

# The Urban Room

*Threshold Placemaking at Te Wai te Whau*

*Rebecca Burgess*



**Figure 1:** *Photo looking from the mouth of Te Whau Awa at the end of the Rosebank Peninsula and into the Waitemata Harbour.*

## Acknowledgements

I acknowledge my supervisor, Kathy Waghorn, along with supporting lecturers at Huri te Ao, Auckland University of Technology, whose support helped me to complete this design thesis. I also thank the Muddy Urbanism Lab Group, Ilycia Laverty, Dylan Cawte, Mia Zhang and Nikitha Kolar Nagabhusan.

Secondly, I acknowledge family; my Mum, my Dad and two Sisters, who have been a continuous support. My flatmates; Nidhi, Brodie, Cam and Alice, who helped me complete this thesis in a lockdown. And also one of my best friends, Martina Moroney, who has always been there to celebrate my success.

Finally, I acknowledge the tangata whenua (people of the land), Te Kawerau ā Maki, as the principle Iwi of Te Wai Te Whau. I thank them for their knowledge, shared through published research, so that I am able to acquire understandings of Iwi and hapu relationships to Te Whau Awa (river) and its whenua (land).

## Muddy Urbanism

The Muddy Urbanism Lab is an ongoing urban research project focused on the future of Te Wai te Whau (the Whau river) in Tāmaki Makaurau Auckland. Te Whau bisects the inner west of Tāmaki Makaurau Auckland. Used as a portage route that connects two harbours, for iwi it provided natural infrastructure for kai (food), connection, and economic production.

In the colonial economy, Te Whau played a crucial role in the urbanisation of Tāmaki Makaurau Auckland, as both a transport route and as a source of clay. Bounded by the Rosebank Peninsula and the suburbs of Avondale, New Lynn, and Kelston, the river continues to drain by-products from factories located along the riverbanks into the ocean. In latter decades Te Whau, along with many other waterways in Tāmaki Makaurau Auckland, has lost its infrastructural importance and has become ecologically degraded. However, with municipal boundary changes in 2010, the river now sits at the geographical centre of the Whau Local Board, and this local authority and others have started to embrace the opportunities a re-connection with the waterway might offer.

Led by HOOPLA, the Muddy Urbanism Lab has worked with students, independent researchers, and community groups since 2013 to collaboratively re-imagine the regenerative future of Te Whau. The Lab has produced an archive and a series of speculative urban proposals, leveraging the powerful nature of utopian thought in imagining possible futures for this river and its neighbourhoods. The Muddy Urbanism research has been widely exhibited and published, circulating these speculative proposals with the anticipation that these might enter the public imagination. This has been a fruitful strategy with the proposal for a river-side linear park taking hold; a project in the first stages of construction, known as Te Whau Pathway.

In 2021 at Huri Te Ao Hoahoanga (AUT's School of Future Environments), five Lab members (Dylan Cawte, Ilycia Laverty, Nikitha Kolar Nagabhushan, Quanyin Zhang and Rebecca Burgess), through our design research thesis projects have asked how we can extend the impact of Te Whau Pathway as a new opportunity for reconnection to the awa. Each Lab member's speculative project takes a site on or near Te Whau Pathway and imagines its specific potential as a neighbourhood or regional place along the linear path. Through this research we have each developed a specific programme for our locations and tested these through design-making. Each project proposes new neighbourhood and river connections in order to restore the mauri (life force) of the awa.

## Pepeha

Kia Ora tatou  
*Greetings all*

Ka haere au ki Kapakapa-toito ki ti rongu kaha  
*I go to Treble Cone (mountain) to feel strength*

Ko Wānaka te awa  
*Lake Wānaka is the water*

Nō Ōtautahi Ahau  
*I am from Christchurch*

No Kōtirana me oku tupuna  
*My ancestors come from Scotland*

Ko Burgess raua ko Collingwood oku whānau  
*My family lines are Burgess and Collingwood*

Ko Rebecca tōku ingoa  
*My name is Rebecca*

Tenei te mihi ki nga tangata whenua o te rohe nei  
*Sending acknowledgements to the tangata whenua of this area*

Tēnā koutou, tēnā koutou, tēnā koutou katoa

I am a student of Huri te Ao Hoahoanga, School of Future Environments. My passion for architecture arose from gaining my bachelor's degree in architectural studies where I majored in interior architecture. I graduated from Victoria University of Wellington in 2018. Since then, I have extended my architectural knowledge through travelling, living in Paris and experiencing other urban settings. From this, I now have the drive to complete this design thesis by developing my skills and interests to deliver a design proposal that challenges the definition of interiority and integrates community re-engagement with a degraded waterway in Tāmaki Makaurau Auckland. As a New Zealander, I treasure water as something close to my heart. We are a nation surrounded by oceans and with an abundance of lakes and rivers. And so, I introduce wai (water) as a critical resource in the social and economic advancement of Aotearoa New Zealand. Māori, the indigenous people of our homeland, believe water is a taonga (treasure), the essence of all life, people, plants, and wildlife inclusive. Such a belief is ingrained into the roots of our people. Therefore, we need to protect this natural resource for the sustainability of our future.

## Contents

■	<i>Acknowledgements</i> .....	i.
	<i>Muddy Urbanism Lab</i> .....	ii.
	<i>Pepeha</i> .....	iii.
	<b>Abstract</b> .....	8
	<b>Introduction</b> .....	10
	<b>List of Figures</b> .....	12
■	<b>Chapter One: Awa Context</b> .....	19
	<i>Background of Te Whau Awa</i>	
	<i>Location</i>	
	<i>Te Whau Catchment and Estuary</i>	
	<i>Human-Influenced History</i>	
	<i>Te Whau Pathway</i>	
■	<b>Chapter Two: UrbanContext, New Lynn</b> .....	33
	<i>Background of New Lynn</i>	
	<i>Introducing the Site</i>	
	<i>Auckland Unitary Plan Zones</i>	
	<i>New Lynn Urban Plan</i>	
	<i>The Stitch</i>	
	<i>Avondale High Level Development Plan</i>	
■	<b>Chapter Three: Urban Interiority</b> .....	51
	<i>Urban Interiority</i>	
	<i>Perceiving Urban Interiority</i>	
	<i>Threshold Placemaking</i>	
■	<b>Chapter Four: Urban Case Studies</b> .....	69
	<i>The Riverside Market, Otautahi, Christchurch</i>	
	<i>Storefront for Art and Architecture, New York</i>	
	<i>Curtain Wall House, Tokyo, Japan</i>	
■	<b>Chapter Five: The Urban Room Design Proposal</b> .....	89
	<i>Programme</i>	
	<i>Low Impact Urban Design</i>	
	<i>Design Proposal</i>	
	<i>Avondale Sunday Market</i>	
■	<b>Chapter Six: Findings</b> .....	119
	<i>River Regeneration</i>	
	<i>Re-homing the Avondale Sunday Market</i>	
	<i>Threshold Placemaking</i>	
	<i>Integration Through Perceiving Public Interiority</i>	
	<i>Conclusion</i>	
	<b>Bibliography</b> .....	124

I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person (except where explicitly defined in the acknowledgements), nor material which to a substantial extent has been submitted for the award of any other degree or diploma of a university or other institution of higher learning.

A thesis submitted in partial fulfillment of the requirements for the degree of Master of Architecture [Prof]  
Auckland University of Technology, 2021  
Date: 15 November 2021  
Name: Rebecca Burgess  
Signature: *Rebecca Burgess*

## Abstract

This design thesis project, *The Urban Room*, is sited alongside Te Wai te Whau (Te Whau Awa/river) on the corner of Delta Avenue and Stock Street in New Lynn, a suburb of Tāmaki Makaurau Auckland. The research investigates local and industrial history of the maritime suburb, as well as its history as a threshold to move between places. As part of the Muddy Urbanism Lab, the project also draws on relationships between architecture and wai (water) by asking, “**How can a public urban interior activate Te Whau Pathway?**”. This is accomplished by bringing a complex, programmatic cross over between urbanism and interior architecture.

*The Urban Room* design thesis develops ideas of the interior and exterior and also engages with the question, “**What is a public urban interior?**”. In other words, the thesis challenges the blurred line between interiority and exteriority, where laneways become corridors, living rooms spill into streets, and the scent of the kitchen creates an energetic atmosphere.

Through the research, the term *threshold placemaking* is identified as a technique that develops the design proposition. Analysing psychological, programmatic, and atmospheric conditions of the interior the project proposes the possibility of an interior that is integrated with other realms. The proposal is for a versatile, programmatic *Urban Room* made through the mixing of private inhabitation, a ceramics studio and art gallery, a canteen, co-working office spaces, and the unfolding of a weekly flea and produce market.

Finally, through the strategy of *designing from the inside out*, *the Urban Room* concludes that a public urban interior is not reliant on the boundaries of architectural form, instead it can be integrated with its surrounding landscape—both natural and urban—due to our perceived conditions of interiority.

**Key Words:** *urban room, threshold placemaking, public urban interiority, Muddy Urbanism*



Waitemata  
Harbour

CBD

Te Whau Pathway

Te Wai Te Whau

The Urban Room

The Stitch

Avondale

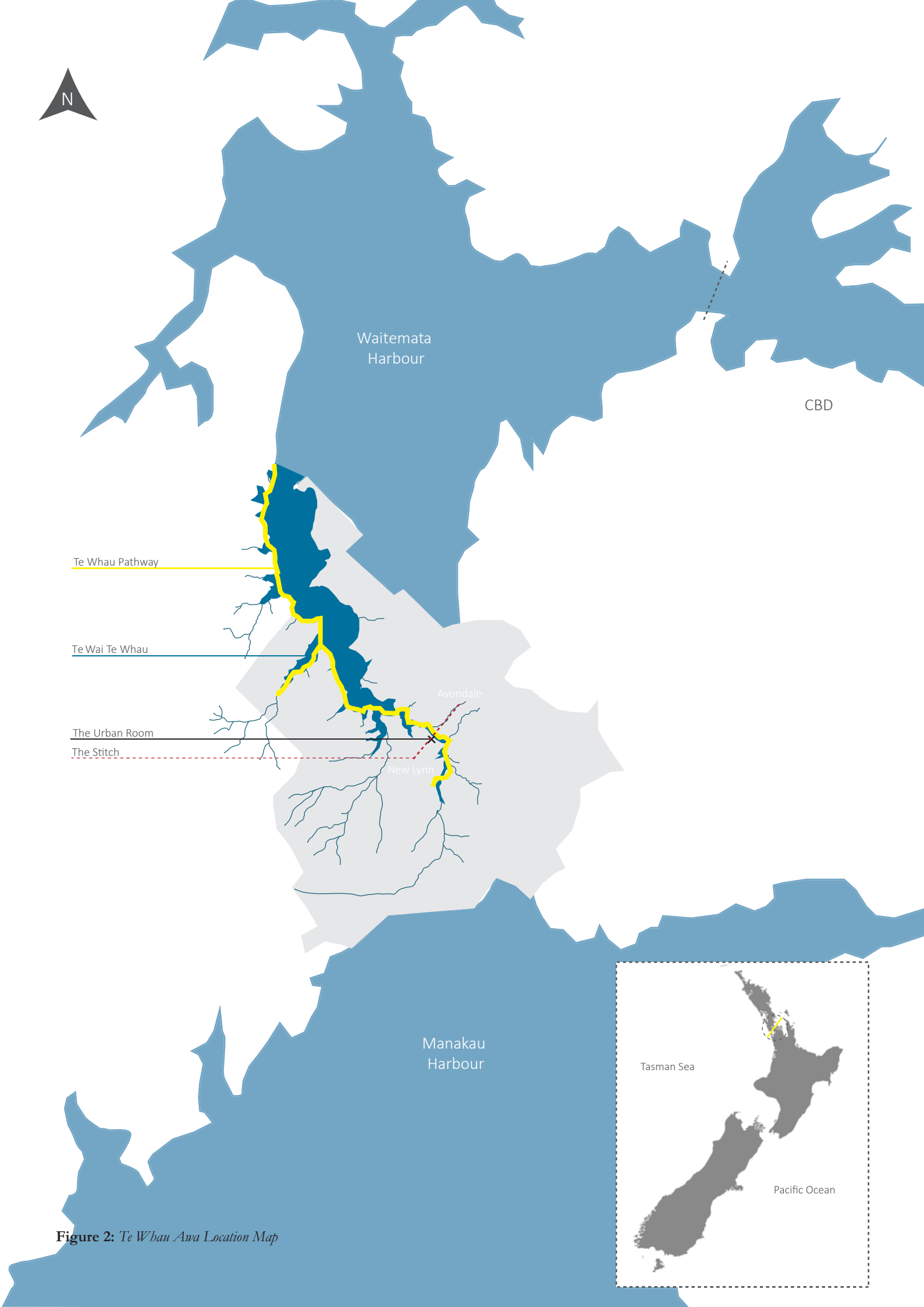
New Lynn

Manakau  
Harbour

Tasman Sea

Pacific Ocean

Figure 2: *Te Whau Awa* Location Map



## Introduction

This design thesis analyses Te Whau Awa, a significant river located in the inner west of Tāmaki Makaurau Auckland. The river is one of many waterfronts situated in the Auckland isthmus and it connects the Waitemata and Manukau Harbours via an historic portage once travelled by Māori. Unfortunately, as urban development, in the form of roads, railways, and a power pylon network has occurred, the river has ultimately become a site of neglect. *The Urban Room* explores the history of this river, and develops a proposal for an urban interior to integrate neighborhood activities with the awa (river). In doing so it capitalises on forthcoming neighbourhood developments such as the Te Whau Pathway, a shared path currently under construction alongside the awa.

As part of the 2021 Muddy Urbanism Lab, the research detailed in chapter one provides necessary background information about Te Whau Awa, its location and history, and determines the research question, **“What is a public urban interior?”** This is followed by the identification of a site in New Lynn, on public land at the corner of Delta Avenue and Stock Street in chapter two. A site analysis examines the conditions of the site and its neighbourhood, identifying land and water pollution issues that need to be addressed. This is achieved through reshaping the nature of the industrial architecture in the area and considering the site as a threshold between an industrial neighbourhood, the awa and a residential neighbourhood on the eastern side of the riverbanks. From this understanding, the design research project is devised by considering the site itself as a threshold and activating the Te Whau Pathway to enable safe access to Te Whau Awa.

Through my research I noticed that the Avondale Sunday Market, currently located at the Avondale Racecourse situated across the river from Delta Avenue, is likely to lose its site of business as future urban development occurs. Chapter two brings to light evidence of this through investigating the Auckland Unitary Plan (*Auckland Council, 2021*); The New Lynn Urban Plan 2010-2030 (*Auckland Council, 2010*); and The Avondale High Level Development Plan (*Panuku, 2017*). At this stage, it is unknown what the exact future of the Avondale Racecourse entails, however, there is sufficient evidence in these documents that assumes a forthcoming suburban housing development. Therefore, the design proposes a permanent place for the market as a strategy for urban development.

Academic research evaluated in chapter three is based on psychological, programmatic, and atmospheric conditions of the public urban interior. Research conducted by psychologist Bessel Van Der Kolk develops the term ‘sensory interiority’ meaning from within the human body. In his book, *The Body Keeps the Score* he writes, “*the core of our self-awareness rests on the physical sensations that convey the inner states of the body... our sensory interiority continuously sends us subtle messages about the needs of our organism*” (*Van der Kolk, 2014. p.93-96*). His work defines the psychological conditions of interiority to mean the needs of the human. These are then brought to light under the lens of architectural practice, by theorists and architects who explore the idea of public interiority as a condition of the human experience. Supporting evidence allowed me to define the term *threshold placemaking* as a critical design concept for an *Urban Room*. By the way of designing from the inside-out, the threshold place considers the inhabitation of space before architectural form as interiority.

Chapter four details case studies that are relevant to the design research project. Riverside Market in Ōtautahi Christchurch; Storefront for Art and Architecture in New York; and Curtain Wall House in Tokyo each examine the boundary between inside and outside space. Riverside Market is situated alongside a river, addressing the need for a low impact urban design strategies to protect natural ecosystems during urban development. The two remaining case studies introduce threshold places that blur the boundary between the interior and the exterior. The blurring of this boundary is an important design concept in *the Urban Room*.

With my understanding of a public urban interior in mind, the design proposal and its programme are detailed throughout chapter five and supported by the writings of theorist Jane Jacobs. In her book, *The Death and Life of Great American Cities*, Jacobs explains the need for mixed-use primary spaces to activate city blocks (Jacobs, 1993). The design proposes a mix of programmes in one place including a ceramics studio, art gallery, market, canteen, offices, co-working spaces, and residential studio apartments that are interconnected via threshold places. At night these places adapt to accommodate other activities. Furthermore, in its form, the design pays homage to the history of Te Whau and re-engages people with the awa (river). On Sunday's *the Urban Room* is a threshold that provides access to Avondale Sunday Market happening along Delta Avenue, Stock Street and expanding into Wingate Street, via a reimagined proposal of *The Stitch*, a bridge planned to cross the awa at this site (*New Lynn Urban plan 2010-2030*). Each space navigates the boundary between the interior and exterior through expansion and compression to challenge and test the idea of what a public urban interior is.

Chapter six outlines the research findings discovered through test models and drawings in the design proposal for *the Urban Room*. In this chapter, a clear understanding of *threshold placemaking* and *urban interiority* is identified. Finally, the thesis is concluded by demonstrating that interior architecture is not reliant on architectural form, but is a perceived condition of the human experience. One that is contingent on adapting to its environment-whether that be urban or natural.

## List of Figures

**Figure 1:** Photo looking from the mouth of Te Whau Awa at the end of the Rosebank Peninsula and into the Waitemata Harbour.

**Figure 2:** Te Whau Awa Location Map

**Figure 3:** Photo looking down Te Whau Awa, from Te Whau Bridge on Great North Road, New Lynn

**Figure 4:** *Te Kawerau a Maki Heritage Areas in Waitakere City*. Waitakere City Council, (n.d). p.14. <http://www.aucklandcity.govt.nz/council/documents/districtplanwaitakere/policy/policies/tangatawhenua.pdf>

**Figure 5:** *Te Kawerau a Maki Boundary Map*. Taua-Gordon, Robin. (July 2017). *Cultural Impact Assessment for Warkworth Nother Structure Plan*. p.3. Heritage and Environment Unit Te Kawerau Iwi Tribal Authority. <https://www.aucklandcouncil.govt.nz/UnitaryPlanDocuments/pc25-appendix-7-1-kawerau-a-maki-cia.pdf>

**Figure 6:** Map of Te Whau Awa highlighting different types of amenities connected by the Te Whau Pathway. Adapted from Auckland Council GIS Geo-Mapping Software.

**Figure 7:** *Te Whau streams blocked by weeds and pollution, an issue that has occurred because of human settlement*. Mackay, J. (2001). *The Whau, our rivers, our streams, our backyards*. p.22. Waitakere City Council. <http://projecttwinstreams.com/wp-content/uploads/2012/10/thewhau.pdf>

**Figure 8:** Pictures of blocked and polluted streams taken on site visits.

**Figure 9:** Map of the brickwork industry situated along the banks of Te Whau Awa. Adapted from Auckland City Council Heritage Maps

**Figure 10:** *Malam's old kiln (right) and Laurie's kiln (left), Whau River*. Farley, Glen et.al. (March, 2019). *Te Whau Pathway Main Route, West Auckland: Archaeological Assessment*. Report prepared for Auckland City Council. p.10. Clough & Associates Ltd. <https://www.aucklandcouncil.govt.nz/ResourceConsentDocuments/14BUN60337530AppxDArchaeologicalAssessment.pdf>

**Figure 11:** *Examples of Ceramics made at Crown Lynn and other brickyards*. Te Toi Uku (n.d.). <https://tetoiku.org.nz/collections/>

**Figure 12:** *Te Whau Pathway Location Map with the Urban Room Site Location Pinpointed*. Whau Coastal Walkway Environmental Trust. (2021). Route map. *Te Whau Pathway Preliminary Design Section Plan*. <https://tewhaupathway.org.nz/where-will-it-go/route-map/>

**Figure 13:** *Te Whau Pathway Concept Image*. Jasmax. (2019). *Te Whau Pathway Showcase*. <https://nzila.co.nz/showcase/te-whau-pathway>

**Figure 14:** *An aerial photograph of part of Auckland City, over New Lynn. Approx. 1:1200. 1968. The location of The Urban Room Site has been circled*. Auckland City Council. Department of Works and Services. Town Planning Division. Auckland Libraries Heritage Collections Map 6087. <https://kura.aucklandlibraries.govt.nz/digital/collection/maps/id/1549/rec/3>

**Figure 15:** *Historic Map of New Lynn. 1967*. New Zealand. Department of Lands and Survey. Auckland Libraries Heritage Collections Map 1076. <https://kura.aucklandlibraries.govt.nz/digital/collection/maps/id/8001/rec/33>

**Figure 16:** Left to right, 1940, 1996, 2008, 2017 aerial site images adapted from Auckland City Council GIS geo-mapping Software. These images highlight the intensification of buildings in the area throughout history as well as the geographical relationship between New Lynn Town Centre, Avondale Town Centre and The Urban Room.

**Figure 17:** *The New Lynn Hotel, 1908*. J.T Diamond Collection. Waitakere Central Library. Auckland Libraries Heritage Collections JTD-11A-0178. <https://kura.aucklandlibraries.govt.nz/digital/collection/photos/id/53305/rec/3>

**Figure 18:** *Plan of Hoffman Kiln*. J.T Diamond Collection. 1978. Description: *View of a diagram of a Hoffmann kiln*. Waitakere Central Library. Auckland Libraries Heritage Collections JTD-0386-T. <https://kura.aucklandlibraries.govt.nz/digital/collection/photos/id/54385/rec/43>

**Figure 19:** *Panorama from pylon by Avondale Racecourse. Looking from Burkes Brickyards to The Urban Room Site. 1965.* J.T Diamond Collection. Photographer: Diamond, John Thomas .Description: *Elevated view from near Avondale Racecourse over the Whau River and New Lynn showing where Delta Avenue turns right into Stock Street.* Waitākere Central Library. Auckland Libraries Heritage Collections JTD-11N-02550-3. <https://kura.aucklandlibraries.govt.nz/digital/collection/photos/id/43717>

**Figure 20:** *View of remains at the former site of Burke's brickworks on the banks of the Whau River. 1988.* J.T Diamond Collection. Photographer: Diamond, John Thomas, 1912-2001. Waitākere Central Library. Auckland Libraries Heritage Collections JTD-0173-T. <https://kura.aucklandlibraries.govt.nz/digital/collection/photos/id/49918/rec/173>

**Figure 21:** Map and diagram showing the opportunity for The Stitch to be activated in conjunction with Te Whau Pathway.

**Figure 22:** Map of Zones from the Auckland Unitary Plan in relation to Te Whau Pwahrtway and The Stitch. Adapted from Auckland City Council GIS geo-mapping Software.

**Figure 23:** Photos of buildings emphasising the industrial architectural language in New Lynn.

**Figure 24:** Initial concept sketches that respond to the industrial architectural language in New Lynn. The Urban Room design proposal mimics this architectural type to show how to adapt the use of the 'tin-shed' from industrial use to public, commercial and residential use.

**Figure 25:** *Delta Avenue Precinct Boundary Map, from the New Lynn Urban Plan 2010-2030.* Auckland Council. (2010). New Lynn Urban Plan 2010-2030. p.120-125. Auckland Council. <https://www.aucklandcouncil.govt.nz/plans-projects-policies-reports-bylaws/our-plans-strategies/place-based-plans/docsnewlynnurbanplan/new-lynn-urban-plan-2010-part-1.pdf>

**Figure 26:** *Plan for the Delta Avenue Precinct. Section M.05 introduces the location and proposal for The Stitch, from the New Lynn Urban Plan 2010-2030.* Auckland Council. (2010). New Lynn Urban Plan 2010-2030. Auckland Council. p.120-125. <https://www.aucklandcouncil.govt.nz/plans-projects-policies-reports-bylaws/our-plans-strategies/place-based-plans/docsnewlynnurbanplan/new-lynn-urban-plan-2010-part-1.pdf>

**Figure 27:** *Original proposal of 'The Stitch' as a vehicular bridge across Te Whau Awa and connecting Delta Avenue to Wingate Street. From the New Lynn Urban Plan 2010-2030.* Auckland Council. (2010). New Lynn Urban Plan 2010-2030. p.120-125. Auckland Council. <https://www.aucklandcouncil.govt.nz/plans-projects-policies-reports-bylaws/our-plans-strategies/place-based-plans/docsnewlynnurbanplan/new-lynn-urban-plan-2010-part-1.pdf>

**Figure 28:** *Map of Avondale HLDP Study Area showing Wingate Street as a connection point to New Lynn. From The Avondale High Level Development Plan.* Panuku. (2017). Unlock Avondale, High Level Development Plan. Auckland City Council. [https://infocouncil.aucklandcouncil.govt.nz/Open/2017/09/WH\\_20170927\\_AGN\\_7521\\_AT\\_SUP\\_files/WH\\_20170927\\_AGN\\_7521\\_AT\\_SUP\\_Attachment\\_55887\\_1.PDF](https://infocouncil.aucklandcouncil.govt.nz/Open/2017/09/WH_20170927_AGN_7521_AT_SUP_files/WH_20170927_AGN_7521_AT_SUP_Attachment_55887_1.PDF)

**Figure 29:** *Diagram showing the relationship between the current site of the Avondale Sunday Market and the site of The Urban Room.*

**Figure 30:** The Urban Room Site Map.

**Figure 31:** Pictures of the site and its current land use taken on regular visits. Issues highlight how the land is being used as a rubbish dump as well as buildings that back onto Te Whau Awa expelling water directly into its water.

**Figure 32:** *Example of Threshold Placemaking on the tram platform in Melbourne.* Attiwill, S. (2011). *Urban Interior: Informal Explorations, Interventions and Occupations.* p.20. Spurbuchverlag. Sarah Jamieson 'On' 2009. Design Proposal for Urban Room design Studio.Images: Sarah Jamieson.

**Figure 33:** Diagram of Threshold Space adapted from Till Boettger's Book Threshold Spaces. The Body of the threshold space identifies opportunities for activity to take place inside this internal void.

**Figure 34:** A series of models made in the design research to investigate the spatial potential of threshold placemaking. Note the use of apertures of different shapes and locations, opening corners, covered laneways and the expansion of curtains beyond the building envelope.

**Figure 35:** Test model showing the corners of the building folding back as if 'dissolving' and therefore blurring the boundary between inside and outside.

**Figure 36:** Axonometric diagram explaining the ‘dissolving’ corners and how they blur the boundary between two realms.

**Figure 37:** Test model showing serving window threshold place, inside the interior void of an exterior laneway.

**Figure 38:** Axonometric diagram explaining how an interior condition is activated in an exterior setting. The laneway is outside yet sheltered by the floor above and climate controlled with an urban curtain.

**Figure 39:** Test model showing a thickened window that could be used as seating, a display area or an entrance. The function of a window is transformed from being a simple opening in a wall that allows light to the interior and adapted into a place of activity.

**Figure 40:** Axonometric diagram showing a window being used as a place of activity; a woman resting, using the sill as a seat to read on and enjoy the view looking out to the river. The ‘exterior’ exterior laneway is covered activating an interior atmosphere and rain gardens step down to the water, filtering pollutants before they enter Te Wai Te Whau.

