistry, graphic representation, teaching and many more in common. However, they never taught at Bauhaus at the same time and are in different professions by trade. László works predominantly graphic and Mies works predominantly spatial. They both have linkages and overlaps between graphic and spatial and I am challenging this relationship. How might I reconnect these processes and draw these two worlds from Artist to Architect together?



CASE STUDIES

The following case studies exhibit a few examples of buildings that use visual and formal concepts/techniques that were relevant to the research. I analysed these studies to understand how each concept was achieved and what I might take from it. I selected a diverse range of case studies to widen the breadth of knowledge.

Interest - Ambiguity through material surface transparency

Mies van de Rohe - Barcelona Pavilion

Interest - Design process and stacking technique

Herzog & de Meuron - VitraHaus

Interest - Ambiguous Form

Preston Scott Cohen - Tel Aviv Museum of Art

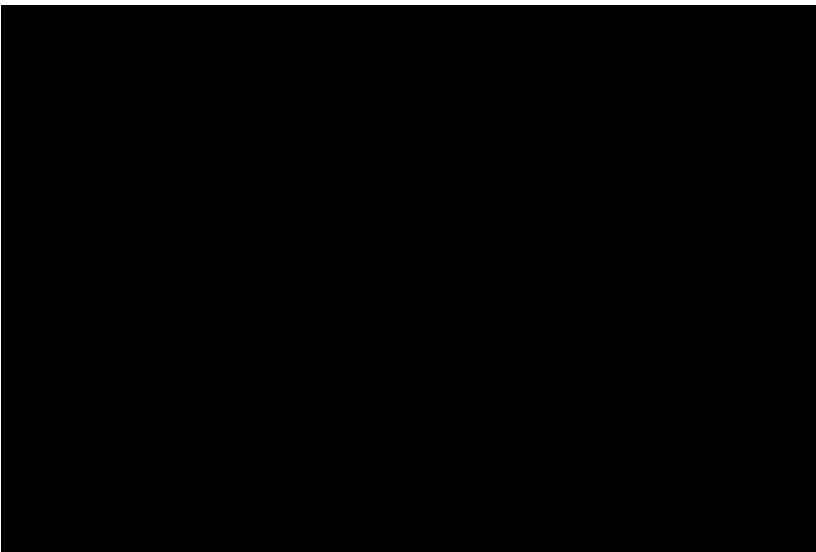


Figure 23. Interior marble wall



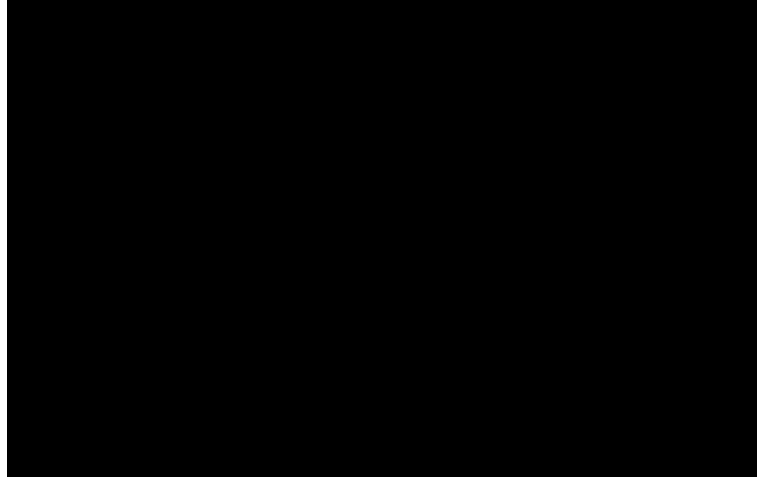


Figure 24. Interior/Exterior flow

Barcelona Pavillion by Mies van de Rohe (1929, rebuilt 1986)

Ludwig Mies van der Rohe and Lilly Reich designed the Barcelona Pavilion for the International Exhibition in 1929. I am interested in the architectural creation of ambiguity through material surface and transparency. The open plan design of the Barcelona Pavilion allows walls be displaced past each other, most of these walls covered in reflective marble that illuminates when exposed to light. When light hits these walls, the boundaries between spaces blur from the ambiguous reflection. The focus between wall and space and the reflective nature of the marble enriches the spatial experience.

The transparency seen in the Barcelona Pavilion is literal but also conceptual through the layering of planes and space. The layering and blurring of space creates an interesting open plan interior. It creates a coherent structure with flow from one area to another. The layering of space is a key concept throughout my research, this case study blurs the layers through overlapping surface, material and wall.



Figure 26. Fitted glass showcasing the interior

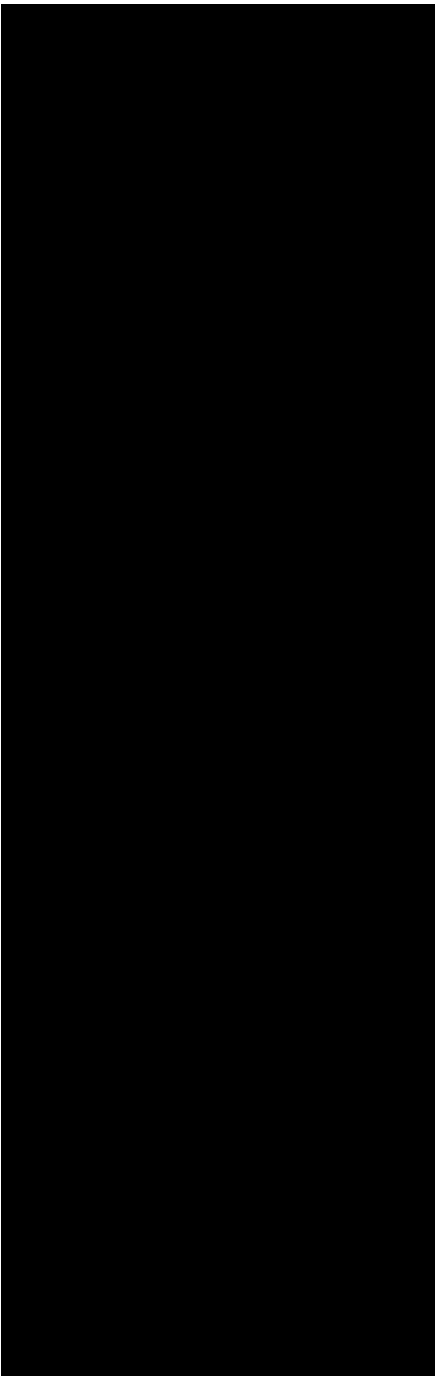


Figure 27. Exterior view showing stacking



Figure 28. Interior view of intersecting form

VitraHaus by Herzog & de Meuron (2010)

Located in Weil am Rhein (Germany) VitraHaus is a showroom for Vitra, a Swiss-owned furniture company. VitraHaus, designed by Herzog & de Meuron, explores stacking, extruding and pressing to create a complex structure. By using the industrial production techniques of stacking, extruding and pressing the 'original' house shape creates a complex system. The interior is designed as a spatial sequence with surprising transitions of views of the landscape (Herzog & de Meuron, 2010). At night, the large fitted glass turns into vitrines of sorts (Vitra, 2010) which showcase the displays.

I am interested the design concept and stacking technique used. The simple design exploration has created a fascinating visual relationship. Herzog & de Meuron took three characteristics of furniture practice and then pushed these concepts together to create a complex form. I use a similar method of exploring characteristics created from my printmaking practice. Although Herzog & de Meuron's translation is predominantly literal, the intersection and overlap of form creates moments of complexity on the interior, circulation is placed in these moments of intersection. This overlap creates easy accessibility from each stacked object.

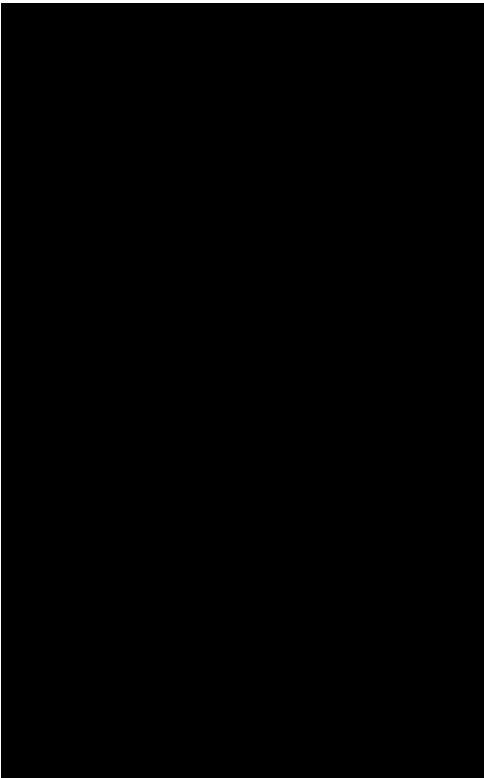


Figure 29. Exterior view showing geometric twist

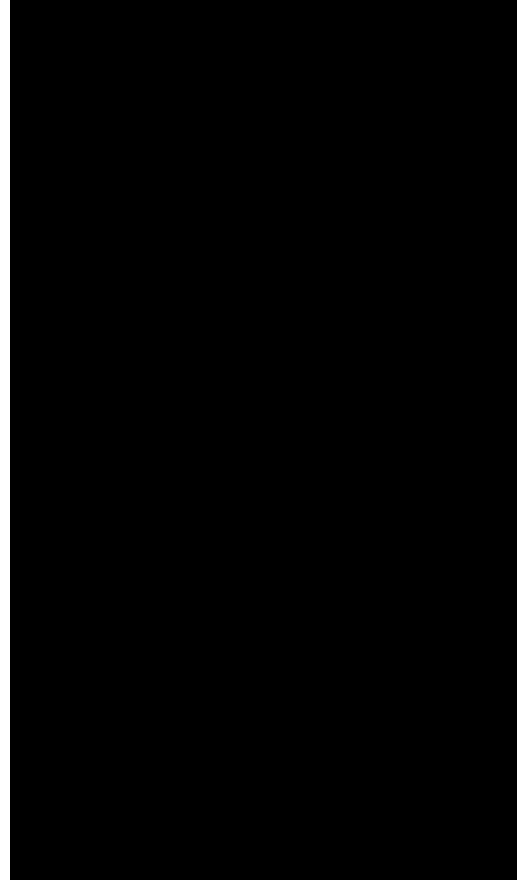


Figure 30. Interior view showing light shaft

Figure 32. Exterior wall showing ambiguous geometrical twist

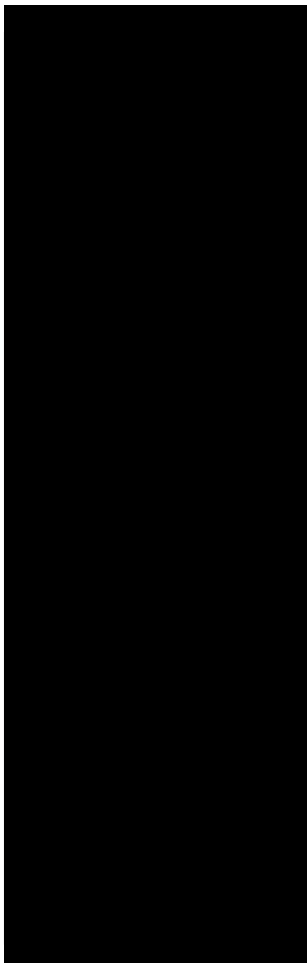


Figure 31. Exploded isometric

Tel Aviv Museum of Art by Preston Scott Cohen

Located in Tel Aviv (Israel), the Tel Aviv Museum of Art sits within the centre of the city's cultural complex. The building uses the subtle twist of geometric surfaces to connect galleries and refract natural light into the lower interior. It is a complex plan of overlapped structural systems that connect by geometric episodes of vertical circulation (Preston Scott Cohen Inc). For Cohen, this concept of warped form is what amounts when the 'regular building' shape is subjected to tensions that destabilize its form (Levit, 2012).

I am interested in the ambiguity of material surface. This building activates surface and creates a negotiation in visual ambiguity. None walls can be said to guard the boundary between inside and outside or between art and architecture (Lavin, 2012). Cohen has created a building that expresses sculpture through a building with minimal surface matter. The material surface is simple but the slow geometric twist creates complexity. The warped twist creates circulation and captures natural light.

WHY HATAITAI?



Figure 33. View of Hataitai Hill

HATAITAI OVERVIEW

This overview introduces the land, buildings and people of Hataitai. Hataitai is a suburb located 3.5 kilometres southeast of Wellington's city centre (Figure 34). The suburb has several evolving characteristics that define and complement this quaint environment. Specifically, this research explores the accessibility, cultural and density themes that shape its fabric.



Figure 34. Map of Wellington with Hataitai highlighted



VISUAL ESSAY
INTRODUCING HATAITAI



Figure 36. Hataitai Hill through the window of a Waipapa Road home



Figure 37. Aerial image showing the Mount Victoria town belt separating Mount Victoria (left) and Hataitai (right)

LAND

The Hataitai Land Company formed Hataitai's land into small sections in 1901. Before this, the suburb was predominantly a farming village. The 200 metre high Town Belt that sits between Hataitai and Mount Victoria lengthened the commute to the city centre. However, the opening of the Hataitai Bus Tunnel (1907) and the Mount Victoria Tunnel (1931) allowed for a steady flow of transportation.

The urbanisation of this land was produced organically; the roads followed the contours of the hill. The road system logically favours flat land; this produced lengthy roads that sit along each hill ridge. Some of these roads reaching up to 750 metres without a turn-off. This system resulted in a heavily car-dependent transport as the long blocks work better for cars over pedestrians. A few of these long blocks are broken up by existing pedestrian paths that run perpendicular to the roads, but for pedestrian culture to take hold, more are needed (Kebbell and Ombler, 2018).

Hataitai's organic and irregular spatial layout is highlighted when compared to an adjacent suburb, Mount Victoria (Figure 37). The street blocks of Mount Victoria are set to a cohesive orthogonal grid allowing easy transport and connective links. This orthogonal grid is more suited for cars and pedestrians, unlike Hataitai's organic grid that favours cars.



BUILDINGS

Hataitai's buildings consist of a collection of residential weatherboard homes, a couple of churches, a few schools and a small 'town-centre' full of small cafes, dairies and takeaway stores. Majority of the buildings are between 1-2 storeys high except for a few small apartment blocks. The housing is predominantly standalone with each property often having a backyard/front yard. Hataitai could be described as a quintessential New Zealand suburb.

Since Hataitai was slowly urbanised from farmland, this produced low-density suburban housing. Hataitai sits only 3.5 kilometres from the city centre yet has an average density of 33pph (people per hectare). This is a quarter less than adjacent suburb Mount Victoria (43pph) and almost half of next suburb Mount Cook (63pph) (Id Profile, 2013). These statistics show potential to increase Hataitai's density.



Figure 39. Social collage

PEOPLE

From my own personal experience, I believe Hataitai is a very humble and community-based suburb. I have previously lived in Hataitai so I am lucky to have gauged a personal understanding of the people. I met very kind and humble people when I was there which enforce my perception of a 'classic kiwi suburb'.

The suburb has humble people but it is not diverse as the residents of Hataitai are predominantly European. The 2018 census data revealed that 86.4% of Hataitai South identify as European, Hataitai North not far behind at 85% (Id Profile, 2018). This heavily skewed population would benefit from cultural densification. By encouraging more diverse cultures and ethnicities to explore and inhabit Hataitai, this could enhance its cultural resilience.





SITE

112 WAIPAPA ROAD

For this research, I have selected to redevelop the Hataitai Community Centre, located at 112 Waipapa Road.

This site has great potential in enhancing Hataitai's environmental and cultural resilience. The site has the ability to improve pedestrian access from Waipapa Road to Arcus Way, which is a small-scale intervention that can aid Hataitai's large-scale accessibility issues. The design proposal for a Continuing Education centre can respond to the growing density issues and enhance the suburbs cultural resilience. The centre can house an education space for all, from the start to the finish of your life. Connecting generations, cultures and ethnicities through its diverse education program.



Figure 41. View of Community Centre (left)



Figure 42. Map of Hataitai highlighting the site (above)

Figure 43. View of current site (below)





QUESTION COLLECTION

After defining the relevant existing knowledge and general context, I devised a Question Collection. This Question Collection is an array of my overarching thoughts and speculation. Throughout this research, I will try to interrogate and adapt this line of inquiry until I eventually resolve them.

Line of questioning:

What graphic and spatial opportunities does architecture offer to improve pedestrian infrastructure and enhance cultural resilience?

“How can I create an architectural language that is graphic and spatial?”

“What can I learn about this subject from Bauhaus?”

“How do I connect László and Mies?”

“How do I create a meaningful tension between Art + Architecture in a contemporary suburb?”

“What does the community need?”

“How can I intensify Hataitai’s centre?”

“How I intensify at an urban scale?”

“How can I make Hataitai more pedestrian friendly?”

“How can improve Hataitai’s environmental resilience?”

“How can I enhance Hataitai’s cultural resilience?”

2022

NOW...
WHAT HAVE
I DONE?

CHAPTER TWO: WHAT HAVE I DONE?

Experiment One - Print

Interlude 001 - Small-scale Exhibition

Experiment Two - Layer

Experiment Three - Intersect

Experiment Four - Combine

Interlude 002 - Medium-scale Exhibition

Experiment Five - Plan

Interlude 003 - Large-scale Exhibition

Experiment Five - Plan Cont.



PRINT

EXPERIMENT ONE - PRINT

Aim

Explore the artistry of the collagraph printmaking process and define its formal operations.

As outlined in the Preface, this experiment stemmed from my preference for design-led research. This first experiment explored the possibilities of printmaking. In each print series, I always had a concept that I was trying to interpret. These concepts included texture, balance, composition or pattern. Through the process of exploration, new ideas and design directions emerged.

I found the majority of my engagement with the printmaking process was through the notion of discovery. I did not know what the prints would reveal when I was producing them, but all was uncovered when I took the print off the rolling press. I now will describe each series and what I learnt from each.

TEXTURE STUDY

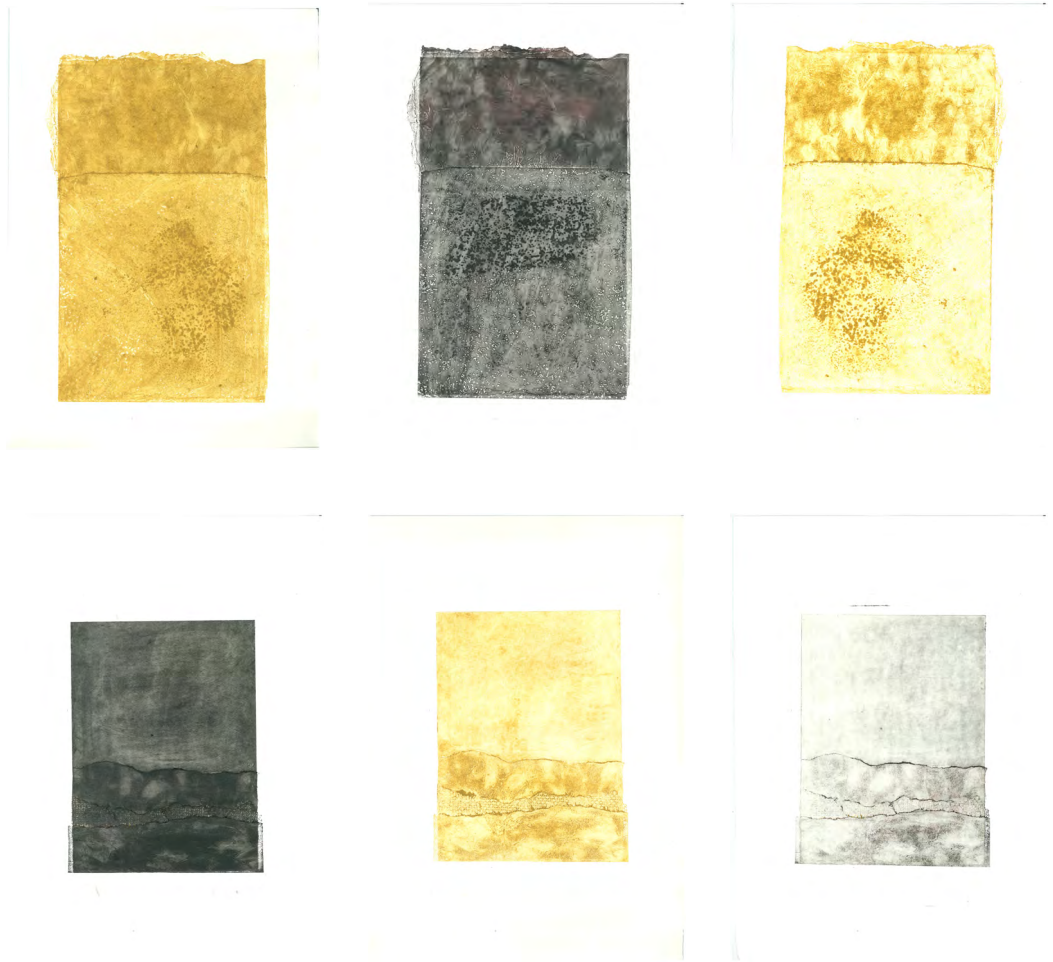


Figure 44. Print series exploring texture

The texture study was the first series I produced. This series uses collagraph printmaking with old wallpaper offcuts. The wallpaper offcuts used had varying patterns and shapes. These varying patterns produced the patterns seen above. The top series is produced with two ripped offcuts and the bottom series is produced with three smaller offcuts. The diverse patterns have produced dense ink spots, such as in the bottom left print, the lower half is darker because the wallpaper held more ink. I chose not to develop this style any more as the following prints produced richer possibilities in terms of formal qualities.

STUDY 001

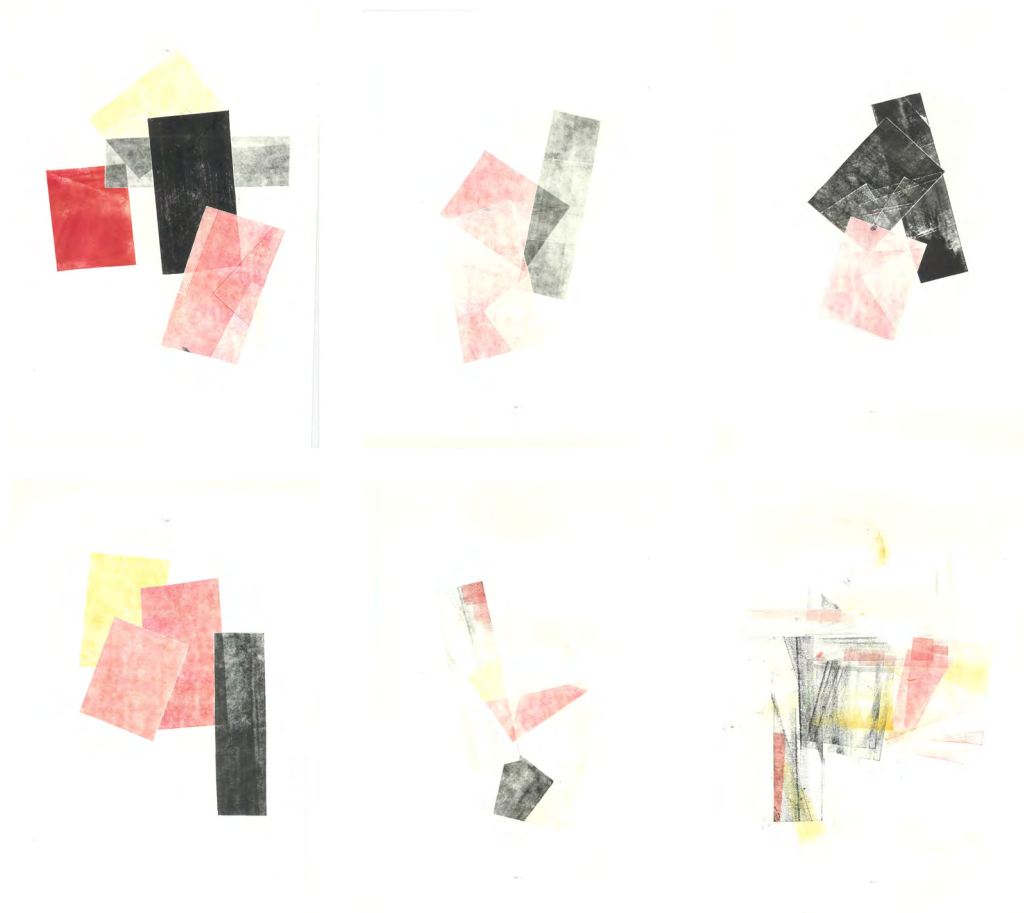


Figure 45. Print series exploring layering

I then produced print studies 001 & 002 to explore composition. The prints, shown in no particular order, were intended to create a series of arrangements that focused on a spatial quality. I produced all prints using Collagraph Printmaking, which I explain in more detail on page 60. The continued ink and press method (the same inked object is used multiple times) produces areas of translucency in each print. The freshly-inked objects produce the most opaque patches of colour (as seen in the top left print of Study 001 and 002), and as the process repeats, the ink slowly weakens to create a more translucent print (as seen in contrasting areas of Figure 47).

After analysing these prints, I believe the contrast between opacity and translucency produces ambiguity between depth and flatness. The print appears to give an implied depth. The materially flat print appears optically expanding through its layered assembly. This occurs in Figure 47 where the rectangles overlap with varying opacity: these shapes start to look as if they float on top of each other. This floating effect gives the implied depth, a sense of distance. This floating effect also starts a dialogue about figure and ground: What is figure? What is ground? The juxtaposition of the opaque and translucent areas show ambiguity. The translucent nature is strictly visual and not physical. The ambiguity comes from the principle that the print can be understood in more than one way, even my own understanding of the print fluctuates.

STUDY 002

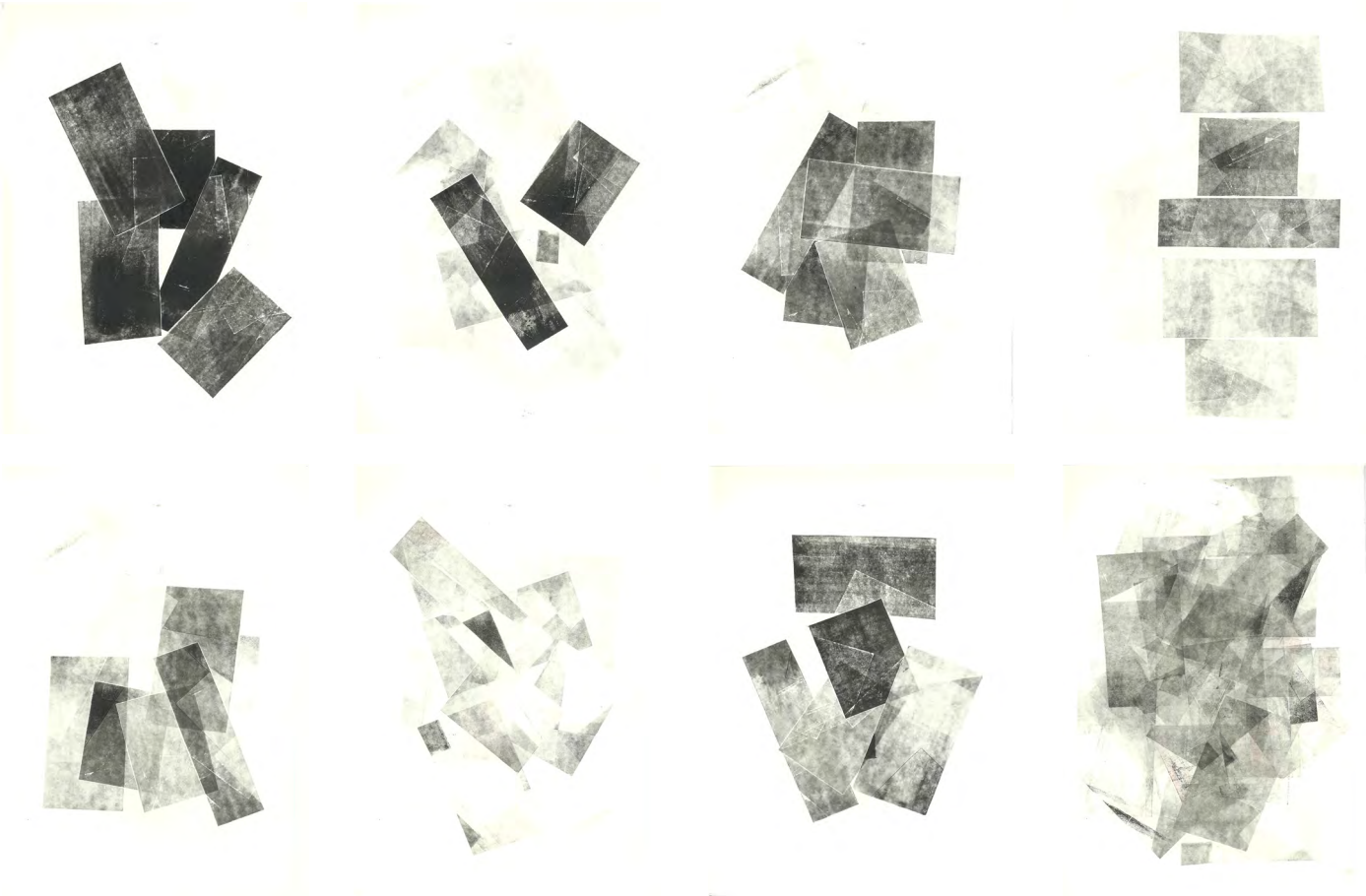


Figure 46. Print series exploring layering

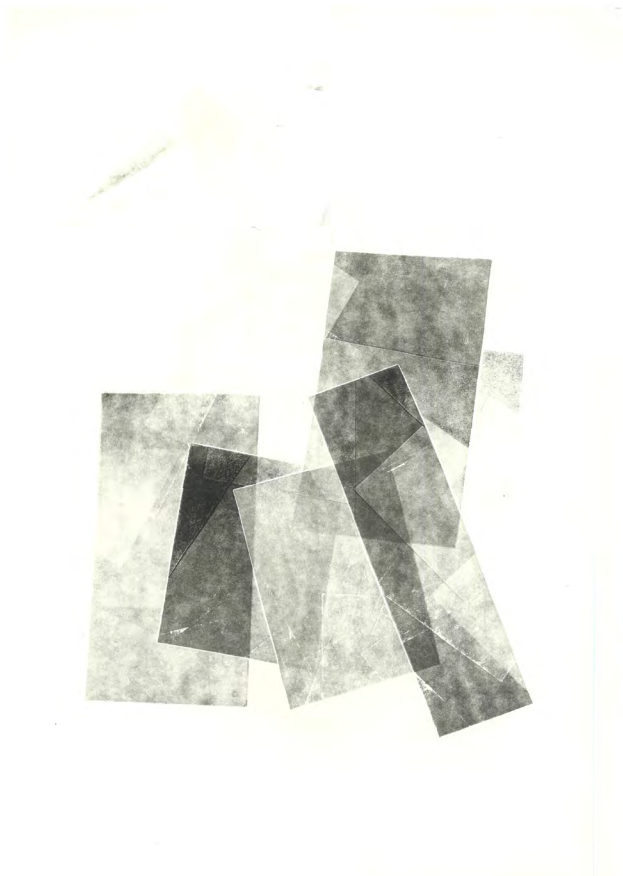


Figure 47. Print series exploring layering

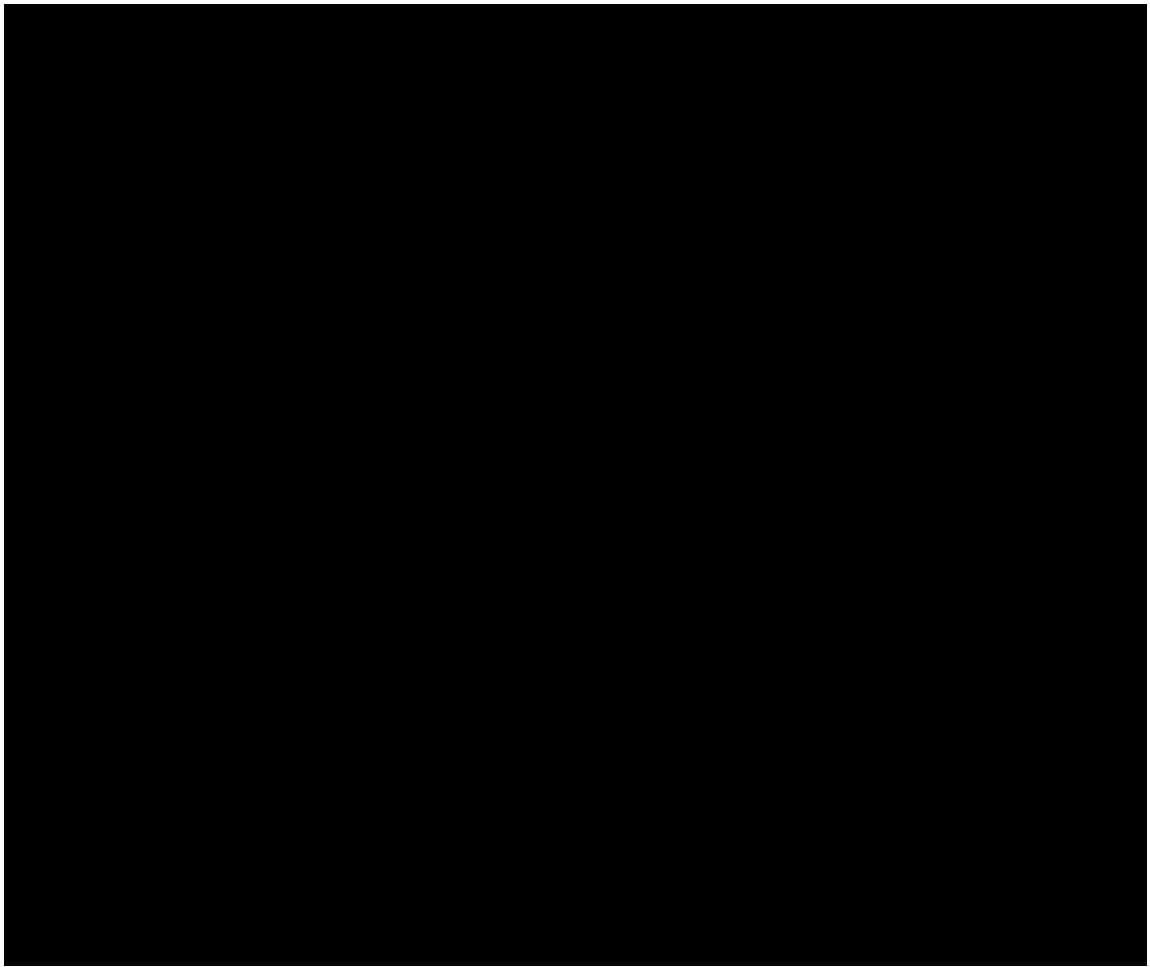


Figure 48. A II (Construction A II) by László Moholy-Nagy

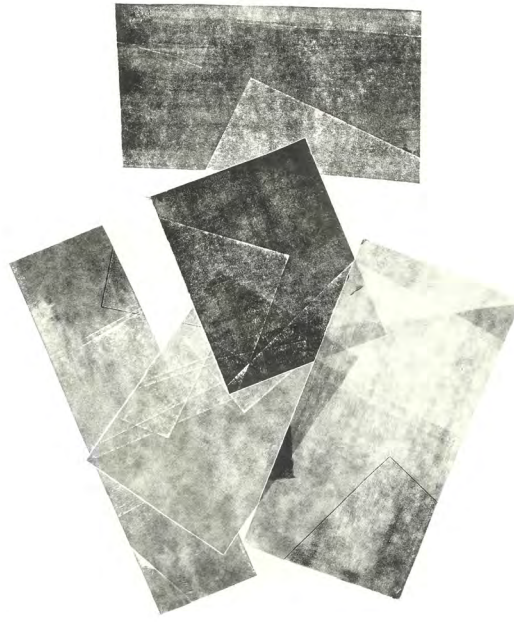


Figure 49. Print series exploring layering

To explain these ambiguous qualities further I will compare my print (Figure 49) to A II by László Moholy-Nagy (Figure 48). László's piece was produced in 1924 with oil and graphite on canvas. The canvas is composed of two similar assemblages of intersecting planes and a circle. It looks as if the larger assemblage sits in the foreground (middle) and the smaller assemblage sits within the background (lower left). I believe it looks like the larger assemblage is closer because the black paint is larger and more opaque (solid). These assemblages vary in degrees of perceived transparency and colour intensity, these shapes appear to overlap, forming an architectural construction in space (Guggenheim, 2018). The combination of these characteristics create a subjective definition, the painting can be interpreted in multiple ways from its varying colour intensity and perceived transparency.