**Figure 41:** Test model showing pivoting doors that expand the interior space to the exterior. This is further explored with the use of urban curtains to change the atmosphere of both the interior and exterior realms.

**Figure 42:** Axonometric diagram highlighting how the pivoting doors work. The interior art studio can happen in the covered exterior laneway. When they are closed the laneway is used as a thoroughfare to circulate movement around the Urban Room.

**Figure 43:** *Entrance threshold to The Riverside Market.* Kirkaldie. (n.d.). *The Riverside Market.* Photographer: Lumo Photography & Sarah Rowlands Photography. <https://kirkaldie.com/riverside-market>

**Figure 44:** *Ground Floor Plan.* The Riverside Market. (n.d.). *Market Floor Plans.* <https://riverside.nz/market>

**Figure 45:** *Second Floor Plan.* The Riverside Market. (n.d.). *Market Floor Plans.* <https://riverside.nz/market>

**Figure 46:** *Riverside Market interior mezzanine threshold hosting pop-up activities.* Kirkaldie. (n.d.). *The Riverside Market.* Photographer: Lumo Photography & Sarah Rowlands Photography. <https://kirkaldie.com/riverside-market>

**Figure 47:** *The threshold space underneath the stairs at Riverside Market has become a permanent place of temporal activity.* Kirkaldie. (n.d.). *The Riverside Market.* Photographer: Lumo Photography & Sarah Rowlands Photography. <https://kirkaldie.com/riverside-market>

**Figure 48:** *Clock salvaged from the Christchurch Railroad Station and exhibited inside the Riverside Market.* Kirkaldie. (n.d.). *The Riverside Market.* Photographer: Lumo Photography & Sarah Rowlands Photography. <https://kirkaldie.com/riverside-market>

**Figure 49:** *Exhibition at Storefront for Art and Architecture from Inexhibit.* Bianchini, Riccardo. (29/04/2021). *Exhibition: Haas&Hahn, Painting Urbanism.* Learning from Rio, 2011, installation views. Photographer: Beyer, Brett, (2015). <https://www.inexhibit.com/mymuseum/storefront-art-architecture-new-york/>

**Figure 50:** *Plan and South Elevation drawings of Steven Holl and Vito Acconci's Storefront for Art and Architecture.* Bianchini, Riccardo. (29/04/2021). *Steven Holl and Vito Acconci, Storefront for Art and Architecture, plan and south elevation.* <https://www.inexhibit.com/mymuseum/storefront-art-architecture-new-york/>

**Figure 51:** *Exhibition at Storefront for Art and Architecture showing the interior and its conditions expanded into the urban exterior street.* Mac, Duy. (03/10/2020). *Rotating façade of books: Storefront Library by Abruzzo Bodziak Architects.* Photographer: Rafael Gamo. <https://www.detail-online.com/blog-article/rotating-facade-of-books-storefront-library-by-abruzzo-bodziak-architects-35341/>

**Figure 52:** *Curtain Wall House.* Project By Shigeru Ban Architects. (1995). Photographer: Hiroyuki Hirai. <https://www.architonic.com/en/project/shigeru-ban-architects-curtain-wall-house/5102304>

**Figure 53:** *Curtain Wall House Interior Vien.* Project By Shigeru Ban Architects. (1995). Photographer: Hiroyuki Hirai. <https://www.architonic.com/en/project/shigeru-ban-architects-curtain-wall-house/5102304>

**Figure 54:** *Curtain Wall House. Above the curtain is open. Below the curtain drawn bringing privacy and adjusting climatic conditions.* Project By Shigeru Ban Architects. (1995). Photographer: Hiroyuki Hirai. <https://www.architonic.com/en/project/shigeru-ban-architects-curtain-wall-house/5102304>

**Figure 55:** *Petra Blaisse's Maison à Bordeaux.* A curtain has been extended from the interior setting to the exterior environment, changing the normative function of a typically interior element and changing the conditions of both interiority and exteriority. Inside Outside. (2011 – 2012). *Maison à Bordeaux*. <https://www.insideoutside.nl/Interiors/Maison-a-Bordeaux>

**Figure 56:** Initial concept models and sketches of Urban curtains highlighting the potential for an interior space to be merged with exterior space.

**Figure 57:** Collaged render showing the interior laneways, exterior maker space, public pathway, and exterior textile furnishings throughout the Urban Room and blurring the boundary between inside and outside spaces.

**Figure 58:** Diagram of the programmatic brief of the Urban Room. Through this diagramming process a logical spatial layout was established.

**Figure 59:** Ground Floor Plan. Scale 1:200

**Figure 60:** Second Floor Plan. Scale 1:200

**Figure 61:** Model diagram beginning to understand the composition of the Urban Room and the types of threshold places throughout it. Here you can see a thickened window, exterior urban curtains and wall openings that mean the inside can be experienced outside and the outside can be experienced inside.

**Figure 62:** Drawing of the ceramics studio, outdoor maker space and art gallery. Specifically highlighting threshold places including, thickened windows, dissolved building corners and laneways with interior voids created by the floor above.

**Figure 63:** Model diagram beginning to understand the composition of the Urban Room and the types of threshold places throughout it. Here you can see laneways created by urban curtains and dissolved building corners.

**Figure 64:** Drawing of the art gallery with co-working office spaces on the second floor above. A public pathway, covered by the upper balcony, wraps around the front of the gallery and alongside the river, with steps down to docks that extend into the water. Rain gardens, native planting and a retaining wall that doubles as public seating enforce Low Impact Urban Design Principles.

**Figure 65:** Model photograph showing laneways with interior conditions, including urban curtains and shelter from the floor above.

**Figure 66:** Drawing of the canteen, courtyard, public gathering space around the fireplace and public pathway in front of the Urban Room alongside the river. This drawing highlights interior conditions in the urban realm; exterior textile furnishings, warmth and shelter. Rain gardens and native planting along the public pathway enforce Low Impact Urban Design Principles.

**Figure 67:** A timeline of the industrial business's opening hours in the area of the Urban Room. This timeline showcases the potential for the Avondale Sunday Market to be moved to Delta Avenue and Stock street because the majority of businesses are closed on Sundays. This will increase activity at the site across a temporal setting.

**Figure 68:** *Te Whau Pathway Resource Consent Landscape Plans; Indicative Planting Map*. Beca. (2019). *Te Whau Pathway—Resource Consent Landscape Plans*. [https://www.aucklandcouncil.govt.nz/ResourceConsentDocuments/59BUN60337530AppxQ%20Landscape%20Plans\\_Part1.pdf](https://www.aucklandcouncil.govt.nz/ResourceConsentDocuments/59BUN60337530AppxQ%20Landscape%20Plans_Part1.pdf) p.2. p.3. p.12.

**Figure 69:** *Te Whau Pathway Resource Consent Landscape Plans; Section at Rizal Reserve*. Beca. (2019). *Te Whau Pathway—Resource Consent Landscape Plans*. [https://www.aucklandcouncil.govt.nz/ResourceConsentDocuments/59BUN60337530AppxQ%20Landscape%20Plans\\_Part1.pdf](https://www.aucklandcouncil.govt.nz/ResourceConsentDocuments/59BUN60337530AppxQ%20Landscape%20Plans_Part1.pdf) p.2. p.3.

**Figure 70:** *Te Whau Pathway Resource Consent Landscape Plans; Images and table defining the types of plants that will be found alongside Te Whau Pathway. These plants are mimicked along the pathway in front of the Urban Room at the site opposite the Rizal Reserve section of Te Whau Pathway*. Beca. (2019). *Te Whau Pathway—Resource Consent Landscape Plans*. [https://www.aucklandcouncil.govt.nz/ResourceConsentDocuments/59BUN60337530AppxQ%20Landscape%20Plans\\_Part1.pdf](https://www.aucklandcouncil.govt.nz/ResourceConsentDocuments/59BUN60337530AppxQ%20Landscape%20Plans_Part1.pdf) p.2. p.3.

**Figure 71:** Residential Floor Plans. This plan is replicated up six stories. Scale 1:200

**Figure 72:** *New Zealand People: Avondale Sunday Market. View of two women standing beside a stall at a market*. Museum of New Zealand Te Papa Tongarewa Photography Collection. Photographer: Brian Brake; 1960s-1980s. CT.032873. <https://collections.tepapa.govt.nz/object/559612>

**Figure 73:** *New Zealand Recreation: Avondale Market. View of women standing in an outdoor market, in front of a Hotdog Express caravan*. Museum of New Zealand Te Papa Tongarewa Photography Collection. Photographer: Brian Brake; 1960s-1980s. CT.031840. <https://collections.tepapa.govt.nz/object/556472>

**Figure 74:** Photographs of the Avondale Sunday Market.

**Figure 75:** Site Elevation, 1:500, showing the relationship between the street, the awa and the Stitch. The sites of the Avondale Sunday Market are circled on both Delta Avenue/Stock Street in New Lynn and Rizal Reserve/Wingate Street in Avondale. This establishes the Urban Room as a threshold Place. Native planting along Te Whau Pathway and the pathway in front of the Urban Room enforce Low Impact Urban Design Principles by acting as natural infrastructure.

**Figure 76:** Collaged render showing the relationship between the Urban Room and the awa. The Avondale Sunday Market is happening and the art gallery is open. A wall opening can be climbed through to enter or exit the gallery challenging the typical function of a wall as separating inside and outside space and instead making it an entrance. From outside on the pathway you can see through the gallery into the ceramics studio and from inside the ceramics studio you can see all the way to the river.

**Figure 77:** Section AA, Scale 1:200

**Figure 78:** Section BB, Scale 1:200

**Figure 79:** Section CC, Scale 1:200

**Figure 80:** Collaged render of the Urban Room showing the relationship between the laneways, the courtyard and the Avondale Sunday Market, as well as the Stitch that extends from the public pathway and crosses over the awa.

**Figure 81:** Collaged render of the Urban Room at night. The art gallery is closed by the urban curtain which has become the backdrop for a live band playing. People gather around the fireplace for its warmth and dancing is happening in the space that is the canteen during the day. Food and drink is able to be passed around, made in the on site kitchen.





**Figure 3:** Photo looking down Te Whau Awa, from Te Whau Bridge on Great North Road, New Lynn.

# Chapter One: Awa Context

The purpose of this chapter is to develop an understanding of Te Wai te Whau. This chapter locates the project in Tāmaki Makaurau Auckland, defines the research questions and provides information on the importance of re-imagining our waterways for sustainable urban development. I discuss the river's history and significance to urbanisation in Aotearoa New Zealand, and locate my chosen site in New Lynn, a suburb of the Whau Ward in Tāmaki Makaurau Auckland.

## Background of Te Whau Awa

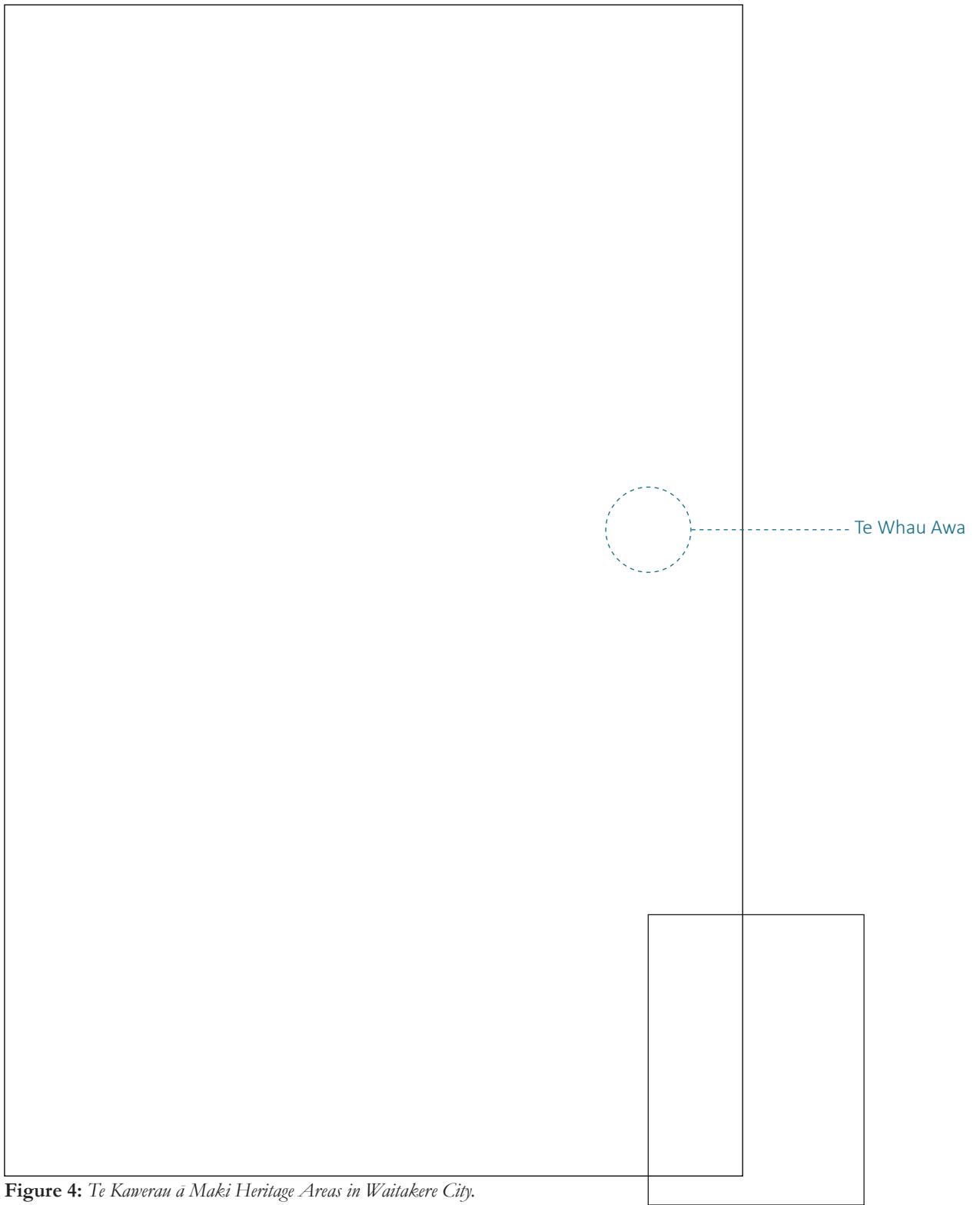
Unbeknown to most, majority of Auckland's waterfronts are neglected due to urbanisation. Named after the Whau tree, Te Wai te Whau is one of these neglected waterfronts. Historically used for travel, settlement, and industry development, in recent years the awa (river) has become degraded and experienced an extreme loss of biodiversity.

In contrast to this neglect, Māori view water as a taonga (treasure) that binds the mauri (life force) of all life and living things. Rivers provide us with knowledge, using their natural voice to supply us with what we need (*Cultural Survival*, 2012). Therefore, it is critical that we regenerate and protect our rivers to sustain life; human and non-human inclusive.

The current state of the Te Whau Awa means it is an unhealthy environment where many native plants and animals have been lost to urbanisation. Whilst the river continues to provide life for humans and natural ecosystems, regenerating its health and wellbeing is critical to the long-term sustainability of urban development in Tāmaki Makaurau Auckland. This thesis delivers a proposal for one of those development opportunities.

## Location

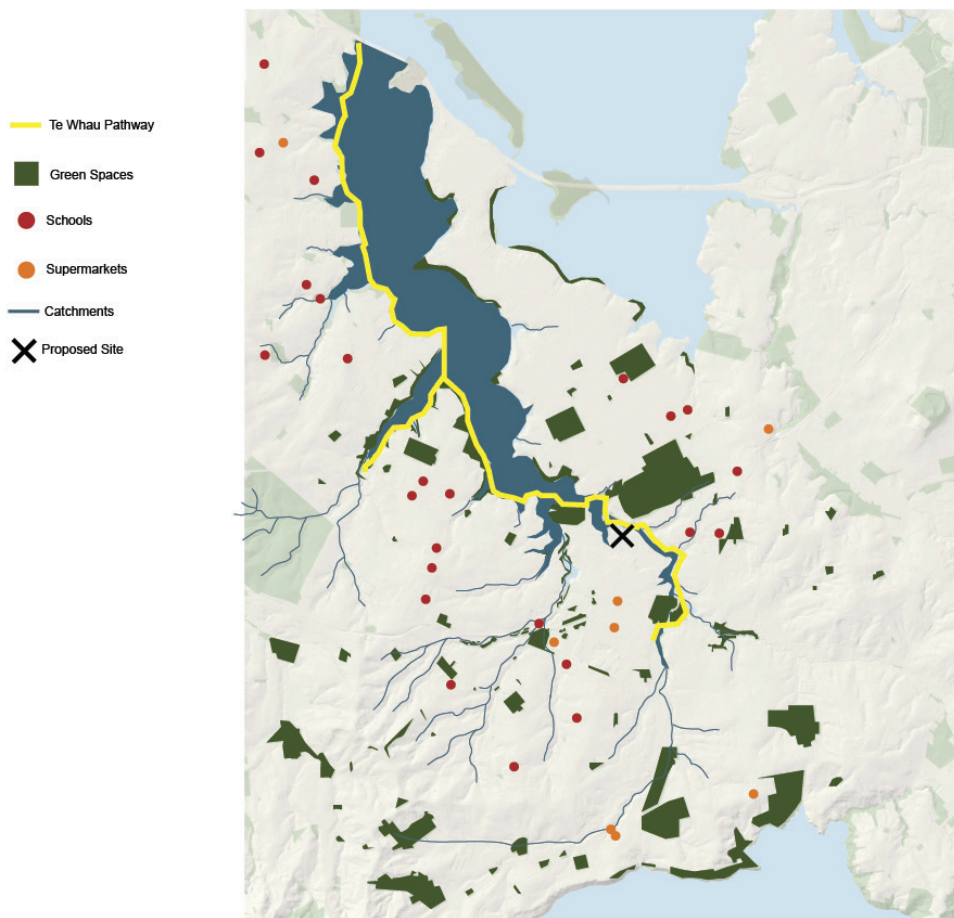
Located in Tāmaki Makaurau Auckland, Te Wai te Whau is a tidal river that inhabits an important ecological system. Noting Auckland's topography as a city that lies on an isthmus, a narrow strip of land situated between two bodies of water, Te Whau is a tectonic estuary that was created 20 million years ago when the land was raised by earthquakes and volcanic eruptions. Auckland is the home of 50 volcanoes and eight significant fault lines, all which had an impact on the geological shaping of Te Wai te Whau and its surrounding land of Hikurangi (*Macdonald & Kerr, 2009*). Te Whau Awa is an estuarial arm of the Southwestern Waitemata Harbour and was a centre point of survival in Tāmaki Makaurau Auckland for early inhabitants. The mana whenua (people of the land), who hold ancestral rights to this land, shown in the maps in figures 4 and 5, and commonly known today as Waitakere, are Te Kawerau ā Maki. Te Whau Awa passes through the land of this iwi, connecting the Waitemata Harbour to the Manakau Harbour via an historic portage route (*Macdonald & Kerr, 2009*).



**Figure 4:** *Te Kawerau ā Maki Heritage Areas in Waitakere City.*

**Figure 5:** *Te Kawerau ā Maki Tribal Boundary Map.*

The Whau River catchment and its throng of smaller sub-catchments cover a land area of 29.4 square kilometres. The river itself spans 800 metres at its widest and approximately 400 metres at its mouth (Mackay, 2001). The mouth of the Awa is positioned in between the Te Atatu Peninsula and the Rosebank Peninsula in Avondale and travels 5.6 kilometres to the confluence of Te Wai Tahurangi Avondale stream. Located at the centre of The Whau Ward, Te Whau is comprised of six suburbs: Blockhouse Bay, Green Bay, Kelston, New Windsor, New Lynn, and Avondale (Auckland Council, 2020). The suburbs host various amenities including schools, parks, sports grounds, marae, churches, supermarkets and more; each connected via Te Whau Pathway, a 13 km shared path currently under construction (figure 6) (Auckland Council, 2020). The Te Whau Pathway re-enforces the need for sustaining the health of Te Whau Awa and thereby providing an additional proposal that aligns with goals outlined in the Auckland Unitary Plan assists with its success. *The Urban Room* is proposed in conjunction with the Te Whau Pathway and highlights how the addition of urban developments can increase its recreational use.



**Figure 6:** Map of Te Whau Awa highlighting different types of amenities connected by the Te Whau Pathway. Adapted from Auckland Council GIS Geo-Mapping Software.

## Te Whau Catchment and Estuary

A river catchment is defined in the Oxford English Dictionary as “*the land area from which rain flows into a particular river or lake*” (*Catchment Definition & Meaning | Dictionary.Com, n.d.*). In Aotearoa New Zealand, catchment boundaries are commonly formed by natural land features such as cliffs, ridges, and hills. These natural formations contribute to the basis of iwi and hapu identity, known as the relationships between maunga (mountains), awa (rivers) and puna (water sources) (*Macdonald & Kerr, 2009*). Water predominantly enters streams via precipitation, before making its way over land into the main part of a river. In context, Te Whau Awa is a combination of fresh and saltwater that firstly moves across land surfaces and into drains before entering the river. This water is then distributed in and out of the estuary with the ongoing tides (*Mackay, 2001*). Upon visiting the Whau River catchment I began to notice the current relationship between architecture and whenua (land) in this area. Positioned with their backs to the river, housing and industrial infrastructure developments go against the natural flow and cause pollution, stream blockages, and significant harm to the environment. So, I began to wonder how it could be possible to integrate architecture into the natural environment without imposing on it.

Estuarine ecologies make up a crucial part of Coastal Marine Areas (CMA) within New Zealand. CMA zones, indicated in the Auckland Unitary Plan, manage the safe development of coastal environments, including Te Whau Awa. It protects the land and natural features (*F2 Coastal - General Coastal Marine Zone.Pdf, n.d.*) The formation of the Whau River catchment has a strong influence on the river’s biodiversity and ecology (*Mackay, 2001*).

Urbanisation is one of the key factors contributing to the pollution of Aotearoa New Zealand’s waterways, and many estuarine systems are becoming environmental hazards. Te Whau estuary is of high concern due to the leakage of heavy metals into the waterway from our modern way of living, and lack of understanding about how our behaviours affect the natural land. As Auckland’s population and urban development increase, stormwater runoff has become a threat to our natural ecosystems and the overall health of our estuaries, streams, and beaches. Investigations by Auckland Council indicate that Te Whau estuary’s tidal flats and water quality is poor (*Auckland Council, 2019*). These tests have found its water is built-up with toxic pollutants. Large quantities of zinc, copper and lead in the awa (river) have exceeded the Australian and New Zealand Environment Conservation Council guidelines (*Ellwood et al., 2008*). This is along with trace metals, light, water temperature, nutrient levels and substrate that affect the health of the river’s inhabitants. The major source of these types of pollution is from urban stormwater discharge and pollutants from everyday life including soaps, cleaners, and sediment that flow into Te Whau (*Ellwood et al., 2008*). This evidence proves the need to reshape the nature of industrial architecture to regenerate the wellbeing of our rivers, and so, I have developed a programmatic brief that responds accordingly.

Throughout history, Te Whau Awa and its changing landscape are acknowledged as a social, cultural, and economic estuarine environment. Weathering and time have naturally caused some features of the river to change, however, it is human influence—land reclamation, extraction, and modification of water flow that has more substantial impacts on the quality of the river and its estuarine morphology (Macdonald & Kerr, 2009). Natural streams have been piped underground to allow for housing and transport development. However, this is destroying parts of the natural ecosystem (Mackay, 2001). Moving forward we must holistically recognise Te Whau Awa as an important ecological system in order to sustain urban development.

## Human Influenced History

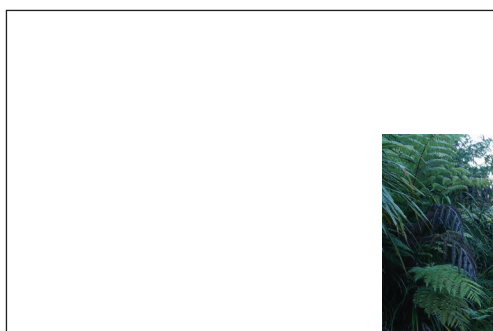
Prior to human settlement, Te Whau was surrounded by a lush forest of Whau trees (a fast growing native tree with very light timber after which the awa is named) and fringed by mangroves, with water that flowed into a clean ocean. The mangroves created slower moving waters and were used as nurseries for kuaka (godwit) who feed annually in Aotearoa New Zealand along the river. The entire marine environment was a thriving natural ecosystem, home to native birds, fish, insects, and plants. Motumānawa marine reserve (Pollen Island) at the mouth of the estuary remains a protected environment inhabited by these non-human species (Mackay, 2001).

Māori understand the value of the river as a resource that provides life through four key principles; mahinga kai (the cultural practice of gathering food and materials); kaitiakitanga (guardianship obligation); ki uta ki tai (mountains to the sea); and wai taonga (waters that are treasured) (Townsend & Niyogi, 2004). Human settlement along Te Whau Awa dates back to 1400AD. The river was a life-force utilised for hunting, fishing, travelling, and gathering natural resources like the branches of the whau tree which were used to build light rafts and floats for fishing nets. Māori tribes settled in temporary campsites along the portage route, a passage which enabled Māori to carry waka across land when trading goods, or travelling between the East and West Coast of Tāmaki Makaurau Auckland (Waghorn & Barrie, 2013). This route is one of the most significant portages in Tāmaki Makaurau Auckland and in the context of this thesis, provides an example of a threshold in the natural landscape of Tāmaki Makaurau Auckland, whereby the land of Te Whau was used to move between two significant bodies of water. An understanding of a *threshold place* will be provided in detail later in this thesis.

By the early 19th century Te Kawerau ā Maki held ancestral relations to the land dating over six centuries. A reminder of this history is identified along the coastline. Archaeological sites along North Manukau and North-West Waitemata coastlines display evidence of the campsites from visiting fishermen and travellers (Macdonald & Kerr, 2009). Perhaps the main reason for the lack of permanent settlements in these areas is the indication of boundary zones between tribal lands. Subtribes (hapu) such as Ngati Whatua, Akitai of Waikato and Ngati Te Ata co-existed around the Manukau harbour and utilised Te Whau for all its benefits (Macdonald & Kerr, 2009). The first recorded European settler to the tribal land of Te Kawerau ā Maki was missionary Te Matenga, Reverend Samuel Marsden. He met with mana whenua at Muriwai in 1820. That year, Te Kawerau relatives faced devastating musket raids by the northern iwi and a land war broke out over the Tāmaki isthmus (Macdonald & Kerr, 2009). While this was happening, Pākehā were extracting clay from deposits along the awa, utilising the resource for its commercial value (Scott, 1979).