László's piece uses a different medium but has the same qualities and concepts that my own print does. My print is composed of an assemblage of intersecting geometric squares and rectangles. It looks as if the middle square is in the foreground as it has the most opaque ink (the densest ink). This makes me believe that the other rectangles are in the background. The assemblage varies in translucency to create ambiguity. This assemblage has created a graphic quality that can be described using spatial terminology. However, this quality is not spatial. This brings me back to my Question Collection and overall research investigation:

"How might I spatialize these qualities?"

"How do I move from image to form?"

STUDY 003

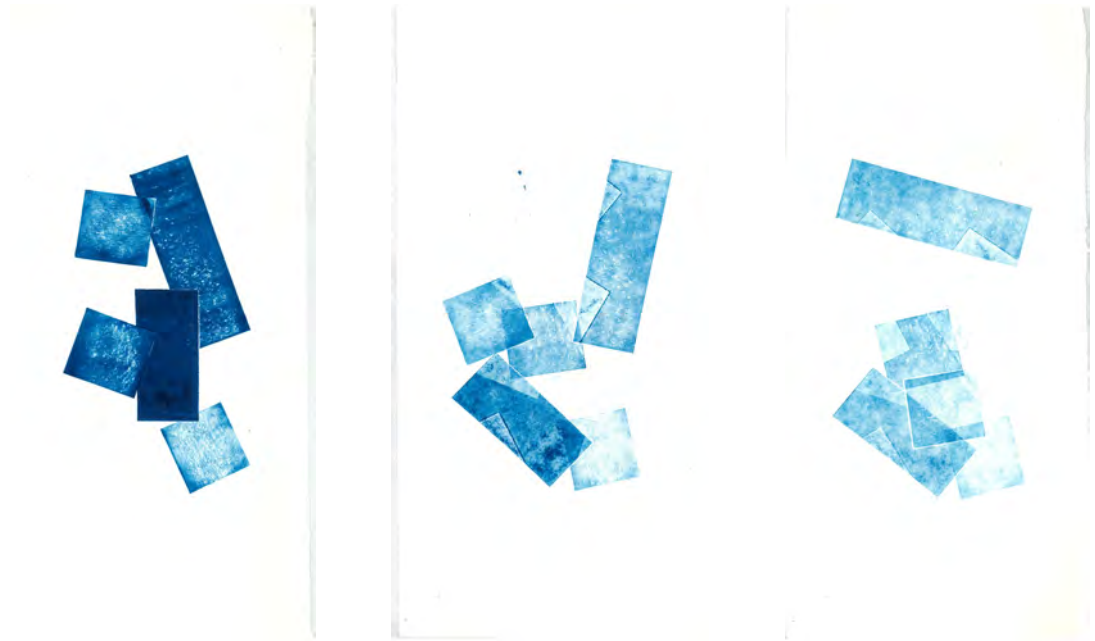


Figure 50. Print series exploring composition



Figure 51. Close up

Print study 003 explores the composition of separating elements. The freshly-inked print on the top left has all geometries connected. I then rearranged the geometries so the longest rectangle separates from the rest of the geometries.

As the forms separate, the ink starts to weaken from each press. As this process occurs, I can see traces of the last composition on the current shape. These traces occur when the pressure of the rolling print press embosses the card shape onto the paper. The contrast between opaque and translucent highlights the embossing, seen in Figure 51 and Figure 52. This quality is only seen in the last two prints of Study 003. The embossing is another characteristic that adds to the ambiguity of depth and flatness.



Figure 52. Close up of embossing

STUDY 004

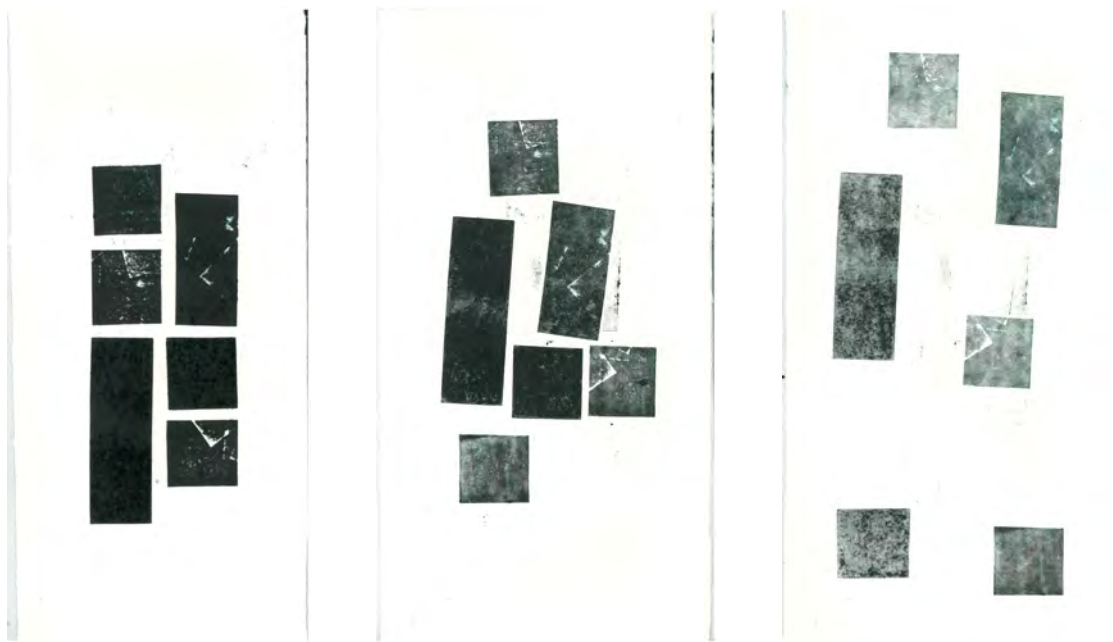


Figure 53. Print series exploring composition

Print study 004 is similar to Study 003, but the elements separate in a regular formation. The freshly-inked print on the left is aligned symmetrically and forms a regular composition. As the prints continue, the forms disperse towards the edge of the paper: no overlapping, twisting or rotating.

This inquiry produced interesting compositional aspects but there is no formal ambiguity. I found this study had a clear process and outcome, there is no confusion between foreground and background. Yet with study 003, the ambiguous tension between foreground and background meant that the print could be understood multiple ways.

The experiments confirmed my interest in the ambiguity between depth and flatness that is produced through intersecting shapes. This quality of ambiguity had the richest possibilities in terms of spatial design exploration.

STUDY 005



Figure 54. Print series exploring layering

For studies 005 and 006, I wanted to push the boundaries of the opaque and translucent qualities. I wanted to see how far I could push the process by producing one print that had too much ink (Figure 54) and one print that was too little ink (Figure 55).

Figure 54 has too much ink. It was produced by doing 5 prints on one sheet (I used one print and did another five prints over the original). This study taught me the restraints of the process; the outcome is too crowded to be successful. There is no ambiguity through the contrast of opaque and translucent areas because I believe the outcome is too messy.

Figure 55 has too little ink. It was produced by doing only one print with a small amount of ink. This study taught me how such a small amount of ink produces a limited amount of content to work with.

The tension between these two studies provided insight into what is successful and what is not. Too much, or too little ink means you cannot see the embossed traces that produce the ambiguity. I believe that the richest prints have a good balance between 'too much' and 'too little'. This is where the operation is successful.

Some questions I ask myself at this point include:

"How do I know when the prints have a good balance of depth and flatness?"

"How could I spatialize ambiguity of depth and flatness?"

"How can these ambiguous qualities influence form?"

"How can I create an architectural language that is graphic and spatial?"



Figure 55. Print series exploring layering

IMMERSION

To create a more engaging ambiguity I scaled and cropped the original prints to see how they operate at a larger-scale. The scaling allowed for a more detailed look into the ink transfer. The cropping highlighted the intersection of the compositions.

The cropped effect highlights the white border that each rectangle has. The pressure of the printing press creates the white border. It creates an outline of the original geometry. As seen in Figure 57 the white border only outlines selected rectangles. The other rectangles that are seen in the contrast between opaque and translucent areas do not have this white border. It is hard to explain how this border occurs because I am not entirely confident. This adds another layer to the ambiguous nature.

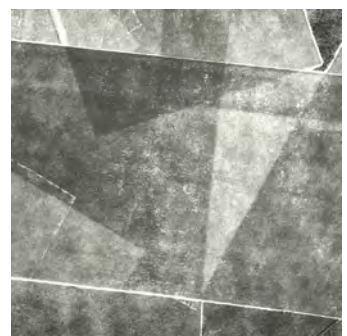
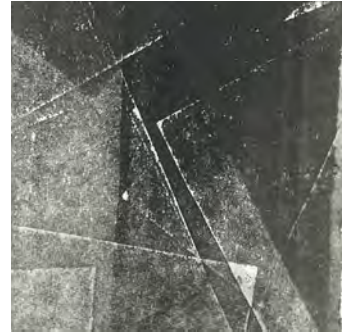


Figure 56. Close up of Print Study 002

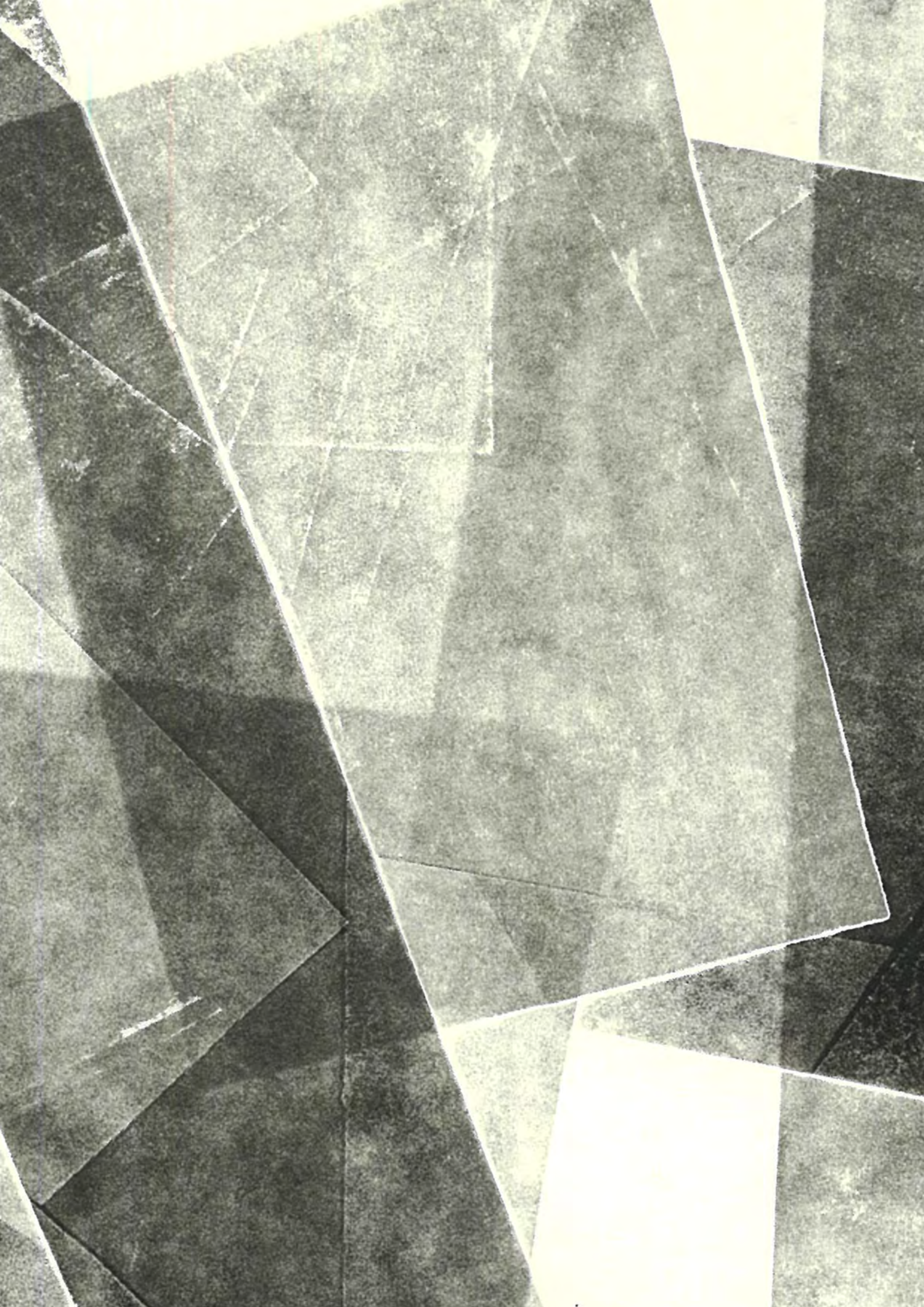




Figure 58. Close up of Print Study 002

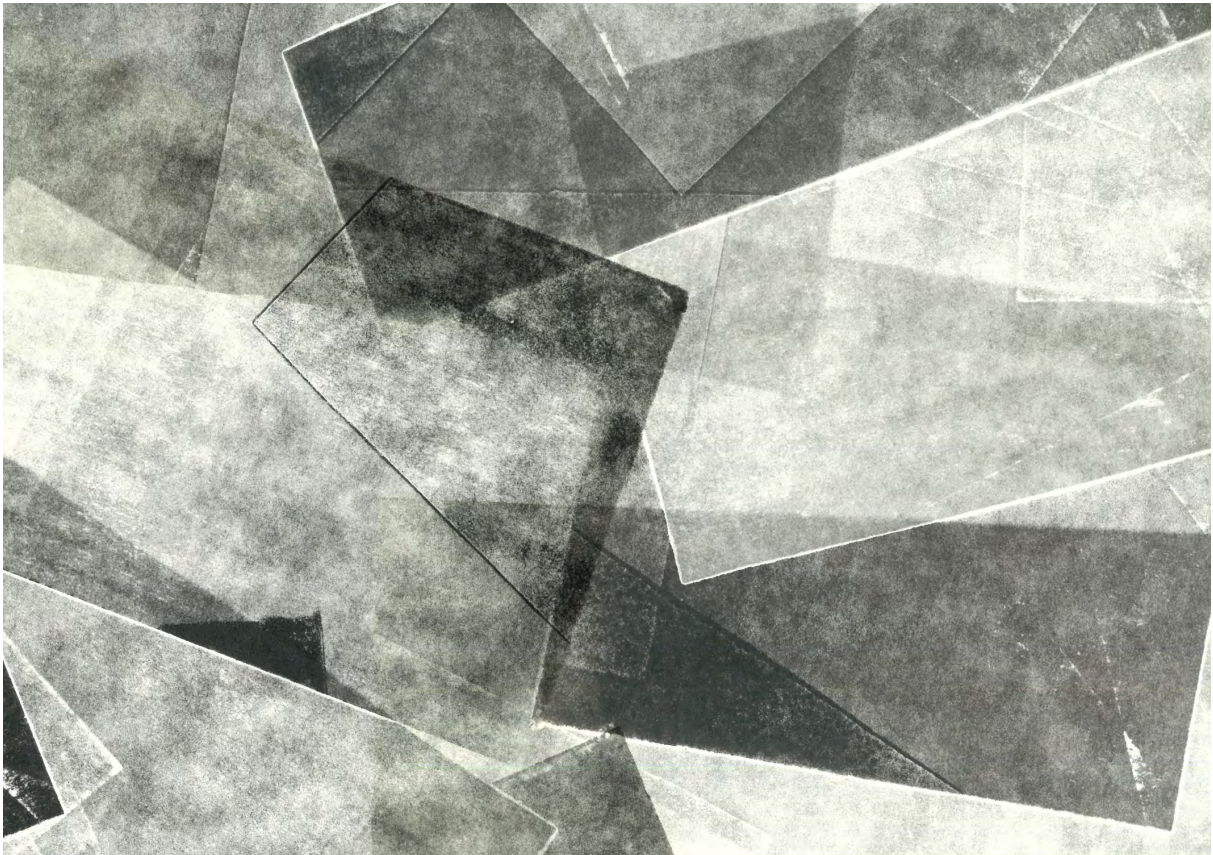


Figure 59. Close up of Print Study 002







Figure 61. Oil based ink tubes (top)



Figure 62. Work bench



Figure 63. Work bench with rollers and card

THE PROCESS

To understand the operation of the prints I broke down the printmaking process. The specific technique I used is called *Collagraph Printmaking*.

The first step is to ink various pieces of card using an ink roller (Figure 63). I then place the inked card (facing up) on the rolling press with scrap paper underneath (Figure 64) and the appropriate paper on top of the card. Then all objects go through the rolling press. The pressure of the press allows the ink to transfer from the card to the paper. The projection of the ink creates sporadic stains on the clean paper. The spacing, layering and overlapping of the inked card create different form and composition. The grain of the ink blends at arbitrary angles.

Some compositions go through the press multiple times - this allows for prints with diminishing amounts of ink. This is a key step in creating layered ambiguity. This process allows the ink to have its own autonomy, it chooses where to collect and disperse.

Essentially, to create the ambiguity of depth and flatness I explored the spacing, layering and overlapping of the card. These key ideas drove the printmaking process. So,

“How might these actions drive design experiments that could inform an architectural language?”



Figure 64. Card on rolling press with scrap paper underneath



Figure 65. Ink rollers used to apply ink to cardboard



Figure 66. Poster design for flash exhibition



001

INTERLUDE

SMALL-SCALE EXHIBITION

Exhibition	Implied transparency through solid: An architectural exploration
Date	May 2019
Location	Slessor Architects, Wellington

Throughout my thesis research, I partook in the planning and presenting in various public art and architectural exhibitions. In separate interludes, I will discuss the curation of the three exhibitions. Each exhibition having a different focus but all holding significant value to my overall research. Each interlude will discuss the curation (how the work was hung and interacts with the architecture), the discoveries of the process and how the reflection relates to my research and the discipline.

The first exhibition was a small-scale exhibition of my print work. This one-hour exhibition featured selected print studies produced in Experiment One. The prints were on display at a local architecture office, Slessor Architects. This exhibition sparked discussion with fellow students and artists about the possibilities of my work.

CURATION

The exhibition was a simple and fast display that highlighted the prints produced in experiment 1. The total space used was very small (approximately 10m²) so the exhibition was very intimate but the minimalist interior concealed the compactness as it provided adequate wall space. The majority of the prints hung on the interior brick wall. The interior brick wall was very aged therefore, the mortar provided great grip for the recessed nails. Mini bulldog clips linked to recessed nails held the prints on the wall and allowed an easily adjustable hang. Foam board and double-sided tape connected other visuals to the concrete and GIB walls. This hang allowed a seamless connection and produced a small shadow that implied that the image was floating, as seen in the last image of Figure 68.

There were two categories of prints displayed: the authentic print on wet strength paper and the edited cropped print that highlights the layering of ink. To create a contrast between these two categories: one wall held the authentic prints aligned along consistent horizontal rows and another wall held the edited cropped prints in a sporadic arrangement (Figure 71 on following page). The authentic print display was clear and easy to read yet you had to look around for the dotted edited cropped prints. This reflected my research at the time as I was in the process of discovering how the prints operate. The hang also enforced my research at the time: the bulldog clips lock the authentic prints in place yet the edited cropped prints are seamlessly floating which suggests that there is more to uncover.





Figure 67. Spectators at exhibition

PRINT



Figure 68. Series of print work on display



Figure 69. Myself discussing prints with Wellington artist Wayne Churcher (top)



Figure 70. Print series on display

DISCOVERIES

The first exhibition was of use as a curation learning exercise. The display set up took longer than expected which meant the last few decisions were rushed resulting in a traditional display arrangement.

The most valuable part of this exhibition was the discussion I had with the public, fellow students and Wayne Churcher (Wellington-based Printmaker). I confirmed through dialogue that the richest prints are the ones that hold ambiguity of depth and flatness, these prints have the most potential to create a comprehensive exploration. I also discussed the operation of depth with Wayne (Figure 70). By talking to an experienced Printmaker, it expanded my understanding of the process and formal operations.





REFLECTION

This exhibition was a fast and simple display that highlighted a small area of work that I wanted to expand. It was successful in terms of the clear display but it did not push the boundaries. The display was easy to read and had a clear objective: it almost felt like a gallery-esque art exhibition. As this was one of my first attempts at curation, I am not surprised as this display method is what I am accustomed to seeing.

The flatness of the presentation had created a mental block. However, after some discussion with artist Wayne and some fellow students at the exhibition, I realised I needed to move to a three-dimensional approach to resolve my block. I talked about how the print was materially flat but produced optical depth. This led discussion to moving from flat to solid form. How could I achieve this ambiguous nature in three-dimensional form?



Figure 72. Public discussion at exhibition (middle)

Figure 74. Original prints display on brick wall

Figure 73. Original prints display on brick wall

LAYER

EXPERIMENT TWO - LAYER

Aim

Explore visual alignment through the arranged layering, spacing and overlapping of card.

The print studies sparked my curiosity and produced qualities of ambiguity of depth and flatness: Layer takes influence from the printmaking process. It aims to explore the qualities of ambiguity in three-dimensional form. I produced Layer with the same 12 card pieces used in the print studies: each card had been previously inked so they all held similar visual qualities. Layer focuses on exploring **spacing, layering and overlapping** in a three-dimensional essence.

To produce this experiment I fixed each piece of card to 2mm wire and then pierced the wire into a foam board base to create a lollipop-like assemblage. I arranged and photographed the pieces of card to create visual alignment. Whether it is the alignment of ink colour, shadow or card rotation.



Figure 75. Layer study experiment series



Figure 76. Layer study experiment



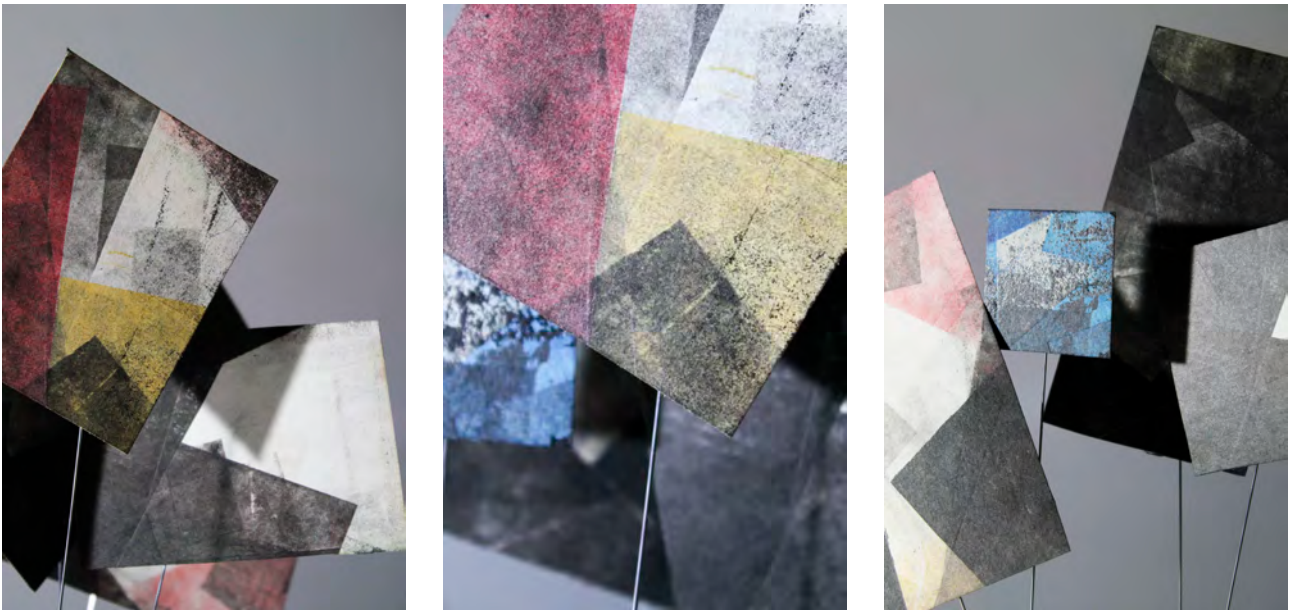


Figure 78. Layer study experiment series

These experiments successfully produce hints of ambiguity. The alignment of colour and opacity create moments of confusion where the three-dimensional model reads as a two dimensional illustration. The operation of these connections create a visual and slightly spatial ambiguity.

Shadow also plays an important part in this experiment. This was not an initial aim but was a discovery found during the process. My initial aim was to create visual alignment of colour or card rotation but during the process, the shadow of each card created another element on the overall composition. Currently none of the shadows produce alignment but they do produce another element that adds to the layering. In the rightmost image in Figure 78, the shadows create a visual link on the back card piece: the shadow bonds all of the layered cards.

A finding from this study and the proceeding print studies is that the ambiguity can have varying intensity. In Figure 77, the ambiguity only occurs when the black opaque ink in the foreground aligns with the blue ink in the middle and other black ink in the background. This alignment is connected through depth. Thus, the whole image is not ambiguous, but it holds varying intensities of ambiguity. I enjoy this fluctuating nature of the work. To think about this spatially: the idea that the viewer might stumble upon a fascinating area within the architecture's varied intensity. This creates a framework that constantly engages with the viewer and allows for diverse interpretations.

When creating these 'aligning' experiments I am trying to create a connection through space (Figure 79). I am not trying to create a connected sightline that occurs from specific positions, which Figure 80 starts to fall under. I am trying to create a language, not an optical illusion. These prints and models start to establish a visual language that could influence architectural language. Overall, I am trying to connect a graphic and spatial language.

The weakness of these experiments is the flat characteristics of the 2mm cardboard. To move forward I need to introduce a sense of solidity and a sense of structure. This means I could explore this language through surface, structure or form next.

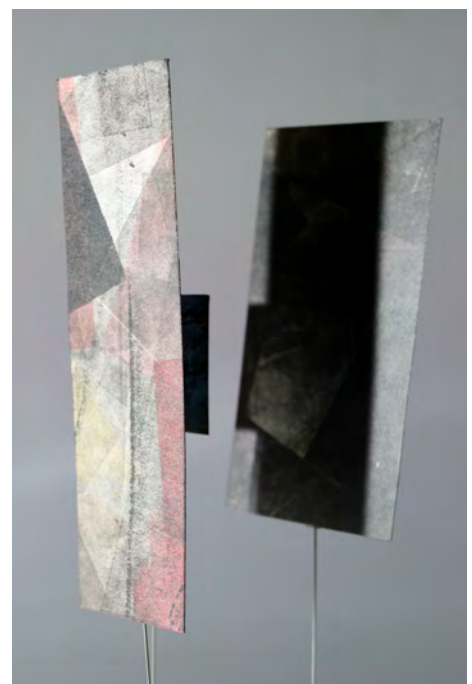


Figure 79. Layer study experiment

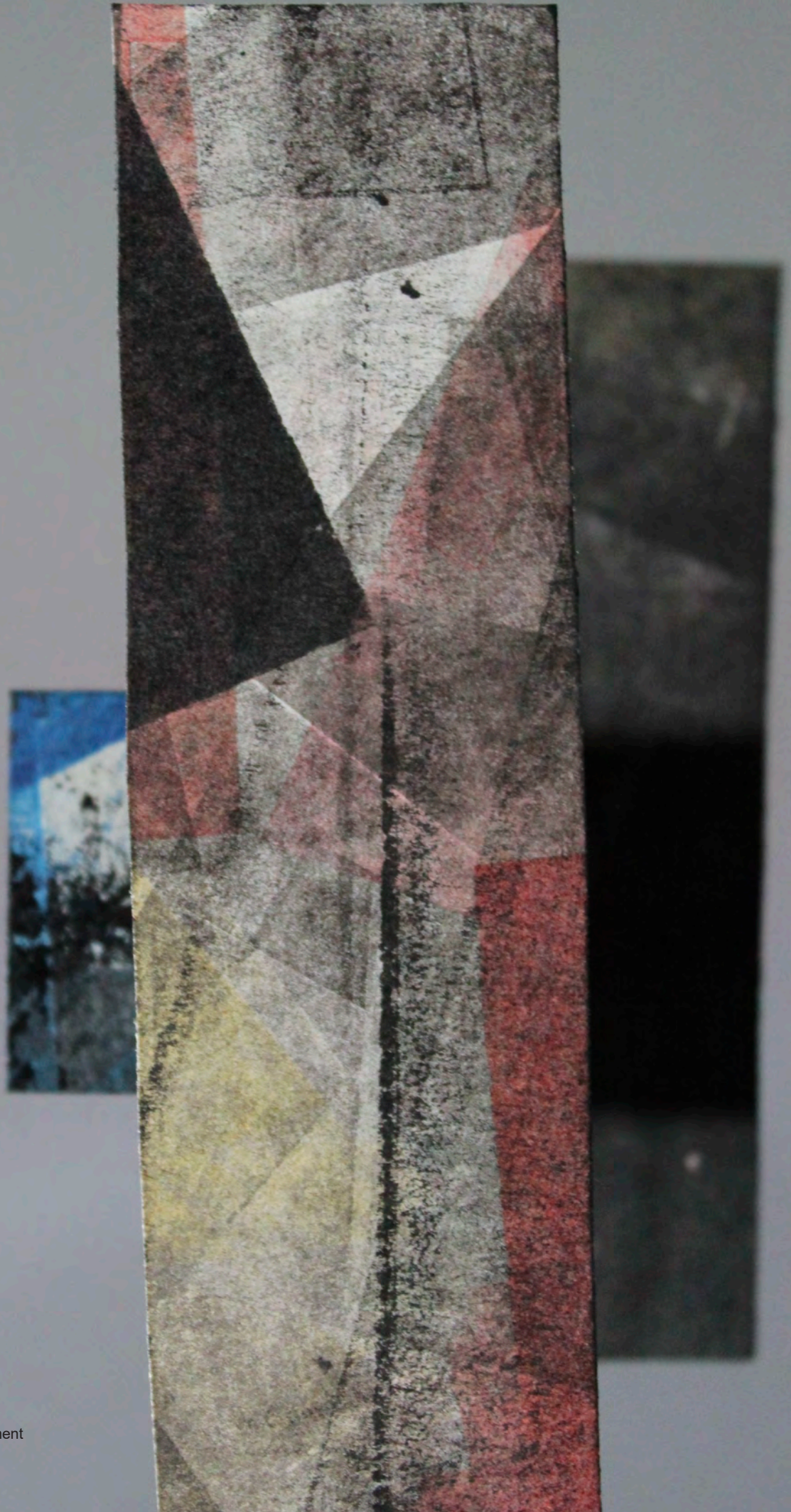


Figure 80. Layer study experiment

IN
S



INTER- ECT



Figure 82. Intersect study experiment

EXPERIMENT THREE - INTERSECT

Aim

Explore the intersection of solid wood through layering and overlapping to create a visual quality.

To move on from the flat characteristics of the card I decided to explore the intersection of solid wood, *Intersect*. Essentially an intersection is the **layering** and **overlapping** of two objects. To explore this, I experiment with how the connection of grain could create a visual or architectural language. The tension of the overlapping grain could be compared to the overlapping ink of the Print experiment.

To do this experiment various pieces of recycled wood are marked up, cut and sanded at various angles. The wood pieces fit together to create a connection where one grain hits another. Usually, the grain is displaced, seen in Figure 81 where the two grains contrast. However, in moments the grain aligns, seen in Figure 82 where the long horizontal grain aligns at the wood intersection.



Figure 83. Intersect study experiment



Figure 84. Intersect study experiment



Figure 85. Intersect study experiment



Figure 86. Intersect study experiment

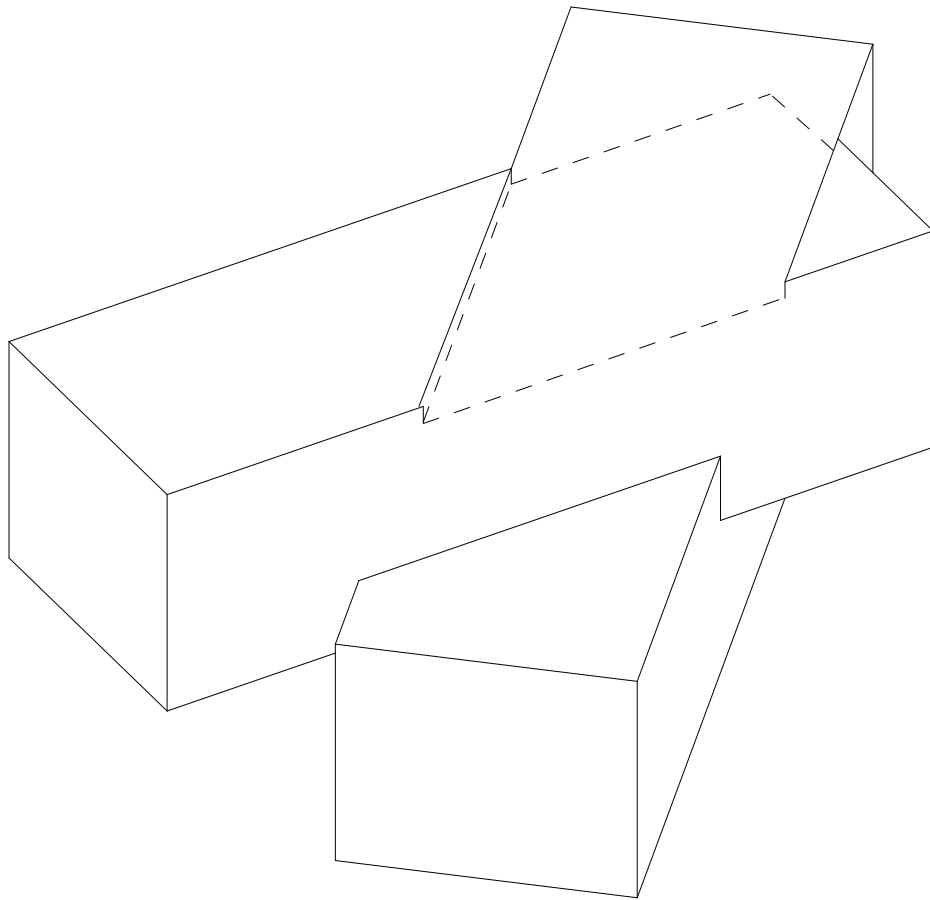


Figure 87. Intersect Isometric

This experiment was successful at intersecting solid form, but not successful at creating ambiguity. Occasionally, the grain of the wood aligned to create a visual link between pieces, such as in Figure 85 where the linear grain of the horizontal plane aligns. The linking of grain creates a seamless connection on the exterior. This makes me think about the inside of the wood: if the wood were hollow, how would the interior intersection work? This stacked assemblage has created a dialogue between exterior and interior: the operation is becoming more architectural. This architectural operation is development however, these assemblages do not produce ambiguity: they cannot be understood in more than one way.

One aspect that worked successfully in previous investigations (Print and Layer) is the variation of characteristics: the varying opacity and colour produced different combined grains and tones. This wood experiment only uses one uniform tone. To move forward the use of different grain, colour or material could be of use to create complexity.



Figure 88. Series of digital experiments exploring intersecting wall structure

EXPERIMENT FOUR - COMBINE

Aim

Combine intersecting built form to explore how moments of intrigue could occur.

'Combine' pushes the intersection of built form. There are two parts to this experiment; digital and physical.

Part A, the digital experiment (Figure 88), explores the intersection of two separate walls. I produced this experiment with a base model of two walls in Rhino. I then manipulated these walls to intersect at varying angles, sometimes creating an indent in the wall. I then edited these experiments in Photoshop to add two contrasting textures and grains to represent two CLT grains. This experiment produced a library of nine digital models.

This experiment aimed to understand how moments of ambiguity could occur in built form. This ambiguity may occur in moments where I have to double-take at an area to understand it or where I have to think about what is happening spatially. I explored this through the intersection of wall structure, timber inlay indentation and overlapping. For the majority of these explorations, the intersection is physical but for Figure 89 the intersection is visual. The two walls do not touch but the composition visually intersects. This still allows the grain to overlap visually. This shows that the interaction could be physical or visual.

I found the most ambiguous outcomes occur when the wall structure intersects and the boundary between each wall blurs. I find these moments engage with my mind as I have to think about when one wall finishes and another starts. This occurs predominantly in the bottom row experiments of Figure 88. In these instances, the walls' separate identities combine to create a blurred boundary. I believe this happens when I see traces of each wall attached to another.

These ambiguous occurrences engage the viewer with the architecture, it gives the viewer a chance to read and understand the building. The wall structure never fully conceals but also never fully reveals what is beyond the surface level. This allows the viewer to be an active partner in the architectural experience. This occurrence also allows for diverse interpretations of the space, which is a key definition of ambiguity.



Figure 89. Digital experiments exploring intersecting wall structure



Part B explores the same investigation as Part A (combining intersecting built form) but through physical modelling. This process allows for a closer, more detailed look at the physical connection. I produced this physical experiment by cutting multiple grains of Balsa Wood to the same height and then connecting each piece so the grain would link, as seen in the images on this spread. This experiment was beneficial at producing a quick extension of Part A digital work.

Figure 90. Grain connection experiment

Figure 91. Grain connection experiment



Figure 92. Close up of grain connection experiment



These experiments ended up being more of a 'connection' series. These quick experiments have a physical connection but no interconnection between each piece of Balsa Wood. Since these experiments were done fast they lack critical reflection of the 'intersection' but they do show connection-based analysis; exploring the connection of grain and tone.

These physical experiments also show how the layering of planes can highlight specific walls. Particularly how the use of tone can create an oscillation of depth. Figure 93 starts to show hints of this, but I am aware this may just be the camera blur affecting this. The layering of planes could also offer a layering of space. Again engaging the viewer by allowing diverse interpretations.

After putting off these physical models for a while and seeing the results I start to understand what I am trying to achieve, essentially a spatial ambiguity of intersections. I was struggling to attain this in each previous experiment but I then realised to achieve this I needed to combine aspects. So far, the ambiguity of intersections occurred when grain, colour or texture are layered and intersected, creating visual opticality. This assemblage of characteristics produces the ambiguity. These simple physical models start to spark this topic of spatial ambiguity but I needed to add more aspects to create a rich discussion. I needed to use successful moments from each experiment and combine those ideas to create a rich library that can influence form.

Figure 93. Grain connection experiment

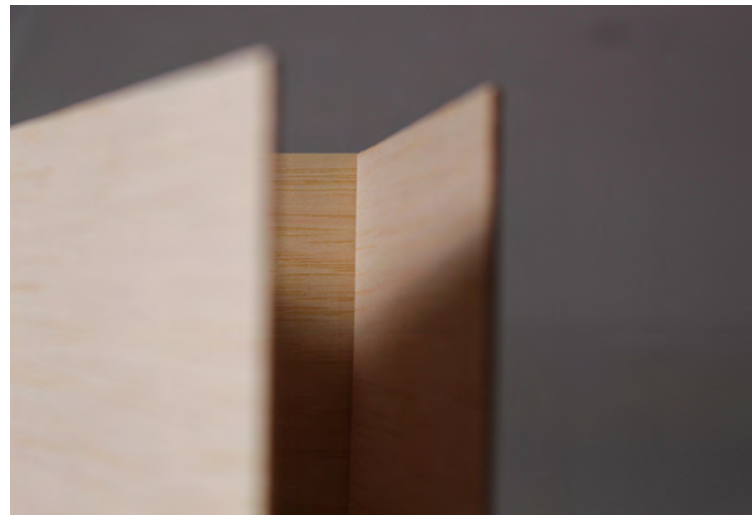


Figure 94. Grain connection experiment

COUNTRYSIDE TO CITYSCAPE

An exhibition of Victoria
University architecture
students imagining the
future of Hataitai.

All ages welcome.

Saturday 18th May

Hataitai Bowling Club
157 Hataitai Rd

10AM - 2PM



Figure 95. Official Poster for Countryside to Cityscape Exhibition

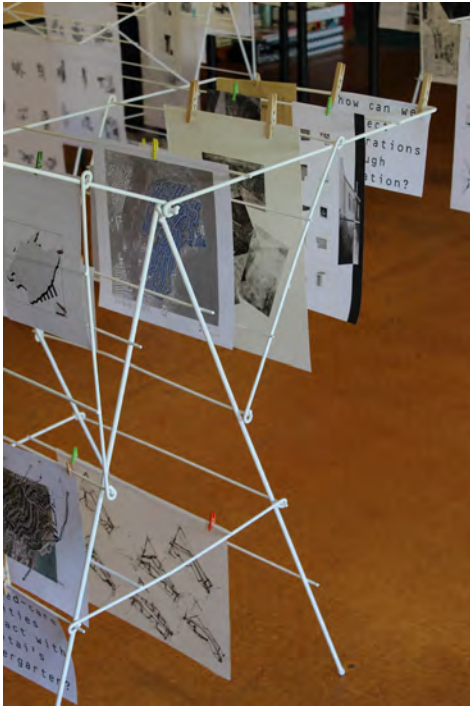
002

INTERLUDE

MEDIUM-SCALE EXHIBITION

Exhibition	Countryside to Cityscape: Imagining the future of Hataitai
Date	May 2019
Location	Hataitai Bowling Club, Wellington

The second exhibition was a medium-scale exhibition of 6 students' work that explored the urban possibilities of Hataitai. These students' consist of 3 current and 3 former Art+Architecture research stream students whom all have research projects situated in Hataitai. This half-day exhibition featured selected work from each students' research project: all having the objective of envisioning the future of Hataitai. The work was on display for 4 hours at the suburbs local civic centre: Hataitai Bowling Club. The exhibition stimulated informal conversations with Hataitai residents' therefore, giving me a better understanding of the community's opinions and attitudes.



CURATION

The Countryside to Cityscape was a unique exhibition distinguished by its quirky display techniques. The exhibition consisted of 9 white clothes drying racks aligned in a square grid. Each rack had approximately 1000mm between each row so there was enough room to move throughout the grid. The display included images, drawings, maps, renders and rhetorical questions (the majority of my work focused on the proposal for the continuing education centre). All visual content attached to each rack in the same manner to create consistency among the exhibition.



A challenge was creating an exhibition that complemented the space. The Hataitai Bowling Club is a large weatherboard structure built-in 1910. Various alterations took place in 1924, 1955 and 1979 (McKirdy, 2019) resulting in a visually disconnected interior. This made it difficult to find adequate wall space to hang the work. To remedy this situation we decided to create the exhibition in the centre of the room instead of the periphery walls. This allowed us to create something that contrasted the architecture. The symmetrically gridded clothes racks contrasted with the diverse interior yet the simple layout was not obtrusive. This uniform layout created a cohesive aesthetic but proved difficult to differentiate between student projects; this was a weak point of the exhibition. To alleviate the confusion we welcomed each viewer on arrival and briefly explained the exhibition contents and visual display. However, this verbal introduction made it easier to discuss the viewers' opinions on the work.

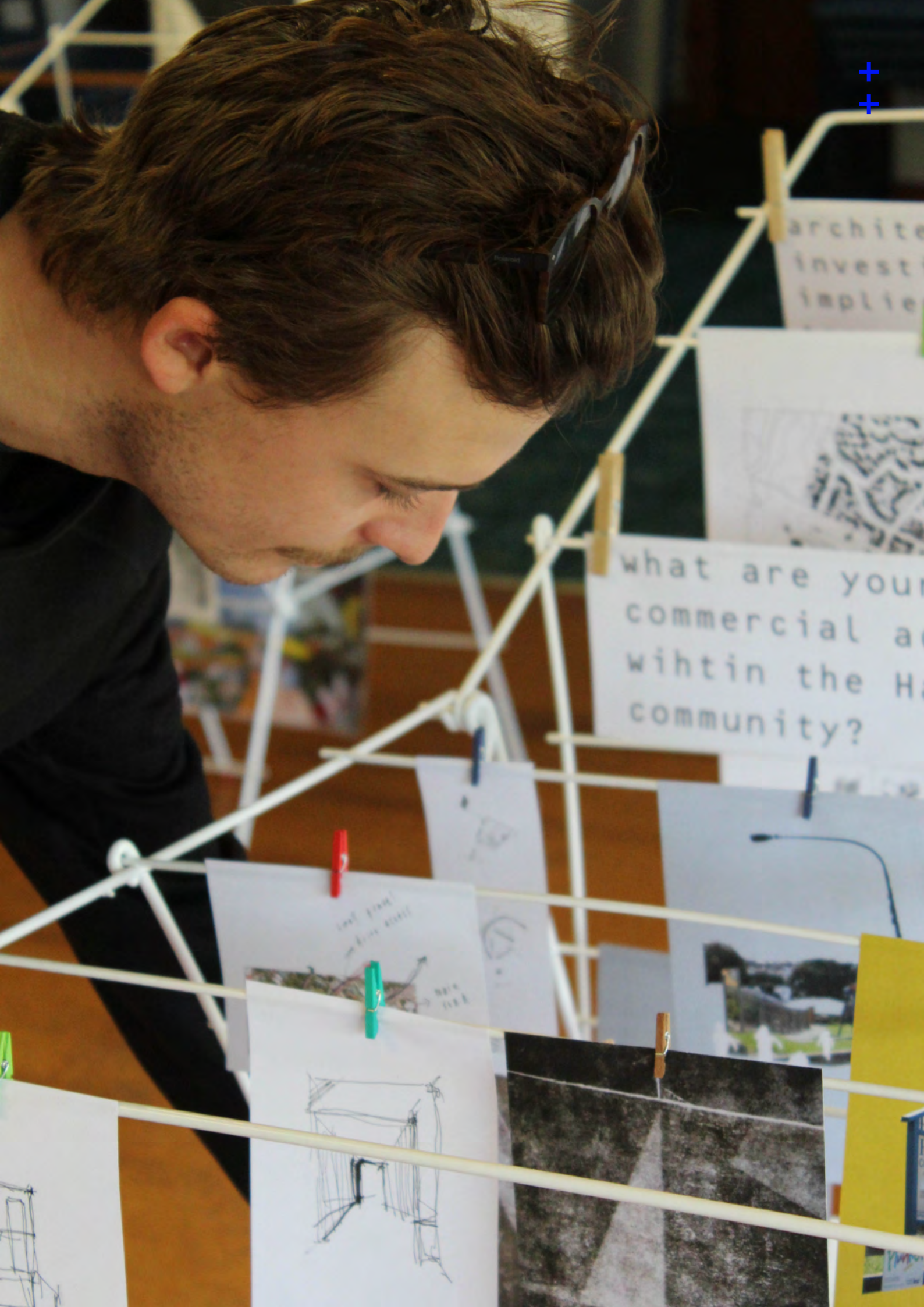


The curation of this exhibition provided a great platform to familiarise myself with the former Art+Architecture students' work. By curating their work, I gained a better understanding of their proposals and respective sites: a pedestrian bridge, housing complex and public library. This allowed me to gain a more complex understanding of wider Hataitai.



Figure 96. Images series of public at exhibition

Figure 97. Spectator having a closer look at the exhibition (opposite)



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what are your
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community?





Figure 98. Images series of public at exhibition

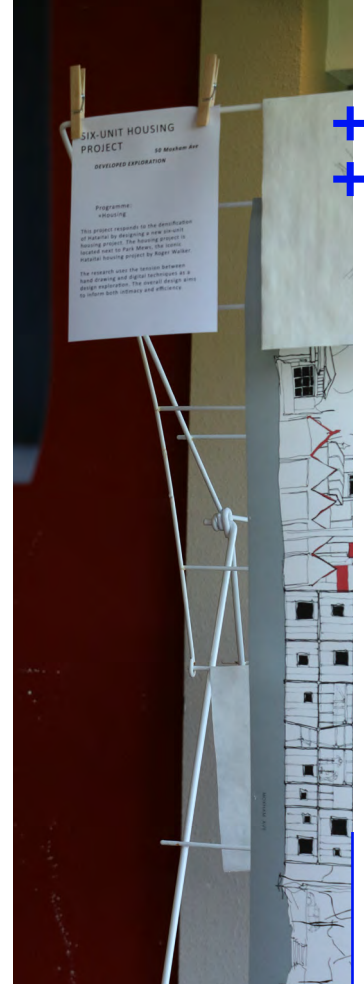
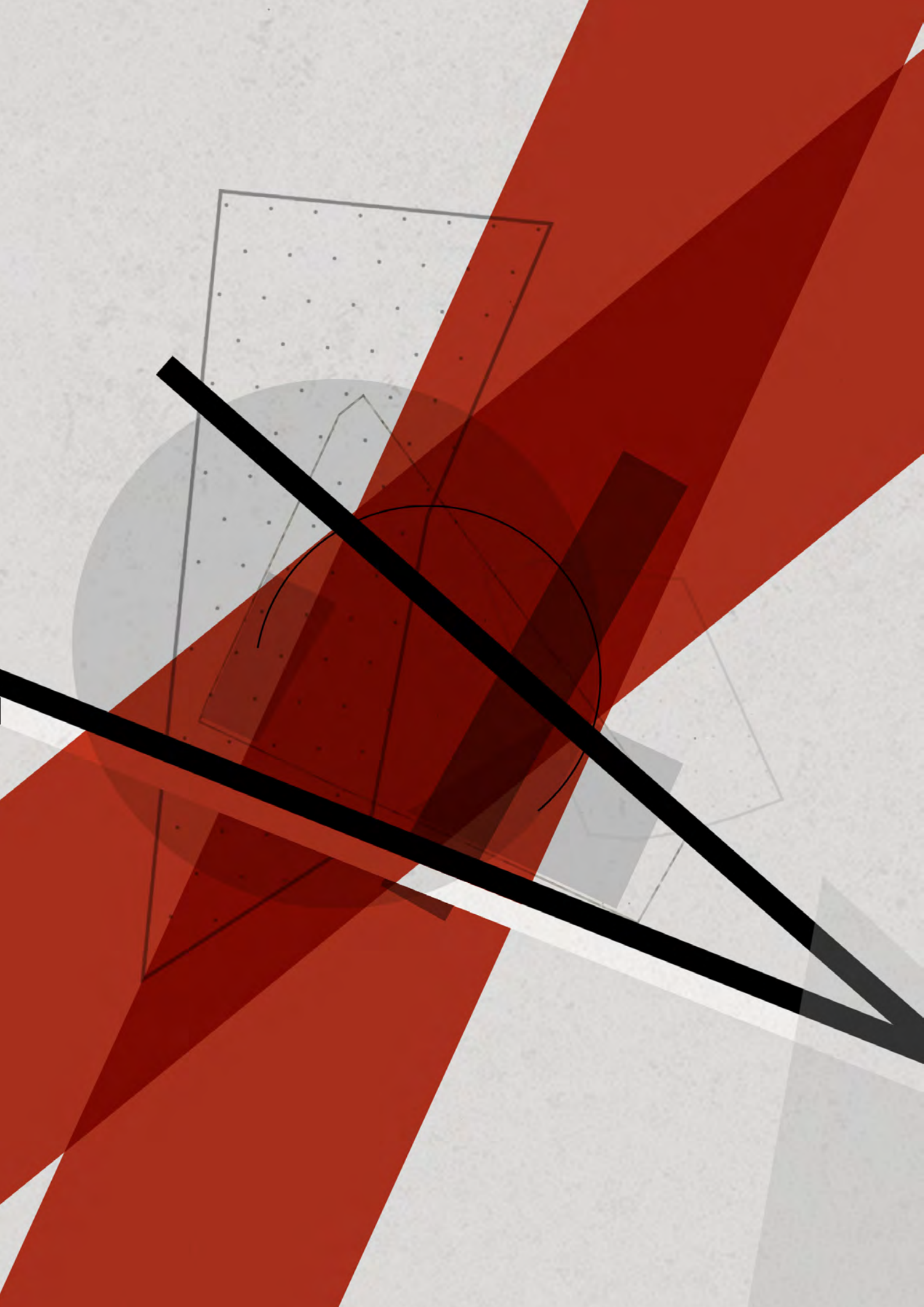


Figure 99. Set up process

DISCOVERIES + REFLECTION

The informal conversation and display at this exhibition created a welcoming environment. One of the goals of the exhibition was to start a conversation on Hataitai's future, to do this; viewers need to feel at ease to speak their opinion. The domestic-like set up not only made people feel comfortable but also allowed ease when setting up as the clothes racks were easily adjusted to fit our preference. The temporal nature of the clothes racks and the fragility of the pegs also emphasised the preliminary stage of our research. This temporal nature allowed in-depth discussion with the public as there was more room for imagining the future, no design idea or research objective was set in stone. The overall informal nature allowed engagement between all participants, even children, which is uncommon for most architectural exhibitions I have been to. I believe this sense of involvement between all ages is necessary for community exhibitions.

This exhibition provided us with a positive understanding of some members of the public's view. The viewers were a mixture of locals, students and past students with the majority of the locals excited by the exhibited work. The locals cherished the idea that we were working on a very real problem that is affecting their suburb. I got positive feedback in my work, specifically two health-care workers I talked to encouraged the connection of younger and older generations through my Continuing Education proposal. Apart from receiving good feedback, we also encouraged the public to think about the forthcoming density problems. By getting this information out into the public our research is starting to stimulate the minds of Hataitai locals. In my opinion, an exhibition should be stimulating visually and/or mentally, and I believe we achieved this on a low budget and short time schedule. Overall, this exhibition created a platform to reflect on the neighbourhood through the group work and conversations with visitors. It gave me a personal understanding of the neighbourhood which allowed me to make more confident decisions as I backed my own experience and reflection.



PLAN

EXPERIMENT FOUR - PLAN

Along with the public exhibitions and experiments, I covered the proposal planning in parallel. This section will cover how the design drivers (layering, intersecting and combining) influenced the planning, developing and refining phase of the architectural design. The design was developed in parallel with the previous creative experiments. The operation of layering, intersecting and combining are key design drivers throughout this process, as these are they key investigations in the previous creative experiments. I am constantly thinking about how the findings from the design experiments (Print, Layer, Intersect and Combine) could influence the design scheme. To start this phase I created 4 schematic plan diagrams that explore layering, intersecting and combining geometries. This is my first attempt at connecting all of my experiment explorations into singular diagrams.

These diagrams were very abstract but they did start to engage my imagination. These diagrams suggested to me the possibilities of layering for program, form, circulation, structure, colour and viewpoints.

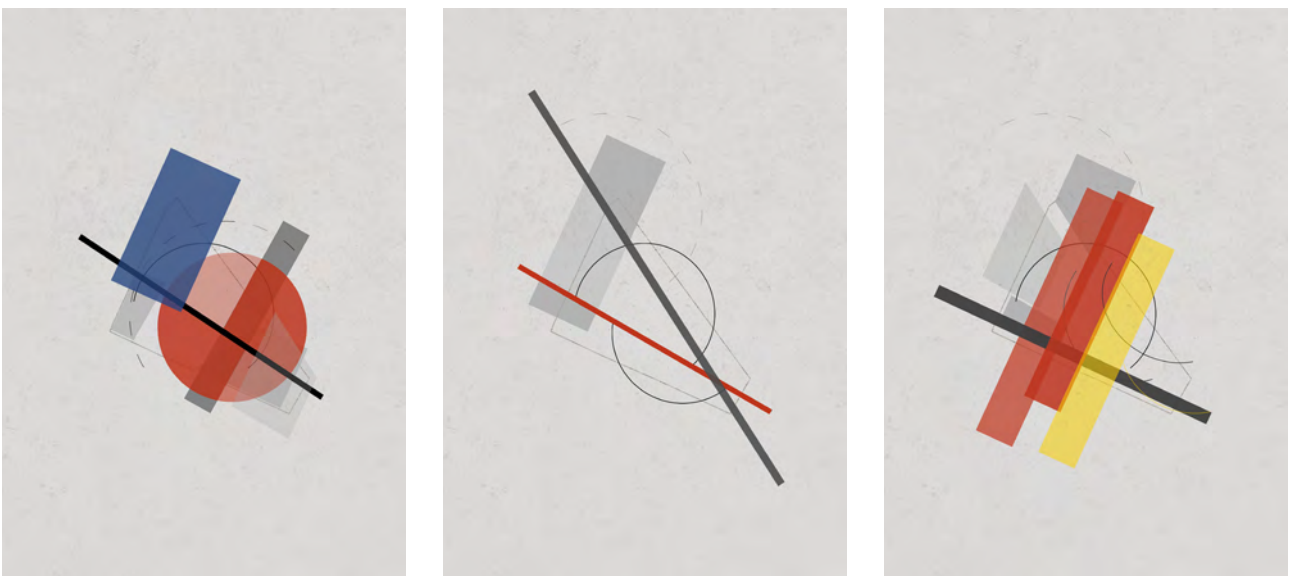


Figure 100. Schematic diagrams exploring layering, intersecting and combining

SITE CONSTRAINTS

To move forward from the abstract schematic diagrams, I worked more closely within the constraints of the site.

One of the main opportunities of the site is the dual access from Waipapa Road and Arcus Way, both pictured in the opposite Site Plan (Figure 101). Waipapa Road is a well-defined public street with on-road parking. Arcus Way has a less defined system: a semi-private narrow laneway for vehicle access to residents' garages and pedestrian thoroughfare.

This dual access provides a great opportunity to create a public path that joins the two roads and intensifies the pedestrian accessibility of Hataitai. This path is part of a wider system discussed on the following page. The path is predominant and reoccurring throughout most of my drawings.

The site also borders the Hataitai Bowling Club on the Arcus Way front. The Bowling Club is a well-loved community treasure. The proposal for a Continuing Education Centre has the potential to create a cultural connection between the two public buildings. This connection could be through viewpoints, circulation alignment or even a physical connection. Throughout the planning process, this cohesion is always on my mind. How might I create a connection? How might these buildings create a cultural hub?

Another opportunity is the slope of the site. As seen in contours on Site Plan (Figure 101), the site has a continuous gradient from Waipapa Road down to Arcus Way. The total displacement of 7 metres. This provides an opportunity to intensify the 'layering' and 'intersecting' experimentation. The user will be able to experience the architecture from various heights and angles as they move through the site. For this reason, I tried to continuously switch between plan and section to understand how the site conditions could be used to enhance the design.

These are the main themes I am thinking about when moving through the planning phases of the design. Alongside these themes majority of this work tackles conventional architectural aspects such as circulation, form, viewpoints, access and so on.



HATAITAI ROAD

HATAITAI BOWLING CLUB

ARCUS WAY

SITE

WAITOA ROAD

WAIPAPA ROAD





Figure 102. Simple site circulation diagrams

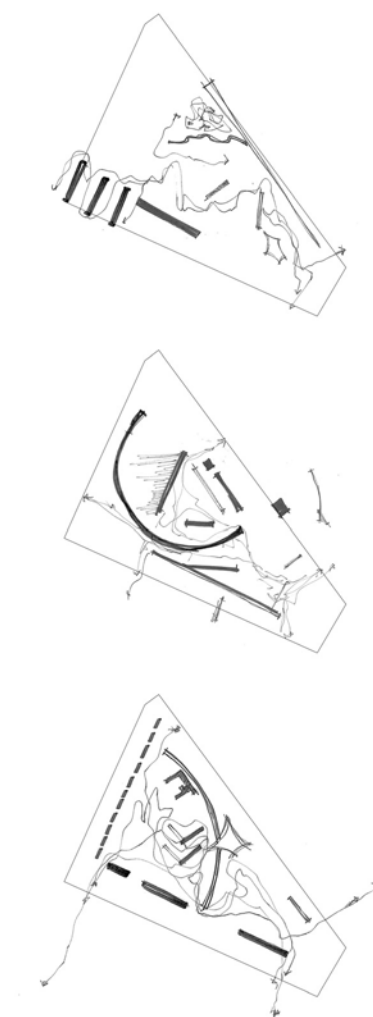


Figure 103. Playful site circulation diagrams

CIRCULATE

The potential path connecting Waipapa Road and Arcus Way was one of the first aspects I investigated. Through drawing, I explored the opportunities of simple linear and curved routes through the site in Figure 102 and Figure 104. I tried to keep the circulation to the middle of the site to rethink the urban model: How might the path create a suburban lane? Also, how might this lane add to the architectural language?

I also explored a more playful approach in Figure 103. These diagrams explore ambiguous circulation. This ambiguity is produced through the cryptic circuit: some obstacles make it hard to navigate through the site, which means the plan could be read in multiple ways. I realised there needs to be a balance between these two approaches to create dynamic circulation.

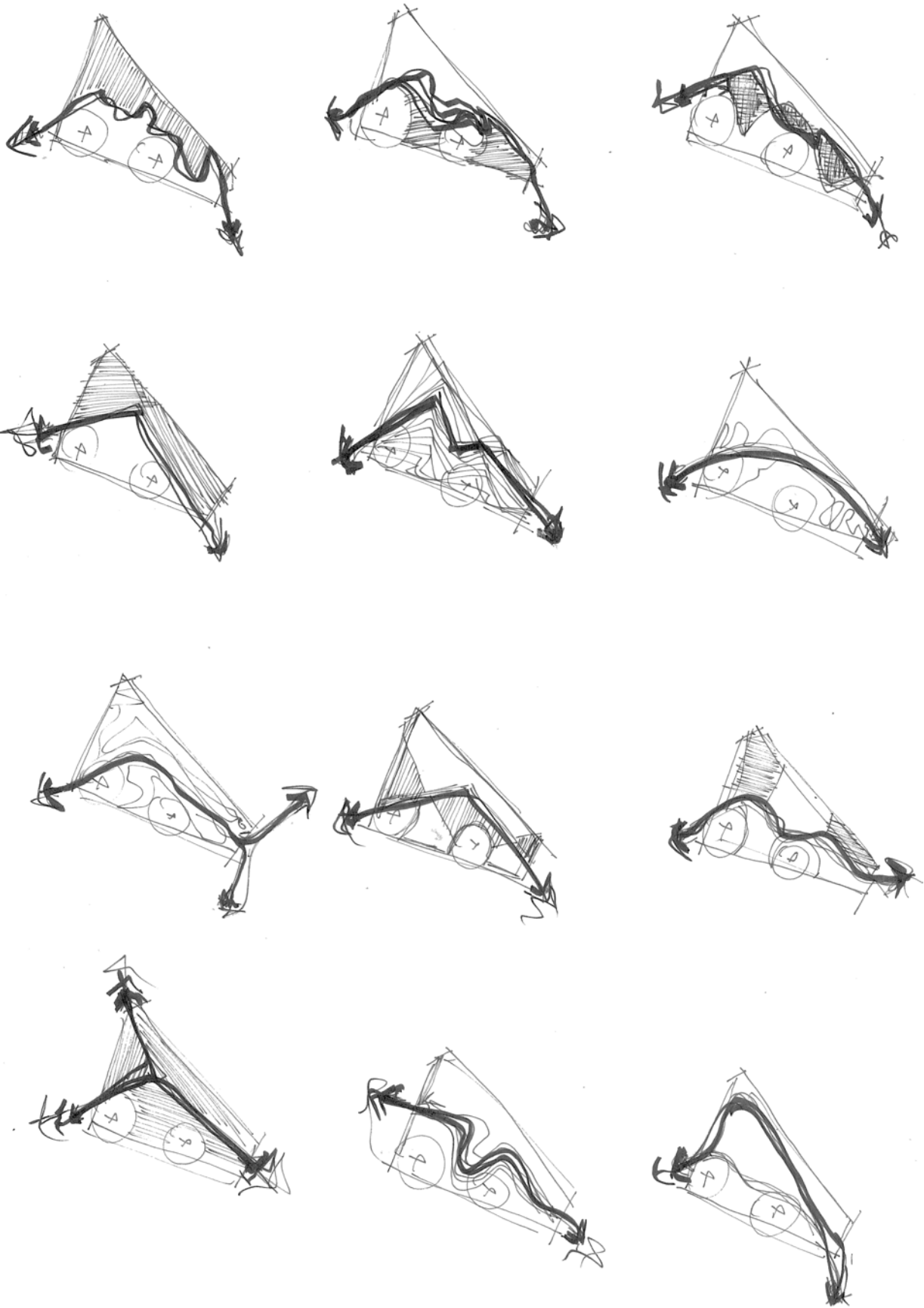
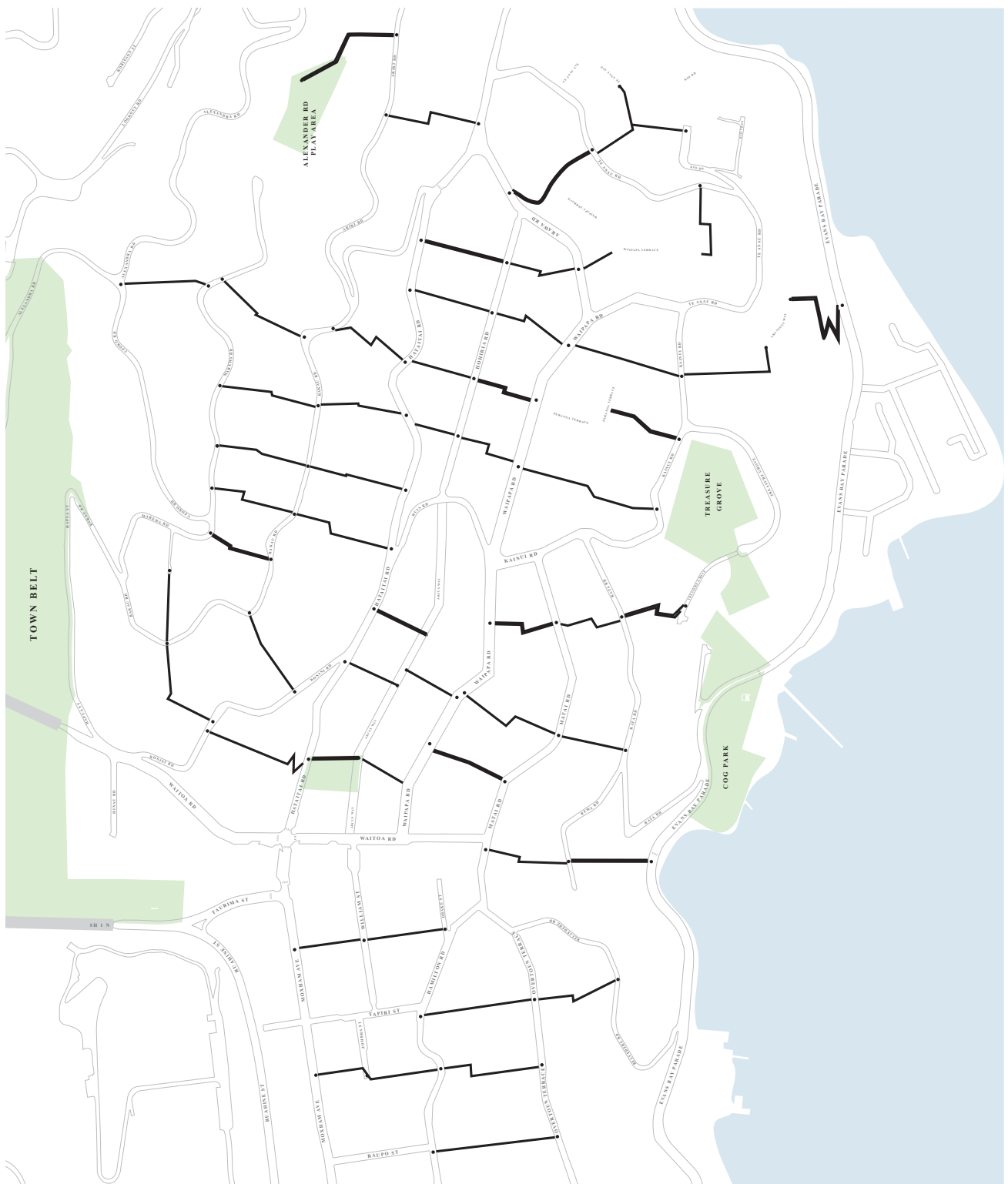


Figure 104. Simple site circulation diagrams



AN URBAN PEDESTRIAN SYSTEM

When developing accessibility through my site, I also developed a wider pedestrian infrastructure scheme. I constantly switched between urban and human scale to create a coordinated strategy that worked at both levels.