Development of the brickwork industry on the banks of Te Whau awa arguably pinpoints the beginning of urbanisation and the advancement of technology in Tāmaki Makaurau Auckland. Upon arrival, early European settlers William Colenso and Dr Hochstetter described the land at Te Whau as “dreary and sterile” (Scott, 1979), meaning unable to be used for growing crops due to the hard nature of the soil—clay. It was Auckland medical practitioner Daniel Pollen, who recognised the clay deposits at his Rosebank Peninsula estate for commercial value. Discovery of this resource drastically changed the use of the river and rapidly increased social and economic growth in Tāmaki Makaurau Auckland. Throughout the 1800s brick kilns, were established along both sides of the river and as seen in figure 9, by the early 1860s, majority of Tāmaki Makaurau Aucklands’ brickwork industry was situated here. Upwards of 5000 bricks were manufactured per kiln each day (figure 10). In addition to bricks, clay was used in ceramics such as plates, cups, vases and preservation jars (figure 11) as well as building components including tiles and pipes. The brickwork industry operated for up to 100 years, dumping waste directly into Te Whau (Scott, 1979).

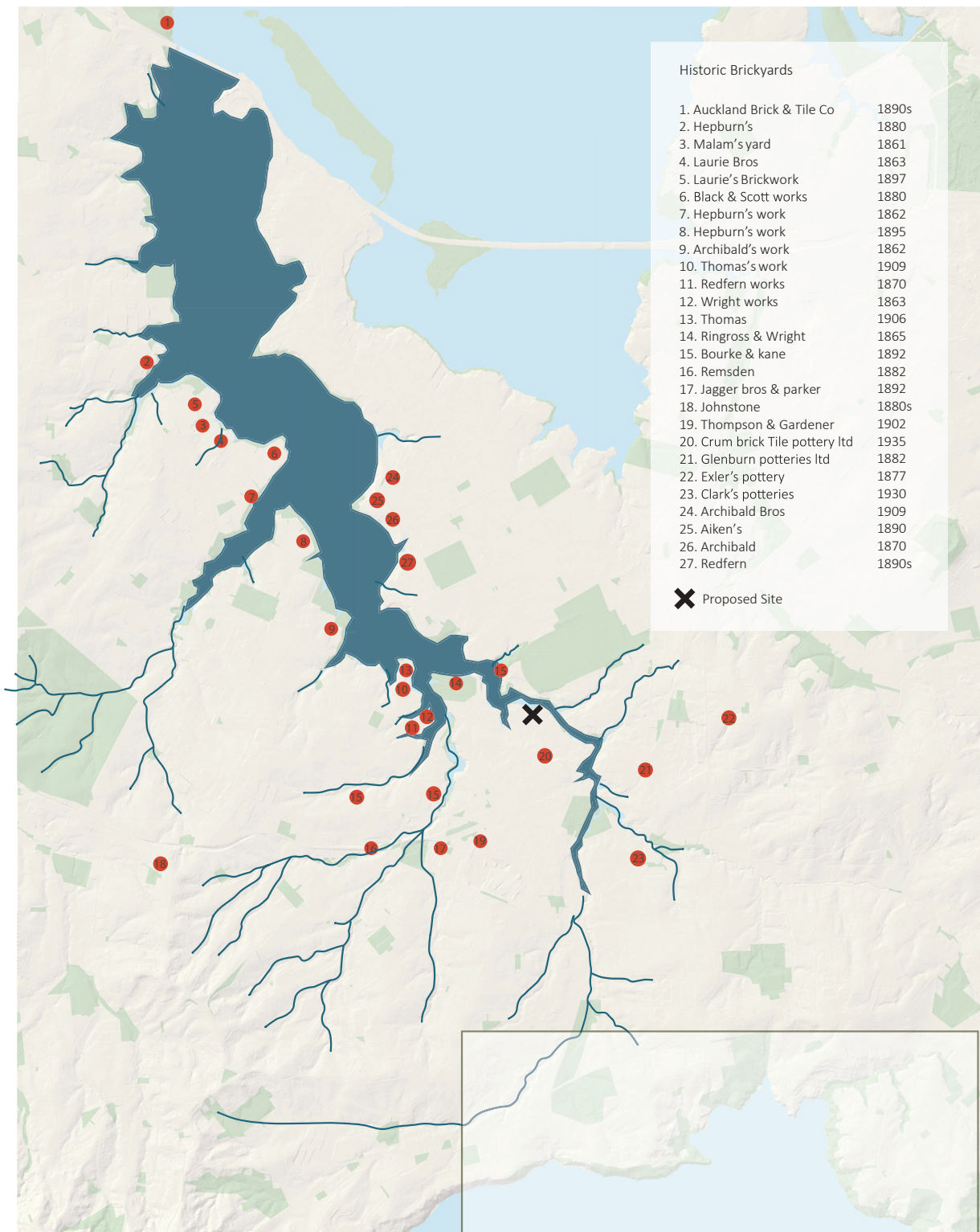
Industrial and domestic waste and excessive land reclamation continue to have severe consequences on the river, its land, and water quality. Development of residential housing and population increase in surrounding neighbourhoods adds to this issue. There is insufficient infrastructure to support sewage and stormwater runoff causing it to leak into Te Whau Awa through underground pipes. Streams leading into Te Whau are congested with weeds and pollution, resulting in water flow blockages and an increase in flooding (figure 7 and 8). Consequently, this results in significant loss of native habitats (Mackay, 2001). Industry development initiated the urbanisation of Tāmaki Makaurau Auckland and can be acknowledged as the beginning of the deterioration of Te Wai te Whau. The natural environment is being entirely overlooked, and the river is losing its importance. To sustain urban development and regenerate the wellbeing of Te Whau Awa, it is crucial this be addressed.



**Figure 7:** Te Whau streams blocked by weeds and pollution, an issue that has occurred because of human settlement.



**Figure 8:** Pictures of blocked and polluted streams taken on site visits.



**Figure 9:** Map of the brickwork industry situated along the banks of Te Whau Awa. Adapted from Auckland City Council Heritage Maps

**Figure 10:** Malam's old kiln (right) and Laurie's kiln (left), Whau River.



**Figure 11:** *Examples of Ceramics made at Crown Lynn and other brickyards.*

In the contemporary context Te Whau Awa acted as a border between Waitakere and Auckland cities, projecting political conflict over land use and ownership of the river. Architectural historian Ian Borden suggests that border territories either bring connection or disassociation from their surrounding environments (*Borden, 1998*). Land at border territories hold low economic value and there is lack of responsibility for the care of these environments. In the context of Te Whau Awa, this historic border between the central city and the west enabled the neglect of an essential waterway. It was treated as border territory instead of acknowledged as the thriving ecosystem it was. The consequences of this treatment led to the deterioration of water quality and extreme loss of natural habitat. However, since Auckland's amalgamation in 2010, the boundary between the two cities is no longer marked by the river.

On October 31st 2010 the eight regional councils constituting Tāmaki Makaurau Auckland merged into one super city. Despite some initial backlash, this decision came with ample success. The objective of the amalgamation was to create one unitary governing authority that would be responsible for future urban development across Tāmaki Makaurau Auckland, including new zone boundaries that are outlined in the Auckland Unitary Plan. The new zones allowed for the possibility of council lead organisations to collaborate with one governing authority to deliver holistic development proposals in the form of improved transport networks, the revival of waterways, and an abundance of accessible community spaces (*Government, n.d.*). Under this new organisation, rather than being the boundary between the Auckland and Waitakere cities, Te Whau became the center of the Whau Ward. Therefore, Te Whau awa now preempts a myriad of urban development opportunities that strategically reinstate the health of the awa (river). As I have mentioned, a key example of one of these opportunities is Te Whau Pathway.

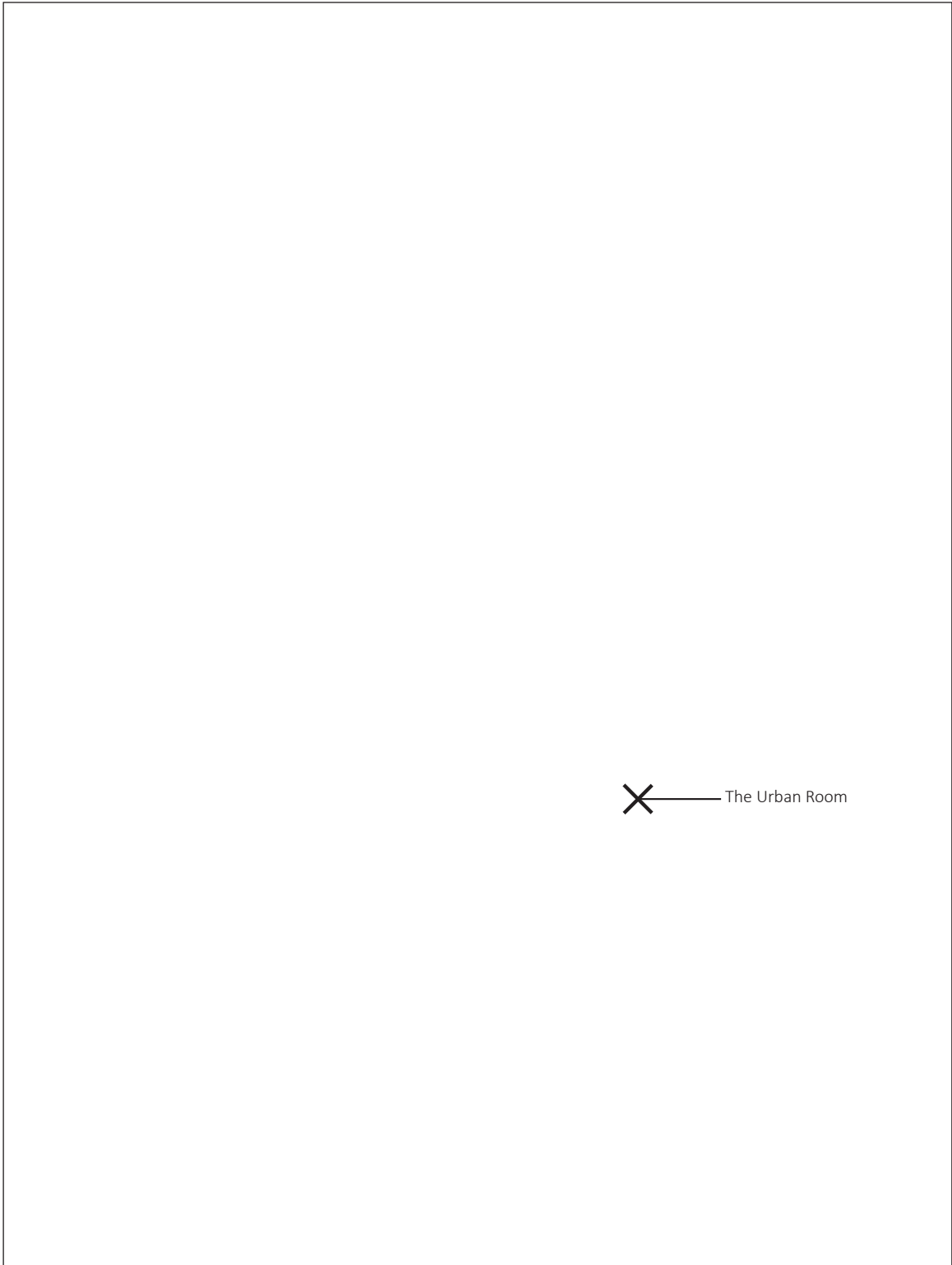
## Te Whau Pathway

One of the most significant projects to mention in relation to this design research and regenerating the future of Te Whau Awa is Te Whau Pathway. Te Whau Pathway is a shared public pathway under construction that reconnects two of Tāmaki Makaurau Auckland’s main bodies of water, the Waitemata Harbour and Manukau Harbours and reinstates movement along the historic portage route. Figure 12 shows a map of the thirteen kilometre, well-lit pathway that consists of four-metre-wide boardwalks suspended over wai (water), as well as three-metre-wide concrete pathways over whenua (land). One of the key objectives of this design thesis is to activate Te Whau Pathway as a place of social activity. The Pathway exemplifies utilising the river for improving safe pedestrian access and connection with an otherwise forgotten riverfront (figure 13) (*Jasmax, 2017*).

Considering the Auckland Unitary Plan, the Te Whau Awa is a General Coastal Marine Zone and Significant Ecological Area (*Auckland Council, 2021*). This section of the plan defines the integration of activities from all users, human and non-human while managing the effects of the built environment on Tāmaki Makaurau Auckland’s waterways stating:

*“Objectives and policies for the General Coastal Marine Zone[s]... include avoiding, remedying or mitigating adverse effects on natural character from disturbance of the foreshore and seabed (F2.5.2), and restoring and maintaining natural character and amenity values associated with mangrove management (F2.7.2).” (Auckland Council, 2021)*

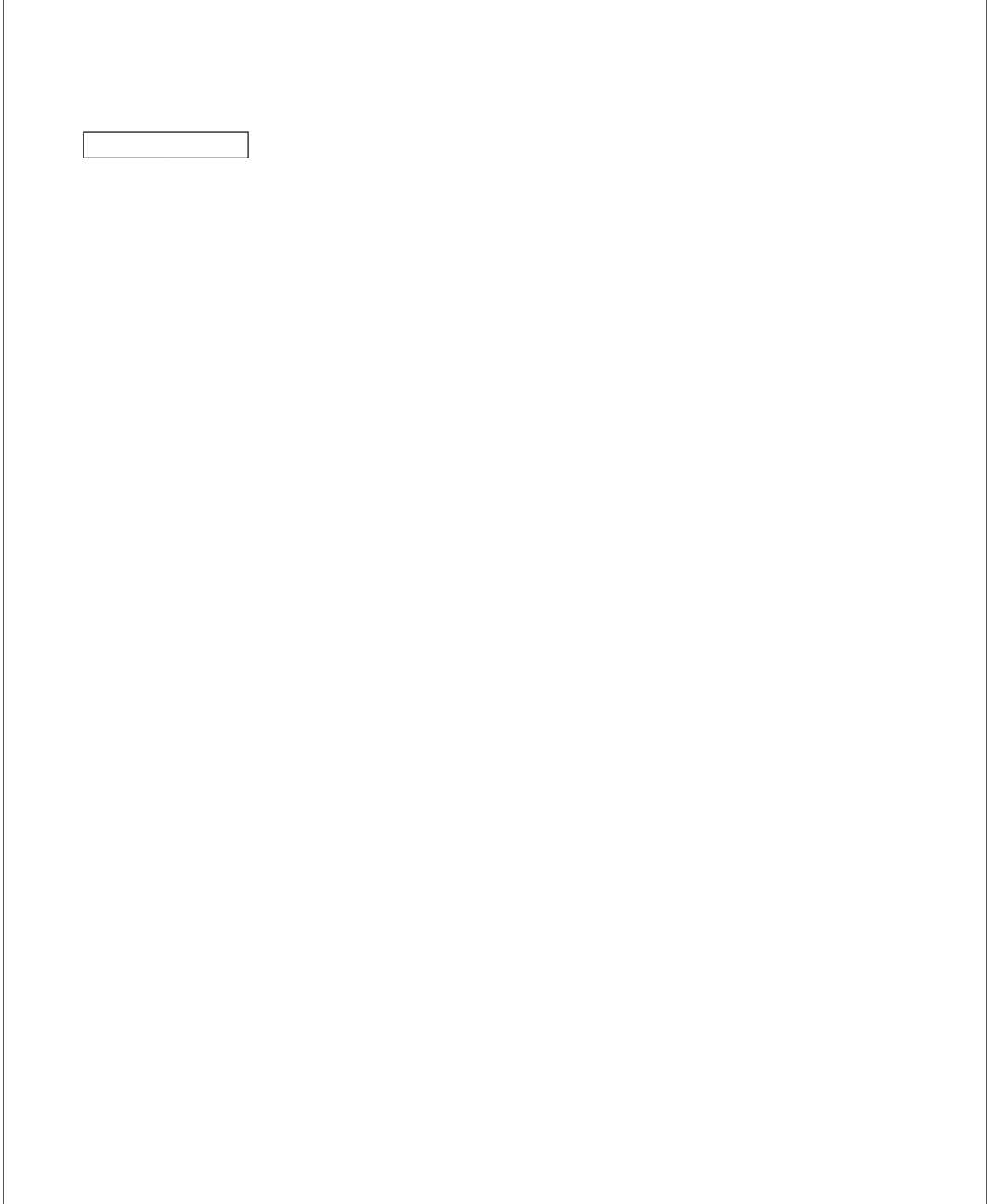
Responding to these zone requirements, Te Whau Pathway values three key principles: movement, identity, and legibility. These values explore how community connection, water quality, natural ecosystems, art, planting, accessibility, and getting active is addressed in the design process (*Jasmax, 2017*). Te Whau Pathway highlights the kind of area the river once was and could be again, an important transportation route and a significant anchor point in the urbanisation of Tāmaki Makaurau Auckland. This is as well as a clean, healthy environment for people, natural ecologies and wildlife to inhabit. *The Urban Room* successfully integrates with this concept, further increasing awareness and needs of Te Wai Te Whau.



**Figure 12:** *Te Whau Pathway Location Map with the Urban Room Site Location Pinpointed.*



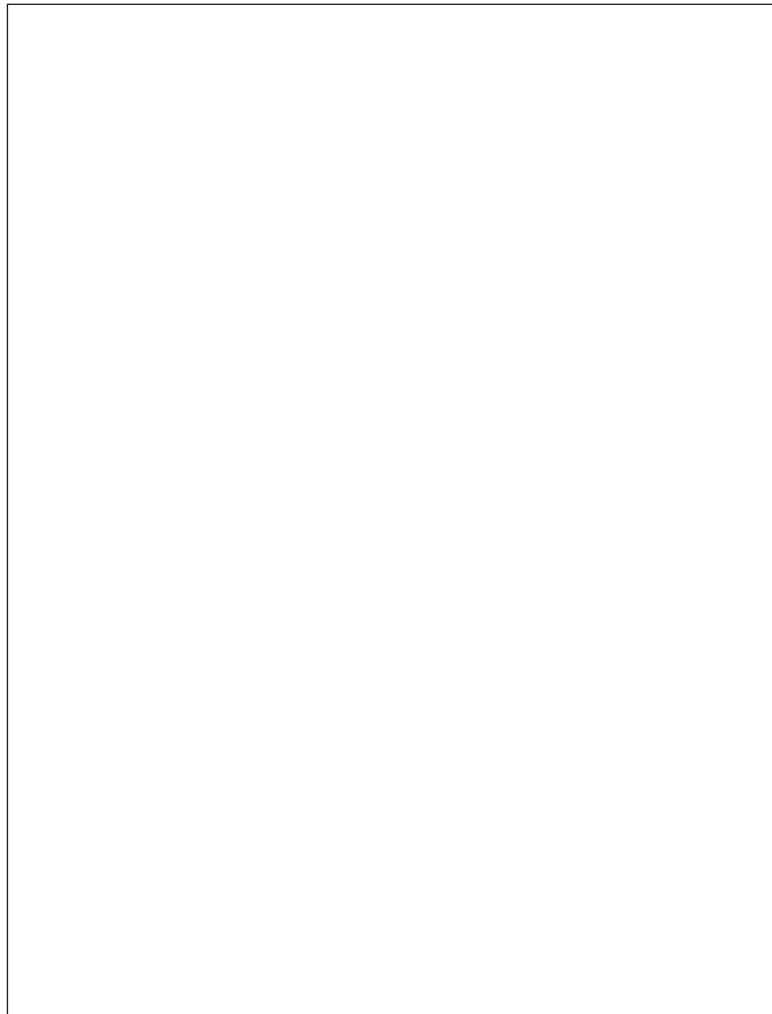
Overall, this chapter arranges the context of the thesis to its expanded site, Te Whau Awa. Exploring the history of the place to gain an adequate understanding of the river and therefore produce a relevant design proposal for sustainable future urban development. Furthermore, introducing a significant existing project under construction along the river's edge that brings forward the need for alternative designs to sustain future urban development. This thesis proposes that Te Whau Pathway will be activated by the way of permanent placemaking at the threshold interface and that *The Urban Room* will be a place that draws on the extensive history of Te Whau Awa.



**Figure 14:** *An aerial photograph of part of Auckland City, over New Lynn. Approx. 1:1200. 1968. The location of The Urban Room Site has been circled.*

## Chapter Two: Urban Context, New Lynn

The objective of this chapter is to develop a site analysis of New Lynn. The proposed site on the corner of Delta Avenue and Stock Street (figure 14) is introduced in relation to Te Whau Pathway, the Avondale Sunday Market, and *The Stitch*, via an analysis of the Auckland Unitary Plan (AUP) (Auckland Council, 2021); the New Lynn Urban Plan 2010-2030 (Auckland Council, 2010); and the Avondale High Level Development Plan (Panuku, 2017). The chapter describes the impact zoning boundaries have on the health of Te Whau Awa with specific mention of the site's location in the Delta Avenue Precinct, discussed in the New Lynn Urban Plan 2010-2030. Finally, it introduces a compelling opportunity for residential and commercial urban development.



**Figure 15:** *Historic Map of New Lynn. 1967.*



**Figure 16:** *Left to right, 1940, 1996, 2008, 2017 aerial site images adapted from Auckland City Council GIS geo-mapping Software. These images highlight the intensification of buildings in the area throughout history as well as the geographical relationship between New Lynn Town Centre, Avondale Town Centre and The Urban Room.*

- Avondale Town Centre
- New Lynn Town Centre
- The Urban Room Site

## Background of New Lynn

New Lynn, located in southwest Tāmaki Makaurau Auckland, is a suburb undergoing major urban redevelopment (figure 16) to meet sustainable growth goals outlined in the Auckland Unitary Plan (AUP). The AUP is an Auckland City Council document that “*promote[s] the sustainable management of natural and physical resources*” whereby “*people and communities [can] provide for their social, economic, and cultural well-being and for their health and safety*” (Auckland Council, 2021, Chapter A Introduction p.1). Its purpose is to deliver a high quality, sustainable future for Tāmaki Makaurau Auckland. This document expands what needs to be designed at the chosen site in relation to zone requirements that will benefit New Lynn, and achieve compact urban growth throughout Tāmaki Makaurau Auckland (Auckland Council, 2021, Chapter A Introduction p.1).

The objective for New Lynn is to slide the scale from a small suburban town centre, predominantly marked as an industrial zone, to a vibrant metropolitan town centre. New Lynn is the gateway between Auckland Central and Waitakere. A threshold that will deliver sustainable housing, public transport, and an improved socio-economic profile as urban development occurs. The aim is to enable residential housing and thriving businesses that will maintain up to 20,000 residents and 14,000 workers (Auckland Council, 2012). Te Whau Awa bisects the New Lynn Plan boundary and engulfs the Avondale Racecourse on the Eastern side of its riverbanks (Auckland Council, 2010). The river and racecourse host a variety of urban development opportunities. This thesis takes advantage of these two anchor points to uncover the benefit of otherwise overlooked urban development in the area.

Historically a suburb utilised for travel along the portage route, there is little physical evidence of permanent settlement in New Lynn from Māori history. However, traces of transient activity, including the remains of waka (canoe), islands of empty shells from kaimoana (seafood), and mullet used to hunt birds have been found (Macdonald & Kerr, 2009). In early European settlement, New Lynn scarcely existed with only 29 buildings in the borough (figure 15). In 1882 the New Lynn Hotel (figure 17) opened, continuing to recognise the settlement as a place to move through rather than reside and therefore evidencing New Lynn as a threshold place. (Macdonald & Kerr, 2009).

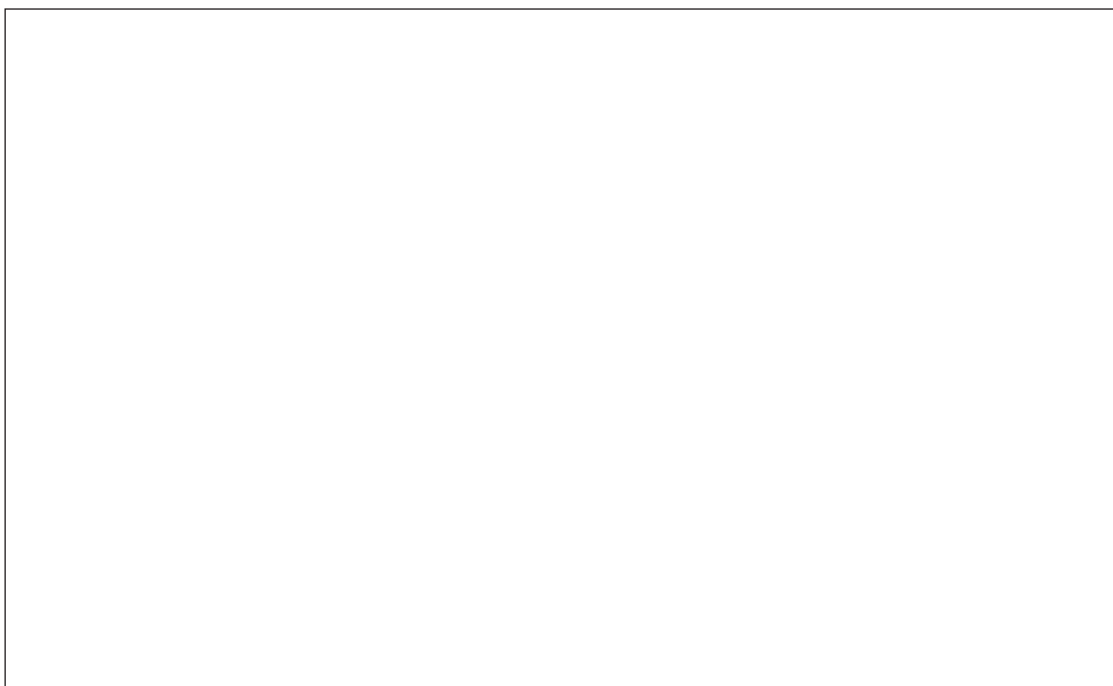


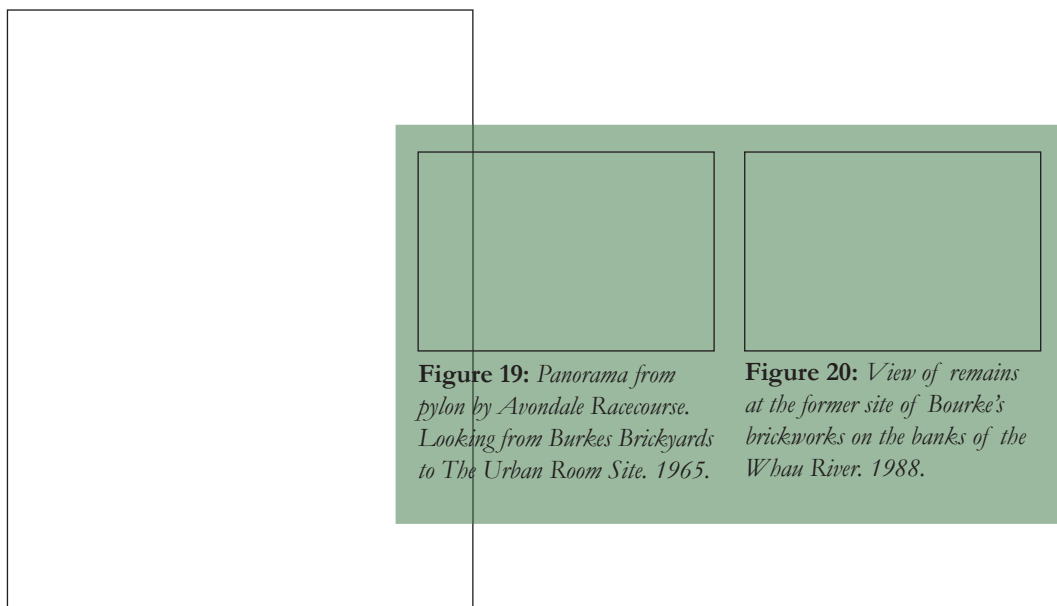
Figure 17: The New Lynn Hotel, 1908.