The urban scale focused on the wider picture. I analysed how each pathway would connect to the existing fabric and topography. At the urban scale, I was able to organize the system until it was appropriate logistically.

Switching back to my scheme, I explored the more intimate human scale of the pathway. I explored how this pathway would fit into my site-specific context through drawings on page 99. I also explored renders from different roads, such as Marewa Road seen in Figure 105. I gained an understanding of the urban scheme from different viewpoints and perspectives, allowing me to contemplate how the architectural form will affect these views and system.

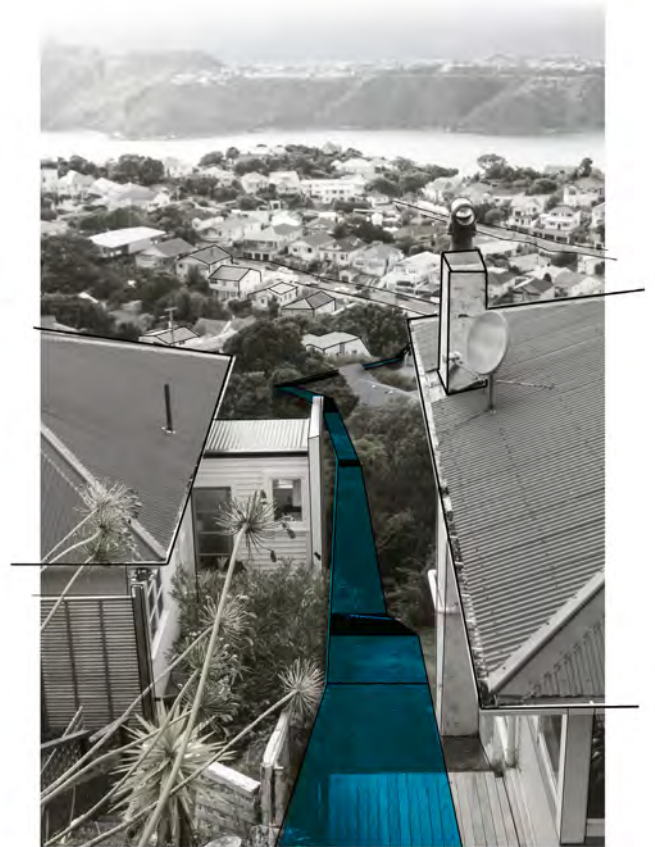
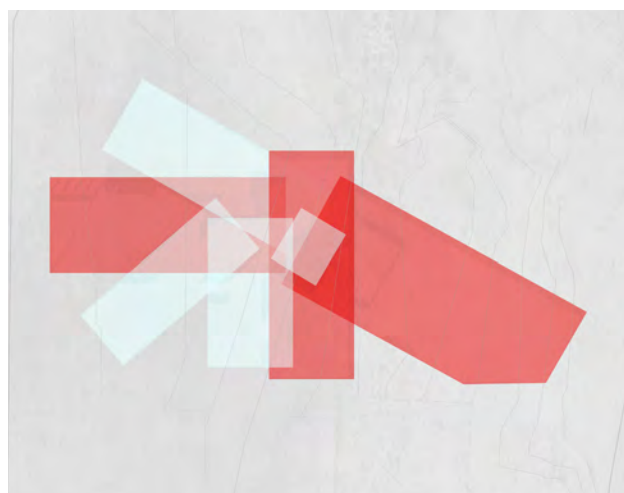
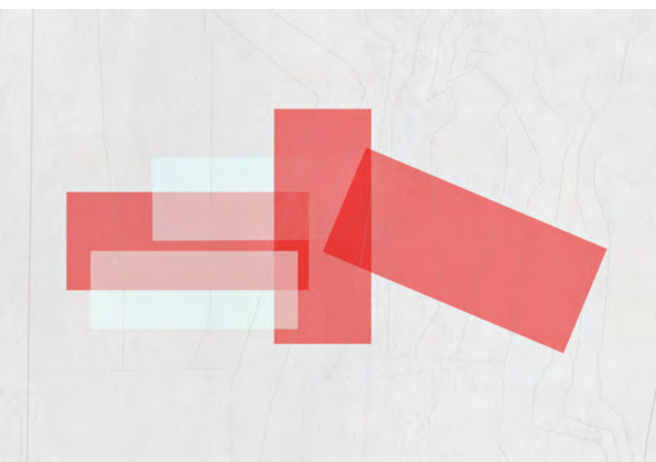
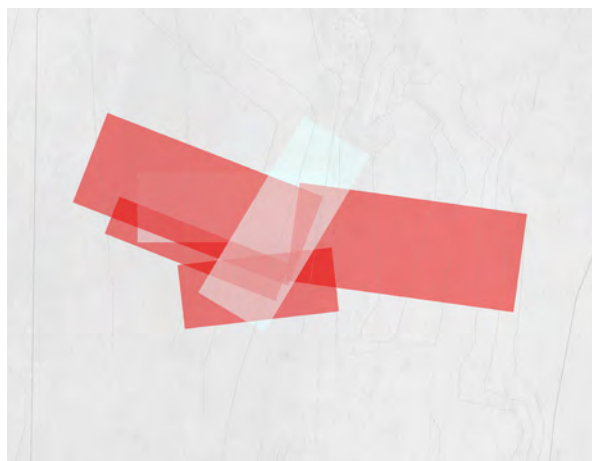
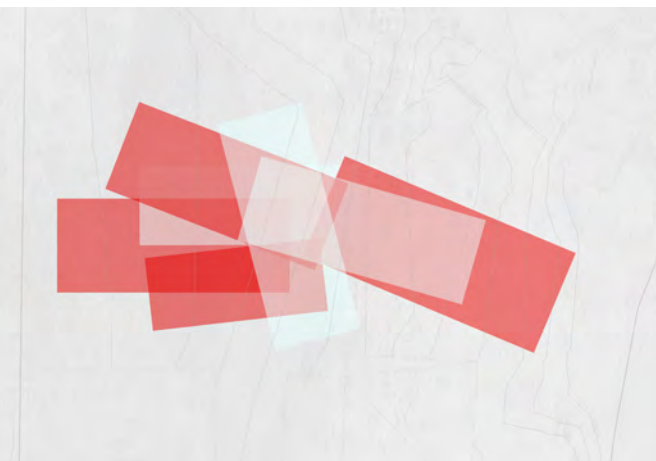


Figure 106. Potential pathway on Marewa Road



OVERLAP

To initiate form, I used Photoshop to overlay assemblages on site. I found this exercise useful at exploring how spaces might overlap to create denser areas. I took inspiration from Layer (Figure 109) as these diagrams also focus on spacing, layering and overlapping. These diagrams were intended to be read as plan but ended up being more ambiguous. The diagrams could be read as a section or programmatic diagram also.

I did not produce these diagrams in response to the compositions produced in Print yet the aesthetic looks similar. I used the generic rectangle shape as a fast way of producing spatial zones. A downfall of this using a generic rectangular shape meant it was hard to understand how the edge fabric against site would work.

In these assemblages, I focused more on form and composition but this compromised circulation. As I was focusing more on assemblies, I thought less about circulation. In my next drawings, I will need to include circulation with more thought.

Figure 107. Simple site circulation diagrams



Figure 109. Layer experiment

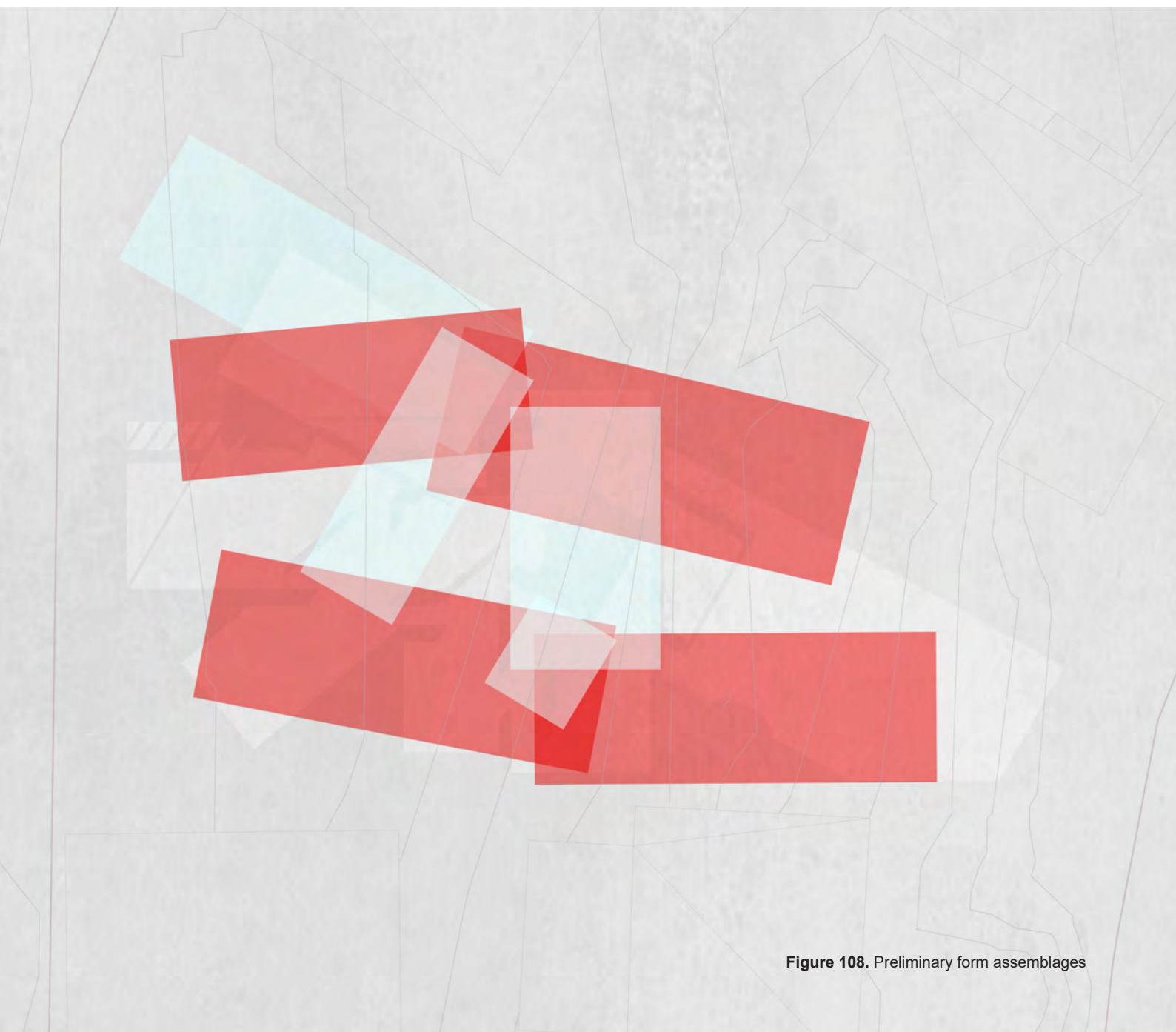
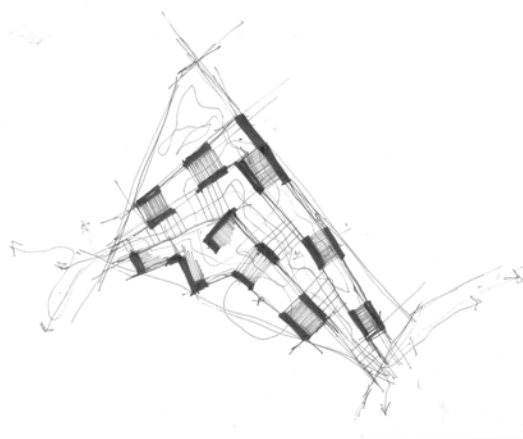
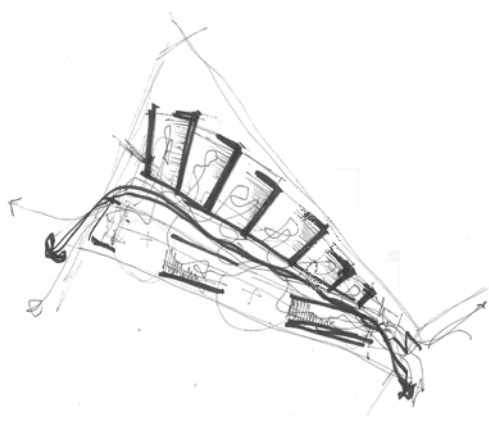
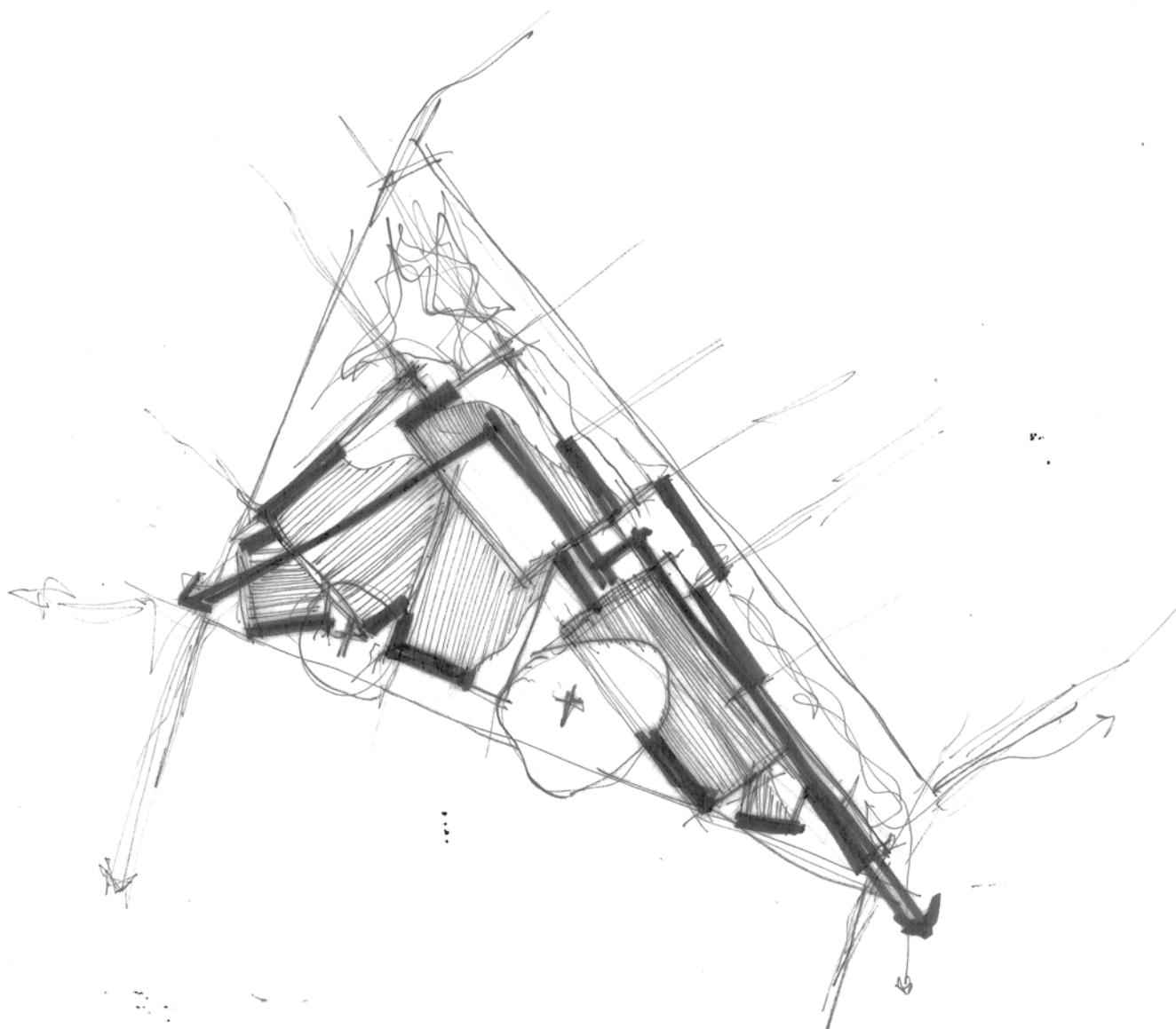


Figure 108. Preliminary form assemblages



PLANNING VISUAL ESSAY

The following sketches contain an array of the design development that I developed in parallel with the experiments in the preceding section. Throughout this development, I aimed to layer and intersect form, resolve site circulation and produce a design that fit into the surrounding Hataitai context. I produced this work in pencil or fine liner pen. I found this was the fastest way to produce preliminary content.