In the 1900's New Lynn was a maritime suburb, acclaimed for its close proximity to the city centre. The town was described by its first Mayor Charles Gardner as “*a wilderness of gorse and shrub*” (Scott, 1979). Its only asset was the Te Whau Awa which enabled business trade throughout Tāmaki Makaurau Auckland and the rest of Aotearoa New Zealand. The Port of New Lynn was a bustling trade centre, home to five wharves that distributed bricks from the industry along the riverbanks (Macdonald & Kerr, 2009). The New Lynn community has continued to evolve and transform over time, establishing various cultures and backgrounds in contemporary history. In 2013, census records show 61,226 people living in the area (Parliament, 2017). As people continuously move into the area, New Lynn is known as one of the most transient regions in Tāmaki Makaurau Auckland.

In the context of the urban interior, it can be argued that the suburb of New Lynn is itself a threshold place. Therefore, access to the suburb via Te Whau Pathway, along with a variety of different activities happening in one place is essential for its success.

### Introducing the Site

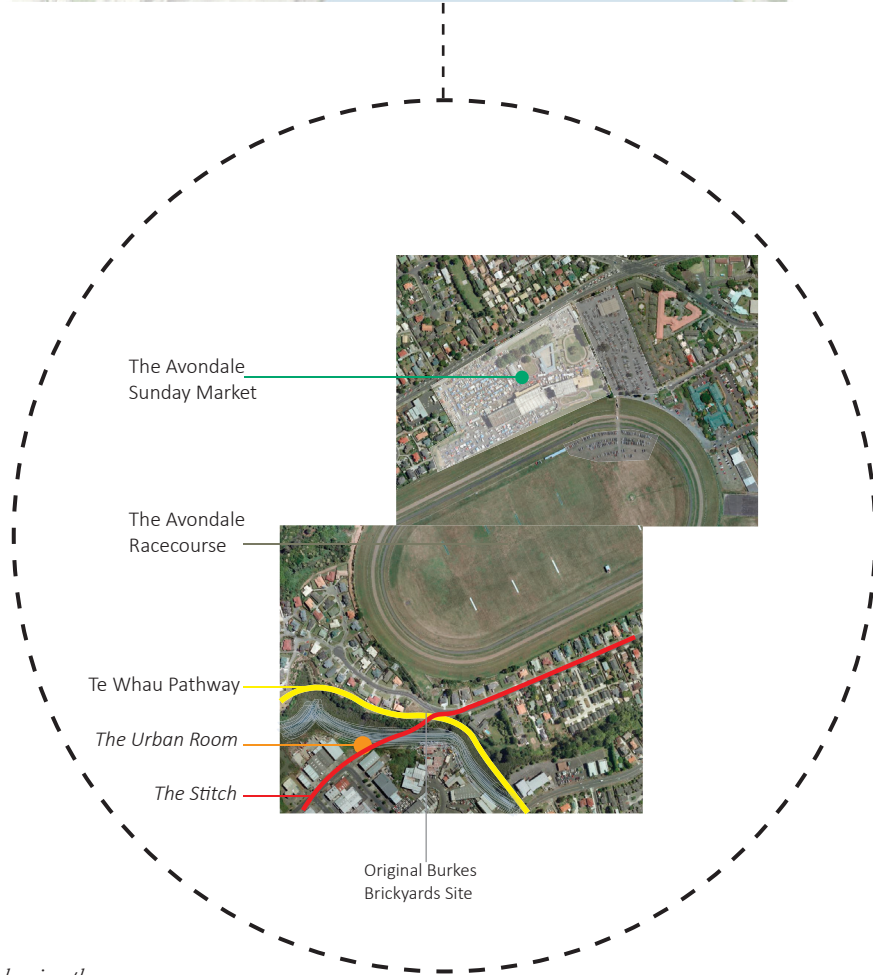
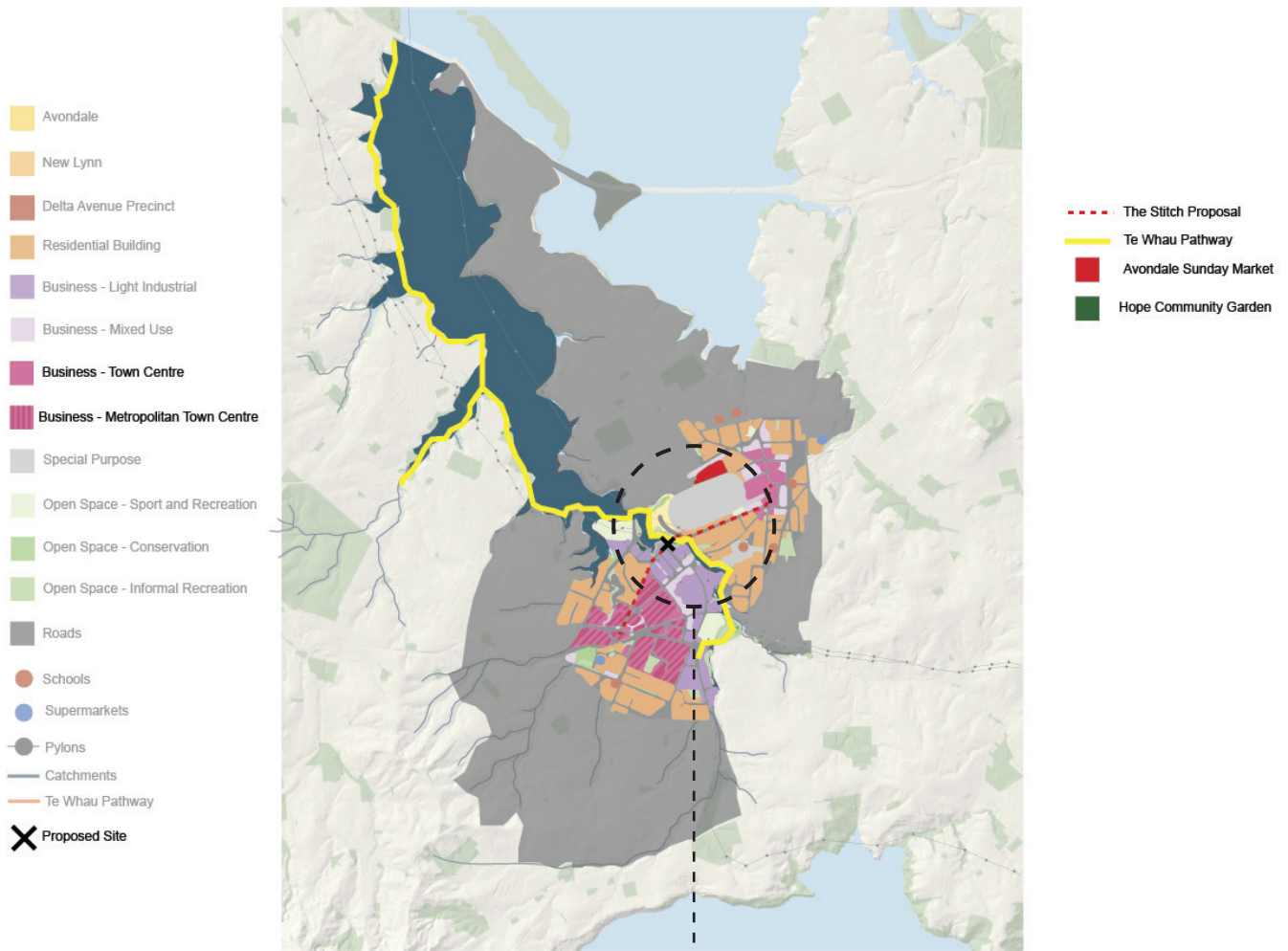
The afore mentioned site is located in New Lynn on the corner of Delta Avenue and Stock Street and is currently zoned in the AUP as a road reserve, meaning land that is available for future road development. Situated directly alongside the banks of Te Whau Awa, with a steep 4.5-metre incline from sea level, there is an opportunity for urban development. Crossing Te Whau Awa towards Avondale and directly opposite the site is Rizal Reserve. Historically the home of Burkes Brickyards (figures 18, 19 and 20) (Scott, 1979), Te Whau Pathway now travels over whenua (land) in this place, and is also the site of suburban housing. Rizal Reserve is noted for its close proximity to the Avondale Racecourse, the current site of the Avondale Sunday Market, and is also zoned as road reserve land. Figure 21 demonstrates the opportunity—that will be discussed in detail later—for a bridge to cross over the river from the site and connect with the Te Whau Pathway.



**Figure 18:** *Plan of Hoffman Kiln.*

**Figure 19:** *Panorama from pylon by Avondale Racecourse. Looking from Burkes Brickyards to The Urban Room Site. 1965.*

**Figure 20:** *View of remains at the former site of Bourke's brickworks on the banks of the Whau River. 1988.*



**Figure 21:** Map and diagram showing the opportunity for The Stitch to be activated in conjunction with Te Whau Pathway.

- Avondale
- New Lynn
- Delta Avenue Precinct
- Residential Building
- Business - Light Industrial
- Business - Mixed Use
- Business - Town Centre
- Business - Metropolitan Town Centre
- Special Purpose
- Open Space - Sport and Recreation
- Open Space - Conservation
- Open Space - Informal Recreation
- Roads
- Schools
- Supermarkets
- Pylons
- Catchments
- Te Whau Pathway
- Proposed Site

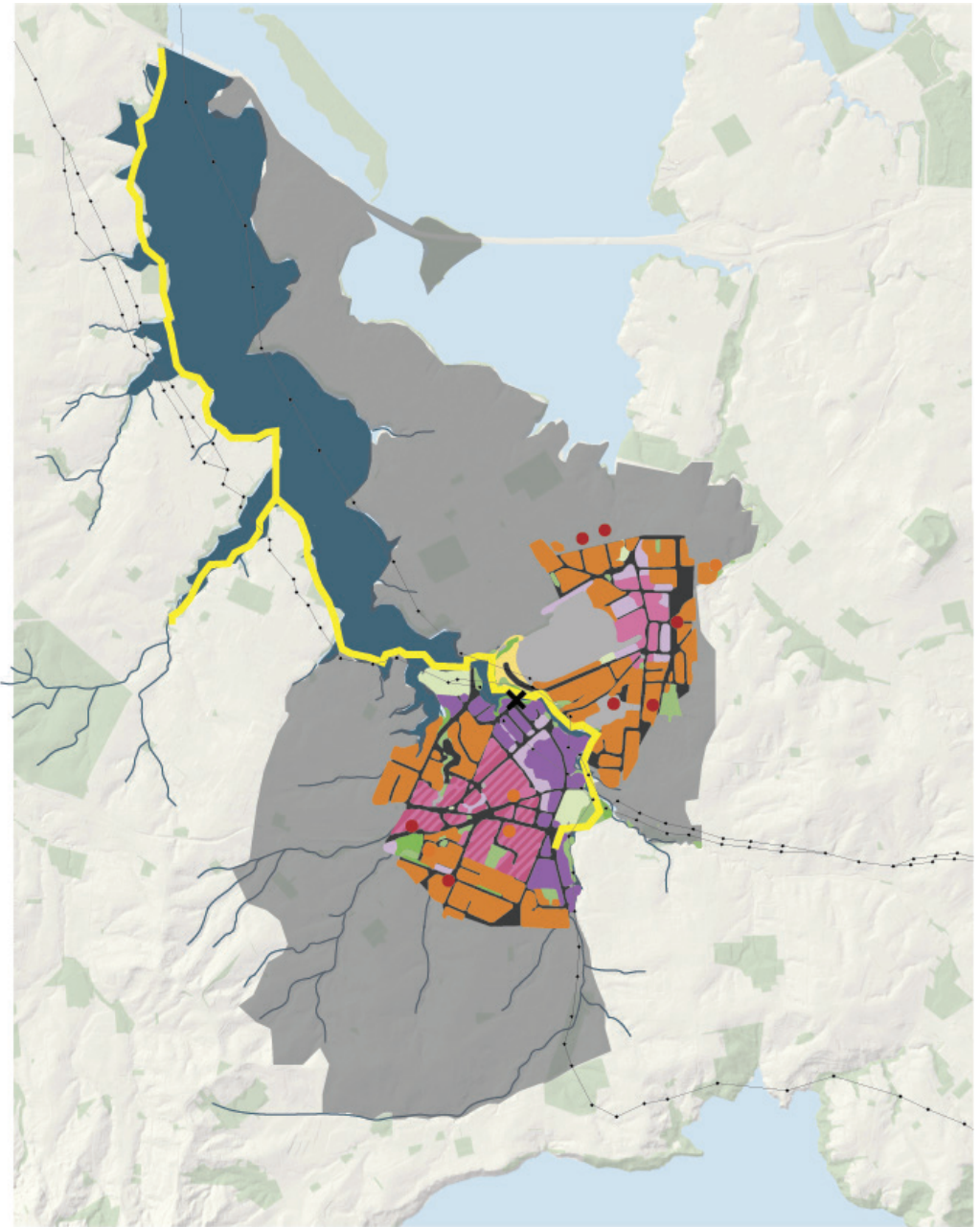


Figure 22: Map of Zones from the Auckland Unitary Plan in relation to Te Whau Pwahrtway and The Stitch. Adapted from Auckland City Council GIS geo-mapping Software.

## Auckland Unitary Plan Zones

The current dominant zone in New Lynn, surrounding Delta Avenue and highlighted in purple in figure 22 indicates a Heavy Industrial Zone (*Auckland Council, 2021*). Buildings are inhabited by industries including car dealerships or automotive workshops, plumbing or kitchen workshops, and storage facilities for housing requirements: kitchen, doors, windows, or furniture. Their location directly next to the river means industrial waste has consistently leaked into Te Whau awa, negatively impacting the regeneration of its ecosystems and water quality (*Mackay, 2001*).

Critical mapping shows that the most common architectural language in the area is dominated by the ‘tin-shed’ style of building. Large warehouses with gable and saw tooth roofs, displayed in figure 23, is the main architectural type that lines Delta Avenue, Stock Street, and other surrounding roads. These buildings are typically clad with tin roofing, and walls with large roller, garage-style, doors (*Hang Yan Lam, 2017*). Opening onto the street, their backs are turned on the river and the consequences are forgotten.

The yellow zone marked in figure 22 on the eastern side of the river indicates a Residential Mixed Housing Suburban Zone (*Auckland Council, 2021*). The majority of New Lynn’s housing was built in the 1950’s and 1960’s and consists of original individual dwellings (*Hang Yan Lam, 2017*). Looking across from the site, sections with individual houses line the river; it would be expected that safe access to the water would exist, adding attractiveness to these properties. However, due to the number of trees along the river’s edge that provide privacy for these dwellings from the industrial zone and stabilise polluted land, there remains little access to the water (*Beca, 2019*). In response to the zones outlined in the AUP, the objective of this thesis is to bring safe reengagement with Te Whau Awa. Land at the corner of Delta Avenue and Stock Street uncovers an opportunity for a mix of programs at one site, including condensed residential living, commercial, and business activity. To meet the vision for the suburb, increased alternative housing developments are critical.



Figure 23: Photos of buildings emphasising the industrial architectural language in New Lynn.

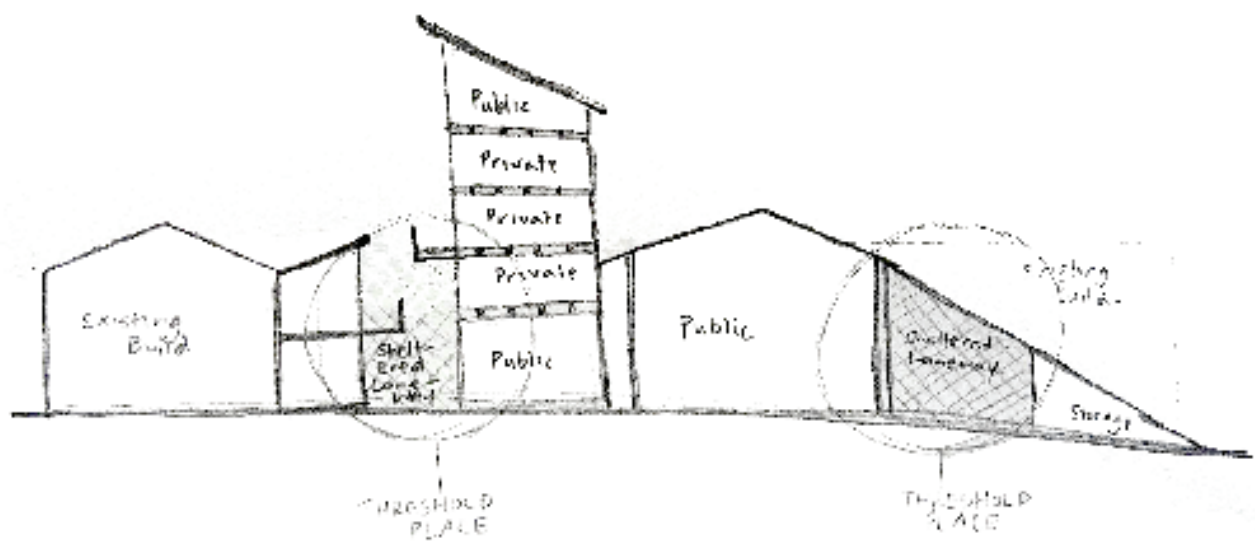
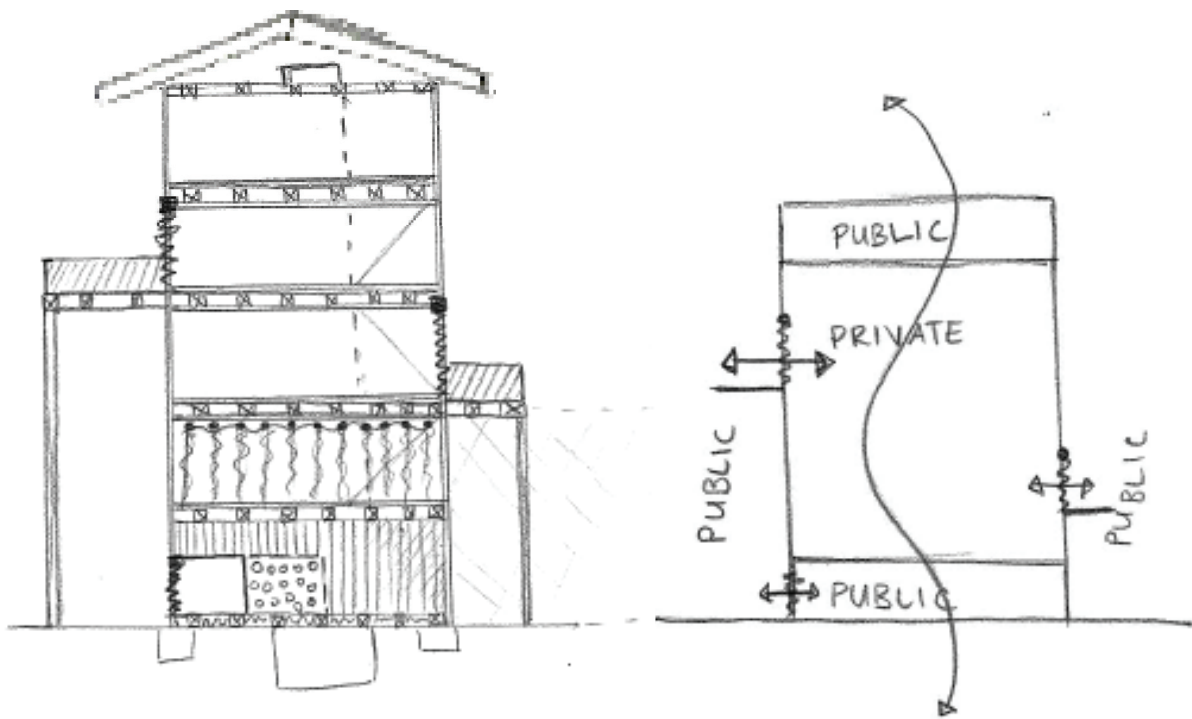
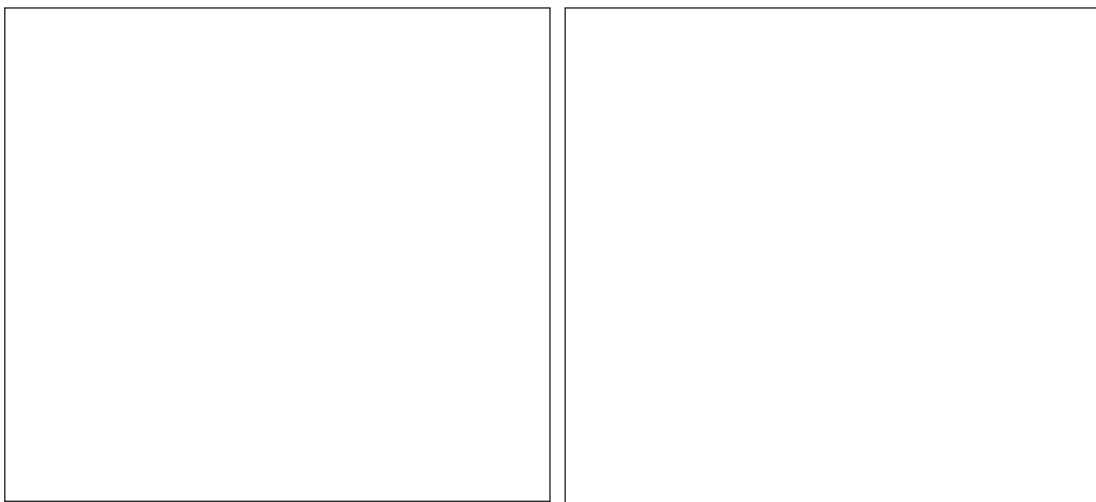


Figure 24: Initial concept sketches that respond to the industrial architectural language in New Lynn. The Urban Room design proposal mimics this architectural type to show how to adapt the use of the 'tin-shed' from industrial use to public, commercial and residential use.



**Figure 25:** *Delta Avenue Precinct Boundary Map, from the New Lynn Urban Plan 2010-2030.*



**Figure 26:** *Plan for the Delta Avenue Precinct. Section M.05 introduces the location and proposal for The Stitch, from the New Lynn Urban Plan 2010-2030.*

## New Lynn Urban Plan

The New Lynn Urban Plan 2010-2030 (*Auckland Council, 2010*) outlines the strategy for urban redevelopment in New Lynn. Co-existing with the AUP, it brings forth a detailed site analysis, locating the project within the initial study of Te Whau Awa. This Plan enforces action to improve New Lynn, and delivers a scheme to construct a variety of high performing residential and commercial amenities.

The vision for New Lynn is:

*“By 2030 to create a unique sustainable urban place centred on a world-class transit interchange that is capable of attracting and maintaining a population of 20,000 residents and 14,000 workers.” (Auckland Council, 2010, p.4-5).*

The New Lynn Urban Plan directly addresses the potential of Wai Te Whau and its tributaries–

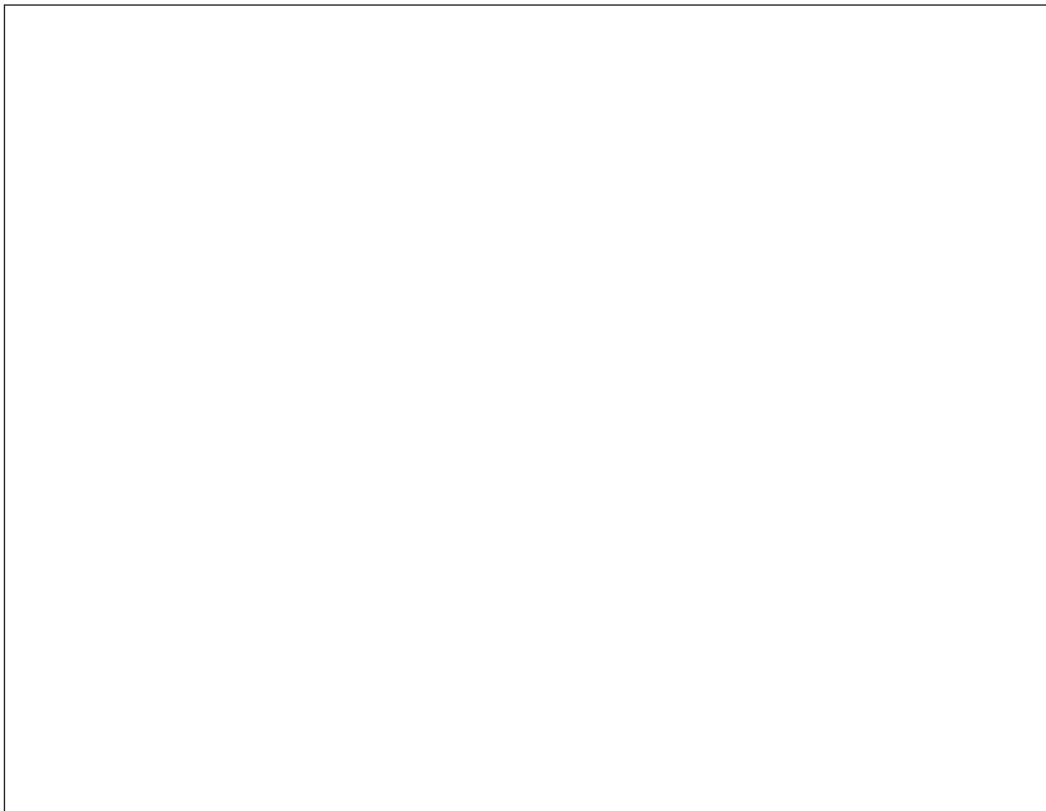
*“New Lynn will be a showcase of a pedestrian and cycle-friendly place... The Whau River and Rewarewa Stream will be treasured assets enjoyed by the whole community... New Lynn is to become a high-density residential area with quick and easy access to the CBD. It will provide a powerful economy with a strong business hub. And it will become the gateway to the Western suburbs [of Tāmaki Makaurau]” (Auckland Council, 2010, p.4-5).*

Despite the majority of land in New Lynn being already built on, there are several potential sites with clear opportunities for urban development. The chosen site located on the corner of Delta Avenue and Stock Street is indicative of this potential. The public land at this intersection lies within the Delta Avenue Precinct (figure 25), which begins at the Rewarewa Stream and its associated residential streets. The boundary travels north via the western arterial route of Rata Street before turning eastward. Having traversed Te Whau Awa, it progresses to Avondale town centre, additionally consuming the Avondale Racecourse. Heading southward, the boundary is formed by Great North Road until it cuts mid-block into the Heavy Industrial Zone for the purpose of preventing numerous car yards and low-grade commercial activities to front Great North Road (*Auckland Council, 2010*). The Urban Room site lies at the centre point of the Delta Avenue Precinct with the Avondale Sunday Market situated nearby at the Avondale Racecourse (figure 26). Furthermore, uncovering an abundance of future development opportunities in the area.

## The Stitch

Additional sections of The New Lynn Urban Plan 2010-2030 describe a proposal for *The Stitch*, a vehicular bridge that extends from the end of Delta Avenue, across Te Whau Awa, that connects to Wingate Street in Avondale (figure 27). This thesis reimagines *The Stitch* in this location as a pedestrian corridor between two suburbs, Avondale and New Lynn. A vehicle bridge in this location is no longer appropriate due to its direct connection with Te Whau Pathway through Rizal Reserve. The new intention for this proposal is that the bridge provides pedestrian access to Te Whau Pathway from the New Lynn central area and for residents in the Delta Avenue Precinct. Therefore, this site represents perhaps one of the most catalytic urban development opportunities in Tāmaki Makaurau Auckland (*Auckland Council, 2010*).

Reinterpreting The Stitch in this way clearly highlights the abundance of opportunities at the site, and grows the possibilities for threshold placemaking in the public urban realm. *The Urban Room* delivers a permanent place alongside *The Stitch* and Te Whau Pathway. Additionally, the permanent place acts as the entrance to the Avondale Sunday Market happening at its new street site. The location of the site in the centre of the Delta Avenue Precinct expands the idea that a public urban interior can be integrated within an urban landscape in the form of a threshold place. This is addressed at the site, which is arguably a corridor between Avondale and New Lynn. From this understanding, I have begun to develop the term *threshold placemaking* as a term that drives the design strategy. This will be discussed in detail in chapter three.



**Figure 27:** Original proposal of 'The Stitch' as a vehicular bridge across Te Whau Awa and connecting Delta Avenue to Wingate Street. From the New Lynn Urban Plan 2010-2030.

## Avondale High Level Development Plan

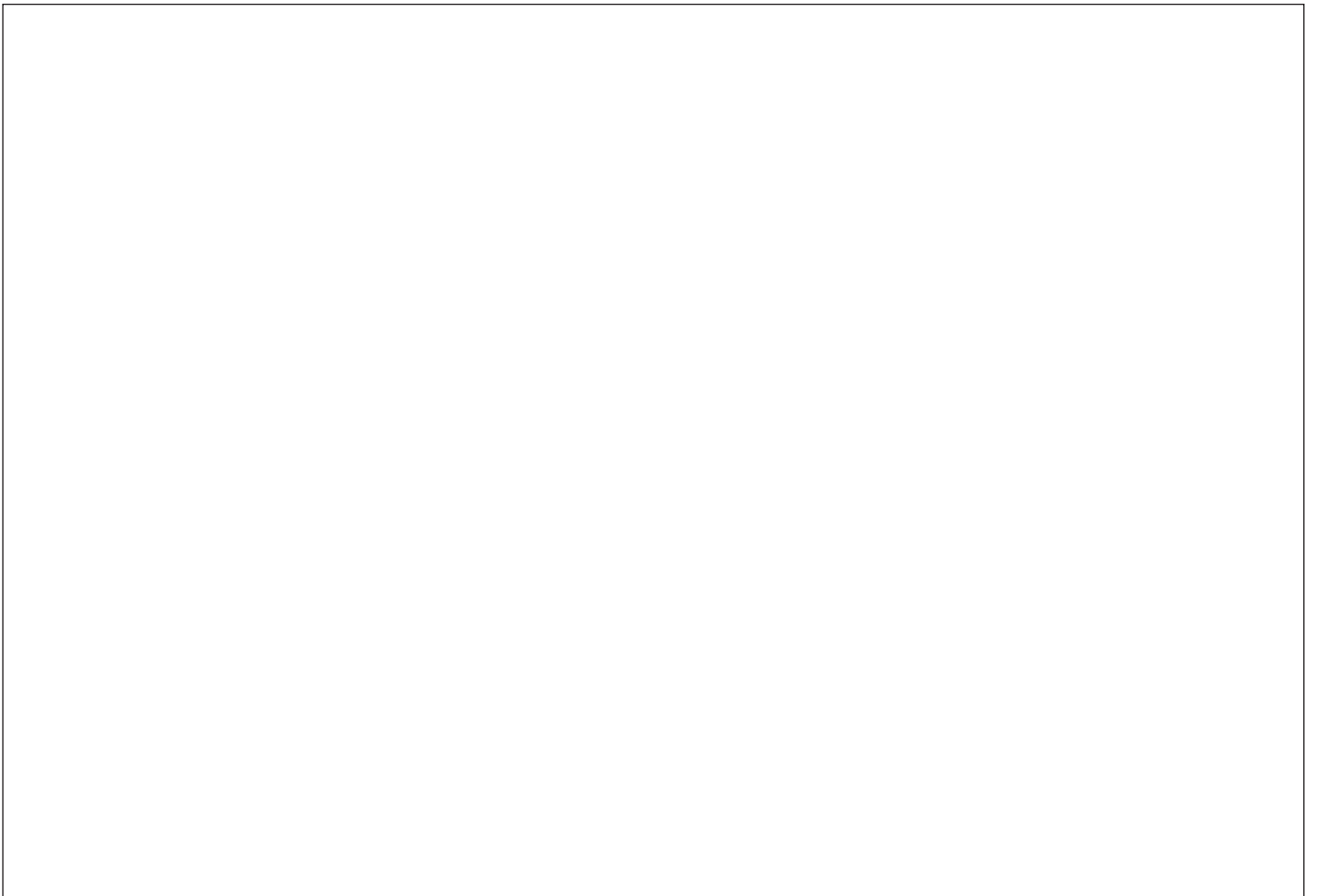
To understand the complexity of the site and to continue answering the research question, the Avondale High Level Development Plan (HLDP) is worth mentioning (Panuku, 2017). This plan delivers a quality development strategy supporting the regeneration of Avondale, that retaining the culture and heritage of the historic market settlement.

The HLDP specifically describes Avondale as:

*“A traditional town centre that [has] evolved as an industrial and market garden suburb, drawing on the resources of its clay soils and the proximity of the Whau River. It is now much more suburban in character and function... The Avondale Racecourse is adjacent to the town centre. It provides an attractive outlook and contributes to the character of the area through its racing activities and the popular Sunday market... An established multicultural market attracting 20,000 Aucklanders each week... The racecourse also represents a potential future opportunity to significantly contribute to housing supply in Auckland [as population rapidly increases].”* (Panuku, 2017, p.22).

Avondale is a well-established town centre that has evolved as an industrial and market suburb (figure 28). This suburb is one of the ten Spatial Priority Areas identified in the AUP. It aims to contribute an increased number of dwellings and create a town centre that connects to several districts in Tāmaki Makaurau Auckland (Panuku, 2017, p.22) The Avondale Racecourse is a highly praised asset that adjoins the town centre and exhibits a multitude of connection points to Te Whau Awa, and subsequently New Lynn. Adding character to the now suburban district, the Avondale Racecourse hosts the largest market in the country, the Avondale Sunday Market (figure 29) (Panuku, 2017). The HLDP identifies the assumption of development on this land stating, *“The racecourse also represents a potential future opportunity to significantly contribute to housing supply in Auckland”* (Panuku, 2017, p.22). Housing development is necessary to assist in meeting Avondale’s population growth expectations of more than 517,000 people within the next two decades, therefore defining the need for rehoming the Avondale Sunday Market so it doesn’t lose its business site (Panuku, 2017, p.10).

The HLDP also explores various connection points between Avondale and the racecourse, and New Lynn and the racecourse. One of which explores the consideration for a footbridge passing over Te Whau Awa and into New Lynn, connecting into the racecourse from Wingate Street (*a.k.a The Stitch*). Specific mention of this bridge in both the HLDP and the New Lynn Urban Plan 2010-2030 highlights the significance of this opportunity. Therefore, strategic planning of both Avondale and New Lynn will be critical to the success of regenerating Te Whau Awa.



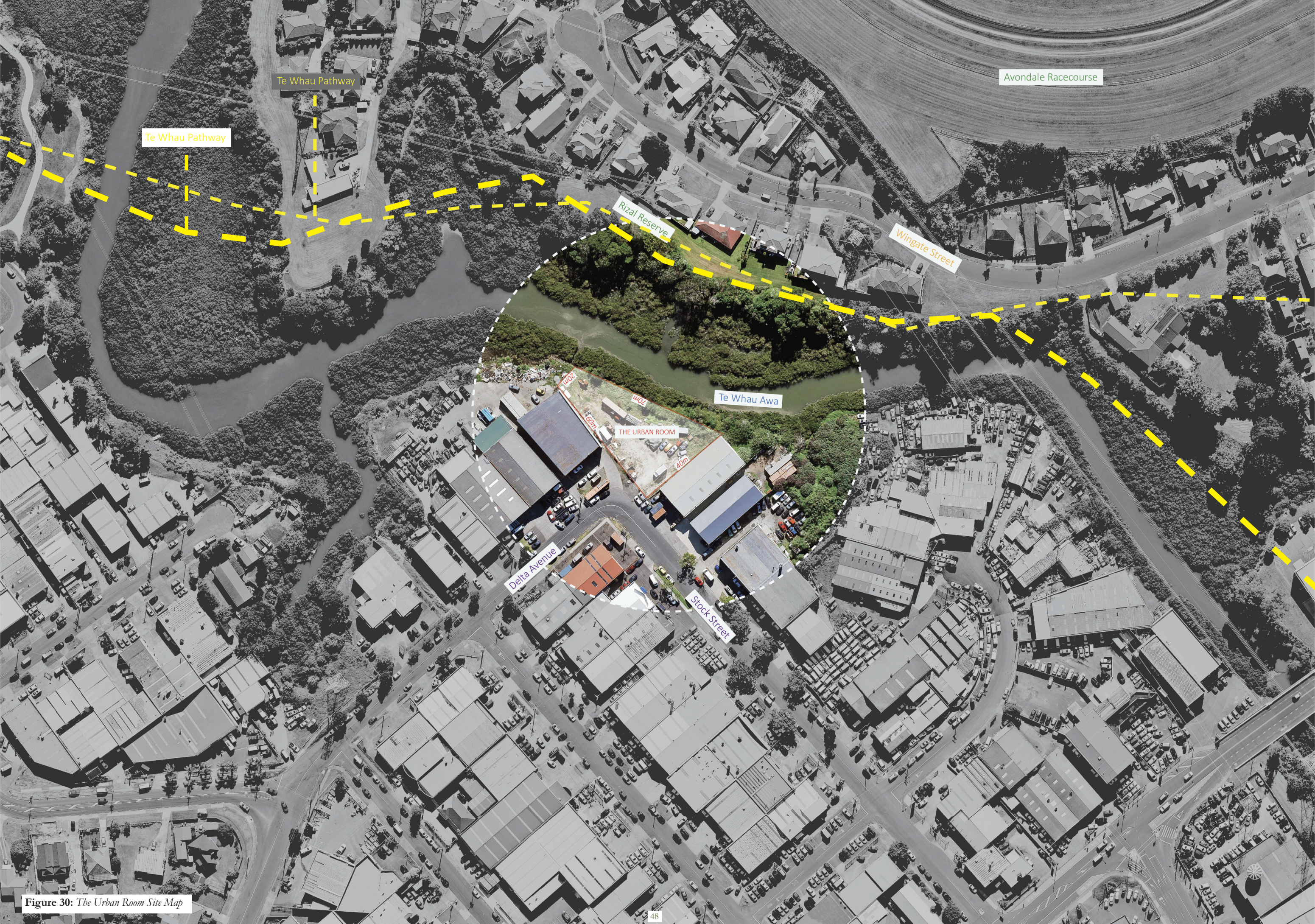
**Figure 28:** Map of Avondale HLDP Study Area showing Wingate Street as a connection point to New Lynn.



**Figure 29:** Diagram showing the relationship between the current site of the Avondale Sunday Market and the site of The Urban Room.

## The Site

This chapter has identified a site in New Lynn (figures 30 and 31) as an opportunity for sustainable urban growth, with reference to documents that provide specific context for the proposal. Furthermore, exhibiting the need for a design that amplifies the gateway between Auckland CBD and the west, in the manner of threshold placemaking. The design will reimagine the experience of the public urban interior through the schematic of placemaking at the threshold interface.



Te Whau Pathway

Te Whau Pathway

Avondale Racecourse

Rizal Reserve

Wingate Street

Te Whau Awa

THE URBAN ROOM

Delta Avenue

Stock Street

Figure 30: The Urban Room Site Map



Eco Demo  
Windows and  
Doors



Te Whau Awa

Rizal Reserve



The People's  
Gym



**Figure 31:** Pictures of the site and its current land use taken on regular visits. Issues highlight how the land is being used as a rubbish dump as well as buildings that back onto Te Whau Awa expelling water directly into its water.





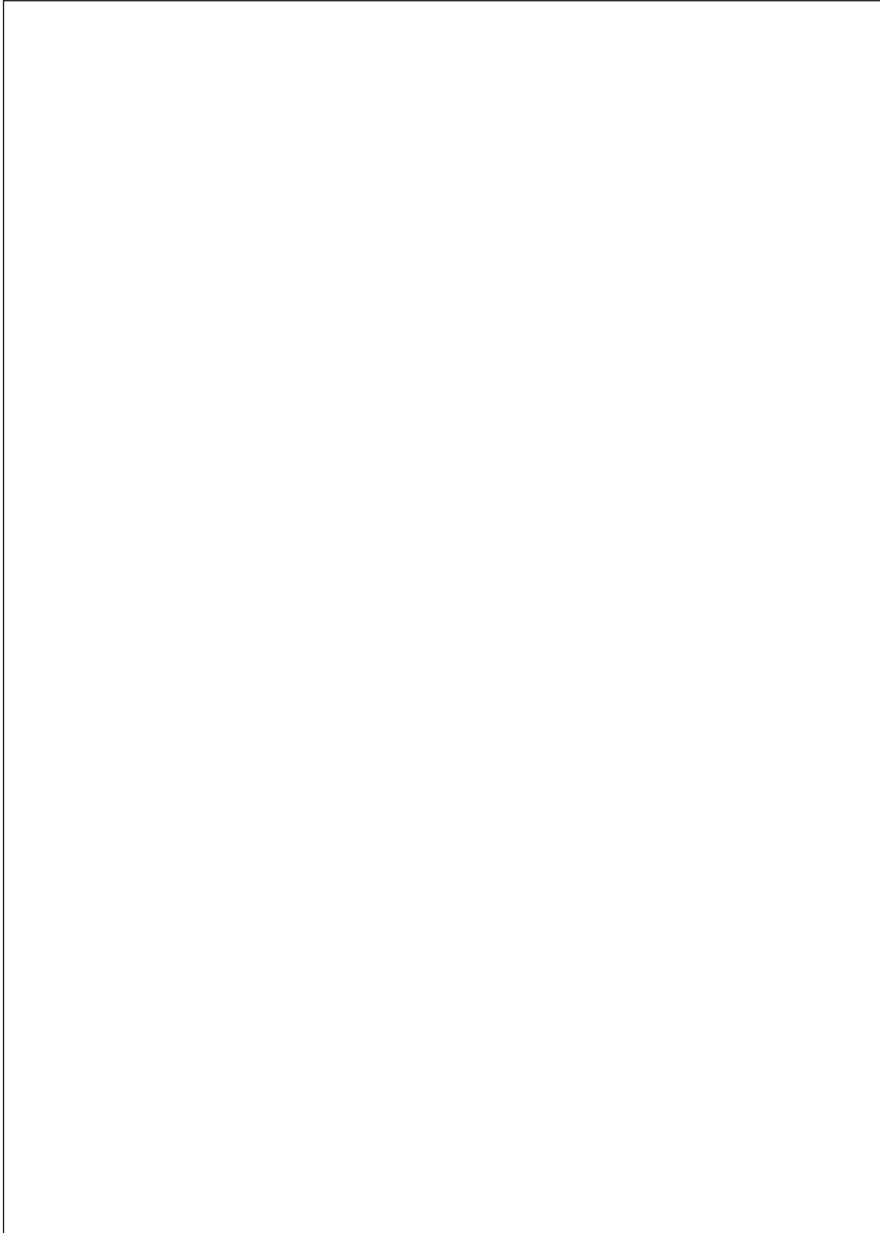
## Urban Interiority

One of the most significant terms that is used throughout this thesis and helps to answer the question, **“What is a public urban interior?”** is urban interiority. A research collective based in Melbourne titled ‘Urban Interior’ explores urban interiority through *“the threshold between the interior, habitually conceived as the private realm, and the urban, or what is generally recognised as the public realm.”* (Attwill, 2011, p.6). This introduces an integration of two fields through place and is described by theorist Suzie Attwill, who defines urban interiority as *“the relation between people and surroundings to produce interiors which perform different functions”* (Attwill, 2011, p.13). Her definition is critical in understanding that it is the relationship of interaction that constructs the built environment; interaction that most often happens at the place of the threshold.

Attwill’s essays closely examine the inversion of the built environment so that intimately private interiors can become public. Attwill specifically notes the urban interior experience of Melbourne city, where living rooms overflow into the street, corridors become laneways, and the private nature of interiority is engulfed by the public realm. It is from her writings that I discovered the idea of an *Urban Room*, and that any spaces can become room or interior-like through responding to their surrounding environments and their physical inhabitations. According to Attwill, *“The architectural definition of interior is implicit with ... the outside wall of a building becom[ing] the interior wall of an urban inhabitation”* (Attwill, 2011, p12-27). An example from her essay, shown in figure 32, that communicates this inversion of the urban fabric is a student project located in central Melbourne, whereby energy from passing trams generates heat into existing infrastructure in public seating, providing warmth for people waiting for the tram (Attwill, 2011) This intervention invites a spatial-thermal quality to inner-city Melbourne by investigating the transitional threshold—the tram platform. The place is more enjoyable to its users and clearly initiates the comfort and warmth of the interior, yet is coherently integrated with the public urban environment, and fundamentally dissolves the transitional boundary through activation of a threshold place. This form of placemaking—*threshold placemaking*—is developed from various sources and writings about the relationship of thresholds within architecture. It is particularly relevant to the urban interior and can be translated by the way of designing interior thresholds as places of activity and comfort.

## Perceiving Urban Interiority

As I expand on the idea of *the Urban Room*, it is important to understand that interiority is perceived through a combination of the senses and psychological human conditioning. Architect Liz Teston expands Attwill’s definition of urban interiority as being a perceived condition of the human experience. Teston writes, *“public interiority is also a perceived condition... It is possible to have a place that feels like an interior, without the constraints of architectural form... [rather] an interior space that is delineated by atmospheres”* (Teston, 2020, p.62). Her works generate an idea of public interiority as space designed in reference to the human scale and based upon what we know of our needs in the constructed world. Teston explains that public interiority is a threshold assumed by human perception, and the psychological conditioning one has in relation to the built environment (Marinic, 2018).



**Figure32:** *Example of Threshold Placemaking on the tram platform in Melbourne.*

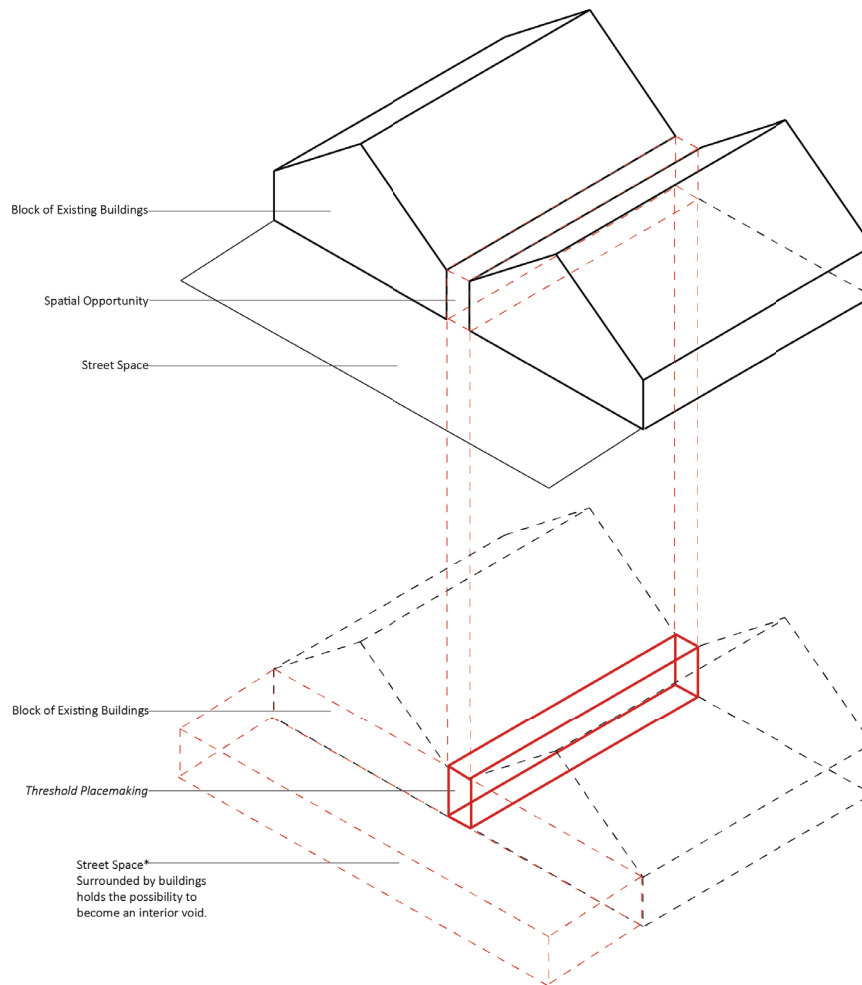
Supporting Teston's position, designer Kenya Hara writes in his book *Designing Design*, "an image generated in the human brain is a spectacle orchestrated through multiple sensory stimuli and revived memories" (Hara, 2007, p.156). The starting point of design is not from the image constructed in our brains, but from sensory stimuli we have all over our bodies. Hara addresses the designed environment through sensory receptors that feed information into our bodies and brains. Coupled with these sensory stimuli are our prior experiences and memories we have of places. From this, an overall image is built in our minds (Somprasong, 2017, p.55). For example, at the mention of a living room or a bedroom one understands a sense of the interior environment because of the conditions we subconsciously know it to have.

Here I would like to reiterate psychologist Bessel Van Der Kolk's definition of interiority as happening from within the human bodily blueprint. Our human needs are based on the condition of senses and happenings within the body. When it's cold, we know to put on a jumper; when we are hungry, we know to eat (Van der Kolk, 2014). This is similar to the position put forward by both Teston and Hara; interior architecture is a response to our human needs that come from within. Familiar interior rooms often form places of comfort, intimacy and activity due to the body's response to different atmospheric and spatial conditions. They intend on being familiar and personal through materiality, furnishings, and use.

## Threshold Place Making

As in the tram example examined earlier by Attiwill, an urban interior emerges when the boundary or threshold between two spaces is blurred. In her example, the threshold is between the infrastructure (the Melbourne tram network) and the personal space occupied by a patron waiting for their tram. Throughout this thesis, I will interrogate the productive interplay occurring at the threshold interface. I am specifically interested in the happenings in the gaps or blurred boundaries between the urban (street, laneway, pathway); natural (river); and interior (living, kitchen, eating) landscapes.

The term threshold is used across a variety of fields and therefore defined in a multitude of different ways. The dictionary defines a threshold as "any place or point of entering or beginning" (Definition of Threshold | Dictionary.Com, n.d.). This common definition of threshold identifies that a threshold is the beginning of a new state, idea, or experience without leaving where one once was, however, taking what is already known in one state of being and advancing it to the next. Developing upon this understanding of a threshold, Till Boettger's architectural definition of thresholds, stated in his book *Threshold Spaces*, is a space that "interrupts [architectural] boundaries for a transition from one space to another" (Boettger, 2014, p.47). Boettger writes how a variety of activities often happen in these transitional zones; resting, waiting or exhibitions. The threshold, therefore, is that of complex spatial sequences and structures, rather than the simple connection of rooms. It is a fundamental structural design component that performs the activity of the space in between (figure 33). Consider a bridge where one crosses from point A to B. At some point along this bridge, the transition from point to point dissolves (Boettger, 2014).