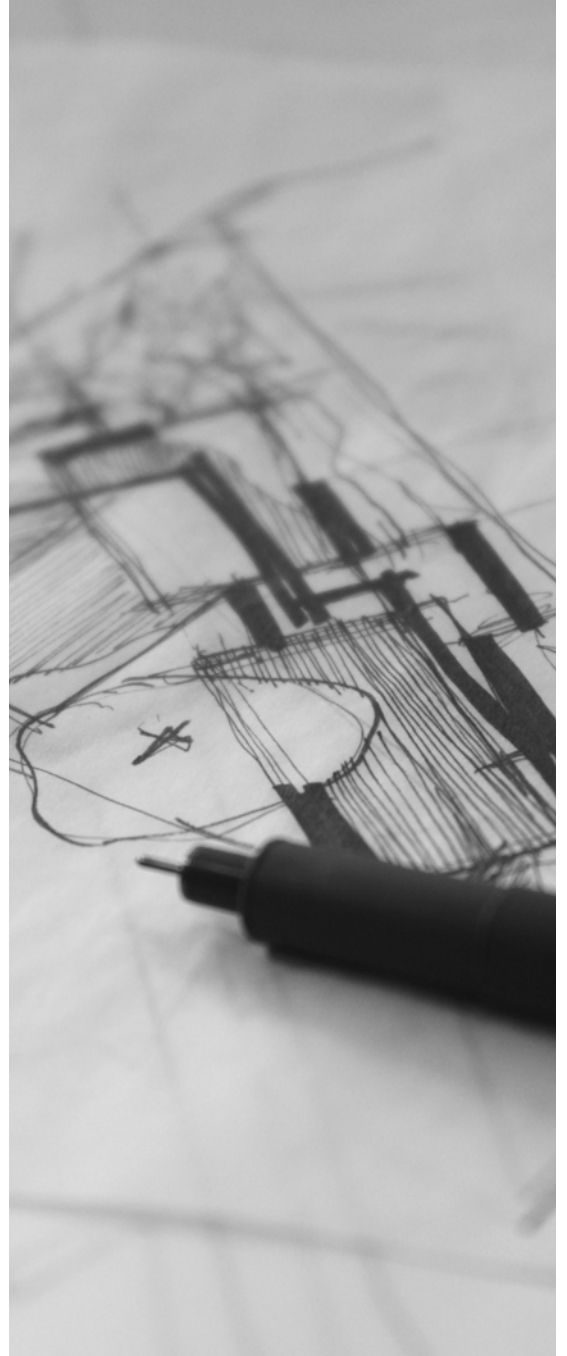


Figure 111. Drawing process

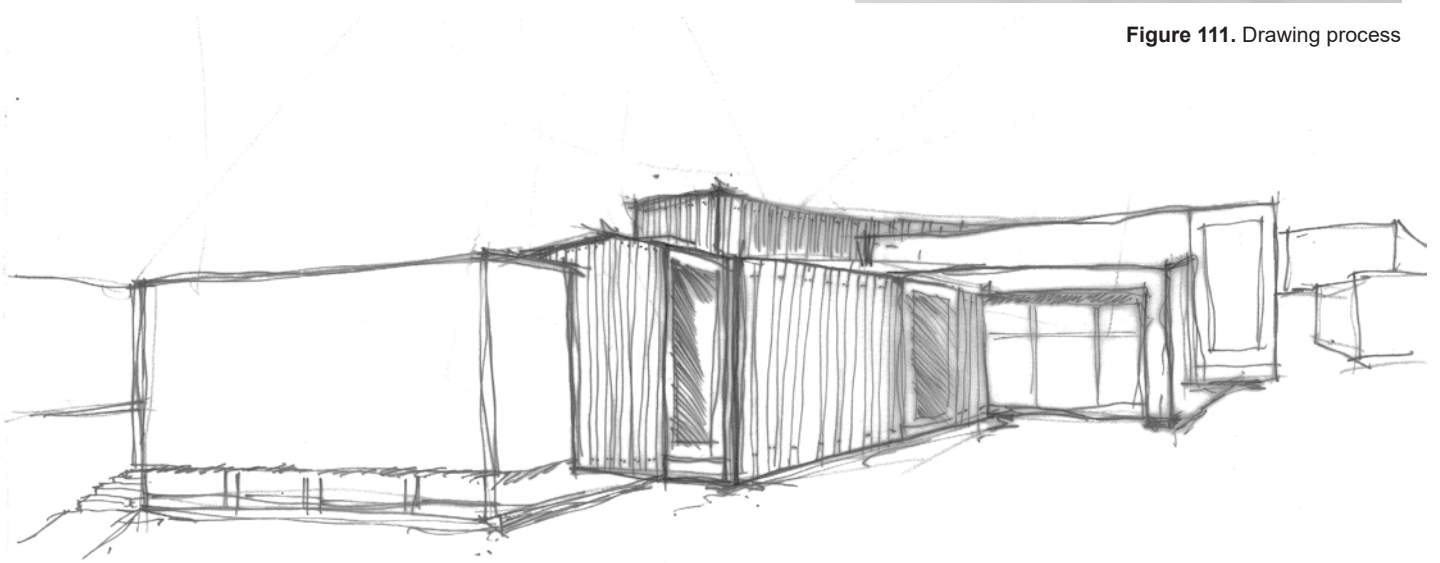


Figure 112. Concept perspective from Arcus Way

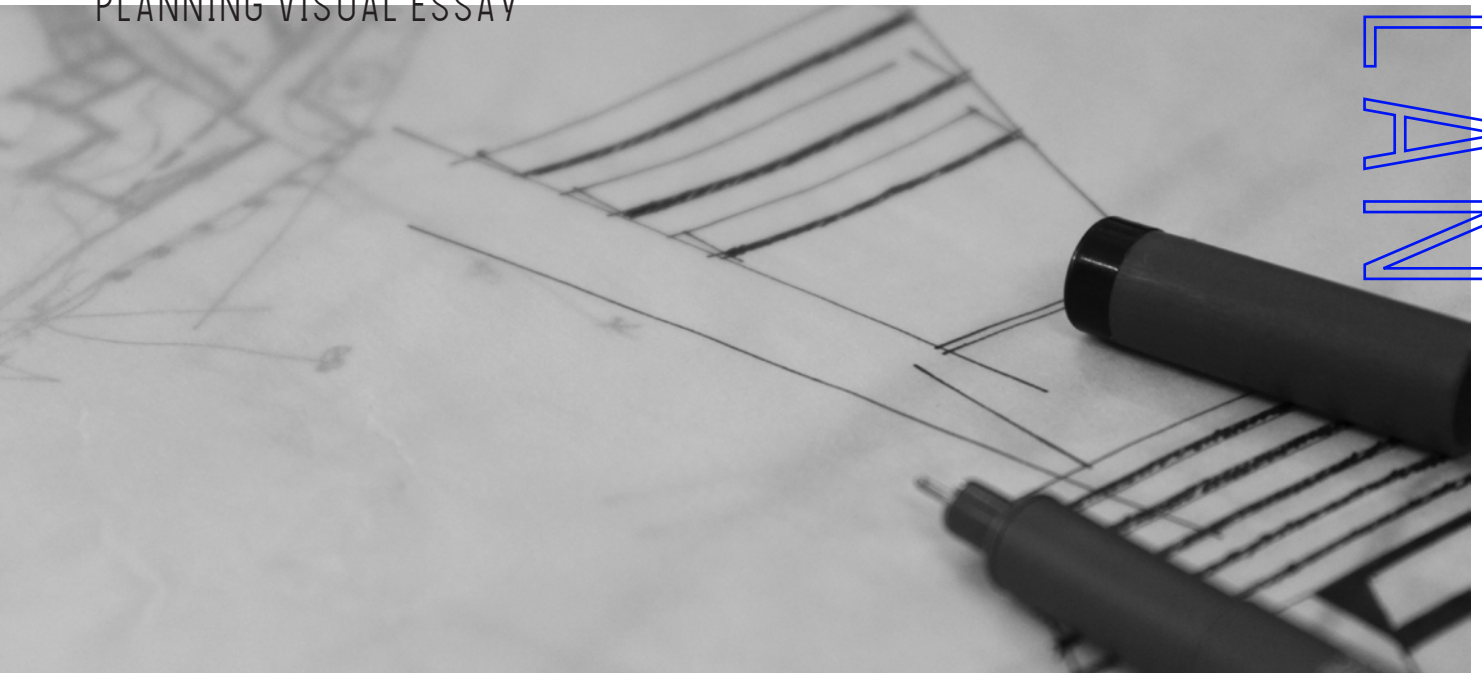


Figure 114. Drawing process

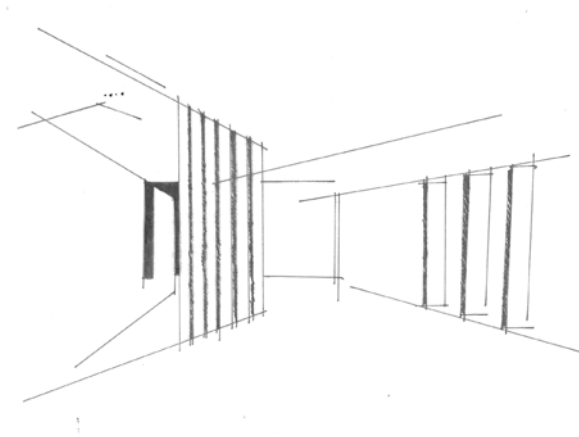


Figure 113. Layering walls

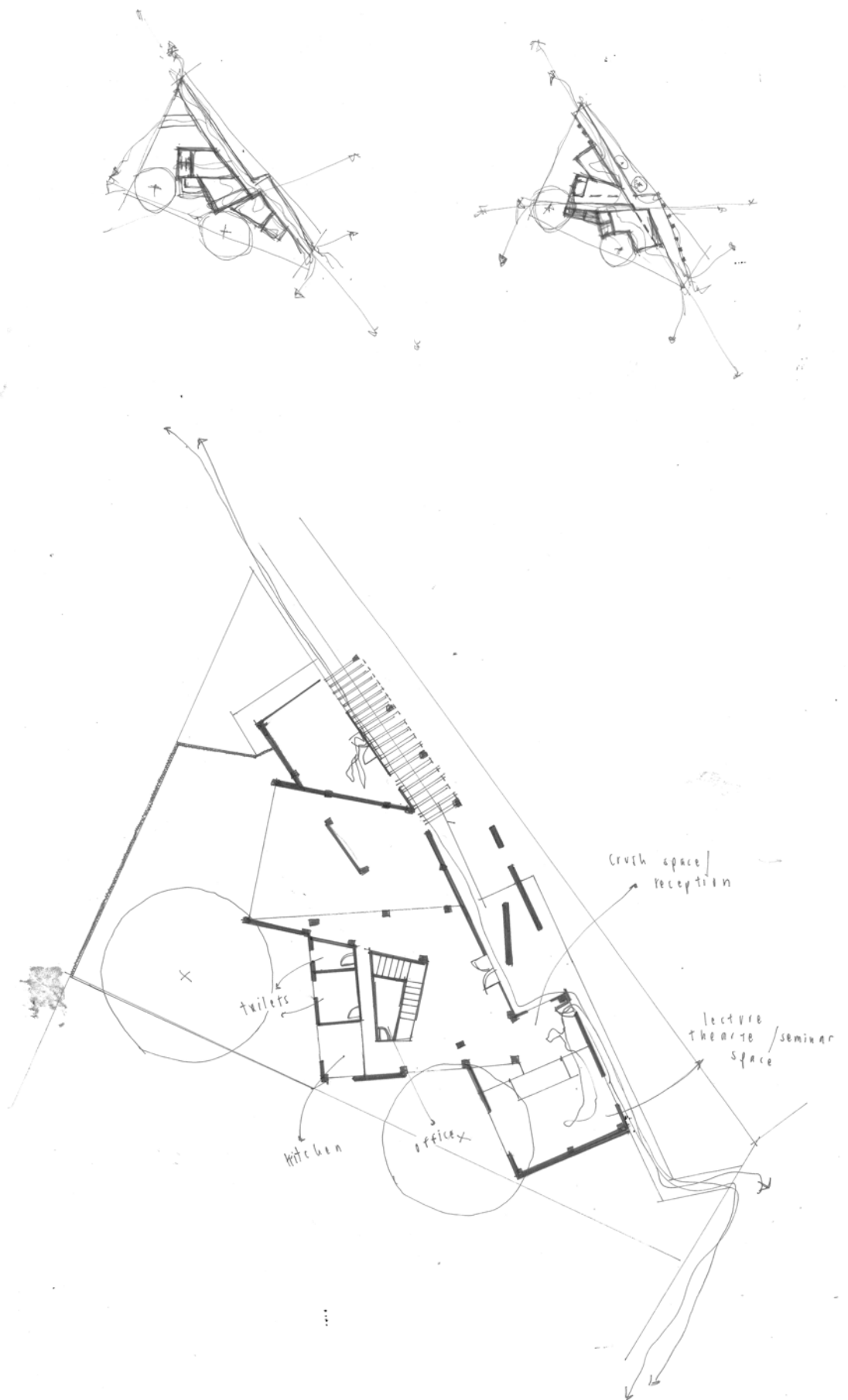


Figure 115. Planning development

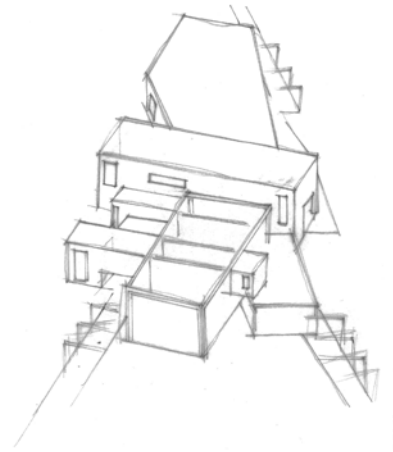


Figure 117. Isometric development

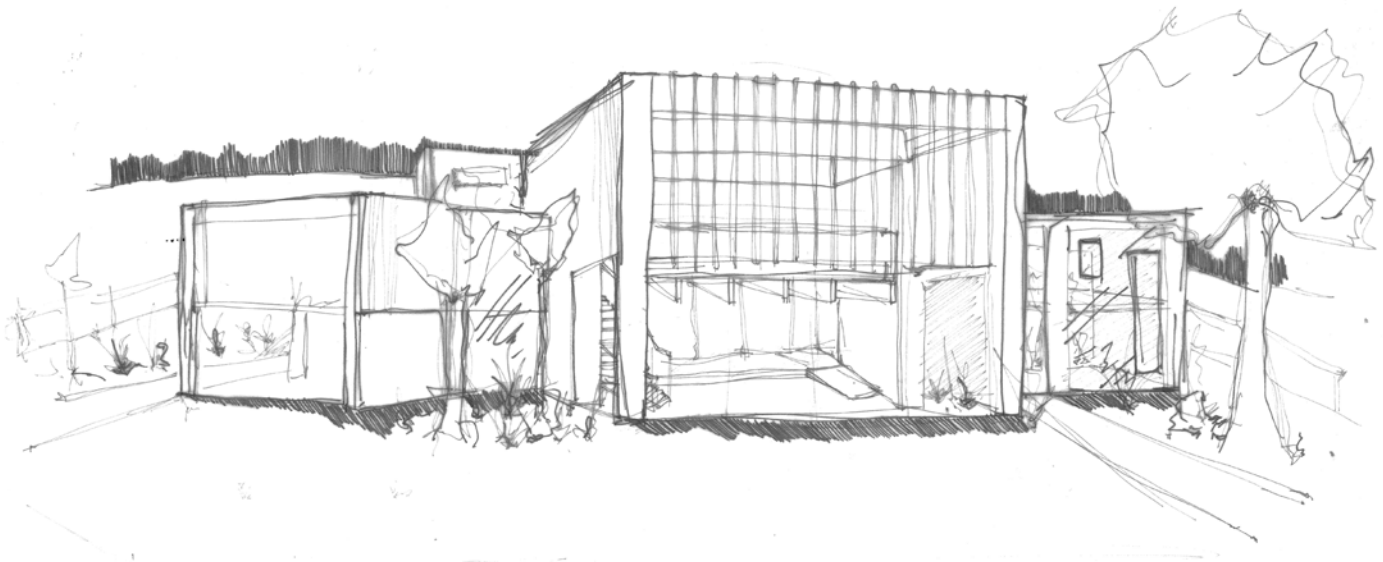


Figure 116. Concept development perspective

PLANNING VISUAL ESSAY

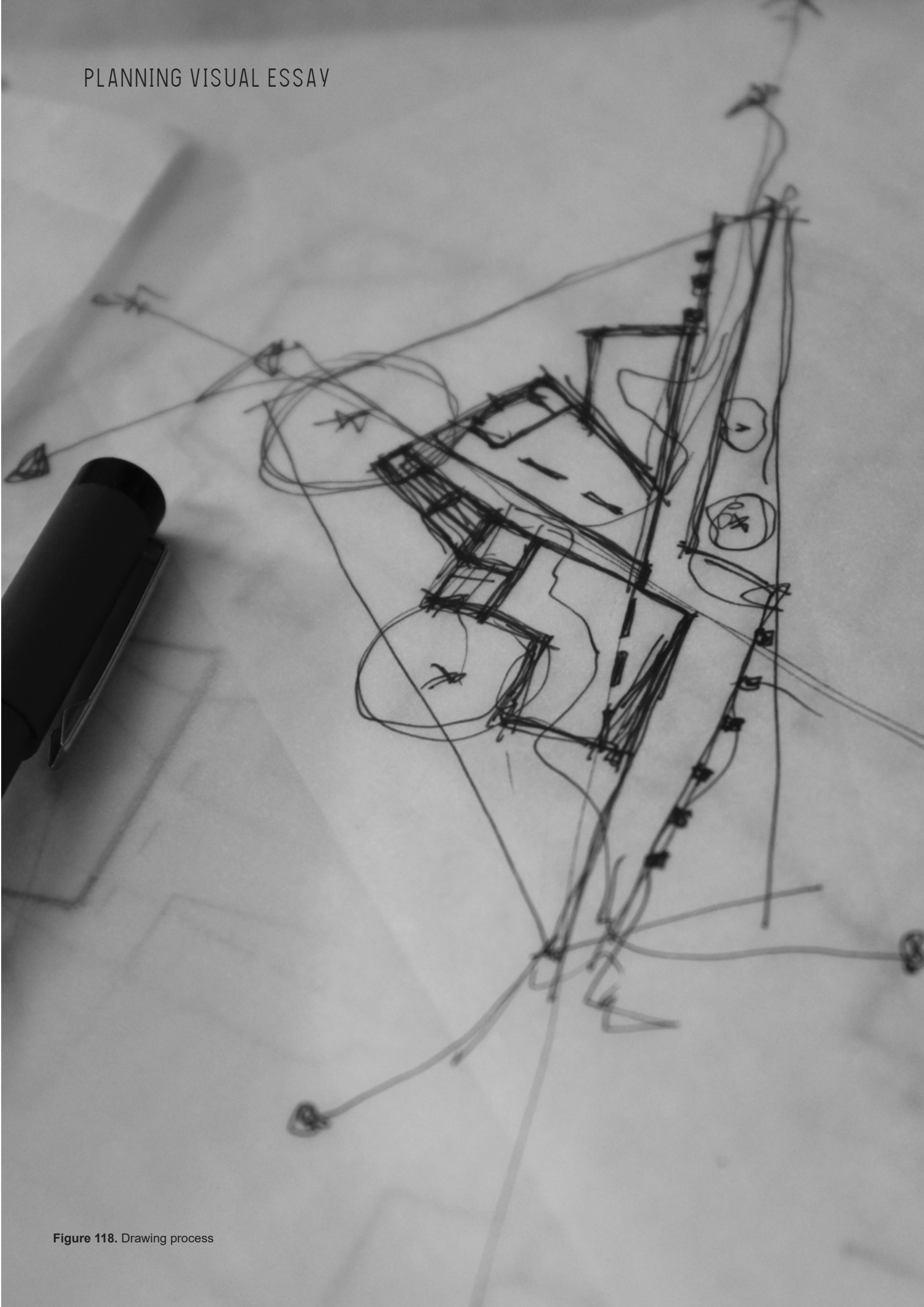


Figure 118. Drawing process

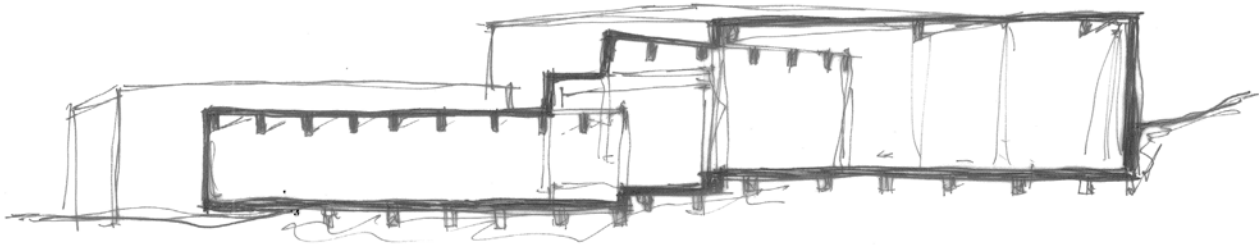


Figure 119. Development section

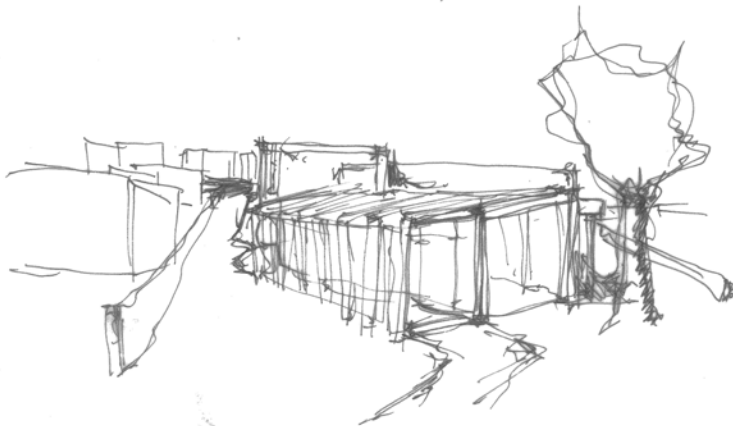
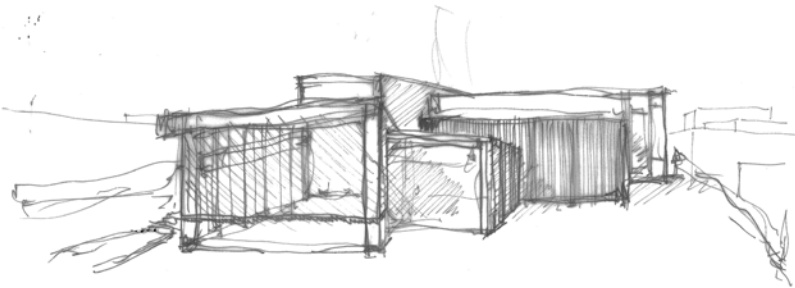


Figure 120. Development perspectives



Figure 121. Planning development



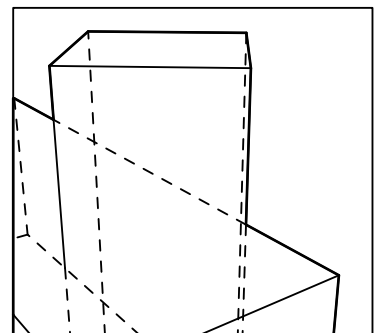
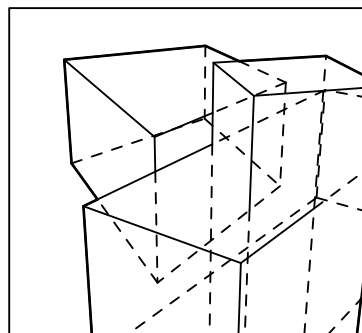
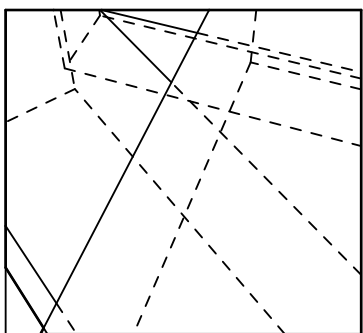
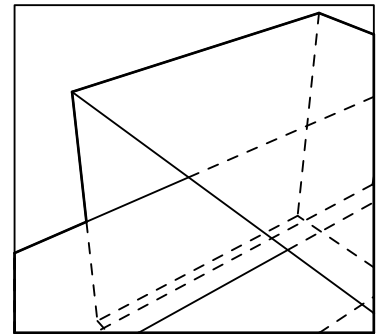
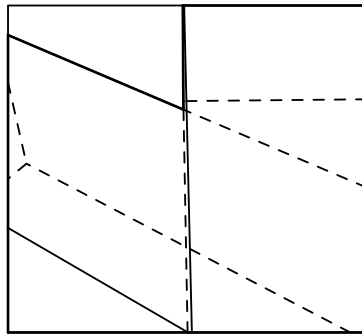
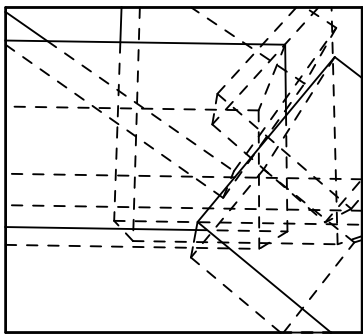
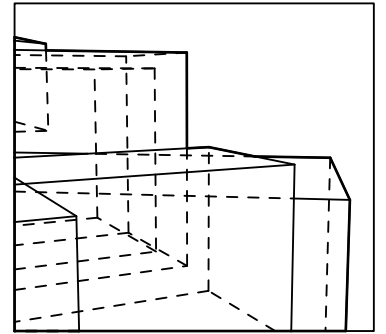
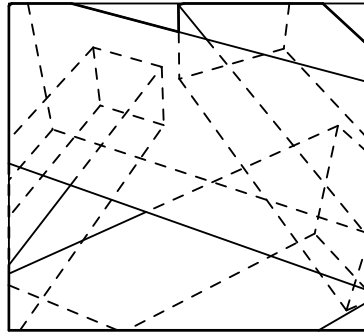
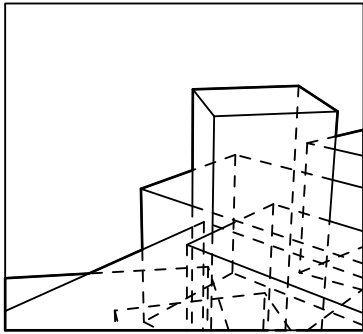


Figure 122. Intersect study



Figure 123. Intersect study experiment

INTERSECT

To expand on my drawings I created a Rhino massing model of the most developed plan. I wanted to see how the interior of the intersecting volumes could work. When the form intersects this creates an opportunity in the interior. An opportunity to create a spatial ambiguous language. The massing models in Figure 122 explore varying intensities of intersection (illustrated by the dotted lines). Some are more complex than others are, such as the middle left diagram has too many intersections, which makes it hard to understand.

These massing models take influence from earlier study Intersect (Figure 123). I reflected on Intersect by speculating if the wood were hollow, what would the interior aesthetic and structure be? These massing models start to visualize that. This exercise helped me understand how intersections could hold different spatial qualities and spaces.

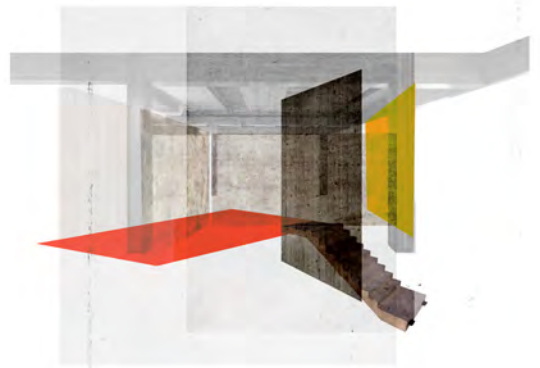


Figure 124. Perspective layering study

PERSPECTIVE LAYERING

To get my head around the architectural language, I created these collage perspectives. This was my first attempt at visualising the architecture digitally. The collage-style allowed me to speculate beyond the white space, I imagine these collages as snippets of the building, and this allowed me to ponder the design. In these collages, I moved away from my predominantly wooden design visuals. But this confirmed that I want to stick with timber as it has a warm material quality compared to concrete, I believe it is more suited to the program.

Reintroducing colour into the design was a successful move. My previous drawings were strictly a pen/pencil and paper. Bringing colour into the design has revived the playful nature of the Experiments 1-4 (Print, Layer, Intersect and Combine).

The production of these collages started to provoke my understanding of graphic representation. I am trying to explore an ambiguity of depth and flatness through intersecting form. However, does my graphic representation techniques compromise this? The semi-opaque layering on the collage in Figure 125 gives a sense of atmosphere but would be hard to achieve in reality. I am trying to create an architectural language that is both graphic and spatial but it is currently more graphic. This tension between graphic and spatial is a constant struggle that I need to address, I do not want the design to be purely graphically ambiguous, it has to be both. I discuss this tension furthermore in “Between Graphic and Spatial” on page 178.

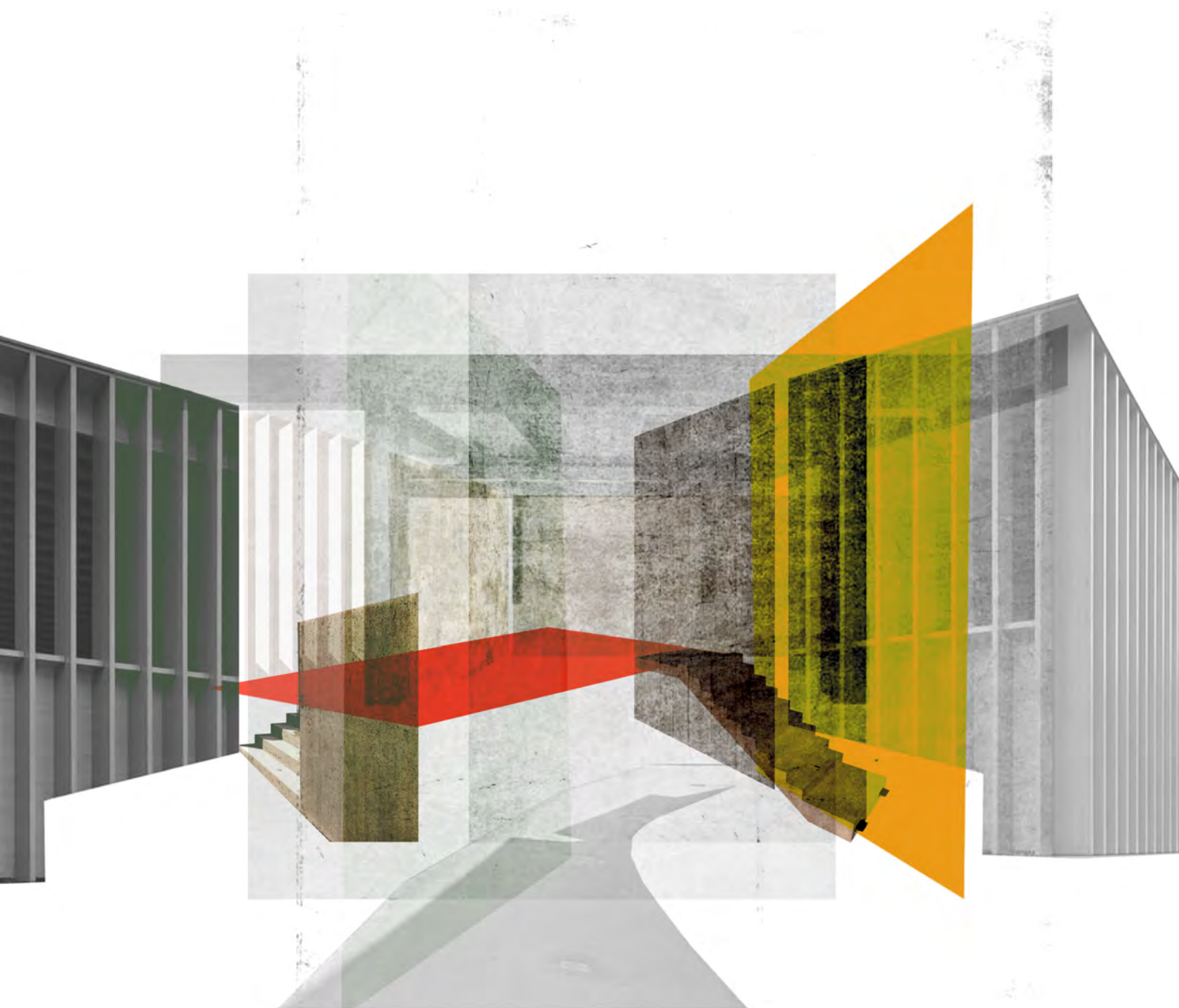


Figure 125. Developed perspective layering study

STRUCTURAL INTEGRATION

While producing plans and sections the structural integration of the project was formed at the same time. The initial investigation explored the of intersection structural elements through spacing, layering and overlapping. The structural elements that I manipulated consisted of columns, posts and beams. Manipulating these basic structural elements felt instinctive: in previous projects the columns and beams would be the fundamental structure therefore I started with this. All explorations were designed in Rhino and then brought into Illustrator or Photoshop for editing.

At first, I created simple explorations that explore connection and structural porosity. I soon realised that these were too loose and did not tie into my research, I needed to push the structure more. At this point I reminded myself of what I was trying to achieve, ambiguity of depth and flatness.

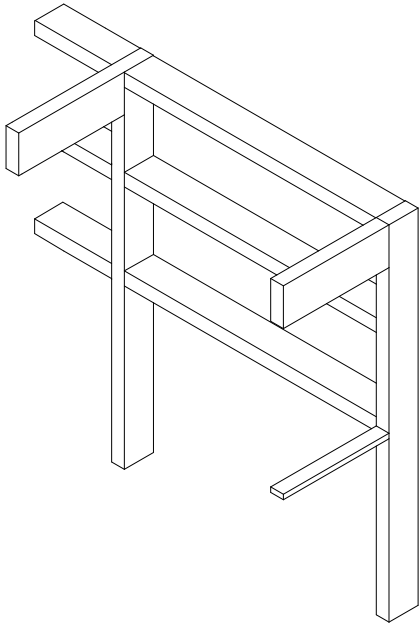


Figure 126. Isometric of post and beam

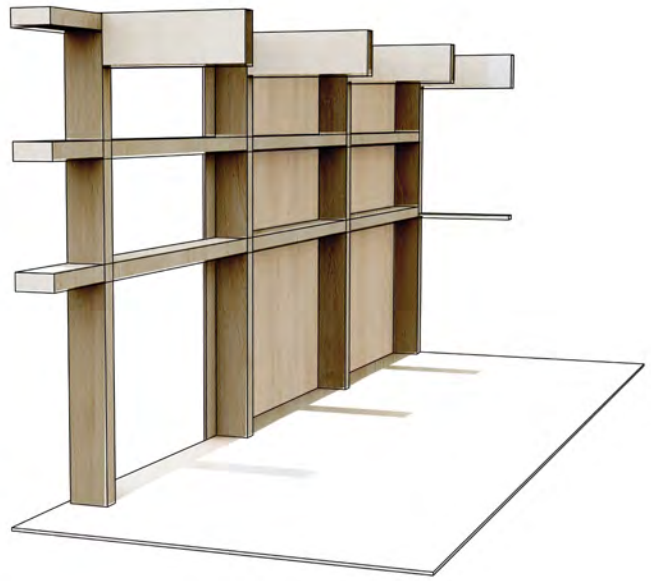


Figure 127. Structure development

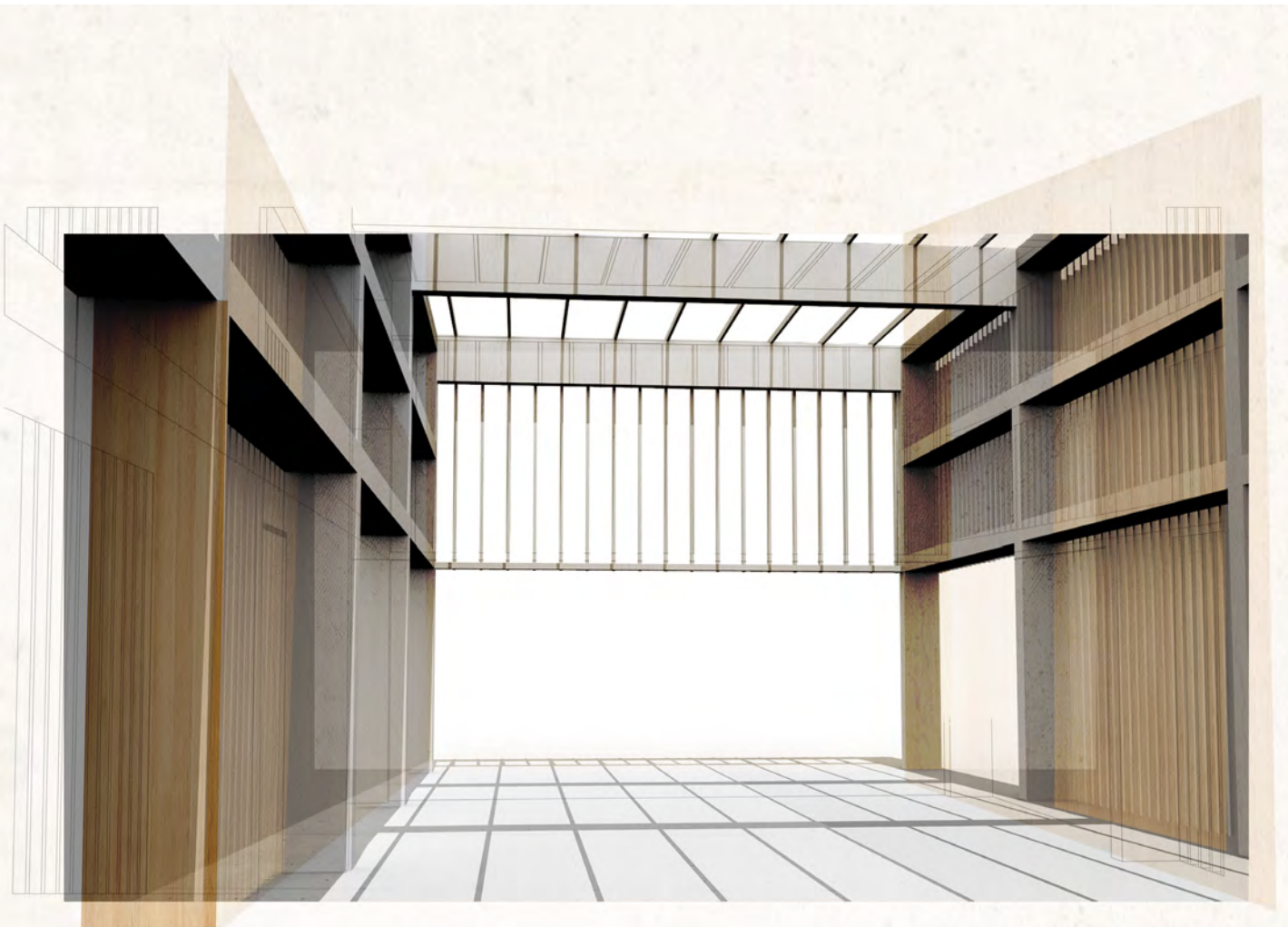


Figure 128. Structure development

STRUCTURAL INTEGRATION

I pushed the structural configurations to make them more complex and ambiguous. The two explorations on the opposite page explore the connection of structure at a right angle (Figure 129) and a 40-degree angle (Figure 130). Figure 130 is more successful at showing how the shifted intersection can create areas that open and close the interior space. Yet, there is no ambiguity of depth and flatness. These study drawings served as structural explorations these designs, but also gave me a glimpse into how the spaces might look in perspective.



Figure 129. Structure development

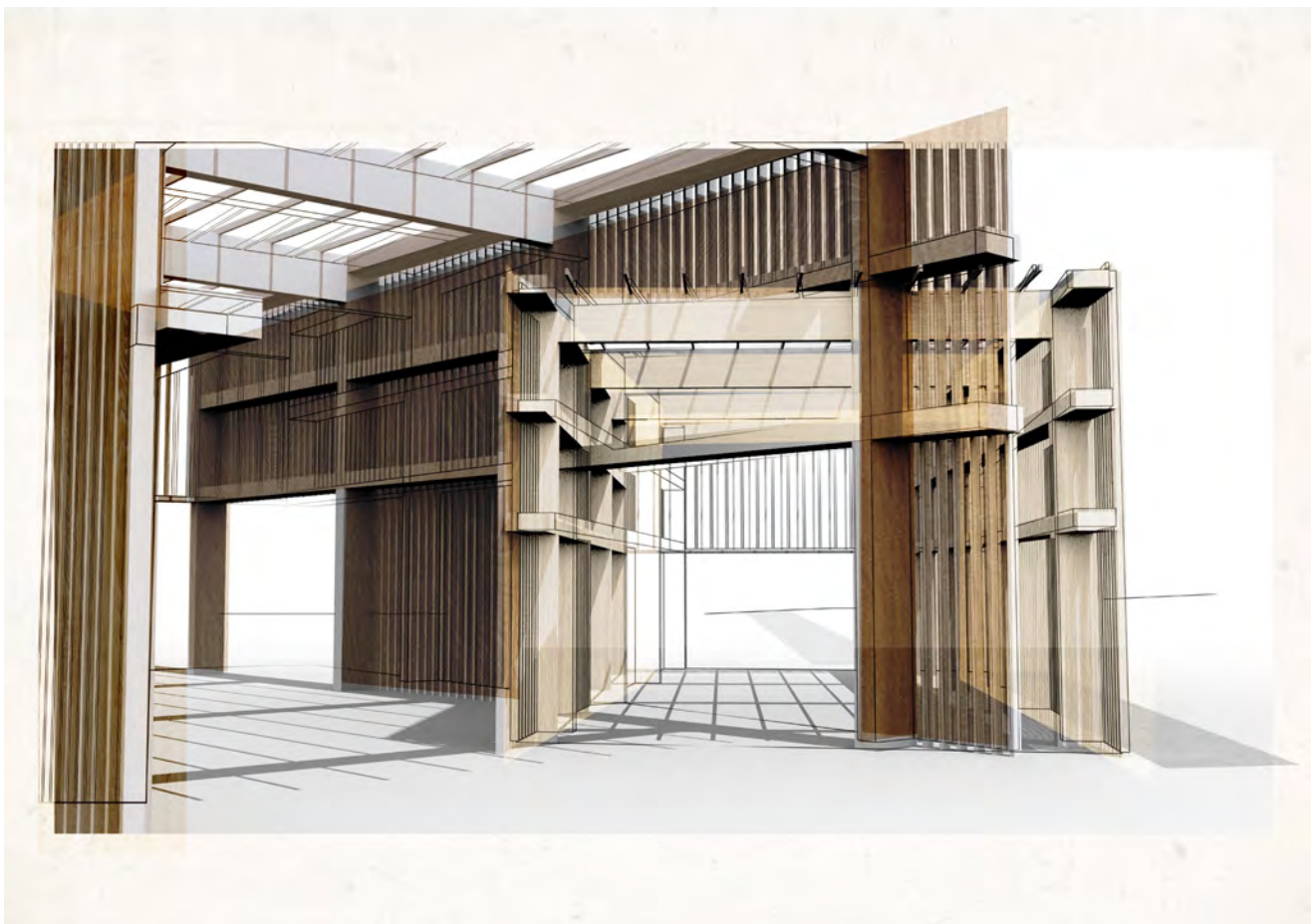


Figure 130. Interlocking structure



Figure 131. Structure indent development

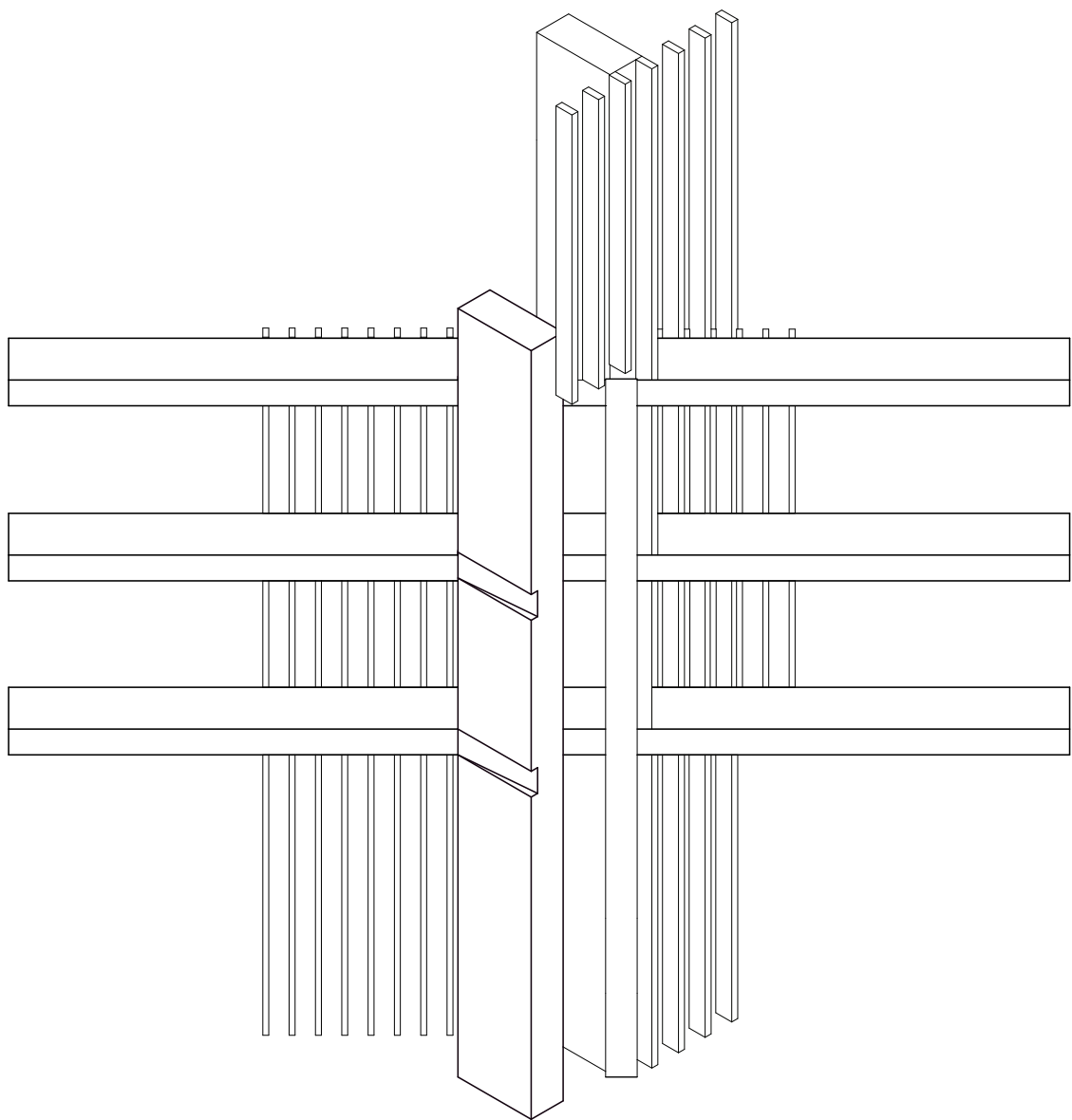


Figure 132. Structure indent isometric

STRUCTURAL INTEGRATION

I then explored how indentation of structure could be manipulated to create an ambiguity of depth and flatness. The middle column seen in the opposite images is indented where the perpendicular beam sits. I thought this would create a quality where it looks as if the beam cuts the column. It does have this quality, but only from specific angles as seen in the different viewpoints of Figure 131 and Figure 132. This quality does not work continuously throughout the building.

At this moment, I began to rethink structural ambiguity. The quality I am trying to achieve, the ambiguity of depth and flatness, is not working as successfully as I had hoped. I had imagined the complexity of the structure would create the ambiguity itself, but it does not. I needed to reevaluate my aims and try a new approach. I reflected on my print experiment: the prints were ambiguous because of the varied opacity, overlapped compositions and embossed shapes (a multiple amount of aspects). Yet, with this experiment I am only investigating indentation.

The use of indentation was successful in this experiment, but I need to push this a lot more. The indentation works well at creating ambiguity from one angle, in Figure 131 it creates a visual cut in the column that almost looks as if the perpendicular beam has cut it. But, I will need to understand how this quality can work from all locations within the architecture. Some questions I ask myself at this point include:

“How might indentation operate at a larger scale?”

“Could I use indentation to manipulate wall structure?”

“Could timber inlay produce the same qualities as indentation?”

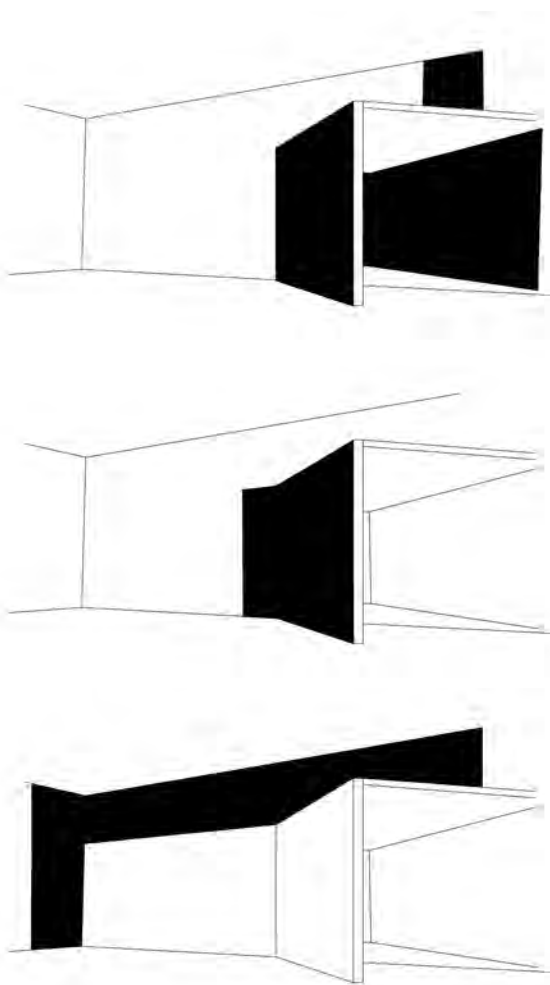


Figure 133. Indentation of wall (two geometries)

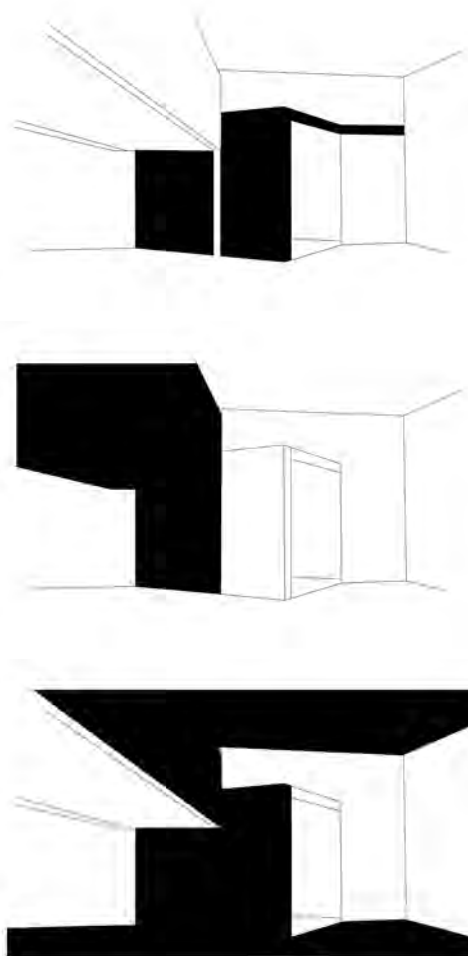


Figure 134. Indentation of wall (three geometries)

INDENTATION DEVELOPMENT

I then experimented with indentation possibilities at a larger scale. To do this I modelled two/three intersecting geometries and explored the possibilities of wall indentation using solid black. Although the diagrams, in Figure 133 and Figure 134 are simple they effectively portray the potential of indentation. In these diagrams, the black either visually connects or disconnects the two forms. In Figure 135, the black creates a link between all three geometries although only touching two. Where the black creates a vertical white band (almost like a downpipe or column) on the middle geometry, it creates a visual connection between geometries. This visual link starts to blur the boundary between geometries and creates an ambiguous quality where it is hard to understand where each hard edge is.

The initial aim was indentation exploration but the simple style of the diagrams made me speculate the use of colour, inlay and texture. This experiment could have the same operations if the solid black was representing colour, inlay or texture. Timber inlay has great potential as the inlay has varying textures too.

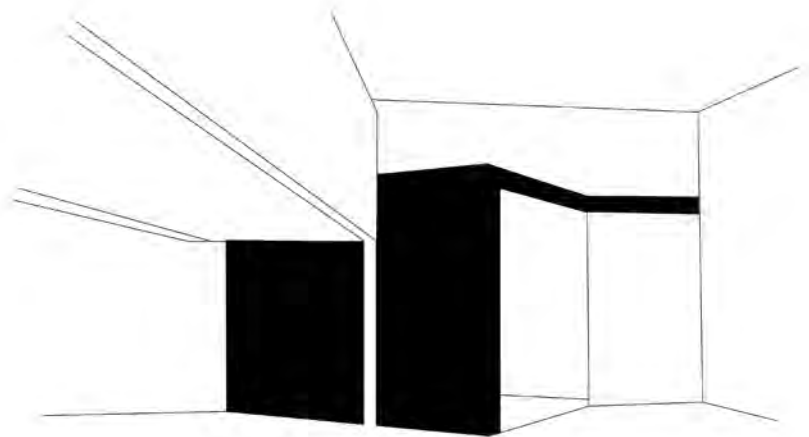


Figure 135. Call out of indentation (three geometries)

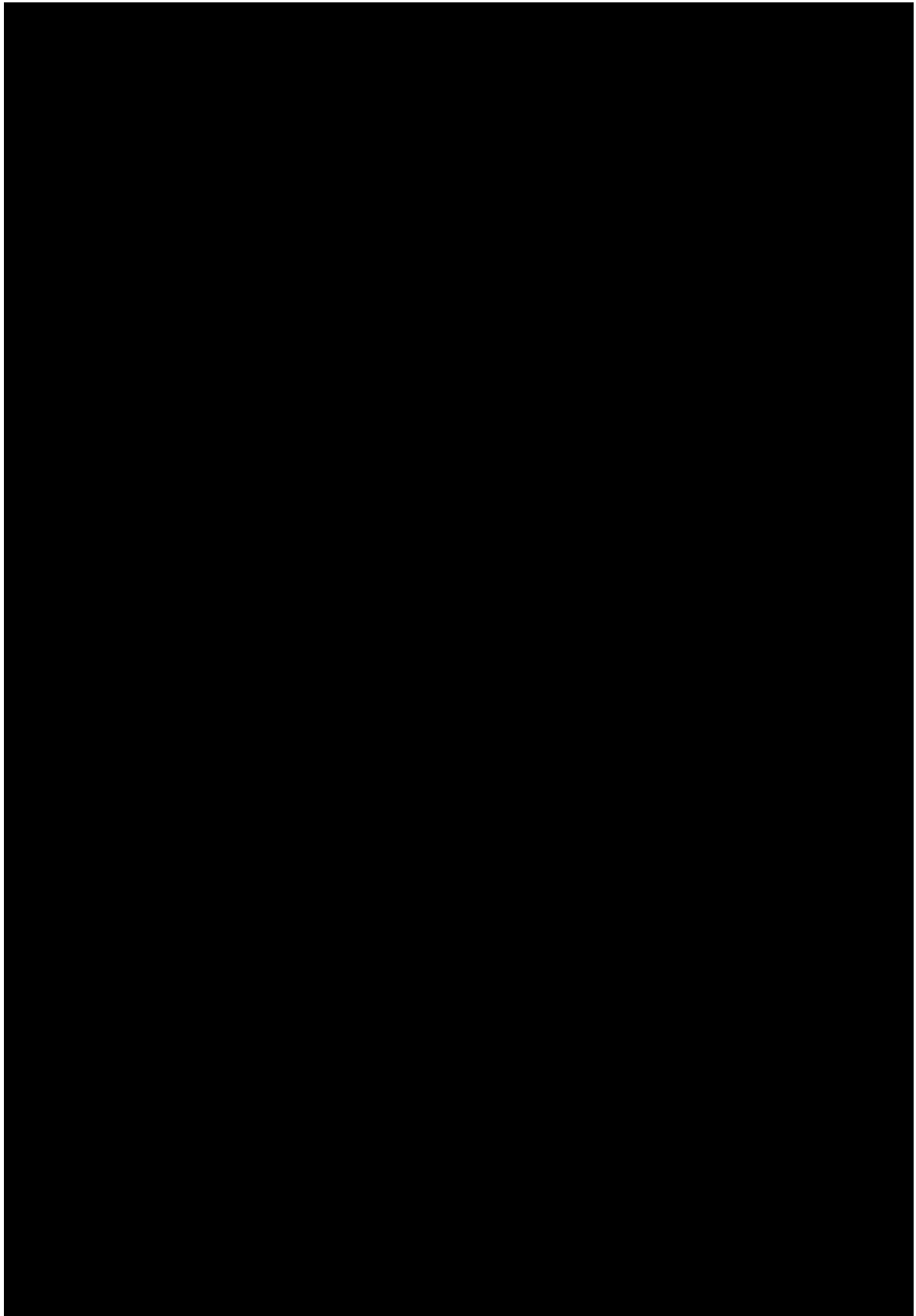


Figure 136. Official Seoul Biennale of Architecture and Urbanism poster

003

INTERLUDE

LARGE-SCALE EXHIBITION

Exhibition	Seoul Biennale of Architecture and Urbanism: Collective City
Planning	March - September 2019
Date	September - November 2019
Location	Seoul, South Korea
Curators	Sam Kebbell, Dongsei Kim
Team Members	Ariana Faulkner, Eleni Timoteo, Emily Dalley

The third and final exhibition was a large-scale display for the Cities Exhibition, part of the Seoul Biennale of Architecture and Urbanism (SBAU). The theme for the Biennale was Collective City. The exhibition ran in Seoul, South Korea, from the 7th of September to the 10th of November 2019. This was New Zealand's first time participating in the SBAU. Our exhibition focused on the pedestrian possibilities of Hataitai, Wellington. For the months leading up, I worked on the project with co-curators Sam Kebbell, Dongsei Kim, and colleagues Emily Dalley and Eleni Timoteo. Then colleagues Emily, Eleni and I flew to Seoul to install the exhibition. This international exhibition expanded my knowledge of display techniques and, created an in-depth platform for my understanding of wider Hataitai as a system.



PROCESS

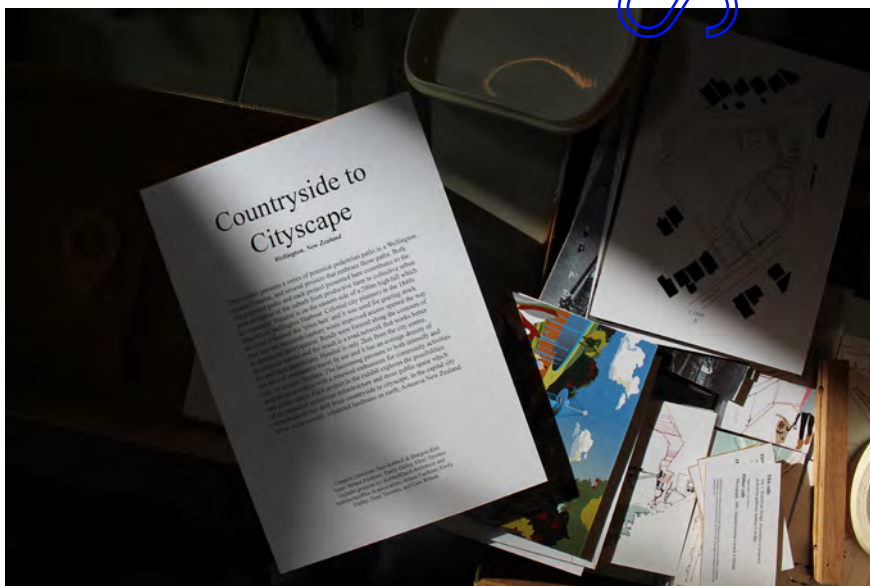
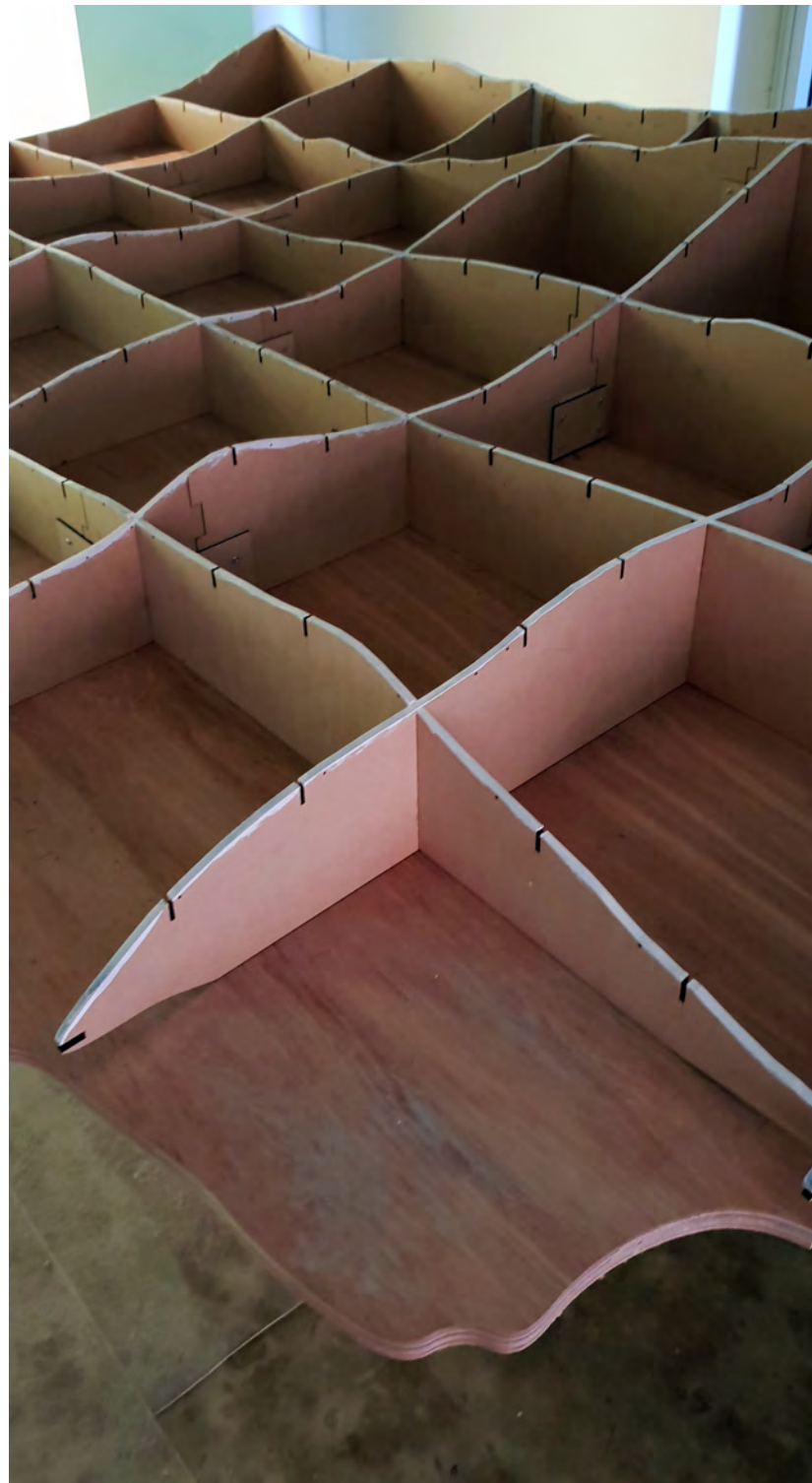


Figure 137. Process collage



PROCESS



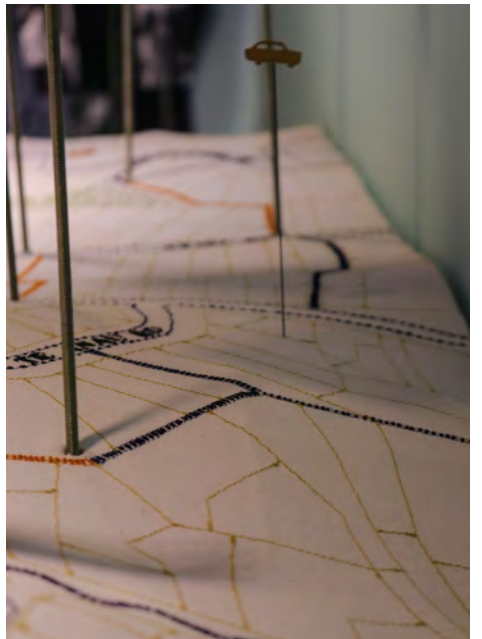
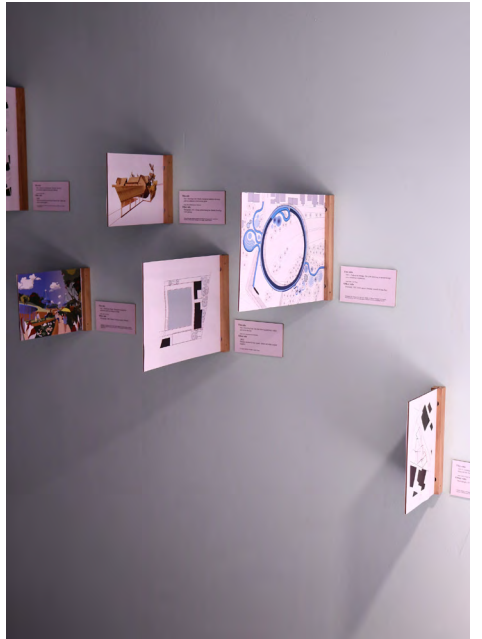
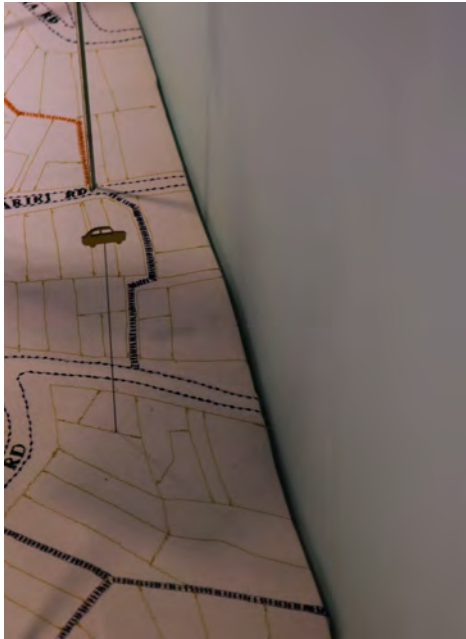
CURATION

The exhibition focused on the low density and car-oriented nature of Hataitai. As most of Hataitai's roads were formed to follow the contours of the hill, this produced a network of long blocks that are more suited for cars over pedestrians. The exhibition explores the possibilities of our proposed pedestrian pathway system (the pathways are the orange stitching on the opposite image).

This system could break up the car-dependent roads and provide expanded pedestrian infrastructure. Our proposed system could increase pedestrian accessibility, provide access to land that is currently unfeasible, and create a platform for new transport systems.

The exhibition consists of a 1:750 model of Hataitai's current network with the potential pathways extruded vertically, below is an 1880 map of Wellington showing Hataitai's history and above is a 2019 satellite image showing Hataitai's present. Six Hataitai based architectural projects (speculative and real) accompanied the exhibition and were displayed on the sidewall. An MDF laser cut lattice structure created the topography base of the model. We created this structure in Wellington, disassembled and flat packed, and then reassembled in Seoul. The map that sits on top of this lattice consists of a quality fabric spread that has been hand sewn to show the roads, property boundaries, green areas, bus stops, existing pathways and potential pathways. We worked with PRAUD, a Seoul based research firm, for the partial construction of the exhibition: partition walls, painting and printing.





EXHIBITION

Figure 139. Photo collage of exhibition details

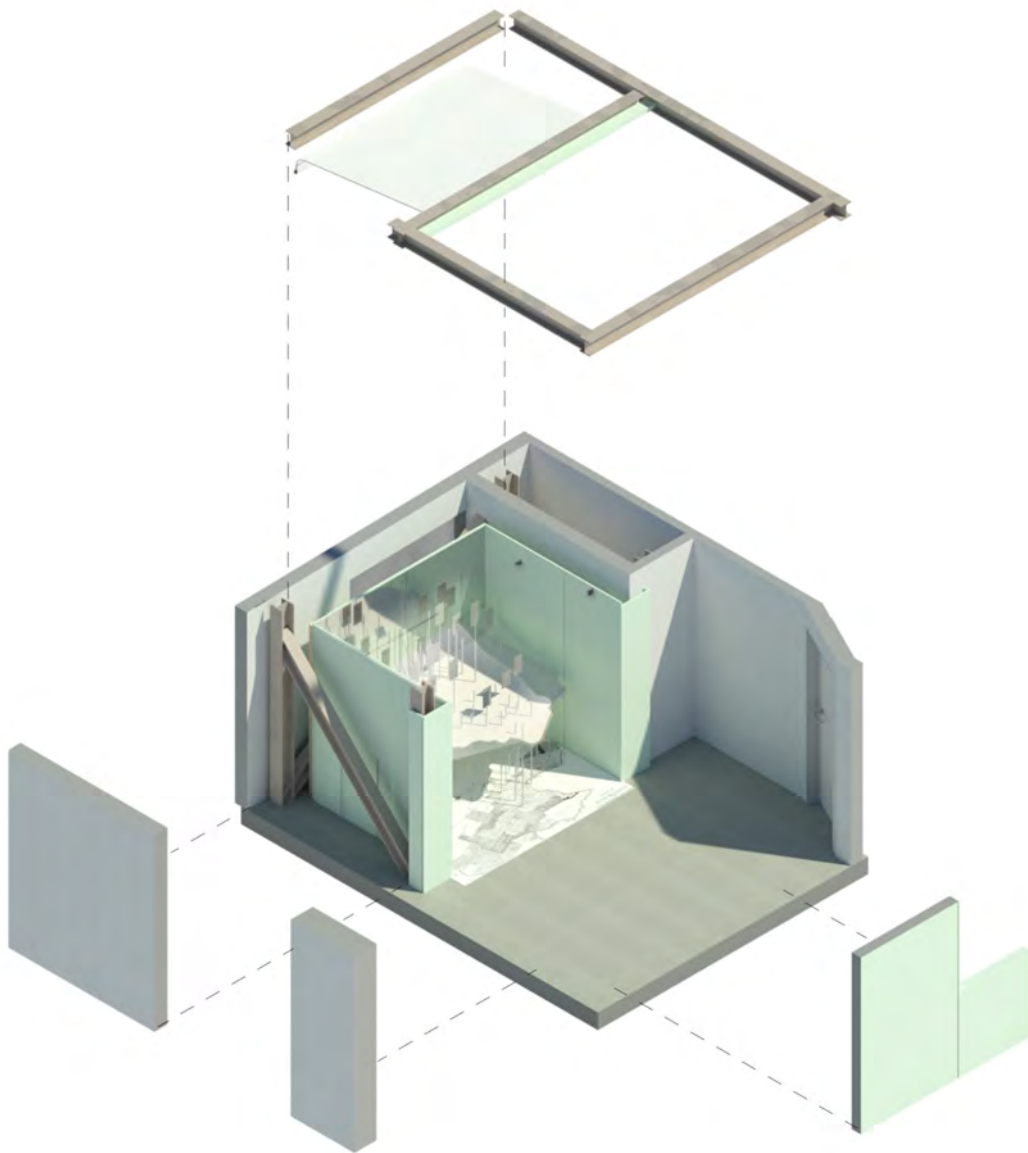


Figure 140. Rendered isometric of exhibition layout

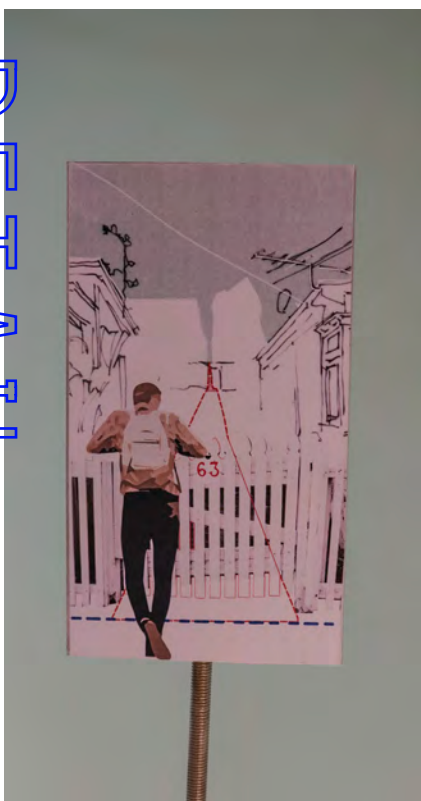


Figure 141. Side shot of model showcasing shoreline edge



Figure 142. Looking down on the sewn map

DETAIL



DISCOVERIES + REFLECTION

This side project during my research was incredibly useful at zooming out and creating a platform to reflect on the suburb as a whole. By widening the lens, I got a better understanding of the suburb as a system. Constantly moving between scales (the suburb, my site, the path) created a richer knowledge base for my research. It also made me critically think about the path through my site. This exhibition made me speculate:

"How would people approach my site?"

"What is the nature of a path through a public building?"

"How could it weave between the interior and exterior?"

Figure 143. Close up of potential pathway drawing

EXHIBITION



Figure 145. Lower angle view showing ceiling satellite map

Figure 146. Overall layout (opposite)

This exhibition tested my limits but I learnt a lot and the experience was incredibly rewarding. I underestimated the time preparation needed for a considerable exhibition such as this. The continuous revision of plans, negotiation with contractors, amending of detailing, alteration of specifications and constant prototyping was demanding but was needed to create a quality outcome. This was my first time working on an international project and it was extremely gratifying. My process of learning-through-doing can be described in David Kolb's *Experimental Learning Theory* (1984) as Experiential Learning. He explains "the emphasis is often on direct sense experience and in-context action as the primary source of learning". I believe the hands-on approach we had with this model paid off. By hand-sewing the map - I learnt all of Hataitai's street names, by creating the MDF lattice topography - I understood the contours of the hill, by marking every potential pathway - I understood the sheer scale of this proposal. All of the hands-on *Experimental Learning* enhanced my understanding of Hataitai's overall structure.



Figure 144. Spectator's viewing



Figure 147. Close up showing shoreline stitching



Figure 148. Exterior facade development



Figure 149. Exterior facade development with colour

ARCHITECTURAL LANGUAGE DEVELOPMENT

To develop the design I focused on the architectural language. I produced the renders on this spread but, I was not very happy with the outcome. They successfully explored layered and intersected form but they did not encase ambiguity of depth and flatness.

Figure 148 is pure intersected form, this is a good development but it has the potential to become successful. Texture, indentation and colour need to be pushed more to create a richer design.

I believe only Figure 149 holds hints of ambiguity through the touches of yellow colour that imply the wooden structure extends to the interior. In this perspective, the exterior hints to the interior but does not fully reveal the truth.

The series Figure 150 was my first attempt at creating a render that used timber stain to create ambiguity. In this series, the whitewash is meant to represent the stain, but it is hard to differentiate from the timber.

Overall, at this point, I realized I was being far too reserved with my design decisions. I was in a creative rut. This was a turning point where I decided I needed to be more loose and provocative with my drawings.

Figure 150. Interior inlay development

Figure 151. Arcus Way view development (Following spread)









Figure 152. Interior inlay development



LANGUAGE DEVELOPMENT

I tried to be more provocative with my exploration. I kept experimenting with intersecting texture, inlay, colour and layering to improve the architectural language (Figure 152, Figure 153 and Figure 154). I created a textural variation on the wood by overlaying some of my prints. I did this purely for visual exploration and a tool for imagination. This graphic technique allowed investigation on the operation of tonal variation and the possibilities of inlay. This technique was only a 'bridge' step to creating a language, this purely graphic technique is not supposed to give an answer or solve the exploration.

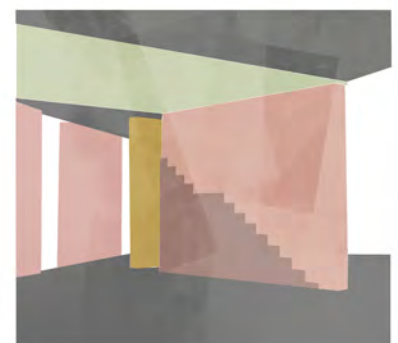


Figure 153. Interior inlay development



Figure 154. Revisited print experimentation



Figure 155. Interior development



I pushed the textural exploration more and added a bolder red colour stain. I enjoyed the architectural language that was developing. The textures and colours also produced spatial ambiguity by creating a visual connection that blurs the boundary between components. In one instance, in Figure 155, the red stain in the centre of the image connects the wall with the ceiling. It creates a blurred relationship between both components. Engaging the viewer with the architecture.

In this development, the generic components such as the skylight and windows was holding the language back. The architectural language has the potential to manipulate and intensify basic spatial objects such as windows and doors.



Figure 156. Inlay and texture physical exploration

INLAY AND TEXTURE EXPERIMENT

To expand on the heavily digital scope I created this physical model that explores inlay and texture. This small model resembles the wall and floor connection and the possibilities of inlay.

The physical model was valuable at investigating the physical properties of wood texture. I believe the conflicting grain of the wood creates an interesting dynamic. In the model (and particularly Figure 157) the grain of the inlay guides my eye down towards the floor and then onto the connecting inlay. These cuts and angles may be about guiding the viewers eye and blurring the boundary of the hard edge.

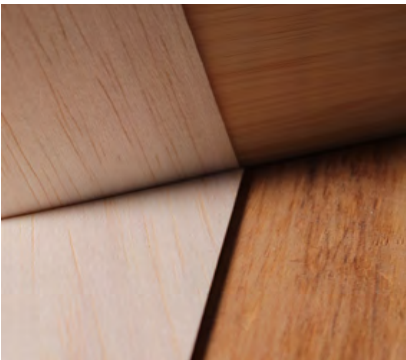


Figure 157. Inlay and texture physical exploration





Figure 159. Inlay and texture physical exploration

The way I frame each image changes the operation of the model. When I frame each image, I choose what the viewer sees and does not. When the whole composition is in the frame, it reveals as a relationship of objects. However, when the composition is only partially included, more focus is put on the shapes and textures. In Figure 158, I have zoomed in to highlight the texture. This close up works well at showing the contrasting grain angles. I discuss this technique more in the findings on page 174.

Figure 158. Close up of textural inlay (opposite)

Figure 160. Inlay and texture physical exploration

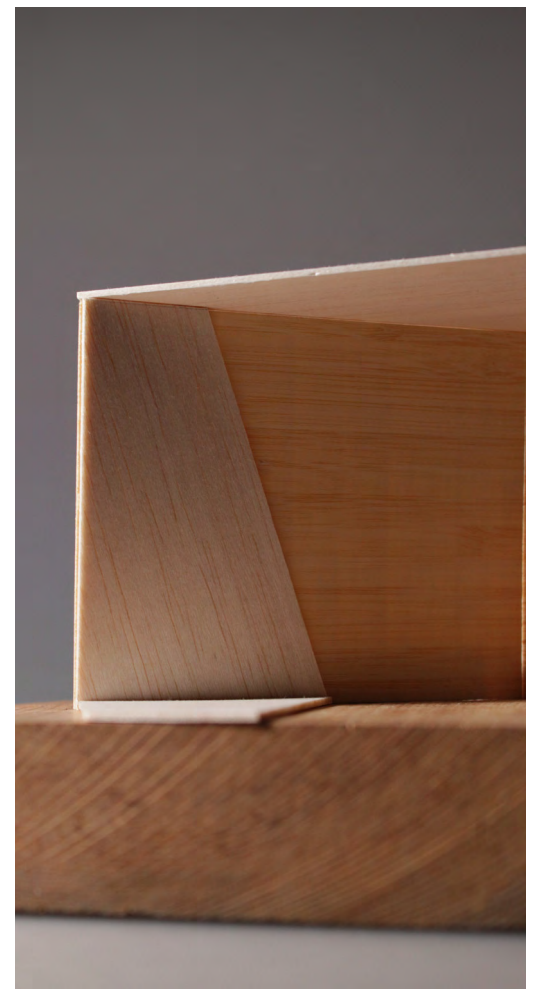




Figure 161. Interior development

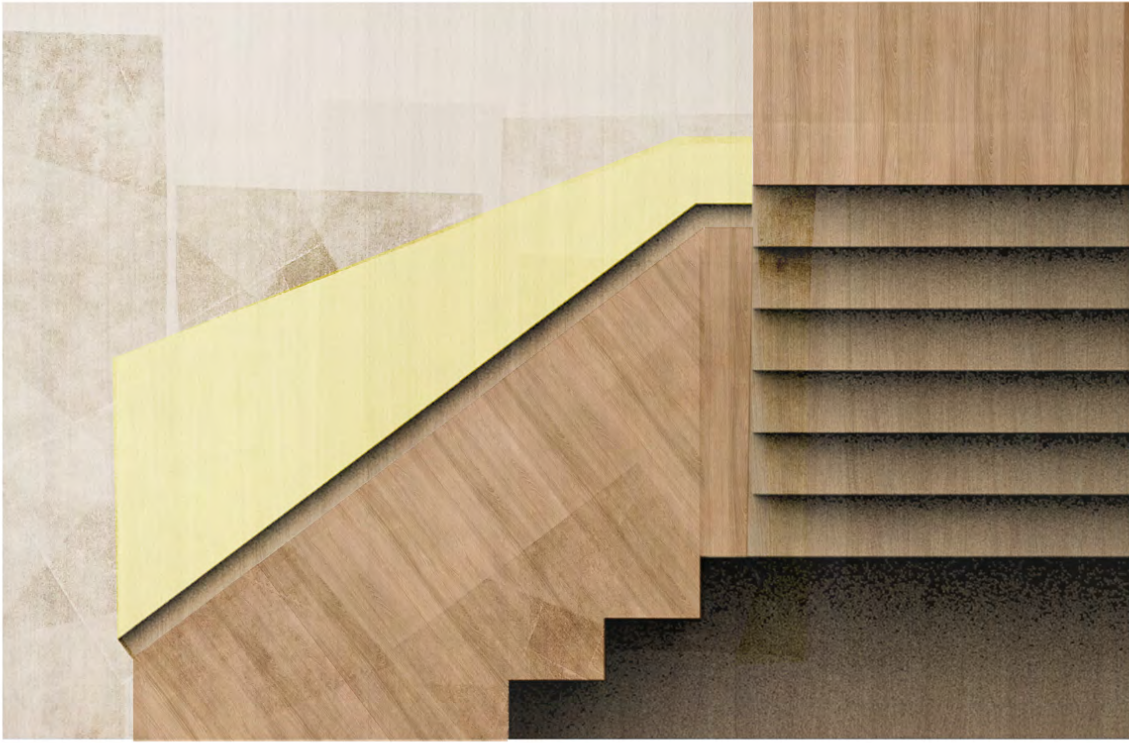


Figure 162. Revisited print experimentation

INTERIOR LANGUAGE DEVELOPMENT

I pushed the language further until I reached a quality I was pleased with. My renders predominantly kept the yellow stain, I believed this warm tone complimented the wooden texture and created a pleasant environment. I was pleased with this development so I shifted the exterior aesthetic to complement the interior.

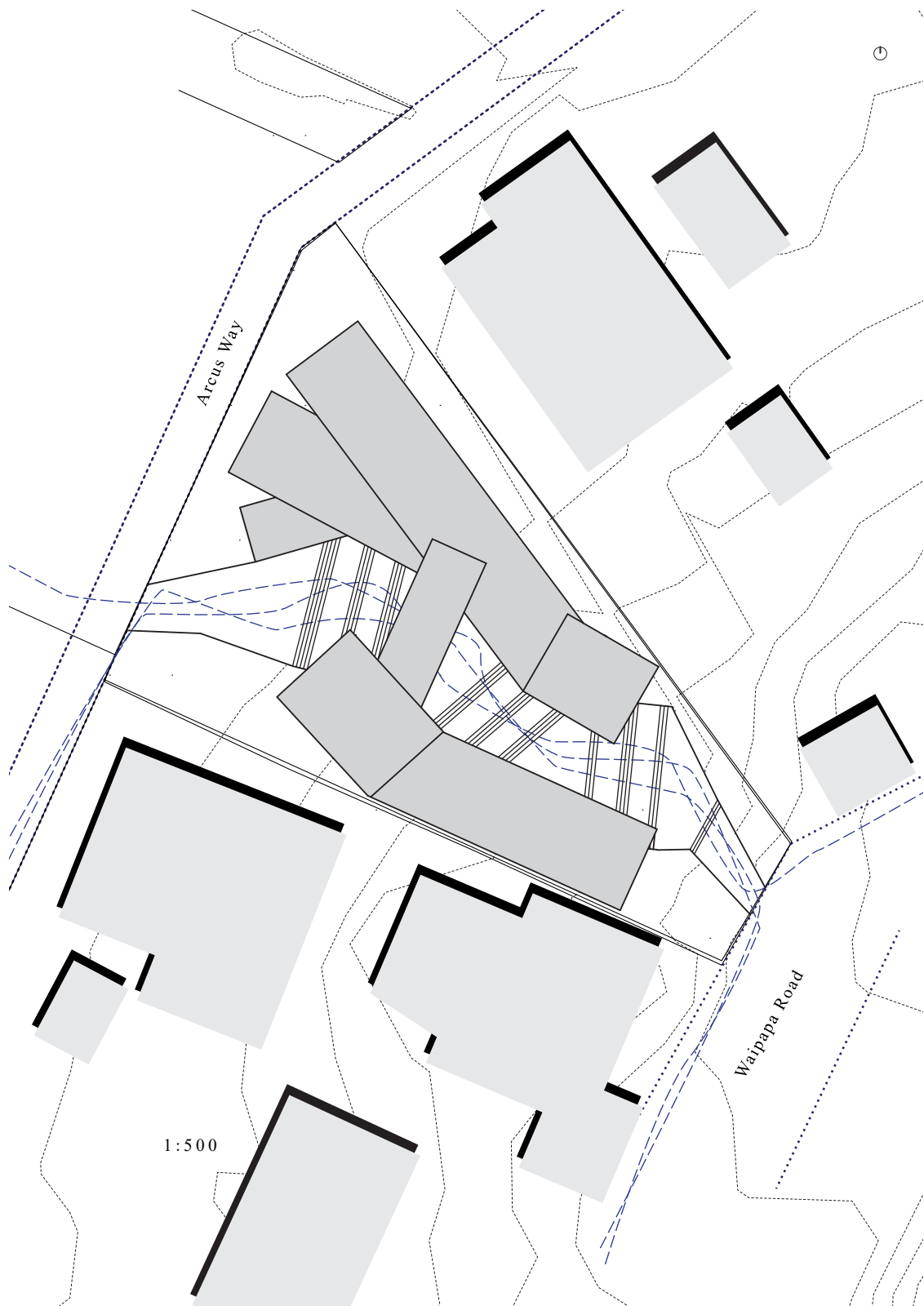


Figure 163. Site Plan



Figure 164. Exterior facade treatment

FINAL PROPOSAL

The final proposal balances and combines the successful discoveries from the experiments and planning. The final assemblage of form, material and colour responds to the site and aims to enhance Hataitai's accessibility and cultural resilience. The architecture responds to the overlap between graphic and spatial by creating an architectural language that has pictorial qualities.