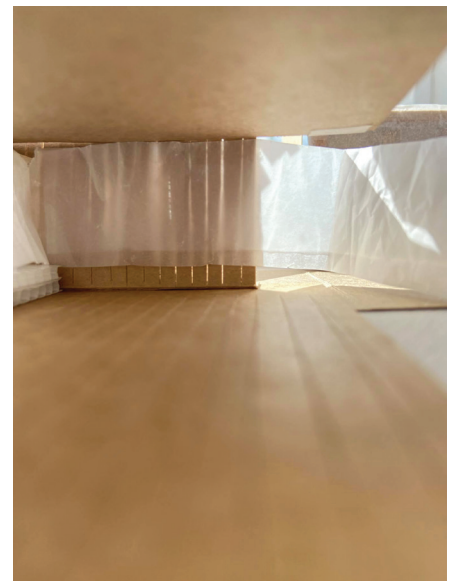
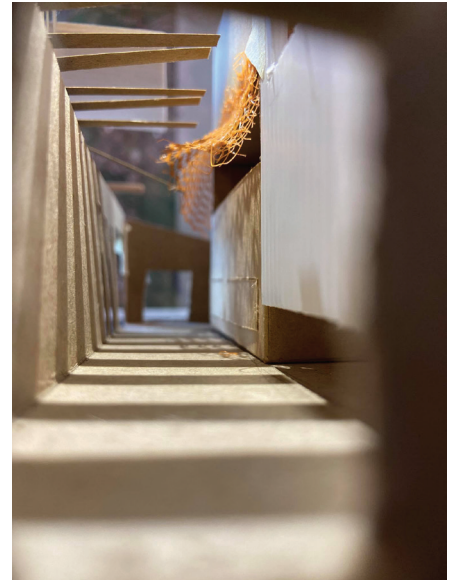


**Figure 33:** *Diagram of Threshold Space adapted from Till Boettger's Book Threshold Spaces. The Body of the threshold space identifies opportunities for activity to take place inside this internal void.*

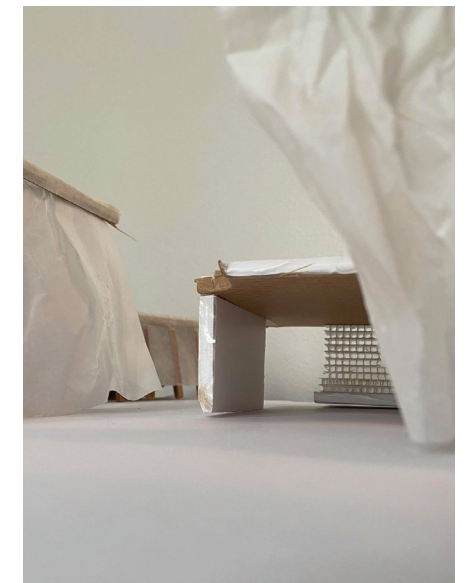
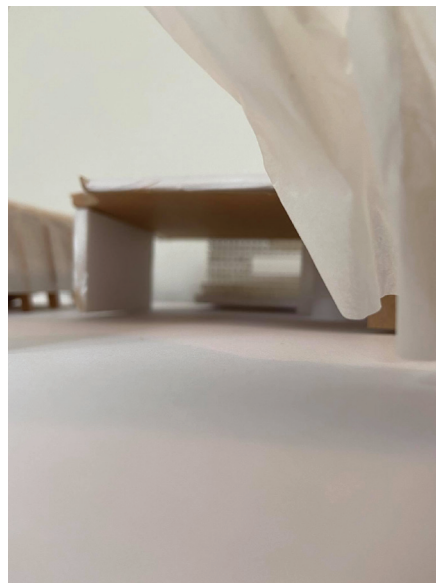
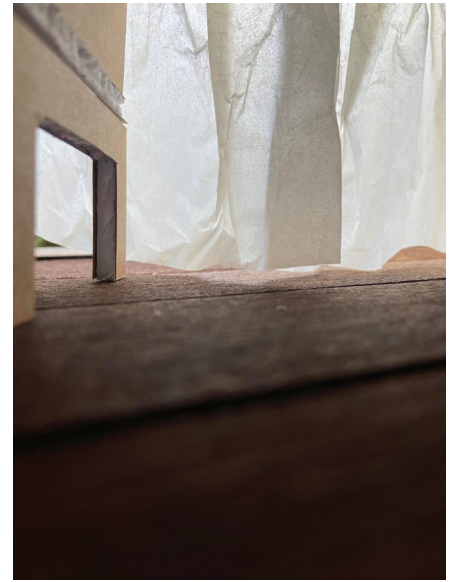
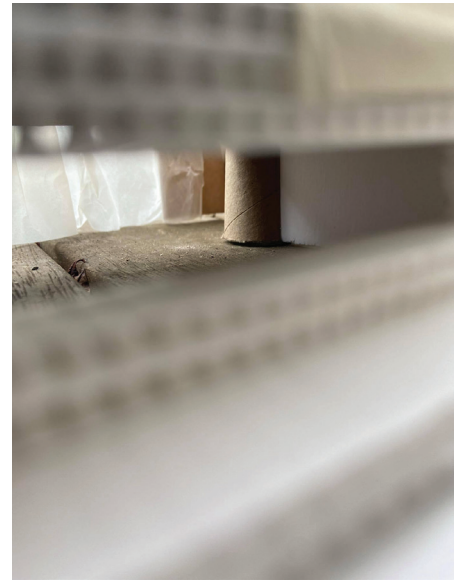
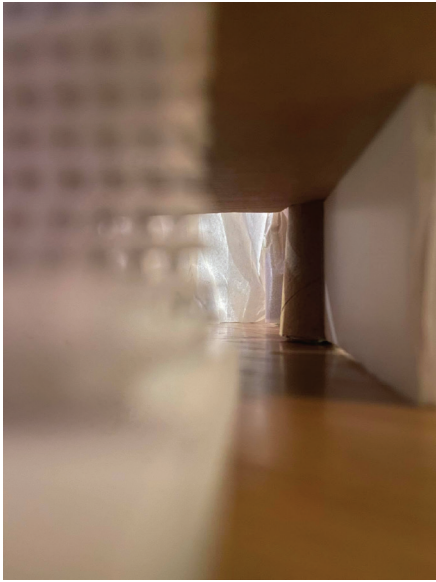
This brings us to the notion of place. 'Place' is almost difficult to define as it is a word that somewhat speaks for itself. However, in his book *Place*, geographer Tim Cresswell discusses 'place' as an interdisciplinary concept, a word used in almost every field; writers set their novels in a place, a movie scene depicts a place, google maps gather data that tells us how to get from place to place, "Do you want to come over to my place?" is a common question asked by friends (Cresswell, 2014). Ultimately Cresswell defines place as referring to "the material setting for social relations - the actual shape of place within which people conduct their lives as individuals... It is clear that places almost always have a concrete form" (Cresswell, 2014, p.14). In this instance 'concrete' is implying permanence rather than material. The difference between 'space' and 'place' is within emotional connections and experiences one has. As a basic example, a bedroom with no furniture is a space one is able to make their own. By adding a bed, drawers, a bookshelf, and hanging art on the walls it is transformed into an individuals' place. Agreeing with Cresswell, I am not saying that simply adding furniture will adapt a space into a place, however, I do believe the intent of a place is to be experienced by its users.

Derived from the writings of Boettger and Cresswell, along with previously mentioned examples found in Attiwills' works I have developed the term threshold placemaking, to mean the place of activity between buildings that are inhabited in a temporal way. Cresswell states, "*places have space between them*" (Cresswell, 2014, p.15), and I have come to understand that the spaces between are places where boundaries are seamlessly blurred due to psychological perception. In the design of *the Urban Room*, I have developed strategies that activate the threshold place. Manipulating normative form through designing thresholds that accommodate inhabitation (figure 34). Design strategies include dissolving corners of buildings so the common function of a wall is challenged (figures 35 and 36); overhanging balconies that create sheltered interior space in the threshold below and additionally taking typically interior items, specifically curtains and extending them into laneways (figures 37 and 38); thickening window sills so they become a place to host activity—seats, art exhibitions, or entrances (figures 39 and 40); and pivoting walls and doors that 'claim' external spaces and create an in-between or interior zone (figures 41 and 42). The act of merging the interior landscape with its surroundings shifts the function of interior items. An example is seen in the design of Shigeru Ban's Curtain House and Storefront for Art and Architecture and is discussed in further detail in chapter five. The threshold has become an experiential place, more than a line one simply crosses over.

To conclude this chapter, an understanding of urban interiority and *threshold placemaking* is evaluated and communicated in relation to *the Urban Room*. I have established that urban interiority must involve a programmatic crossover between architectural fields and an interaction between people and environment. An interior is constructed by inhabitation and so urban interiority is connected to the inwardness of the human experience via places that accommodate our various needs; needs that are identified in the thresholds that blur the boundary between inside and outside.

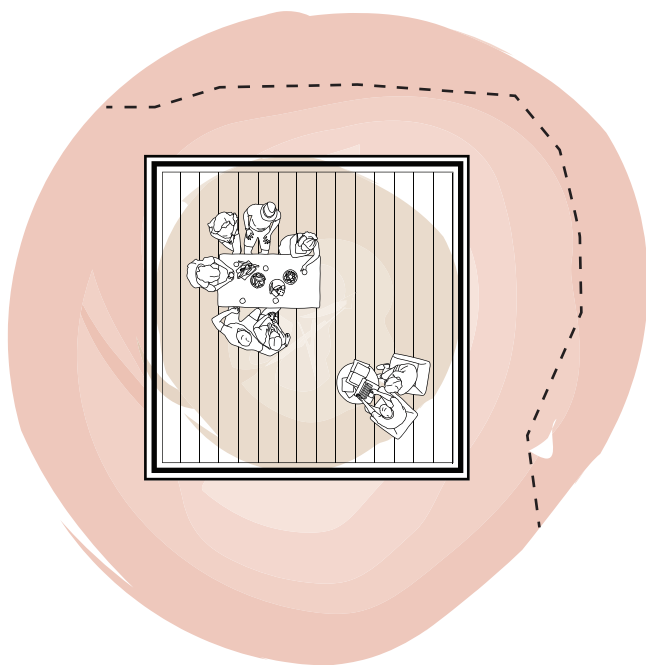
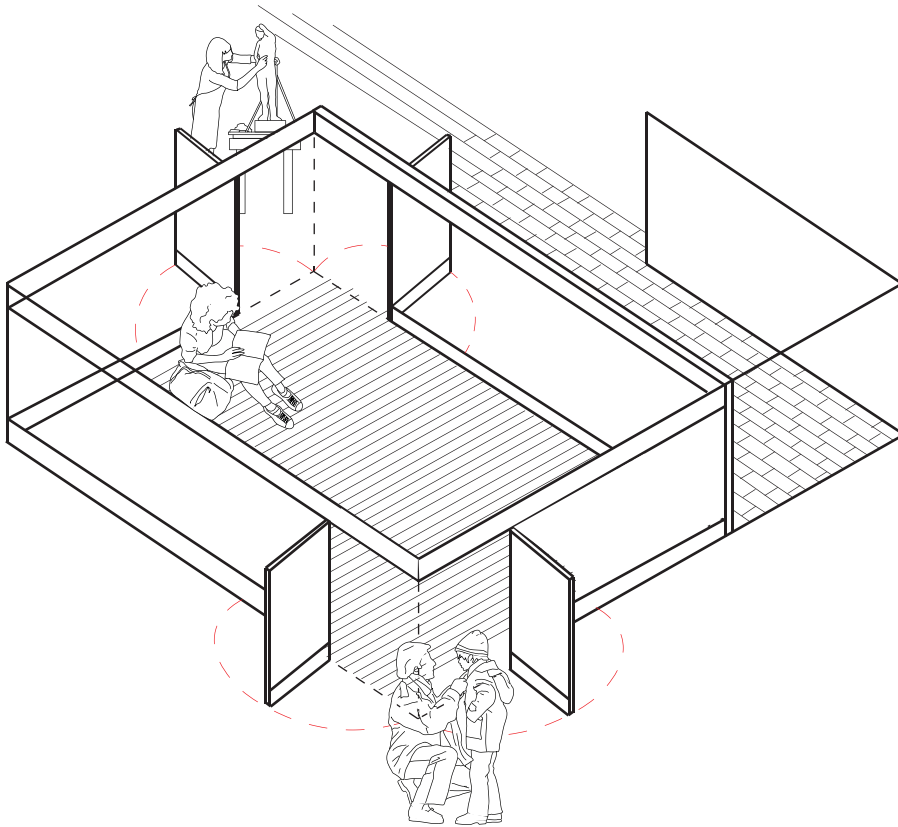


**Figure 34:** A series of models made in the design research to investigate the spatial potential of threshold placemaking. Note the use of apertures of different shapes and locations, opening corners, covered laneways and the expansion of curtains beyond the building envelope.

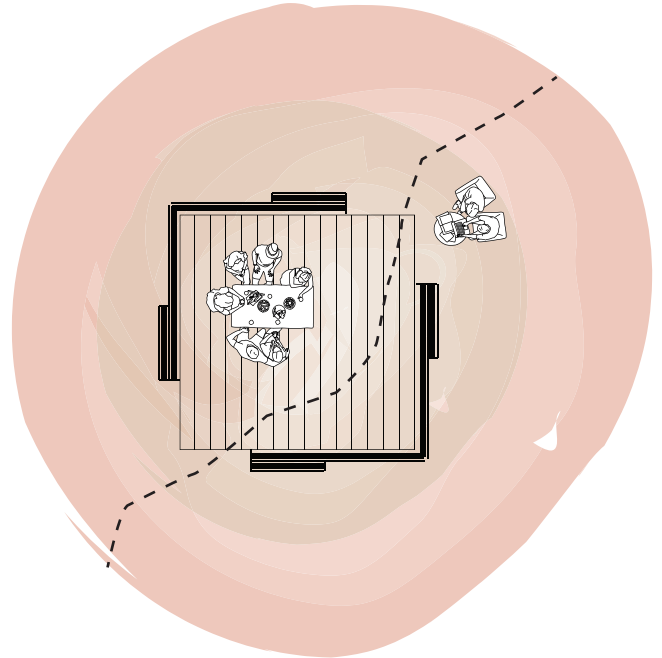




**Figure 35:** *Test model showing the corners of the building folding back as if 'dissolving' and therefore blurring the boundary between inside and outside.*

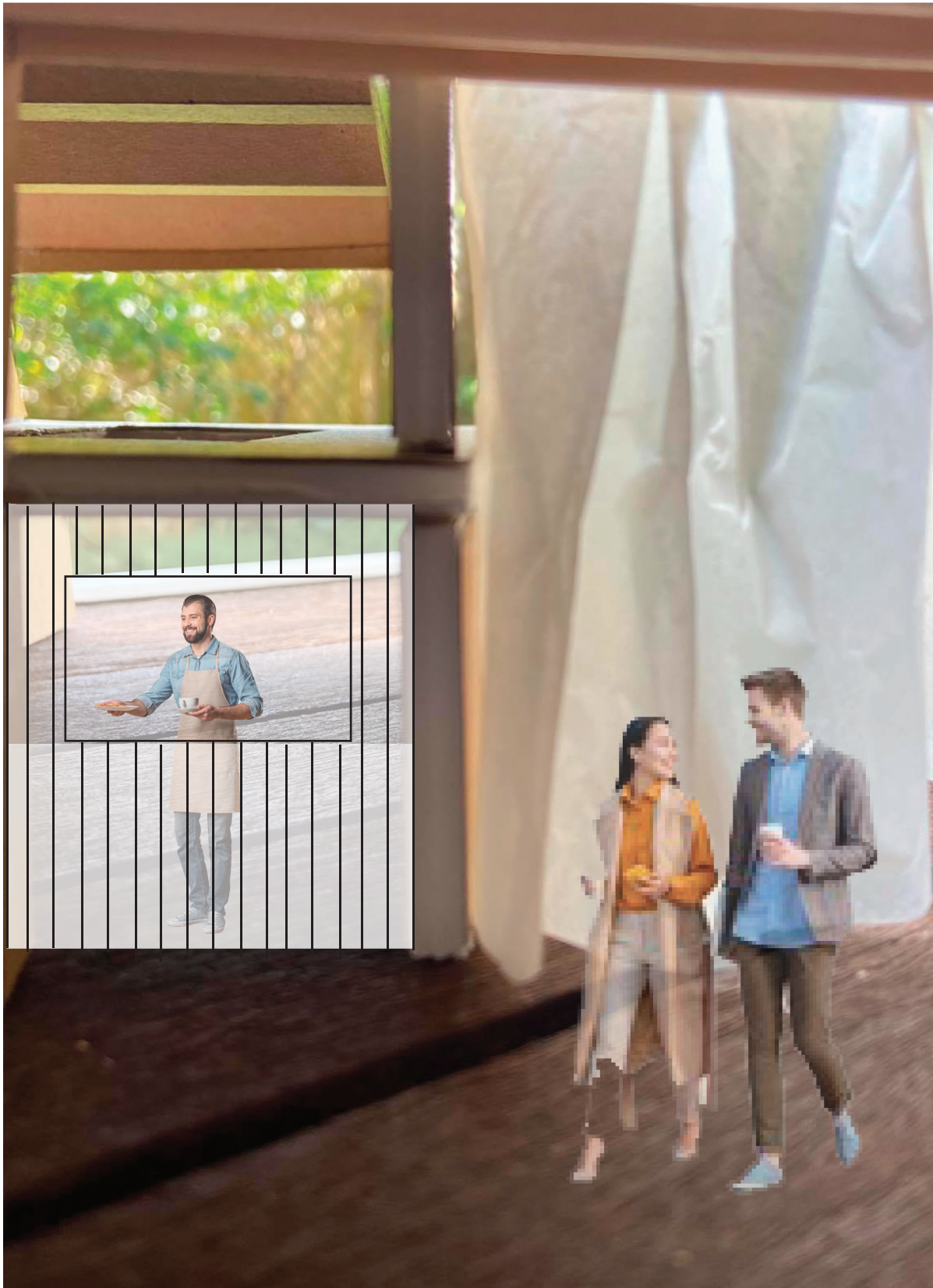


The inside is separated from the outside.

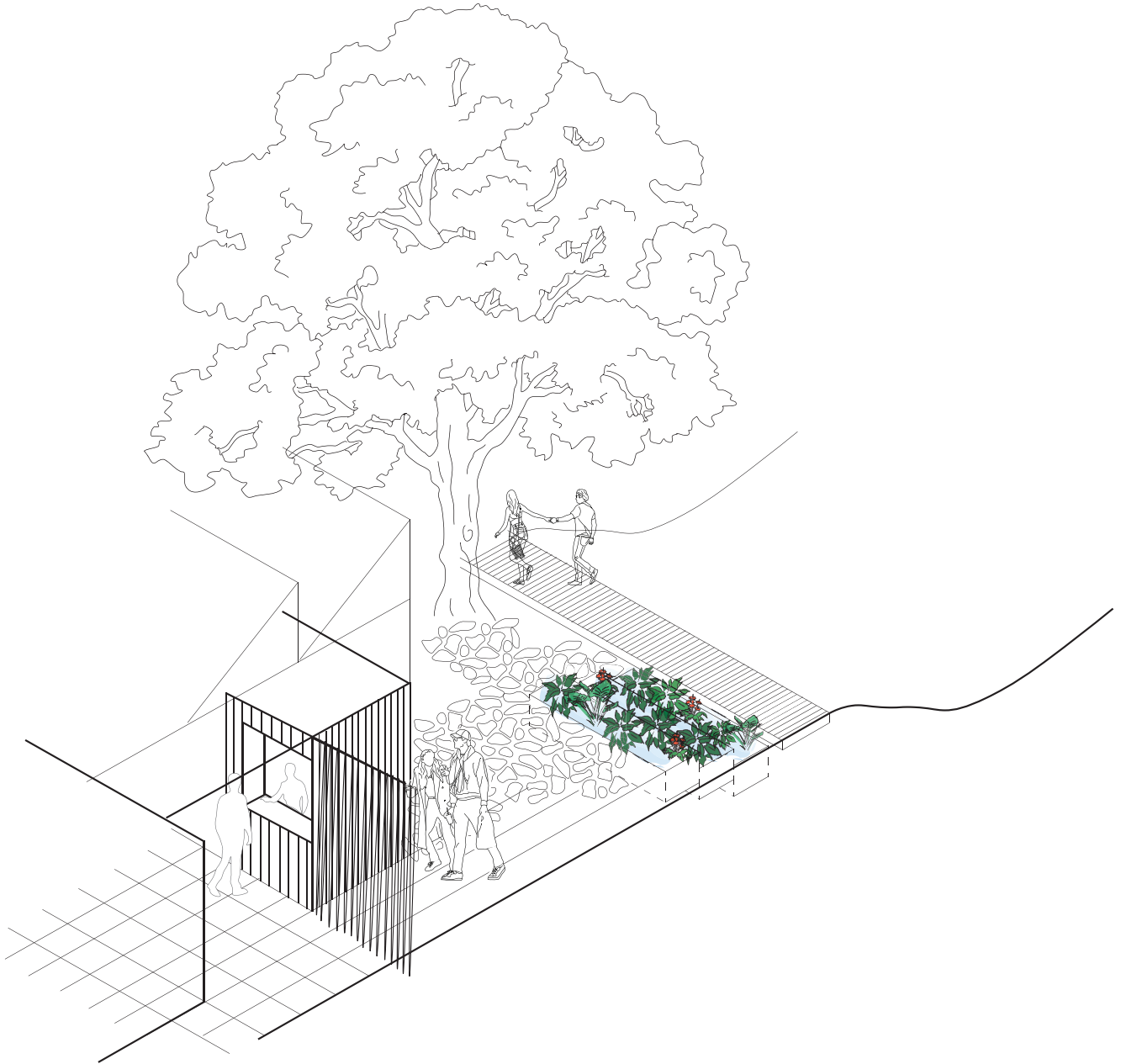


The corner is dissolved and the inside and outside are merged.

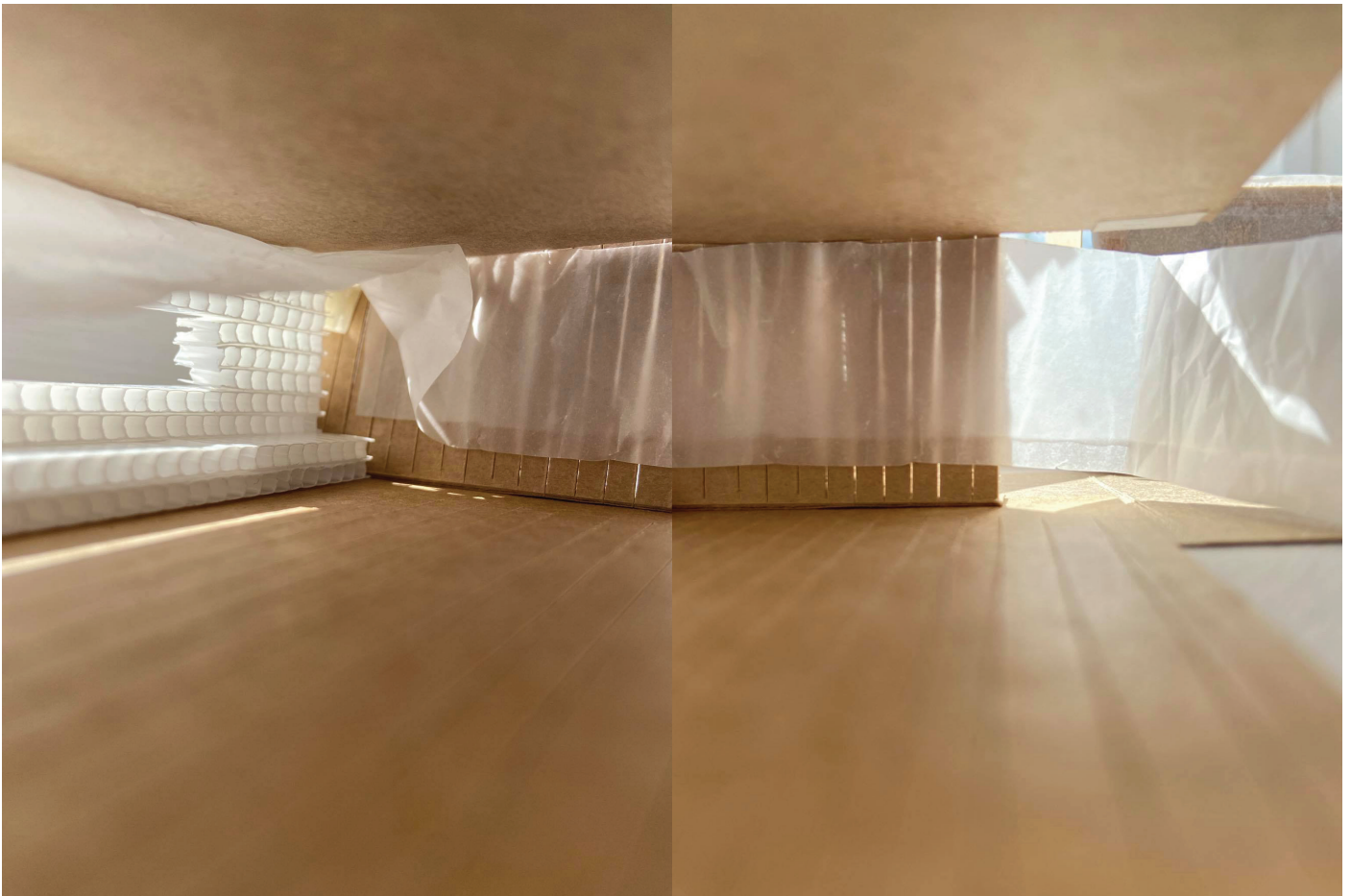
**Figure 36:** Axonometric diagram explaining threshold placemaking through 'dissolving' corners and how they blur the boundary between two realms.



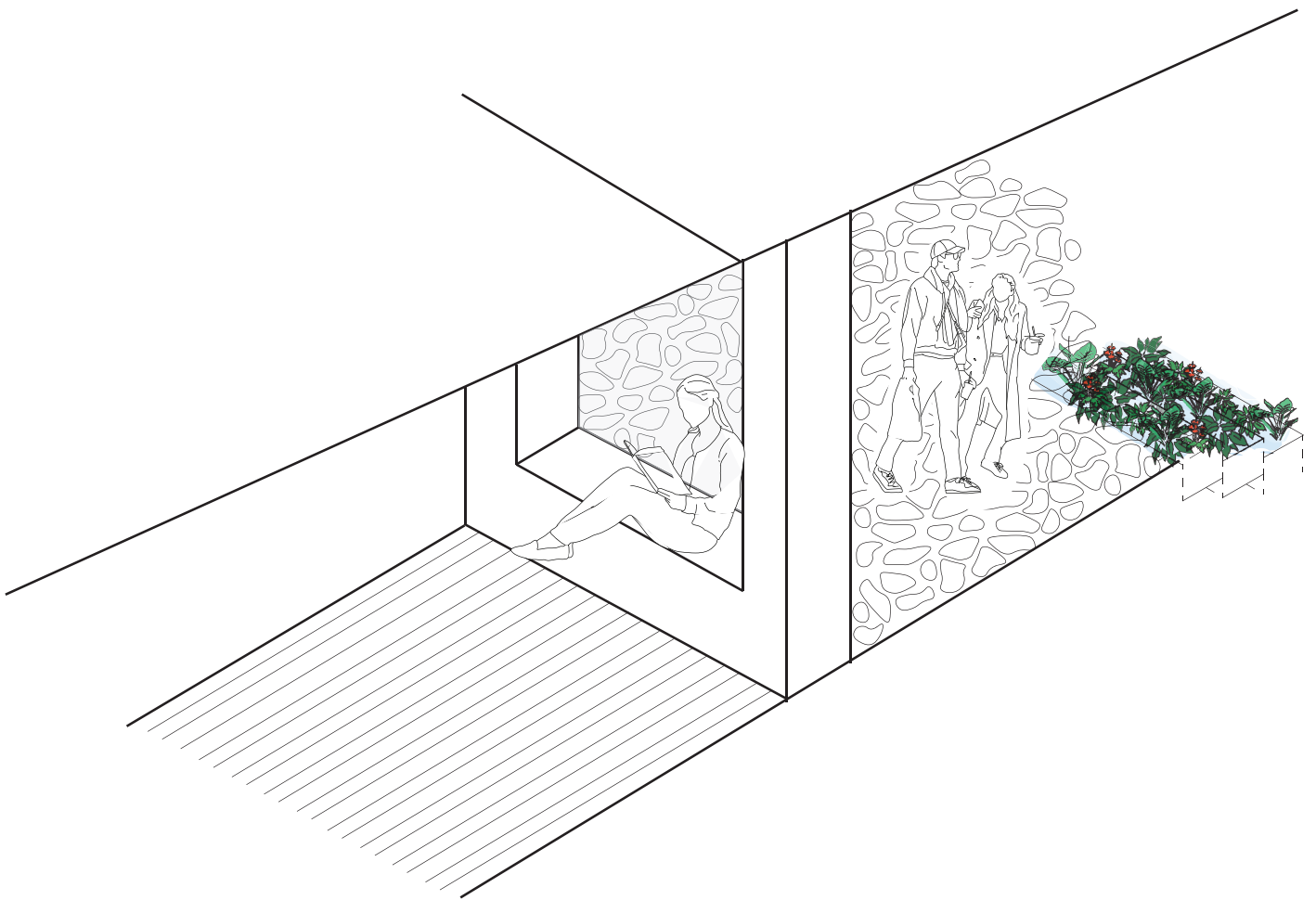
**Figure 37:** *Test model showing serving window threshold place, inside the interior void of an exterior laneway*



**Figure 38:** Axonometric diagram explaining how an interior condition is activated in an exterior setting. The laneway is outside yet sheltered by the floor above and climate controlled with an urban curtain.



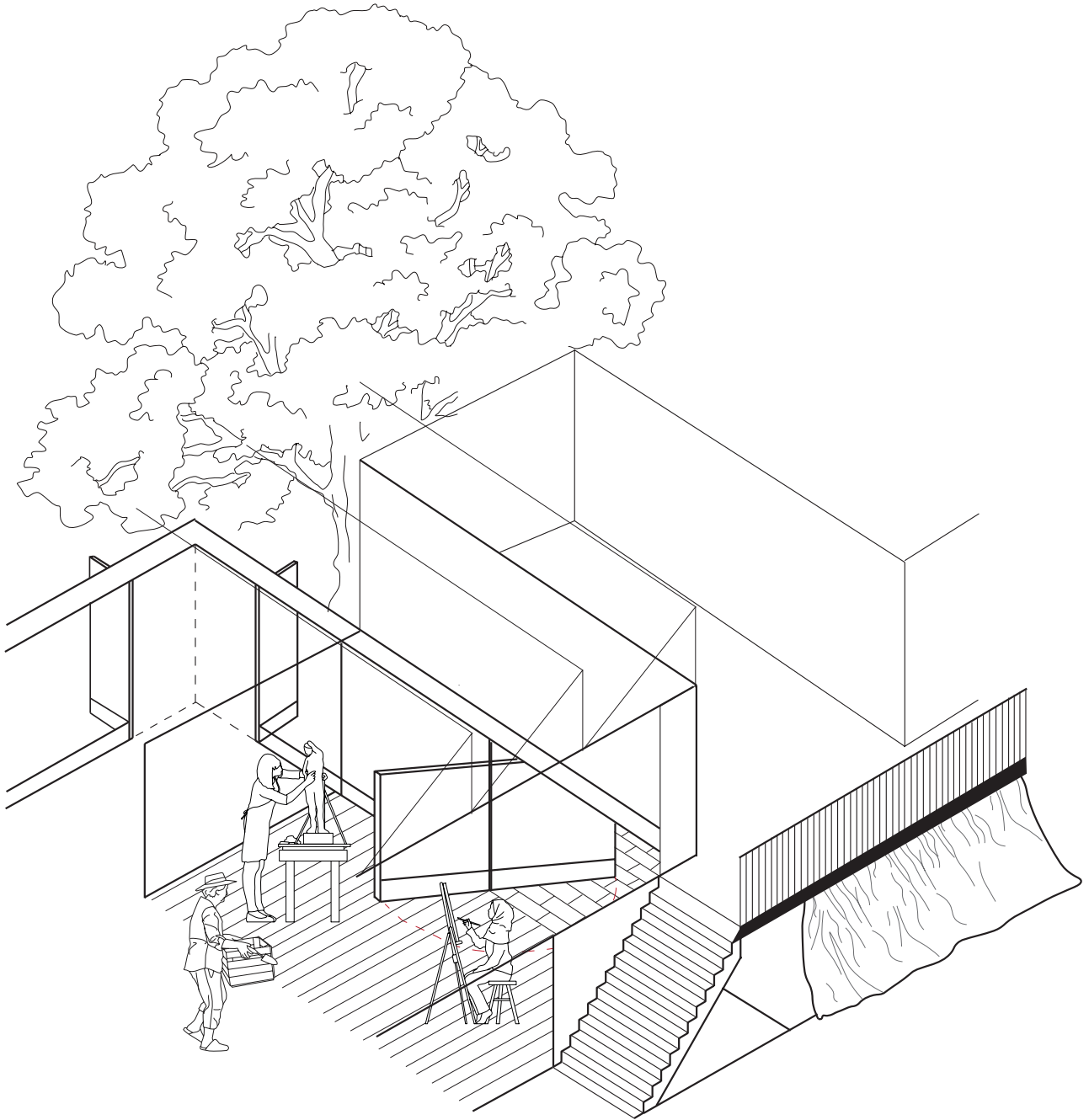
**Figure 39:** *Test model showing a thickened window that could be used as seating, a display area or an entrance. The function of a window is transformed from being a simple opening in a wall that allows light to the interior and adapted into a place of activity.*



**Figure 40:** Axonometric diagram showing a window being used as a place of activity; a woman resting, using the sill as a seat to read on and enjoy the view looking out to the river. The 'exterior' exterior laneway is covered activating an interior atmosphere and rain gardens step down to the water, filtering pollutants before they enter Te Wai Te Wbau.



**Figure 41:** *Test model showing pivoting doors that expand the interior space to the exterior. This is further explored with the use of urban curtains to change the atmosphere of both the interior and exterior realms.*

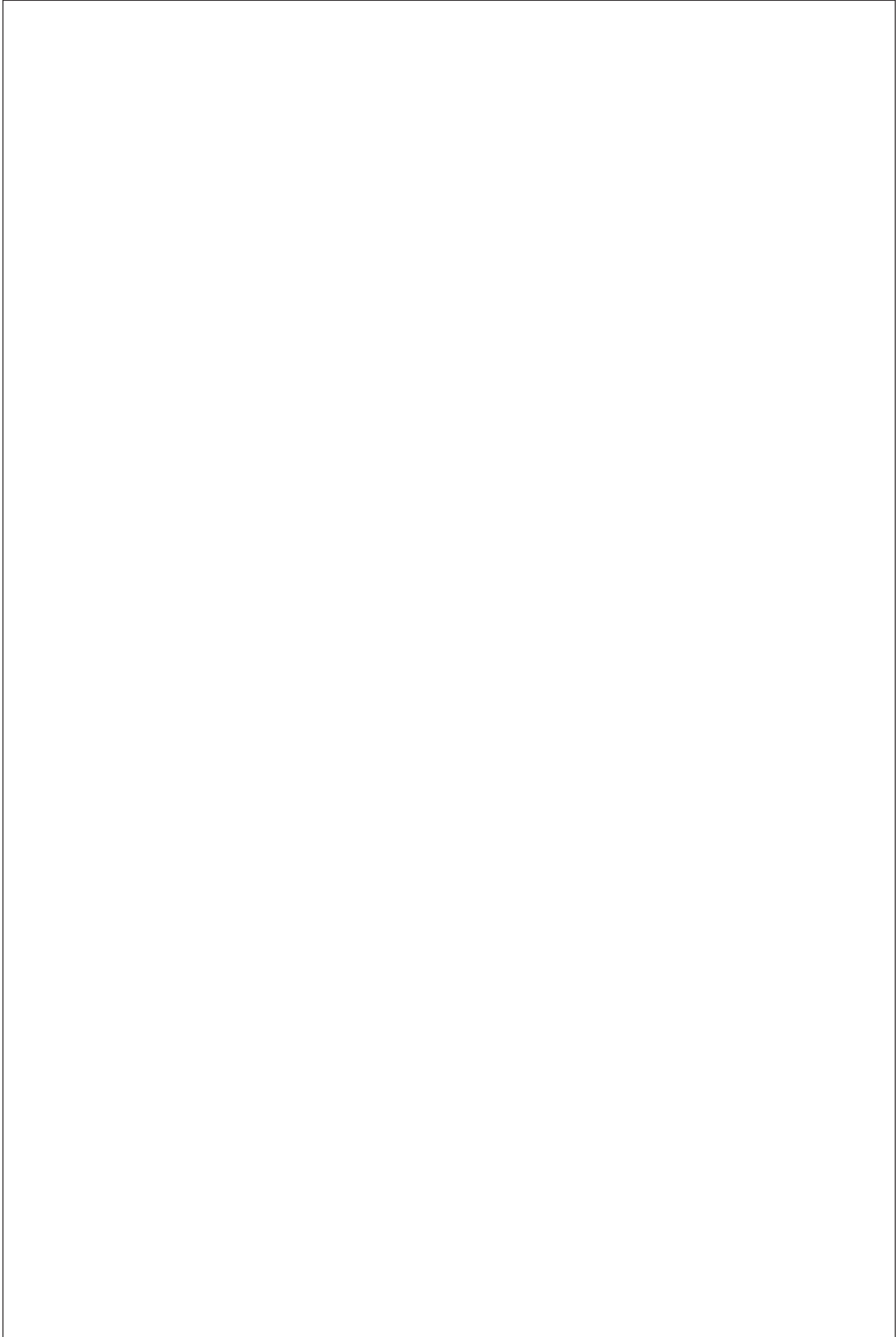


**Figure 42:** Axonometric diagram highlighting how the pivoting doors work. The interior art studio can happen in the covered exterior laneway. When they are closed the laneway is used as a thoroughfare to circulate movement around the Urban Room.



## Chapter Four: Urban Case Studies

This chapter delivers three case studies that ground The Urban Room in the existing built environment through an analysis of urban interiority and *threshold placemaking*. The case studies include Riverside Market, an interior marketplace that addresses the need for various programmes over the time of a day; Storefront at Art and Architecture New York, an urban place that takes advantage of *threshold placemaking* in the public urban realm; and finally, this is tied together through analysis of Shigeru Ban's Curtain Wall House. Each study clearly bridges the gap between the urban and interior or inside and outside settings.



**Figure 43:** *Etrance threshold to The Riverside Market From Kirkaldie Interiors.*

## The Riverside Market

The Riverside Market, designed by Creative Studios Ltd and located in Ōtautahi Christchurch is a project built alongside Ōtakaro Avon River. Opened in September 2019, it is a public interior space connected via thresholds that brings vibrancy back to central Christchurch after the earthquakes in 2010 and 2011. Riverside Market is significant for the purpose of understanding the need for a mix of programmes at one site. It is a seven-day-a-week trading fruit and vegetable market, and also hosts multiple bars and restaurants, boutique retailers, and a cooking school under one roof (*Riverside, 2019*). Jane Jacob's writings that are further discussed in chapter five, argue that mixed-use neighbourhoods in cities are necessary for their success by attracting different people at different times of the day (*Jacobs, 1993*). This is clearly seen at Riverside Market.

The vision for Riverside Market was to develop a high-end, inner-city marketplace that additionally provided safe access to the riverfront it is located alongside. Measuring 3,500m<sup>2</sup> (figures 44 and 45), Riverside Market holds 30 independent food outlets, 40 fresh produce stalls, and upstairs bars with courtyard river facing seats that provide shelter to the floor underneath. Mezzanine opportunities could include performances, pop-up hospitality vendors and more (figure 46) (*Newth, 2019*). Every space hosts an independent and unique interior connected by large corridors, entrances, and laneways. They merge an abundance of textures, furnishings and finishes that bring an eclectic and vibrant feel with a coherent colour palette to the interior (figure 47). Recycled bricks, timber and metals from buildings that collapsed in the earthquakes bring a familiar experience back to the heart of Ōtautahi in a new and innovative way (*Riverside, 2019b*).

Attracting 10-20,000 visitors per day, the floor plan of the market is situated on an expanded site along the Ōtakaro Avon river. Its interior opens into the exterior via bold entrances and corridor-like laneways (figure 43) that exhibit a vague border between interior and exterior. This highlights how public interior space consists of both inside and outside and relies on a variety of happenings experienced over time, in one place. Further speaking to the interiority of the project, designer Georgie Inglis describes the marketplace as remaining sympathetic to the original architecture and heritage of Ōtautahi Christchurch. She was inspired by a photo of an old Italian marketplace. One with long corridor-like spaces filled with stalls that easily circulated large quantities of people. And so, a 40m long wall creates the backbone of the Riverside Market. It hosts a painted mural on the upper level and recreating the look of organic clay tiles, also featuring a clock salvaged from the Christchurch Railway Station (figure 48) (*Kirkaldie, n.d.*). The final design was brought to life so that thousands of people had the ability to move through the building with ease while attending various different activities.

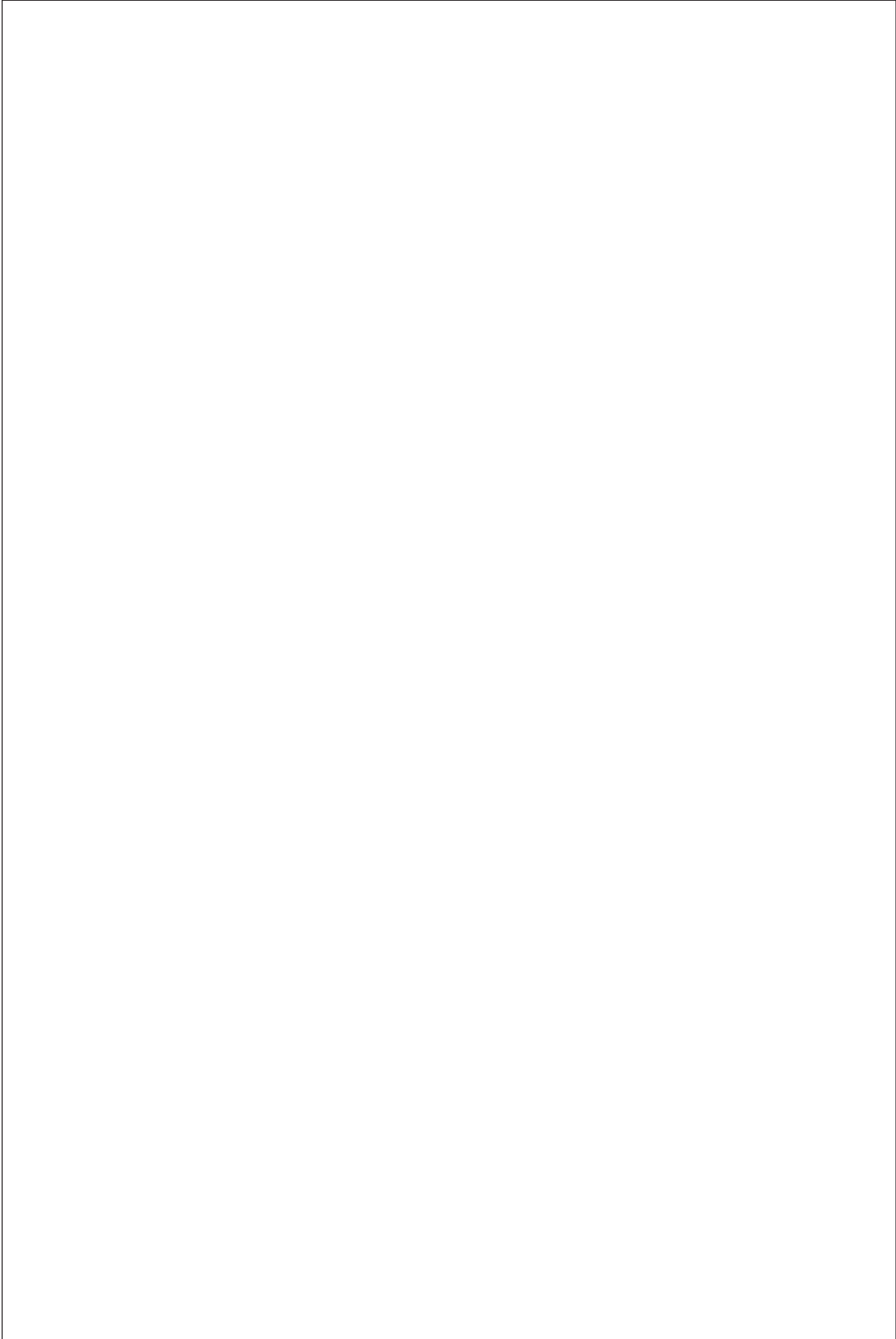
Riverside Market explores time as a spatial concept whereby interior activities happen over time of day. From market trading through to restaurants, bars, performances, or cooking demonstrations. The internal corridors which extend into laneways and down to the river, examine the concept of the interior integrating with the exterior, which is not dissimilar to that of the interiority of city blocks in Melbourne. The circulation of movement between the interior and the exterior through a threshold place is displayed throughout this marketplace and provides an obvious connection between two architectural fields; urbanism and interior.



**Figure 45:** *Second Floor Plan from Riverside Market website.*



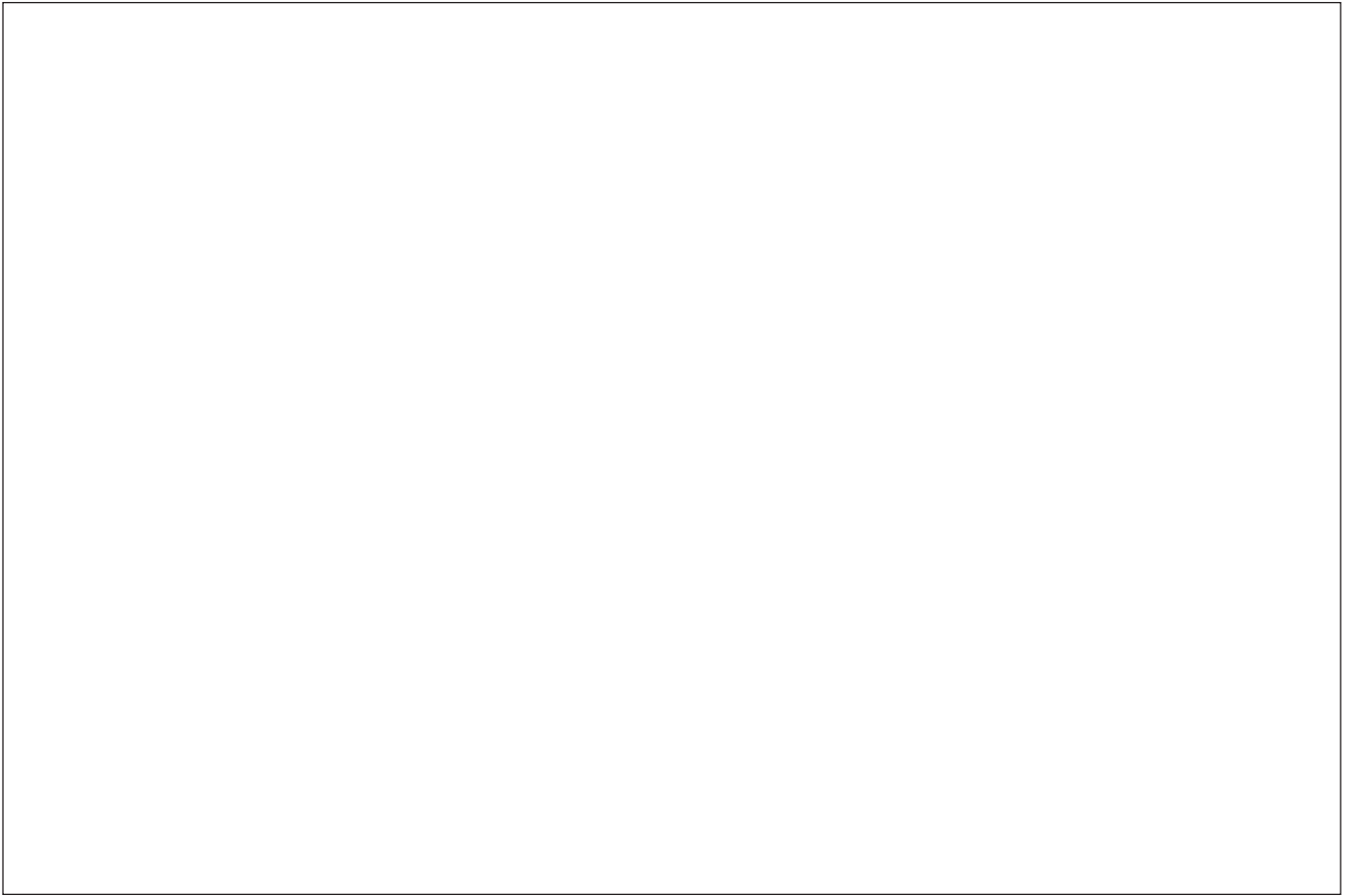
**Figure 44:** *Ground Floor Plan from Riverside Market website.*



**Figure 46:** *Riverside Market interior mezzanine threshold hosting pop-up activities from Kirkaldie Interiors.*



**Figure 47:** *The threshold space underneath the stairs at Riverside Market has become a permanent place of temporal activity. From Kirkaldie Interiors.*



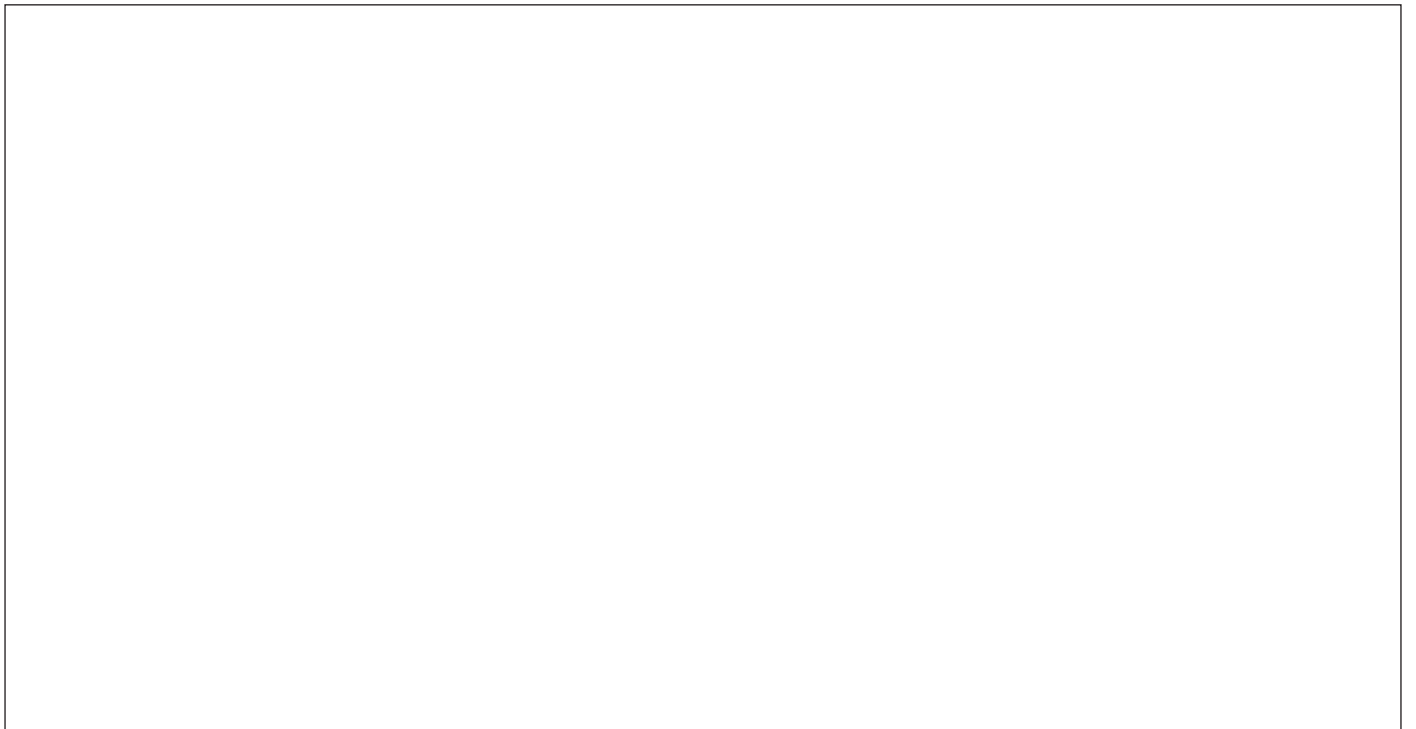
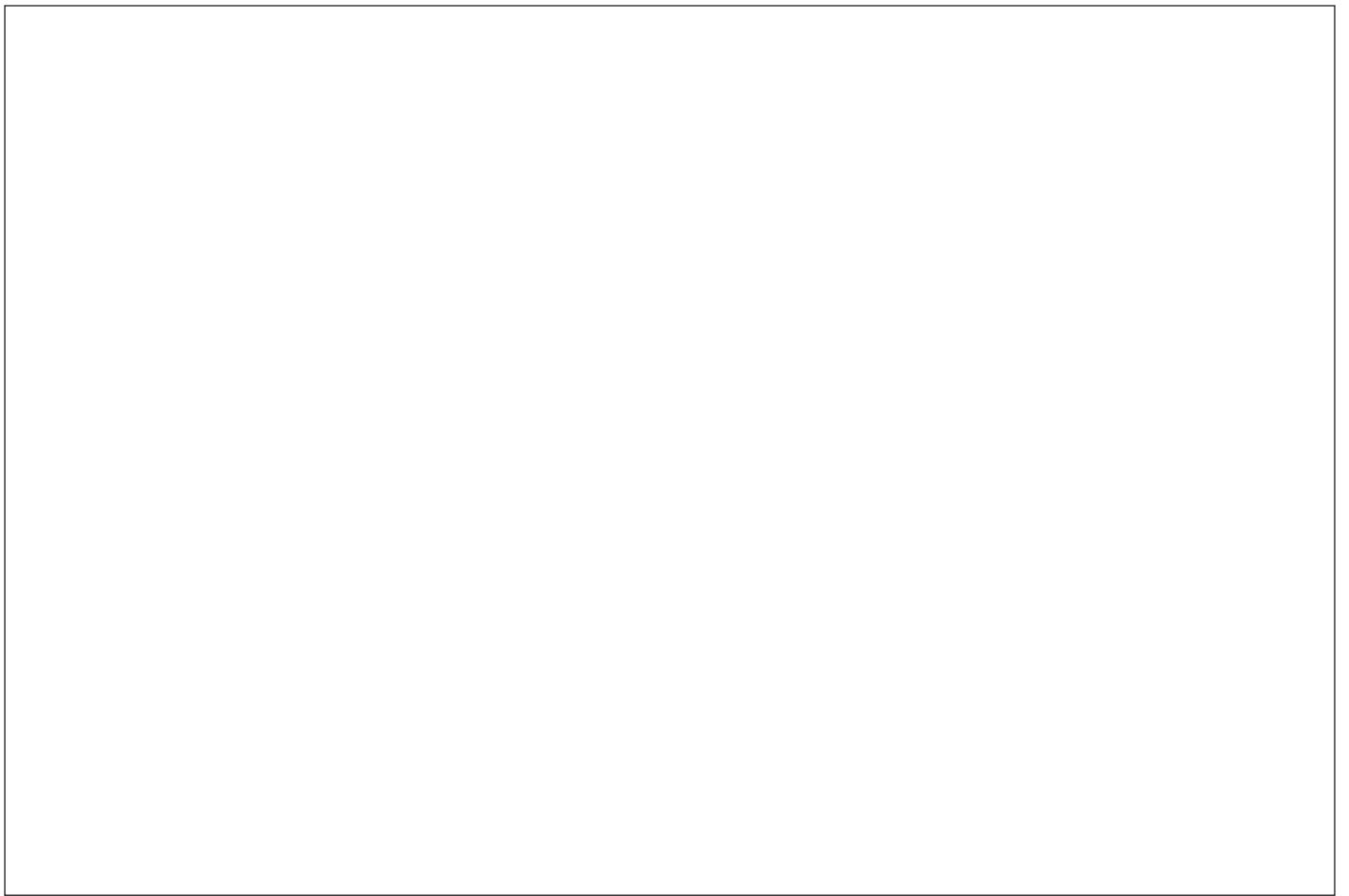
**Figure 48:** *Clock salvaged from the Christchurch Railroad Station and exhibited inside the Riverside Market. From Kirkaldie Interiors.*

## Storefront for Art and Architecture, New York

Storefront for Art and Architecture is a gallery in New York that was founded in 1982 by Kyong Park. Located in lower Manhattan, it draws direct parallels to my term *threshold placemaking*. The continuously adapting exhibition space has hosted over 1000 different works throughout its lifetime including film screenings, conferences and more, all that lie at the threshold between art and architecture (figures 49 and 51) (*Steven Holl Architects, 1993*). The floor plan consists of a peculiar triangular wedge spanning 3 metres wide at its narrowest to 7 metres at its widest (figure 50). Limited floor space meant designing the street-facing façade to enlarge the space was critical. Pivoting panels, arranged in a puzzle-like spectacle made it possible for the space to completely open and expand the building's footprint. Spilling into the street and almost doubling in size, the panels obscure the space between public and private through creatively interacting with the surrounding urban landscape (*Bianchini, 2021*).