INTERLOCKING SPACE

The proposal has a two main wings, performance and education, connected by an open entrance courtyard on the path. The two wings are connected by an overbridge above both entrances. The wings are kept separate to accomodate fluctuating operating hours: the performance wing may be open at night for performances, education wing may open early for early learning. The education wing is predominantly open plan with moveable walls that can isolate areas and plenty of storage to suit the changing activities.

The proposal encourages interaction through its layered and interlocked floor plan. The layering of space allows for the overlap of program. This overlap means activities, such as art classes and poetry could interact if wanted. The interlocking space promotes interaction between users, cultures and generations.

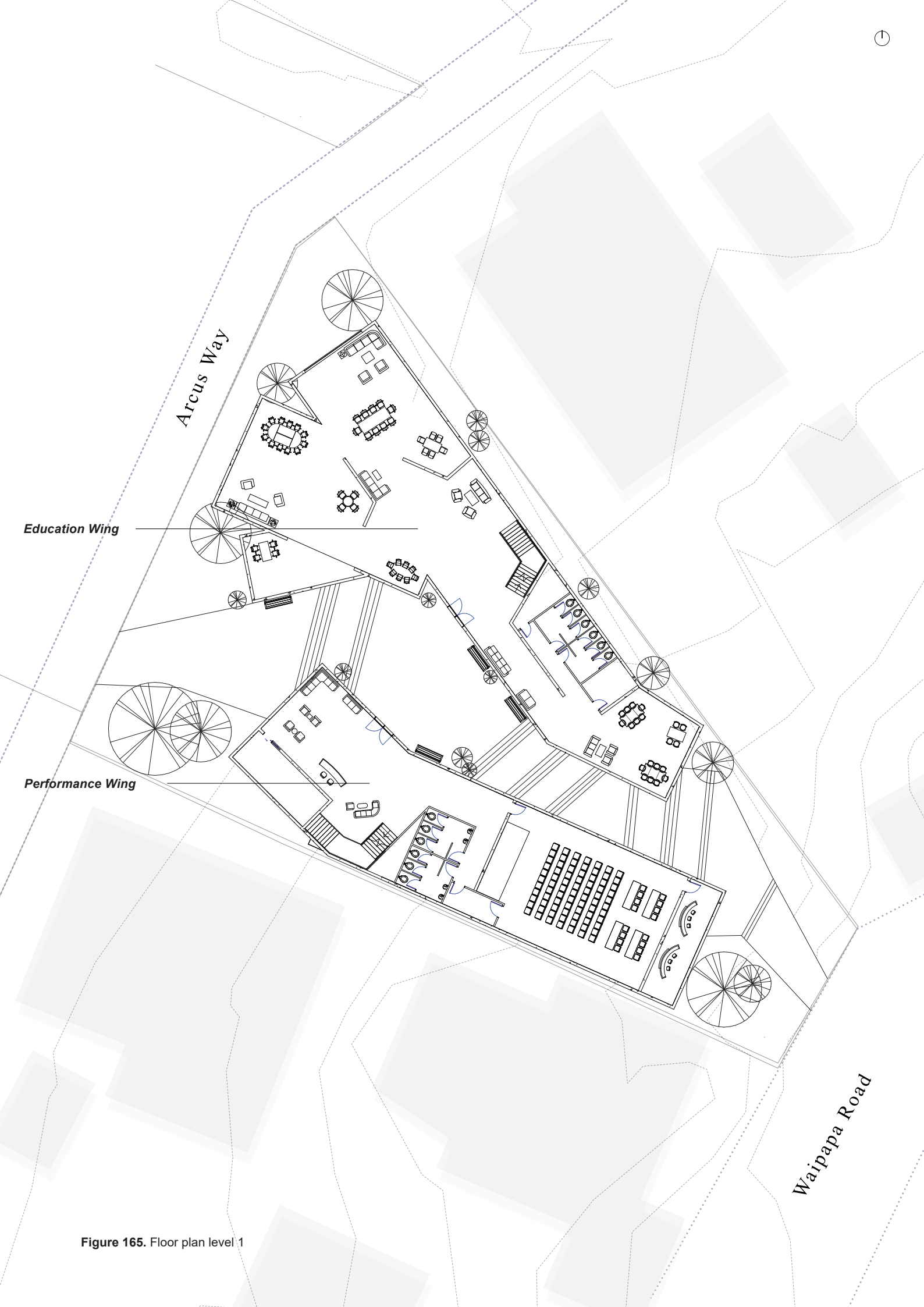


Figure 165. Floor plan level 1

AMBIGUOUS LANGUAGE

The proposal pushes the manipulation of wood (CLT panels), intersecting rectangular form, indentation, timber inlay, and colour stain to create an ambiguous aesthetic. For example, in the opposite image (Figure 166) the yellow colour stain on the right approximately reflects the adjacent panel. Although these two panels are on different planes, they start to read as one, this begins to blur depth and flatness. The shadow created from the indentation above the yellow is creating a sense of depth through visual clarity. These two contrasting states leave depth understanding up to interpretation. The architectural language challenges the overlap between graphic and spatial to create a design that sits within both.

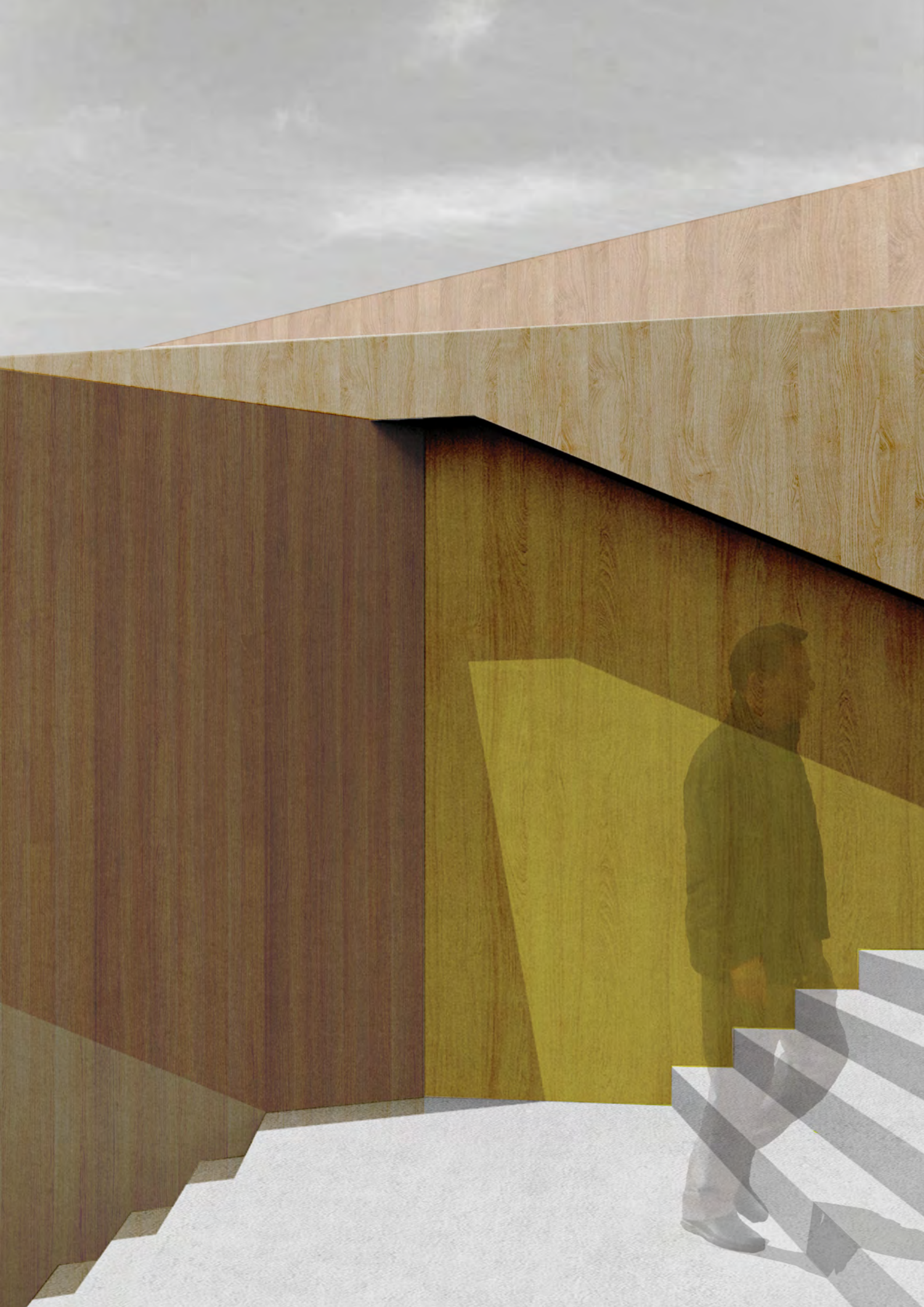




Figure 167. Exterior perspective

AMBITIOUS FORM

The architecture is visually ambitious, the architectural language contrasts to the surrounding suburban framework. Although, the soft materials (CLT, wood) fits within the weatherboard housing context, the form, colours and scale make the architecture distinct. This language creates a recognisable building that could create an identifiable cultural hub. The ambitious language creates a building the wider community could take pride in attending and operating.

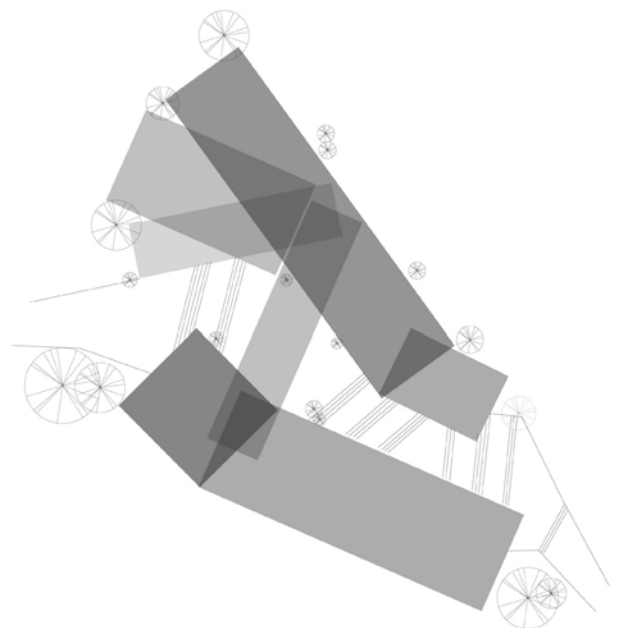


Figure 168. Exterior facade treatment (opposite)



Figure 169. Interior form intersection

Figure 170. Exterior render



INTERIOR TO EXTERIOR

The interior has a blurred boundary between spatial zones. As the rectangular form intersects, the spaces overlap through internal layering. This layering of space produces walls that converge at different angles, zones that overlap and structures that fluctuate. This relationship produces a clean finish on the exterior, seemingly like building blocks that slot together, and an irregular interior.





Figure 171. Exterior texture, indent and colour



THE PATH

The path was developed into the overall proposal as a focal point. The central path creates spacious entry and circulation between Waipapa Road and Arcus Way. The journey of the path promotes discovery and thinking. Although wide, the path compresses at each entry point. The path encourages discovery and thinking through enquiry, it feeds into the academic aspect of the Continuing Education Centre.



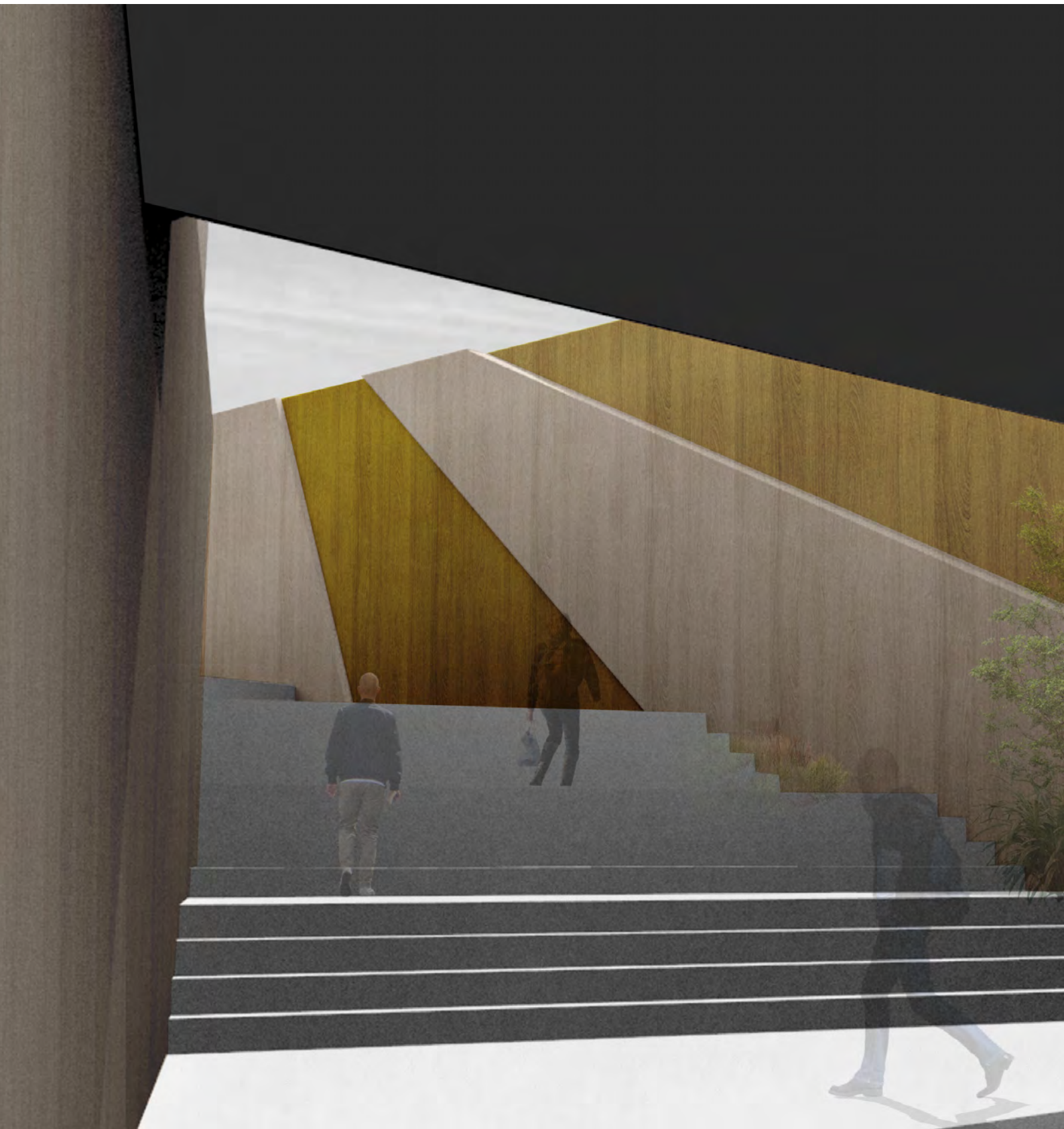
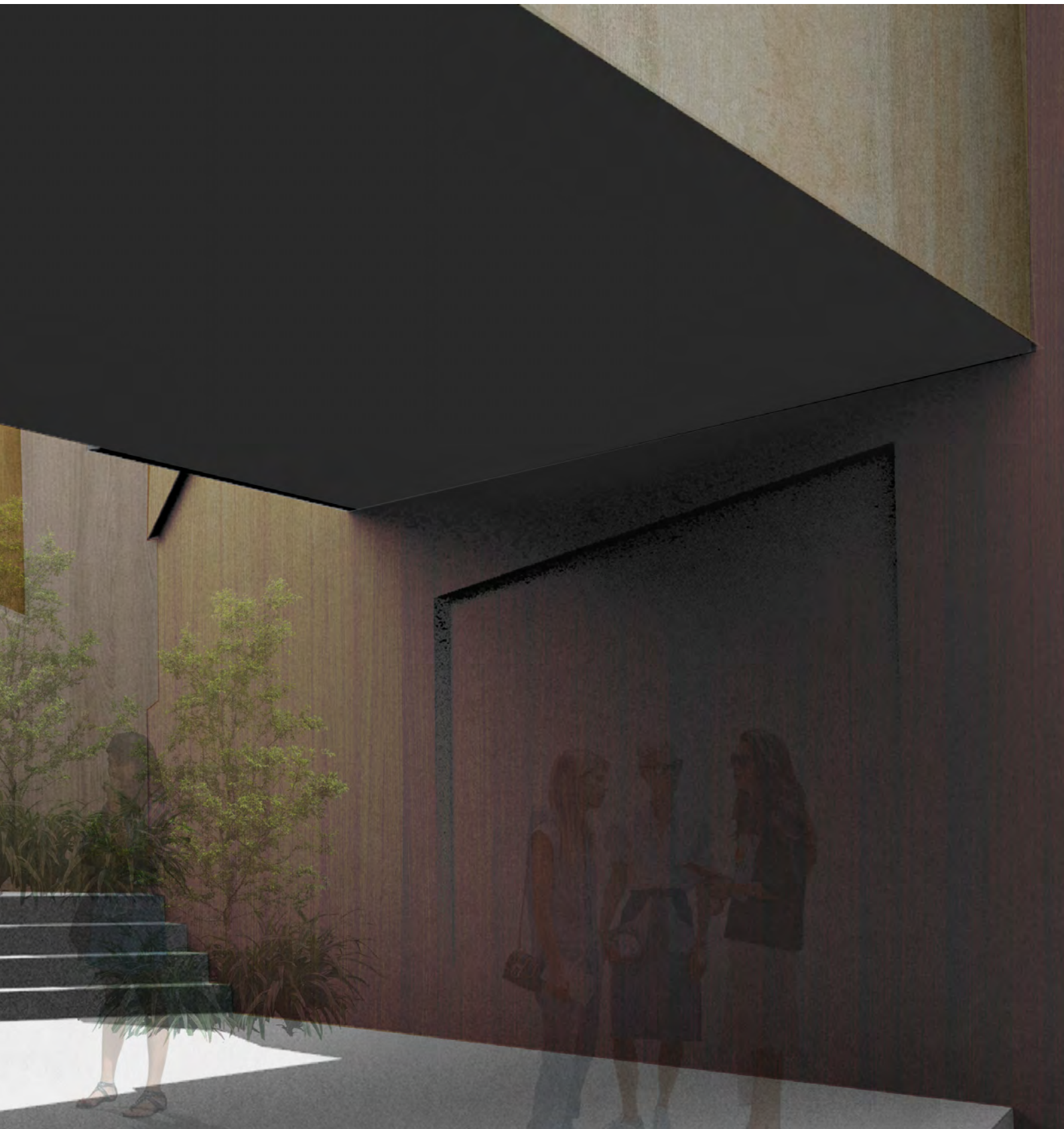


Figure 173. Exterior facade treatment showing path and under-bridge



003

SO...

WHAT DID I FIND?

CHAPTER THREE: DISCOVERIES + FINDINGS

Ambiguity, Variation and Intensity

The Frame

Between Graphic and Spatial

From Print to Proposal

AMBIGUITY, VARIATION AND INTENSITY

The prints produced ambiguity of depth and flatness in varying intensities. In this sub-section, I will discuss this key discovery and further my reflection regarding Gordon Walter's manipulation of depth and flatness.

The print (Figure 176) produces varying levels of ambiguity. The prints have created a specific quality: the consistent layering and reduction of ink on the paper gives an ambiguous quality through its layering. Initially, I thought this quality was universal across each print. However, as I continued to reflect on these prints, I believe they hold varying intensities of ambiguity. The ambiguity of the prints occur in fluctuating moments.

The most intense ambiguity is produced where there is the most intersection of shapes. In Figure 176, the ambiguity occurs where the contrast between opacity and translucency produces a vagueness between depth and flatness. Where the rectangles overlap and look as if they're floating on each other. In these moments there the richest possibility for exploration because there is the most content. Therefore, the most intense ambiguity is

where there is the most intersection. Depth of field is lost in these areas, as I can no longer differentiate between foreground and background.

The periphery edge produces the least intense ambiguity. Where the edge rectangle is defined against the white background (Figure 175). In these areas I believe it is easier to interpret foreground from background. This edge provides clarity of depth; the rectangle looks to be foreground as the white background provides tonal contrast. This tonal contrast allows the print to become object-based.

Overall, there are two opposing visual states, the overlapping tonal variation is creating an ambiguity of depth and flatness yet the periphery edges are providing visual clarity. This varied intensity provided the richest possibilities when translating into architecture.



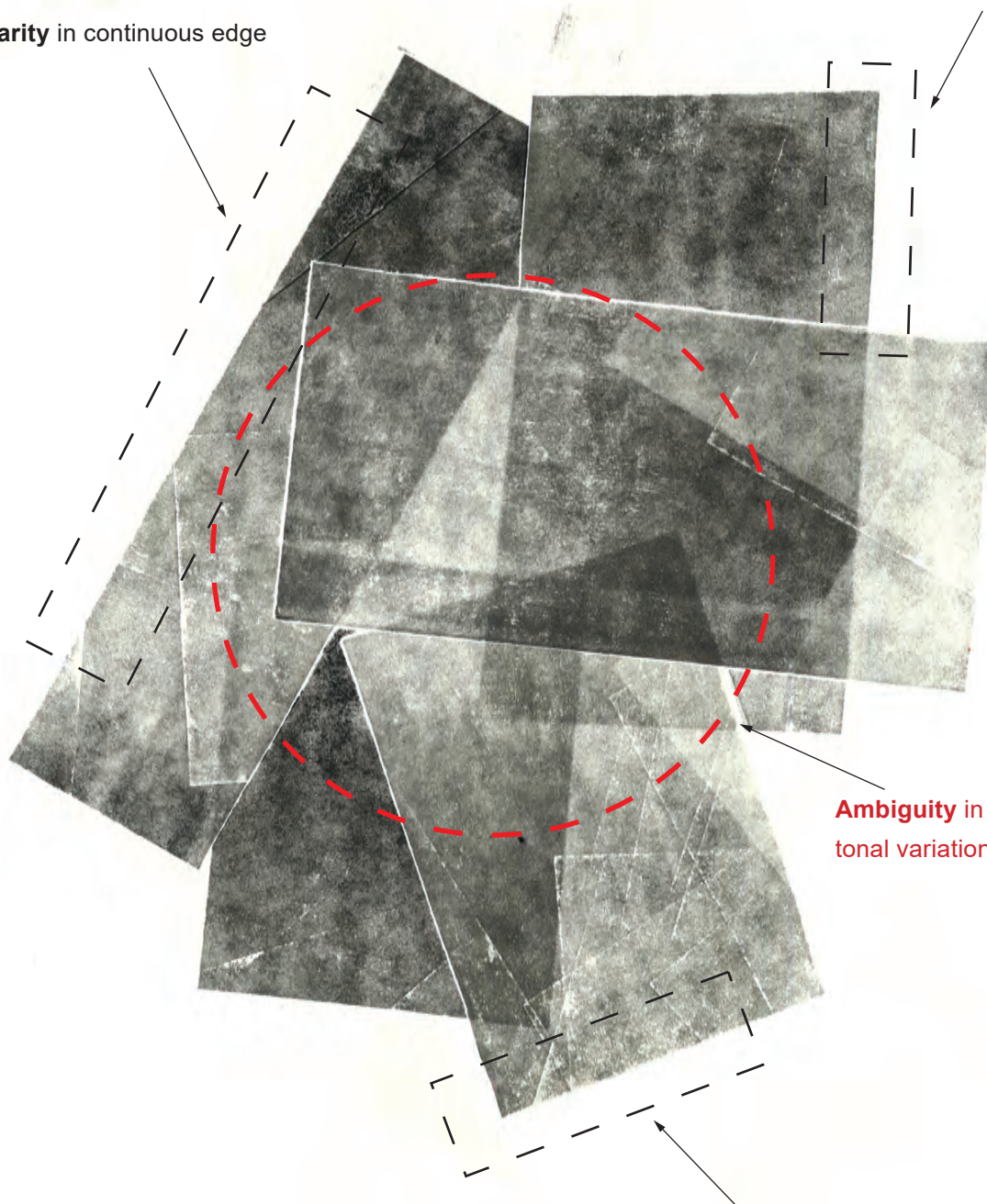
Figure 174. Print crop



Figure 175. Print edge

Clarity in continuous edge

Clarity in continuous edge



Ambiguity in overlapping
tonal variation

Clarity in continuous edge

Figure 176. Print analysis

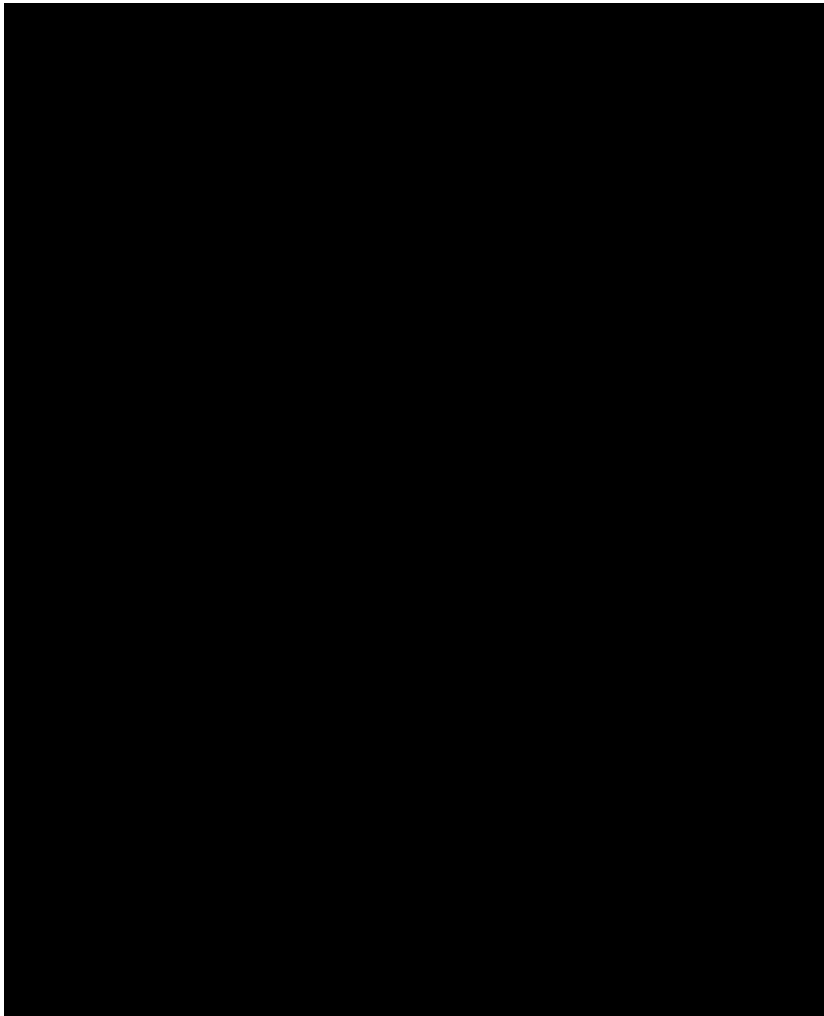


Figure 177. Untitled - Transparency painting by Gordon Walters (1987)

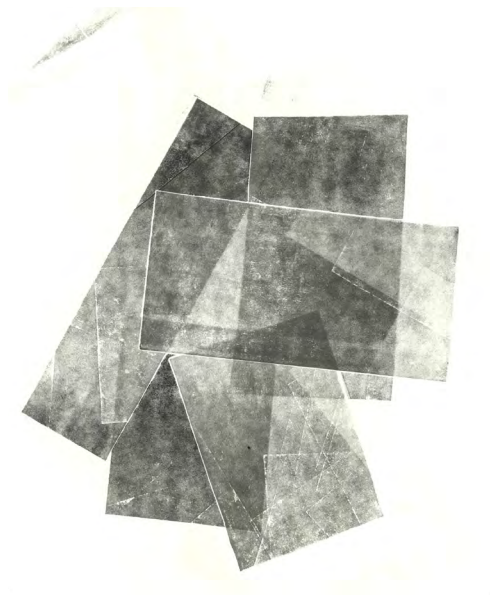


Figure 179. Print study series 002

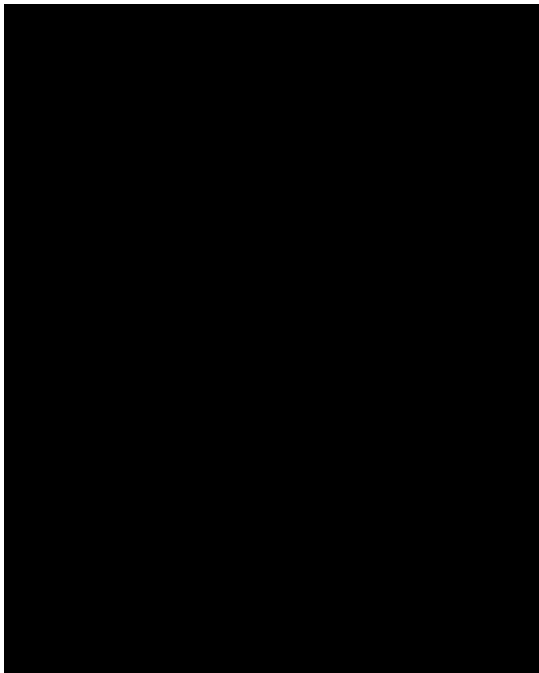


Figure 178. Untitled - Transparency painting by Gordon Walters (1990)

AMBIGUITY, VARIATION AND INTENSITY - GORDON WALTERS

Like László Moholy-Nagy, Gordon Walters also produced work that plays with the abstraction of depth and flatness (or figure and ground). Although Gordon Walters is best known for his Koru paintings, I reflected on his transparency paintings throughout the research.

Wellington-born artist, Gordon Walters, is a significant figure in New Zealand, recognised for his modern abstract paintings. I am interested in his experimental work that explores 'transparency'. In these paintings (Figure 177 and Figure 178) he explores the possibilities of acrylic paint. These paintings visually oscillate between figure and ground.

Walter's uses opaque acrylic paint to create a visual transparency. For example in Figure 178, the grey strip between the black and white colour does not read as its own identity, but reads as an extension of the white square that has been laid over the black. This layering of opaque colours creates a dialogue between figure and ground and a velocity across the compositional surface (Simmons, 2013). For me the white square looks like the foreground and black square the background. Yet, as I look at this image again the foreground and background reverse. This play on figure and ground creates an ambiguity of depth and flatness: it can be understood in more than one way.

Walter's creates similar ambiguities of depth and flatness to my prints, but my work has a textural element that adds to the process when translating to architecture. I reflected on Walter's work for its visual operation, our studies Figure 177 and Figure 179 hold similar ambiguous qualities. However, my work has a textural element, created from the printmaking process. I compare my process to László Moholy-Nagy's approach of penetrating the process (of any given material) and pushing it as far as it could go (Bordchardt-Hume, Albers & Moholy-Nagy, 2006). I pushed the printmaking process to understand its limits, then refined the best work (all of which had varying texture).

This textural quality may be the key characteristic that adds to the varying intensity of my work. The operation of my prints would be different if each rectangle were one singular opacity. This fluctuating nature created an interesting approach when translating the print to architecture. It allowed me to differ elements to create a shifting environment through varying intensities of intersection, colour, indentation and grain. This allowed the architecture to grab and release the viewers attention in a cryptic manner, a nature that stemmed from the prints.

AMBIGUITY, VARIATION AND INTENSITY

Just as the prints have varying intensities of ambiguity, the architecture does too. Throughout the planning phase, I tried to create a sense of ambiguity through manipulating the texture, materiality and colour of the architecture. At times, I struggled to achieve this as objects such as doors and windows gave clarity, as they are recognisable objects. As I developed the design, I felt much more comfortable creating varying intensities of spatial ambiguity throughout the architecture as seen in Figure 182.

The architecture has varied ambiguity through intersecting texture, materiality and colour. I believe this ambiguity occurs more intensely in Figure 180 where the colour and grain is layered on the wall. Just as the prints operate, this is where there is the most intersection of elements. The wooden grain extends to the ceiling and floor. In moments, it looks as if these tonal grains connect from wall to ceiling

as if they are traces of the same ink. The yellow stain on the two walls and floor connect the two planes and start to blur the boundary between wall and floor. Both the tonal grains and the yellow stain subtly blur the boundary between the vertical and horizontal planes.

The ambiguity is less intense in Figure 181 as the windows give a sense of depth. I find that the window allows my eye to situate itself within the context as the window gives a sense of clarity. The varying ambiguous intensity allows the architecture to grab and release the viewer, as the prints do.



Figure 180. Interior crop



Figure 181. Interior edge

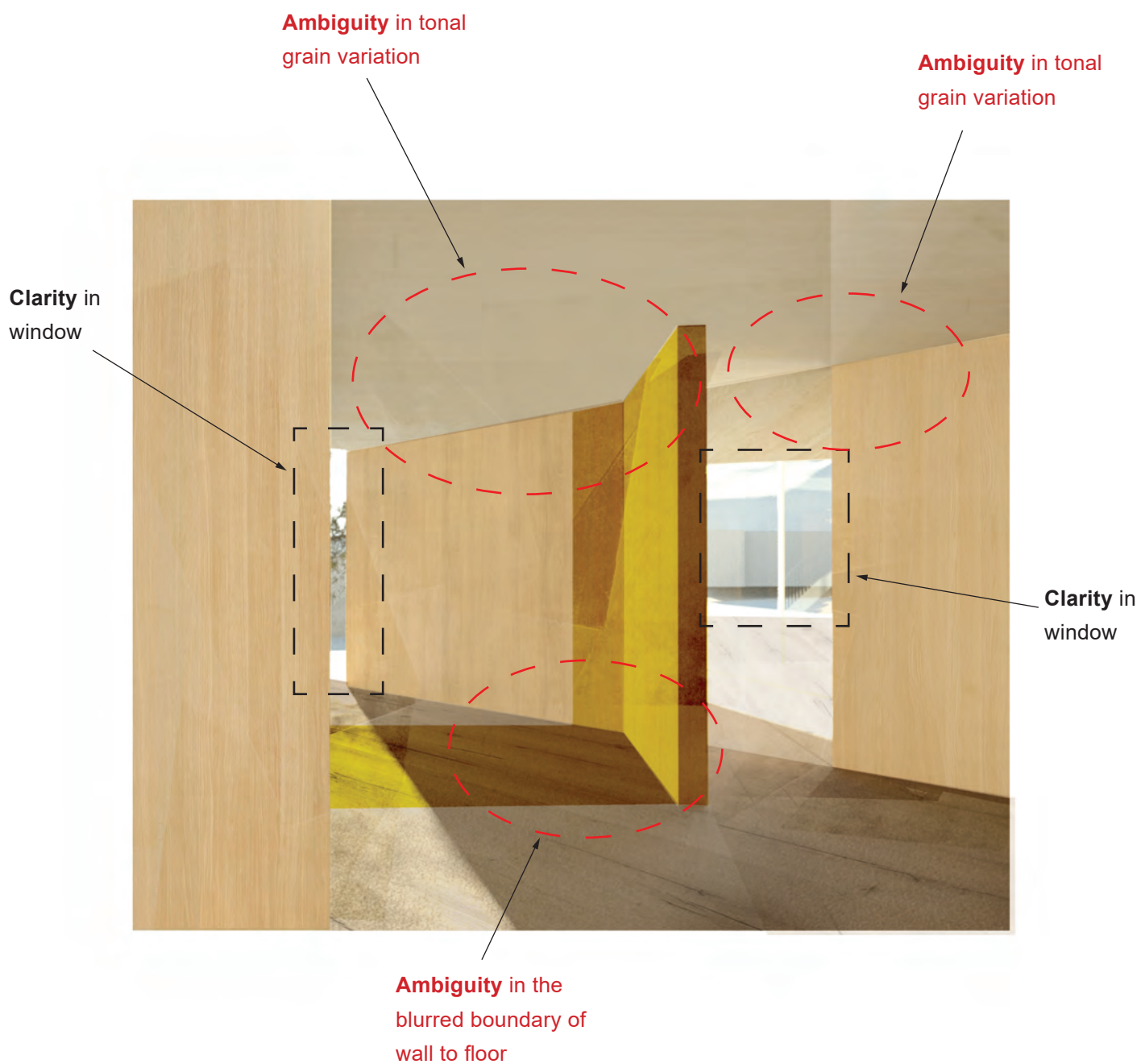
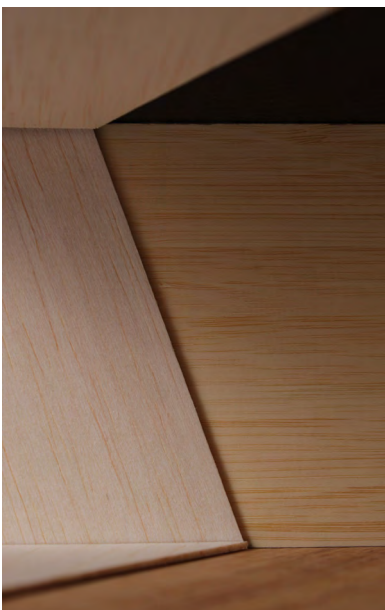


Figure 182. Interior analysis

THE FRAME

As mentioned before, the architecture has varying intensities of ambiguity, however, to amplify these ambiguities I have used picture framing and cropping to highlight certain areas. I used this framing technique in the design experimentation (Figure 183) and the final renders (Figure 184). The framed image eliminated any surrounding objects to amplify the architectural ambiguity.



The framing technique highlights the ambiguity of depth and flatness, therefore, increasing the intensity of the visual operation. During the process, I was unsure about this technique, I often felt that this representation was misleading, as I was not framing the whole composition. I felt it was falsely convincing. I believed the composition as a whole produced less intensity because, as the print operates, the edge of the architecture provides clarity of depth. Does this technique compromise my integrity? I thought about this question a lot throughout the final weeks. However, I do not think it compromises integrity. The frame starts a dialogue with scale. I am zooming in directing the lens on the ambiguity, purely focusing on the operations of form, materiality and colour. This representational technique successfully highlights the architectural language created. I was switching scales (zooming in) to create a richer understanding of the detail.

Figure 183. Development model crop

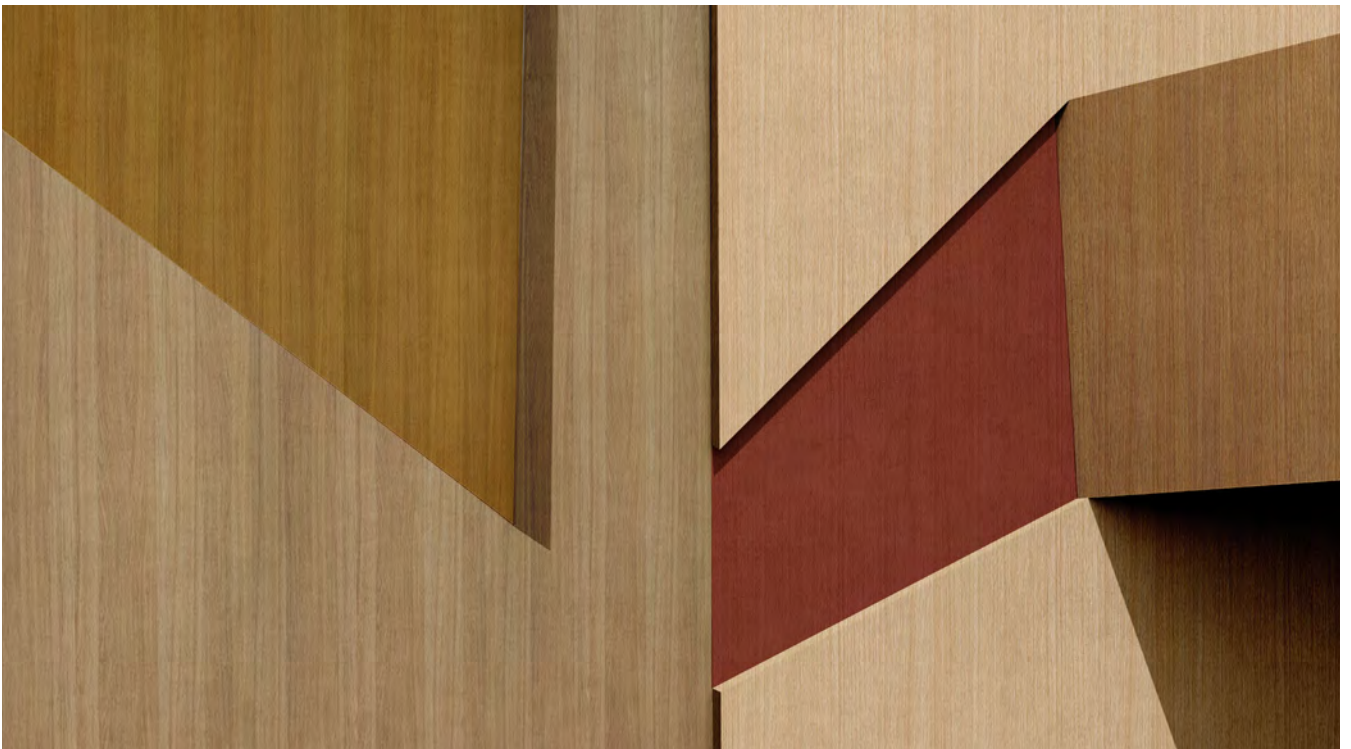


Figure 184. Final render crop



Figure 185. Tel Aviv Museum - Facade

THE FRAME CONTINUED

I found this representational technique, of framing, relevant for the Tel Aviv Museum of Art designed by Preston Scott Cohen. The side image (Figure 185) is a zoomed in frame of the overall form (Figure 186). The exterior of this building has an ambiguity of surface material produced by technical virtuosity. The facade is geometrically twisted to create a semi-hovering structure.

The compositional framing is used to highlight the ambiguity produced by the geometric twisting of surface material. With the crop, the ambiguity's intensity is increased because the focus is on the operative material twist. When zooming out the context of the building (sky, ground, nature) provides clarity of depth. This representational technique used in these images and within my renders enhance understanding of the detail and showcase the architecture's language. I compare this technique to my prints again, where the periphery edge provides clarity through depth, this occurs in architecture too.

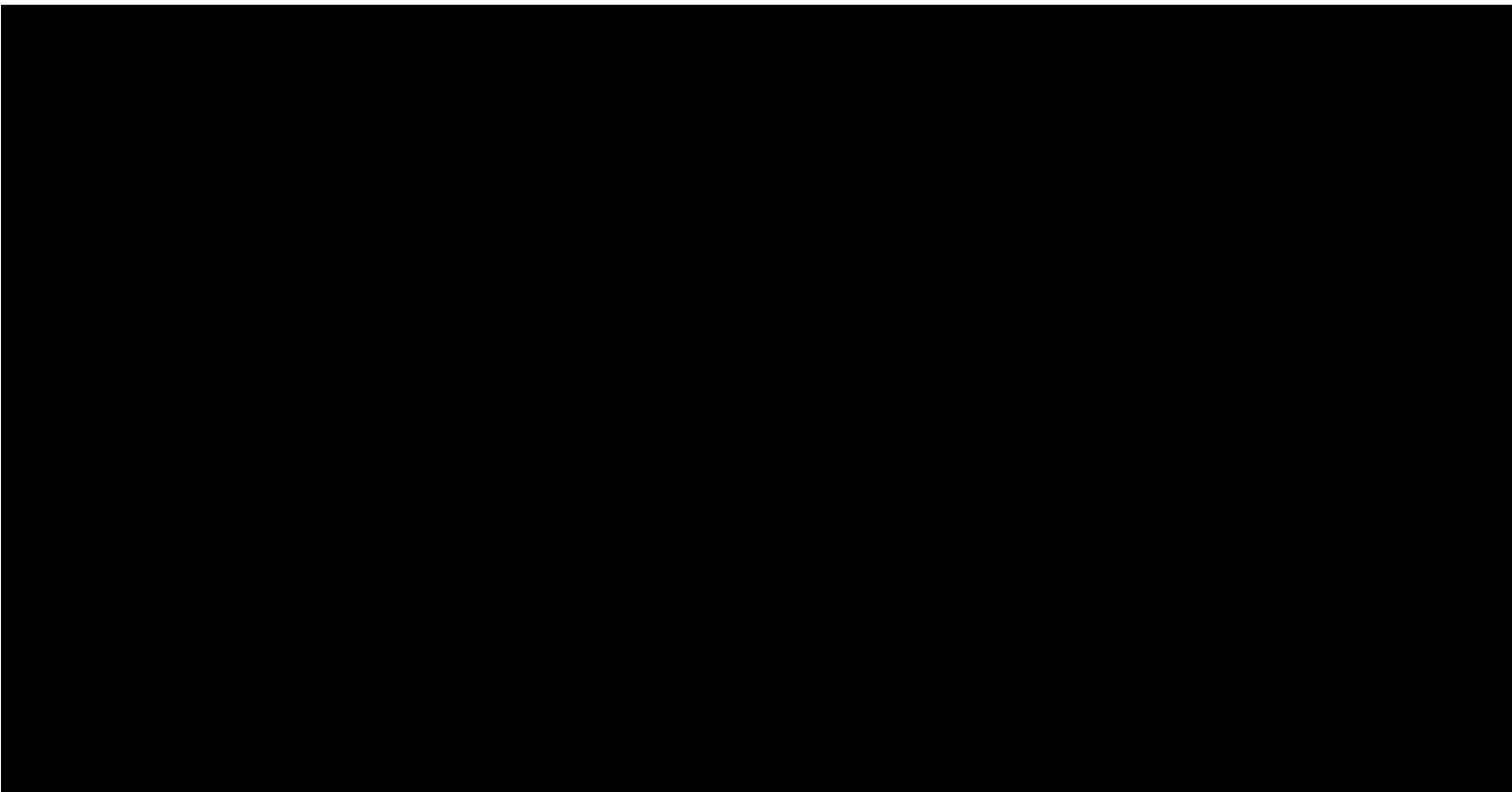


Figure 186. Tel Aviv Museum - Building in context

BETWEEN GRAPHIC AND SPATIAL

During the proposal development, I tried to create an architectural language that is both graphic and spatial. This tension influenced the architectural language but proved hard to navigate a successful balance. Through the analysis of two of my renders and Mies van der Rohe's renders, I will discuss the tension when moving from graphic to spatial.

I tended to lean more towards graphic over spatial throughout my research. When developing my scheme I would often create two versions of the same render, as seen in Figure 187 and Figure 188. My preference was towards graphic representation (for its visual operation) but I knew the atmosphere created would not translate to reality.

The more graphic render creates a speculative quality through its experimental details. In Figure 187, the contrast of the semi-opaque textural rectangular blocks against the opaque grey creates a speculative aesthetic. Almost like these textural blocks are representing windows. The bottom zig-zag of the brown texture alludes to the bottom of a staircase but does not reveal. This render puts more emphasis on the qualities of light and texture but less on spatial perception.

The spatial render creates a realistic quality through its use of shadow, depth and material. These elements can be seen in Figure 188. The shadow produced by the wooden texture confirms the form of the staircase. The yellow colouring highlights the staircase direction and helps direct my eye. This render is spatial, as the relationship between objects is more understandable.

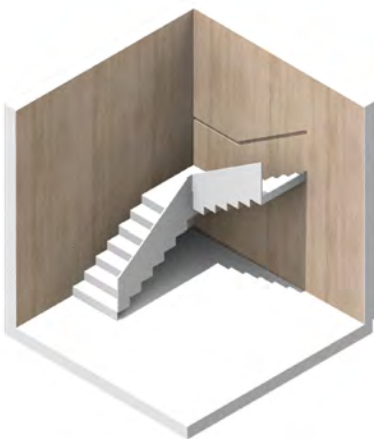




Figure 187. Staircase - graphic based render



Figure 188. Staircase - spatial based render

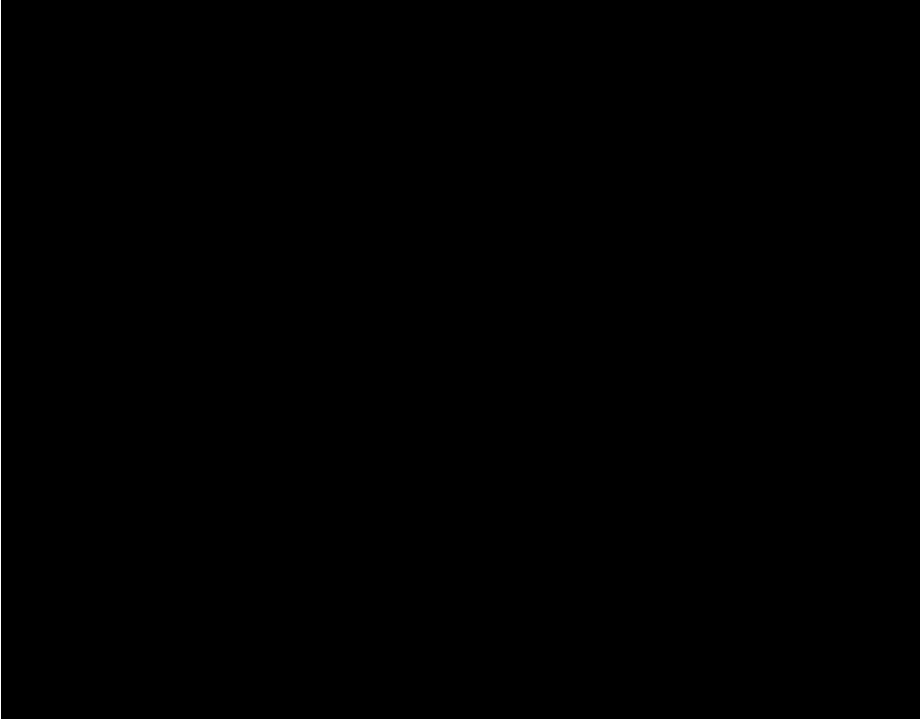


Figure 189. Drawing of Barcelona Pavilion by Mies van der Rohe

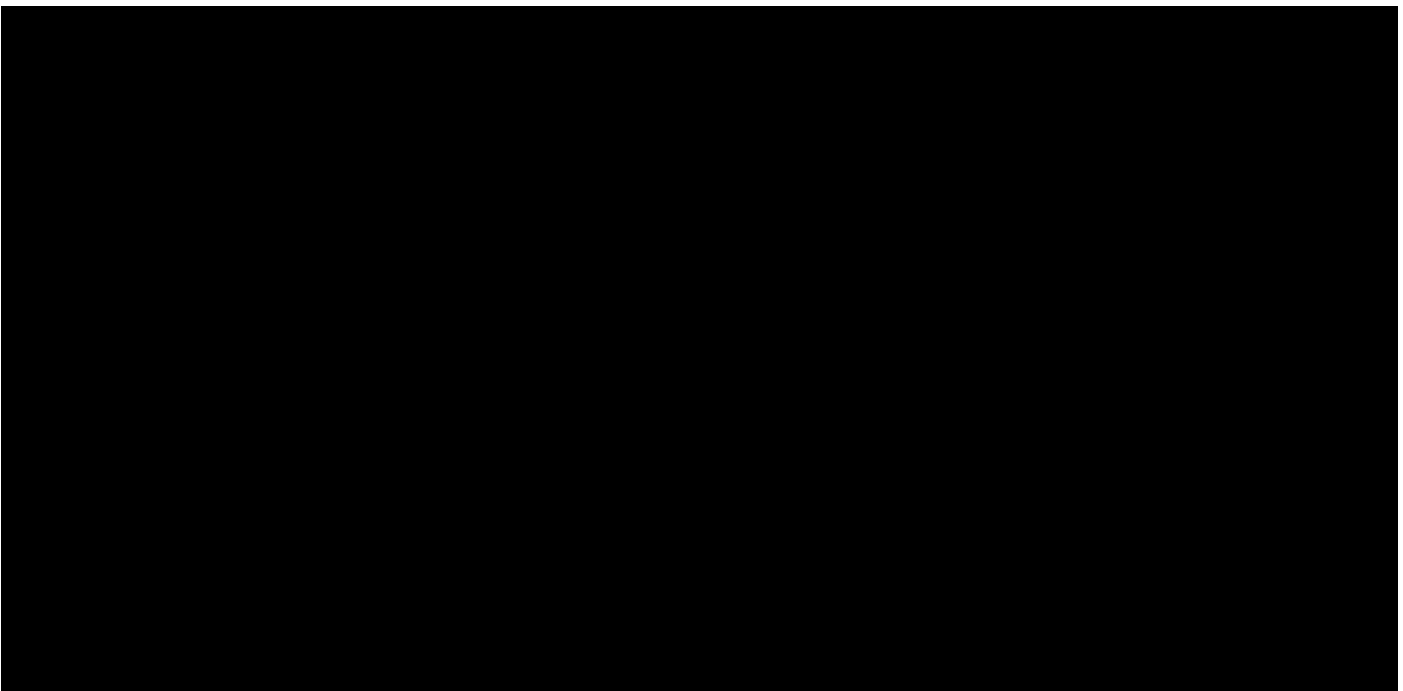
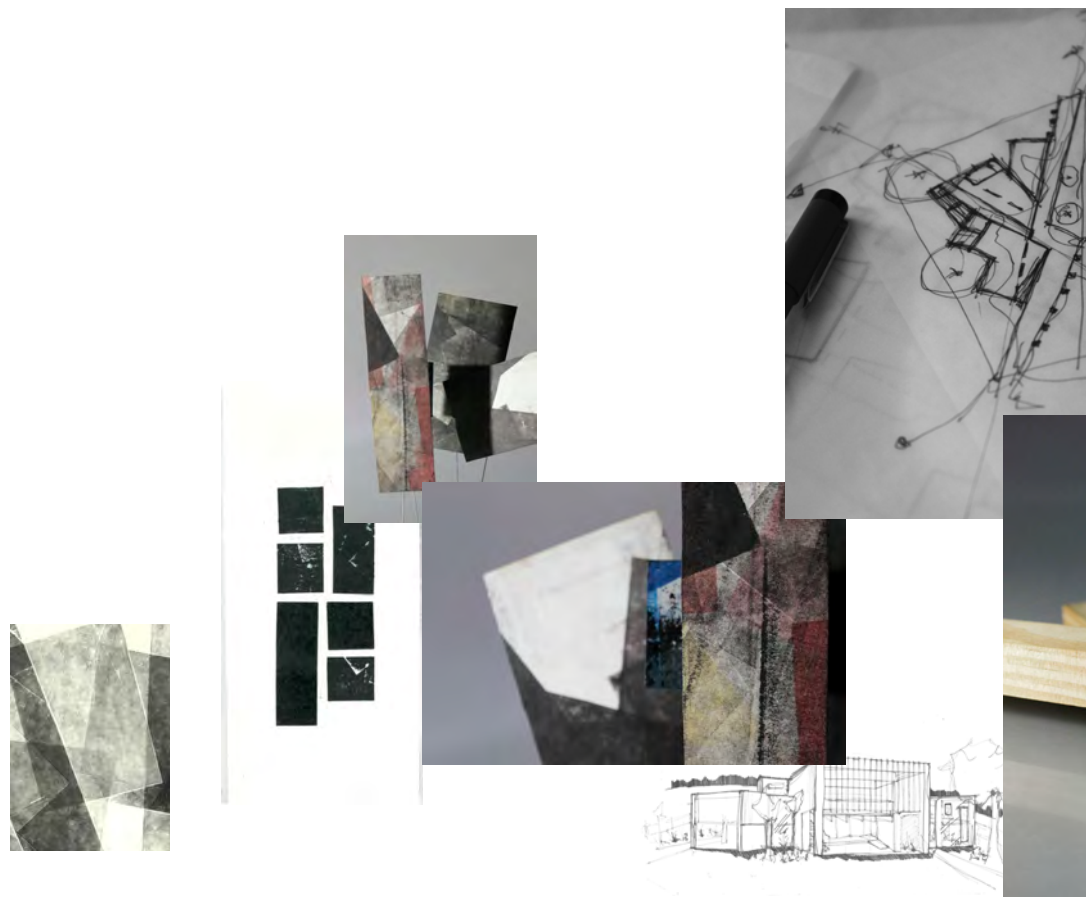


Figure 190. Barcelona Pavilion by Mies van der Rohe

BETWEEN GRAPHIC AND SPATIAL - MIES'S CORRELATION

I often referred to Mies's drawings, as I believe his architecture has a successful tension between graphic and spatial. His drawing of the Barcelona Pavilion, Figure 189, is a pencil render that invites the viewer to investigate the detail. The sense of atmosphere is created through shadow that creates a sense of depth, the precision of detailing and the drawing's controlled rendering of surface materiality (Luscombe, 2016). What is presented is an assemblage of different parts of disparate materials: the travertine pavement and walls surrounding the large pool, the marble walls facing the court, tinted glass diaphragms, the onyx slab and light wall, the chromium columns and glazing bars (Hays, 1984). This assemblage means the materials are in constant flux as one moves through the building. As K. Micheal Hay's (1984) states this is because there is no conceptual centre to organize the parts or transcend our perception of them, the particular quality of each material is registered as a kind of absolute; space itself becomes a function of the specificities of the material.

I see the key qualities of material and transparency in both Mies's graphic representation and in the architecture. The assemblage of disparate materials is seen in both the drawing and image. Mies's minimal drawing style is not only cognitive as well as spatial (Hill, 2006). As Jonathan Hill (2006) explains, the drawing means to explore and develop ideas, to speculate on space, form, matter and use. I believe Mies's drawing speculates material surface and transparency through its minimal assemblage. Both Figure 189 and Figure 190 highlight the material surface and operation of transparency: the architecture is both graphic and spatial.



FROM PRINT TO PROPOSAL

I started with print and ended with a proposal. With this materially flat print, I discovered a notion: the ambiguity of depth and flatness. Through a series of formal experiments and pragmatic analysis, I created a design language. From flat to solid. From graphic to spatial. From image to form.

The process allowed exploration and speculation. This experimentation maintained unknowing-ness but also captured moments of clarity. The use of multiple mediums, materials and techniques creates a wide breadth of content to analyse and ponder. Some experiments more successful than others but all added a certain detail to the overall scheme. This wide experimentation created a rich library for the research to sit in. The notion of going from flat to solid is not a new discovery, but the breadth of experimentation led to a greater understanding of the architecture.

004

LETS CALL IT
A DAY.

CONCLUSION

Summary

Critical Reflection and Further Research

Works Cited

Figure List

SUMMARY

From Print to Proposal presents a series of art-led experiments aligned with architectural planning, which lead to an architectural language that explores the ambiguity of depth and flatness. This ambiguity challenges the tensions between graphic and spatial through the manipulation of material, texture and form. The investigation enhanced Hataitai's pedestrian infrastructure and cultural resilience through the proposal of a Continuing Education Centre.

Through art-led experimentation, I investigated the creation of an architectural language that pushes graphic and spatial constructs. I used the Continuing Education Centre as a vehicle for this language. I used printmaking as a creative initiator, the ambiguity of depth and flatness emanated from this experiment. Then various design experiments lead from this discovery. I used two key Bauhaus figures Laszlo Moholy-Nagy and Mies van der Rohe to reflect on my experiments. I studied their concepts on material operation and transparency, and how they create ambiguity. I contrast Laszlo and Mies's use of (visual and physical) transparent operations with my inquiry into solid material. I created ambiguity through the manipulation of material, texture, form and colour. Essentially, I challenged the overlap between graphic and spatial to create my visually ambiguous architectural language that provokes constructs of depth and flatness.

Through the proposal I enhanced Hataitai's pedestrian infrastructure with the implementation of a pathway system at an urban and human scale. At the urban scale, the system's organisation was established. The system responds to the existing fabric and topography by connecting disparate streets and aligning thoroughfare to make walkability effortless. At a human scale, the I investigated the more intimate and detailed logistics. The Continuing Education

Centre integrated this site-specific pathway to create a public amphitheatre and thoroughfare. This overall system aim encourages walkability in a car-dependant suburb.

Through the proposal I enhanced cultural resilience in two categories: the pathway scheme and the Continuing Education Centre. Cultural resilience embraces community values that respect its members and diversity thus, holding the ability to overcome difficulty collectively. The pathway scheme increases walkability, therefore, enhances the opportunity for face-to-face human connection through a community network. The Continuing Education Centre strengthens the interaction of cultures and generations through its layered space and diverse program. The intersecting form creates a multiplicity of zones for users. These two propositions promote interaction and increases the chance of building community relationship. In terms of aesthetics, the architecture is visually ambitious, this creates a recognizable cultural hub that the community could take pride in operating.

The chronological three interludes presented a spread of exhibitions that influenced the research. Each exhibition pushed my investigation further through the constant switch of scale and discussion with students, Hataitai residents and Wellington-based artists.

The scheme combines moments from each experiment to create an architectural language that is both graphic and spatial. The result is a design that would expand the pedestrian infrastructure and could strengthen the cultural resilience of Hataitai by placing aesthetic and spatial values in overlap.

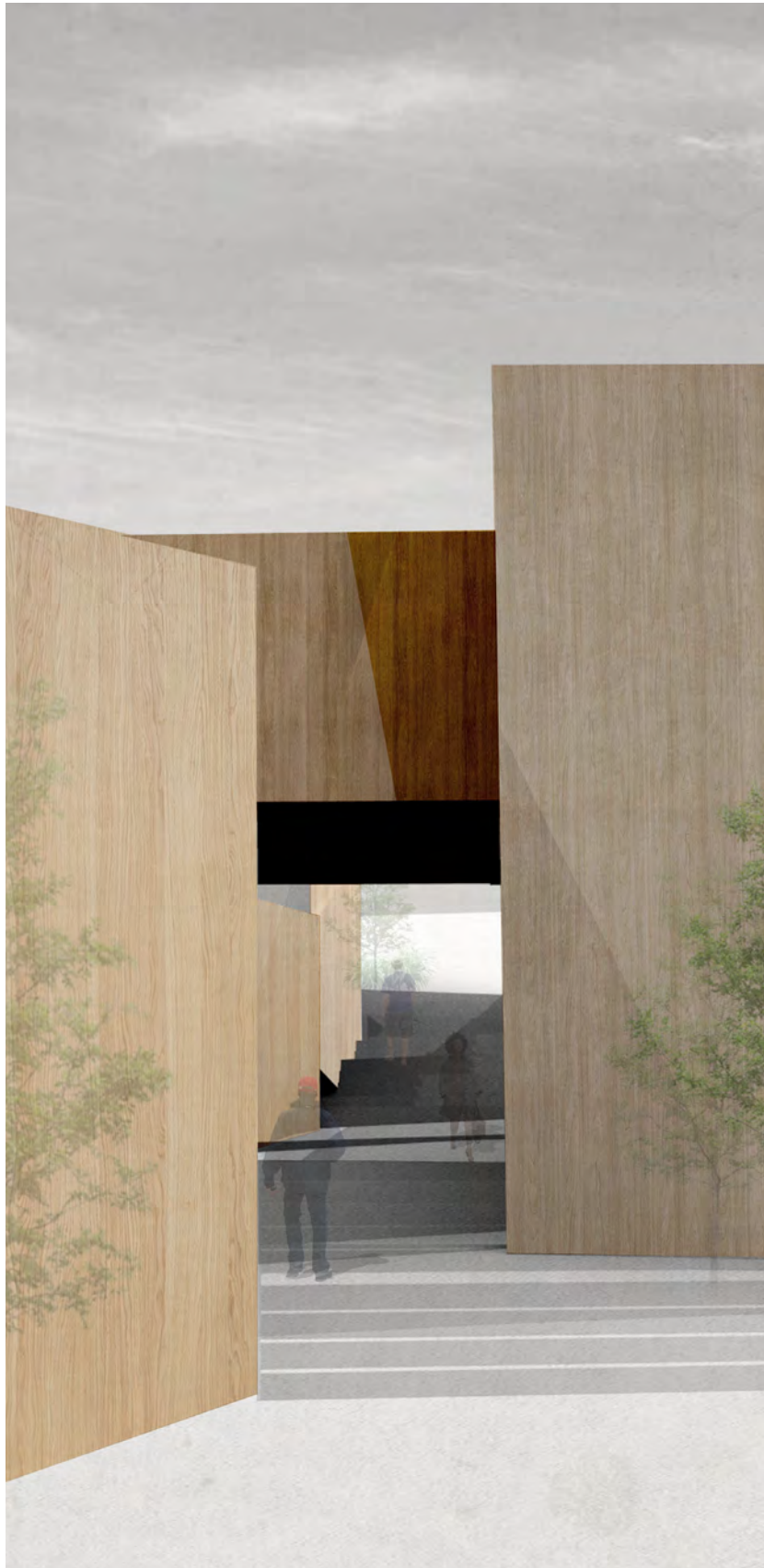


Figure 192. View of path - Arcus Way



Figure 193. Ambiguity of depth and flatness through exterior render

CRITICAL REFLECTION AND FURTHER RESEARCH

Print

Using printmaking as a creative starting point is not common practice for the discipline.

However, using printmaking as a creative starting point,

I produced concepts and findings that would have been hard to discover without. This art experiment highlighted architectural terms such as depth and transparency, it created a graphic depth. This being similar to Laszlo Moholy-Nagy's paintings, as Borchardt-Hume (2006) describes his work as having pictorial depth, but no spatial 'illusion'. I found meaning from my prints through a rigorous process and translated it to architecture. This research may be useful to the wider disciplinary context but also at a tertiary level, where there is a lack of understanding on the transference from art to architecture. Superficial imagery has a particular power in influencing students of architecture, perhaps at the cost of valuing underlying process or motivation.

Proposal

The design proposal opened an inquiry to the possibilities of how depth and flatness could be pushed to create ambiguous spatiality.

Throughout successful and unsuccessful experiments, I gathered a library to take and leave concepts in. I could have pushed the final proposal more, in terms of visual ambiguity. But, I kept it the site context in mind, I did not want an architectural language that would overpower the neighbourhood.

This aesthetic could be replicated with other materials such as Equitone. For further research among the proposal, there is the potential to explore how CLT panels can encompass this aesthetic structurally.

Path

The potential pathway system would rely on the consent and engagement of private landowners.

The proposed system explores pathways that border between properties, this starts a dialogue between public and private zones in terms of privacy and safety concerns. For this scheme to work it needs to have the community on board to create a more accessible urban environment, this may not always be possible. To be successful, the community need to have mutual trust with other members and the public, which is a construct that is built socially, but as designers we can encourage this through planning. The Continuing Education Centre pathway aims to initiate assurance in the pathway system by creating a new form of pedestrian culture to Hataitai. This proposal is a small step towards to the bigger picture.

Hataitai is a hilly suburb, this is one of the reasons why the car-dependency is so high. The urban pathway system is a proposal that will not suit everyone. The pathways will usually have stairs to combat the steep contours, this system favours the able human. To respond to this, I contemplated the use of ramps, escalators and cable cars to make the hill more accessible, there is potential for further research in this area.

Process

This area of research that sits between graphic and spatial has a rich range of possible art and architectural outcomes. This research has only covered a small amount content that sits within this field, but it has also opened up the possibility for many more.

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