The typical function of a façade is to create separation between the inside and the outside and to act as a physical barrier between two places. However, architect Steven Holl, in collaboration with artist Vito Acconci, designed a complex alternative. Storefront for Art and Architecture is described as a transitional façade. It is neither wall nor barrier, inside nor outside, art nor architecture. The purpose of this particular façade is to challenge the normative form of placemaking. That of stereotypical rooms that are enclosed by walls, and instead facilitate them in an adaptive and transformative manner in a study of the threshold between building and city. (*Storefront for Art and Architecture, 1993*). In regard to the urban interior, private spaces are becoming public spectacles, spilling into streets, courtyards, and public squares. The narrow floor plan gives the perception of a corridor with a remarkable entrance through what is hardly discerning of being a door or a wall. When opened, the inside space is generously donated to the public, while simultaneously the outside is being stolen by the interior. The original monolithic floor plan is somewhat divided into separate rooms consisting of both interior and exterior space. Once exclusively private, they are now completely exposed to the public. The wall becomes a door, and the door becomes a wall, fabricating a threshold place (*Park, 1993*).

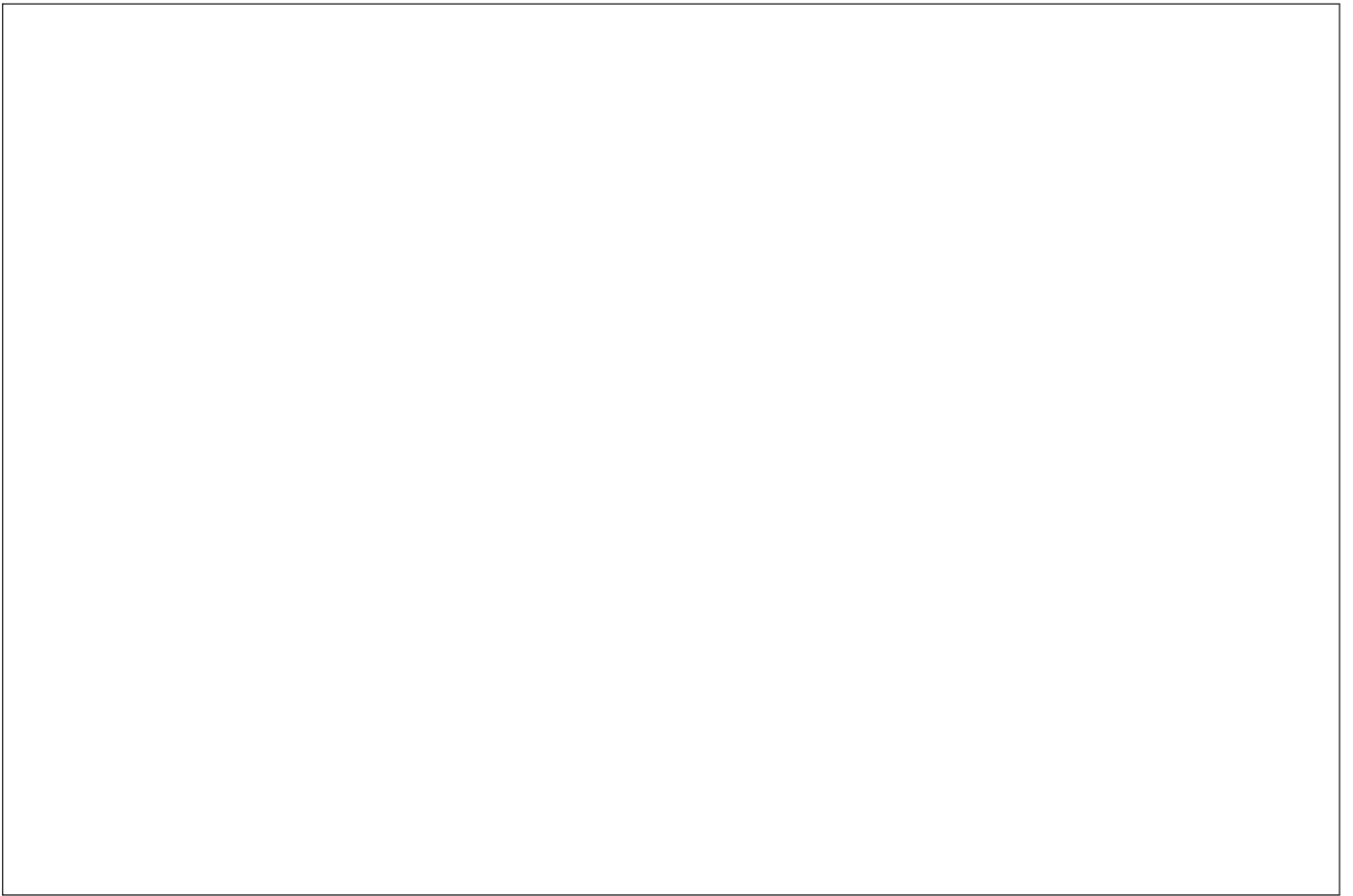
The design of Storefront at Art and Architecture directly speaks to the notion of *threshold placemaking*. Neither inside or outside, yet both at the same time, the project explores various design opportunities at the threshold interface. It is both public and private, designed in such a way that these two phenomena are completely blurred when either opened or closed. This analysis is critical to *the Urban Room* proposal, as it further develops connections between urbanism and the interior. The site is a threshold place where one moves between the Te Whau Awa and the surrounding urban landscape of New Lynn and Avondale.



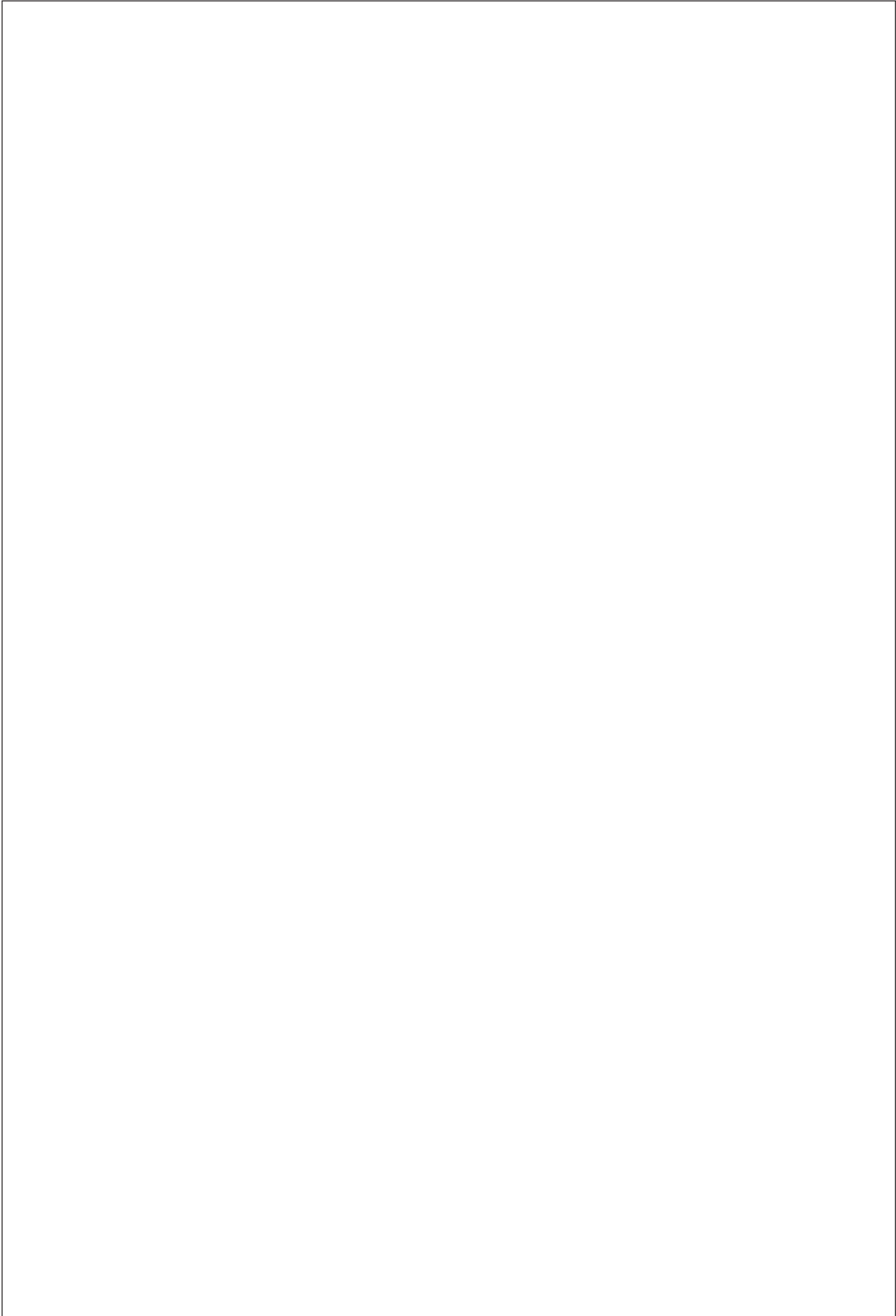
**Figure 49:** *Exhibition at Storefront for Art and Architecture from Inexhibit.*



**Figure 50:** *Plan and South Elevation drawings of Steven Holl and Vito Acconci's Storefront for Art and Architecture from Inexhibit.*



**Figure 51:** *Exhibition at Storefront for Art and Architecture showing the interior and its conditions expanded into the urban exterior street.*



**Figure 52:** *Curtain Wall House.*

## Curtain Wall House, Tokyo, Japan

Japanese architect Shigeru Ban's work in house design challenges the traditional relationships between private and public life in densely populated cities. Ban breaks down normative architectural conventions to redefine privacy within the public urban realm (*Baillieu, 2003*).

Curtain Wall House (figure 52) is one of Ban's experimental houses whereby the relationship between the private interior and public urban landscapes is merged. Located in Tokyo, Japan, the design of the house takes on traditional Japanese style architecture in a contemporary way. Challenging tradition by inserting interior conditions into the exterior realm. Raised on columns, the house creates a void of space at the ground level where cars and other vehicles can park. The second-floor hosts common spaces; living and dining areas and a kitchen, and on the third-floor are the private spaces, including three bedrooms. A balcony also wraps around the second floor, outwardly extending the house into the city.

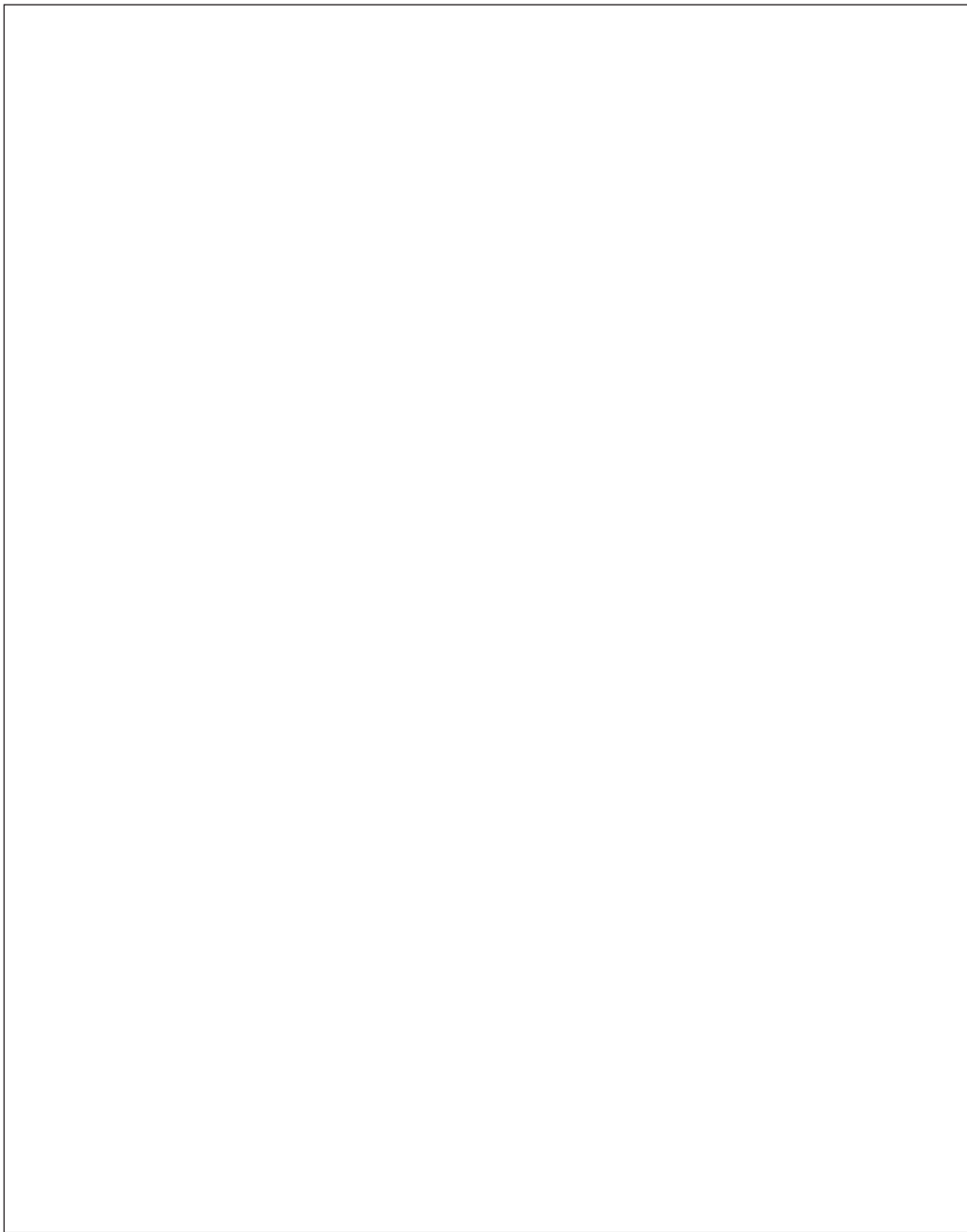
The most significant feature is the outer skin of the house that is composed of two elements: transparent glass panels, coupled with tent-like fabric curtains that span the second and third floor along two of its façades (figure 53). The façade design dramatically mimics and transforms traditional shoji screens common in Japanese homes that manipulate privacy and diffuse light between different rooms of the house. In the case of the Curtain Wall House, it manipulates space between the interior and its surrounding urban neighbourhood (*Riley, 1999*).

The advancement of building technology in the 20th century meant materials like concrete could be used as structural members. Facades no longer need to convey structural components, but became free to separate the inside and outside in innovative ways. Ban takes this to a new extreme, taking the concept of the curtain wall—typically known as a glass façade—literally, by enclosing a building with fabric curtains that take of the function of a wall; to separate between inside. (*Tanzer, 2003*). Along with interpreting a contemporary take on the glass façade curtain wall, the fabric textiles used by Ban attempt to recreate an element of bio-climatic architecture.

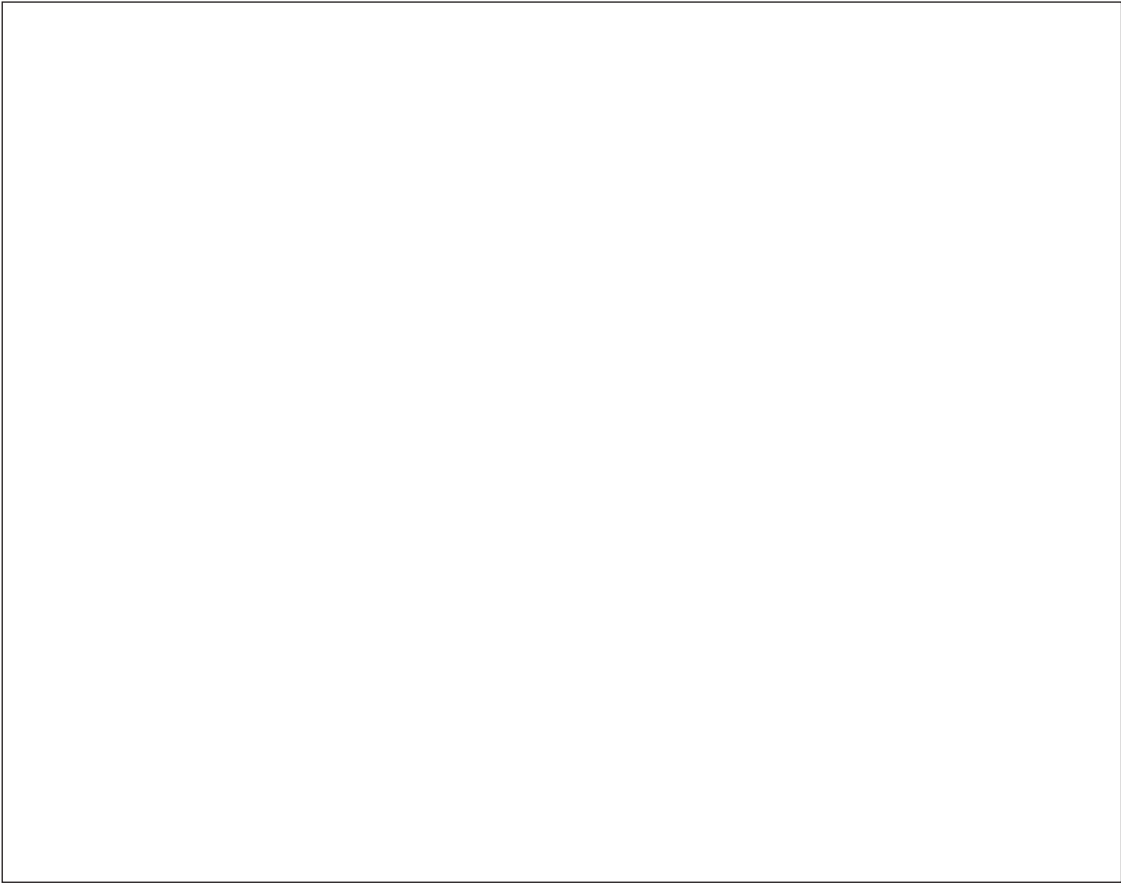
Bio-climatic architecture is a term developed by architect and ecologist Ken Yeang, who understood that if the energy released by the act of taking off or putting on layers of clothing could control the heating or cooling of the body without the need for a fuel source, this could be apparent of architecture (*Quinn, 2006*). In a video interview, Yeang states, “*nobody can vent better than nature, so I feel like nature is my biggest source of inspiration*” (*Couzens, 2012*). Here I am able to once again draw upon relations between Bessel van der Kolk's psychological interpretation of interiority along with Kenya Hara's design work that refers to interiority being of the human needs previously discussed in chapter three.

The softness of the fabric Ban uses in his curtain façade (figure 54) allows it to retract, entirely opening the interior to the urban realm. This creates a natural cooling system in summer as air, wind and light are filtered throughout the house. Comparatively in winter, the interior glass walls close, along with the curtain, to retain heat, comfort, and privacy. As in textile design where clothes are worn to hide, heat or cool parts of the body, the use of a retractable curtain façade allows the owner to control the climate and open or close off from the public realm (*Quinn, 2006*).

Curtain Wall House clearly erodes the boundary between the public and private realm by transferring conditions of the interior landscape into its surrounding urban landscape. Ban's experimental housing project is significant in the context of *The Urban Room*, where I use large scale curtains to articulate the programmatic crossover between the interior and the natural-urban landscape of Te Whau Awa. The use of curtains in this context considers that typically interior features can exist in the exterior to provide natural heating and cooling systems, as well as the choice of privacy or shelter when needed.



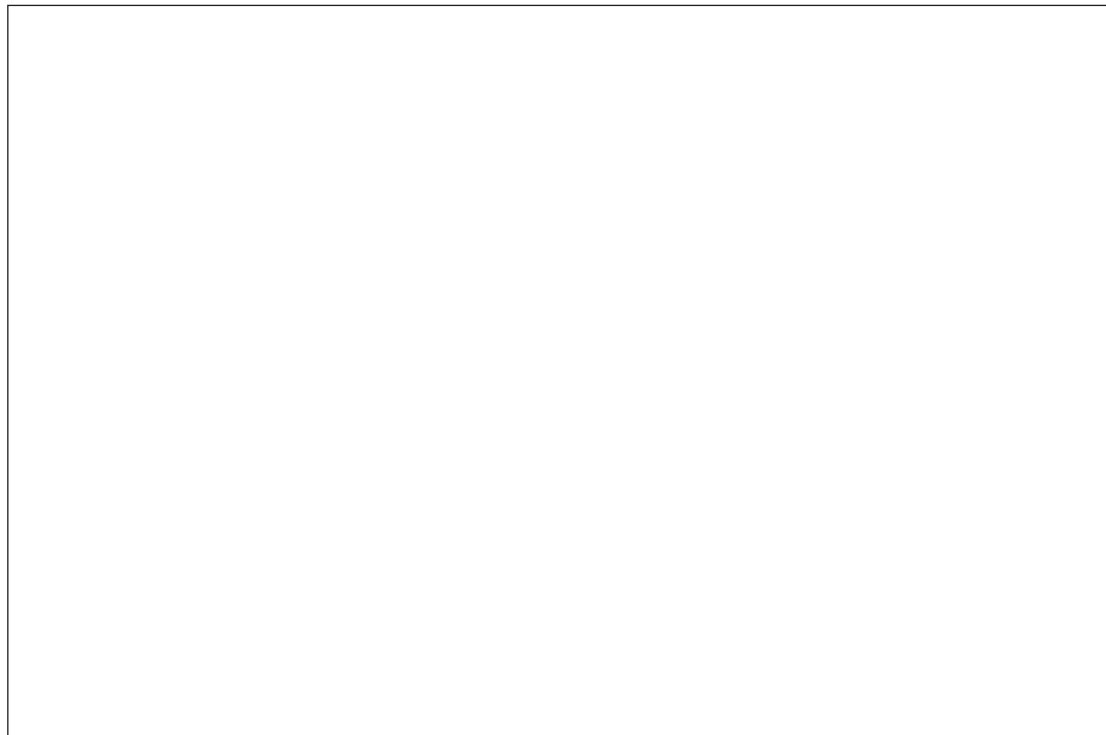
**Figure 53:** *Curtain Wall House Interior View.*



**Figure 54:** *Curtain Wall House. Above the curtain is open. Below the curtain drawn bringing privacy and adjusting climatic conditions.*

Here, it is important for me to mention the work of architect and designer, Petra Blaisse, in relation to Ban's Curtain Wall House. Blaisse bridges body, interior, landscape and architectural design through the use of textiles. Her works explore the idea that there is no inside or outside space, only the illusion of it, whereby both the front and back of a design component are equally important to consider. In an interview Blaisse discusses curtain design stating, "*when placed in architecture, the curtain retains a sense of movement and challenges the static nature of architecture that allows the interior to reconfigure itself from permanent to dynamic*" (Weinthal, 2008, p.3). The function of a curtain is to adjust the atmosphere of programmatically organised spatial arrangements, and by adapting the typical scale – bringing a normatively interior component to the exterior – the merging of architectural realms appears (figure 55).

The concept of her work, similar to that of Kenya Hara, further advances my understanding of the psychological conditions of urban interiority. Conditions that consider interiority existing from within the human body first. In terms of textile design, fabric is applied to both the human body and architecture in a similar way. Firstly, for aesthetic purposes, cloth is soft and flexible and therefore drapes around a person or object, or it folds and pleats depending on its structure and weight. Following its aesthetic, fabric generates atmospheric conditions that tell the body if it's too hot or too cold, too light or too dark. The use of large-scale curtains in her designs not only determines atmospheric relationships to the human scale-light, acoustic and climate-when used in different environments, such as alongside Te Whau Awa - they develop non-human interaction (Weinthal, 2008).



**Figure 55:** *Petra Blaisse's Maison à Bordeaux. A curtain has been extended from the interior setting to the exterior environment, changing the normative function of a typically interior element and changing the conditions of both interiority and exteriority.*

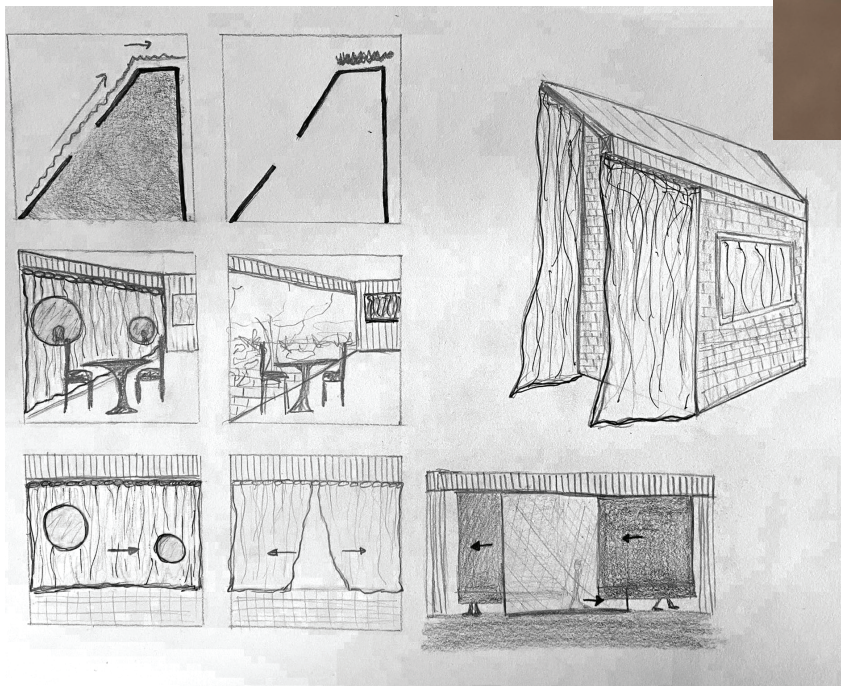
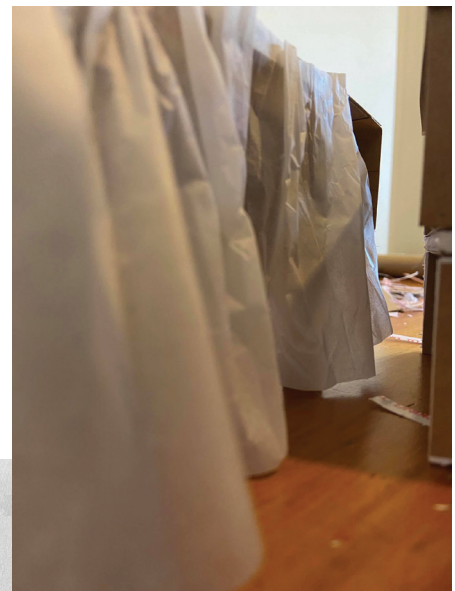
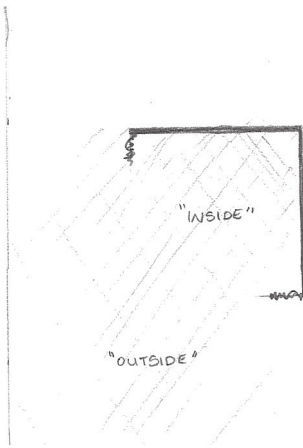
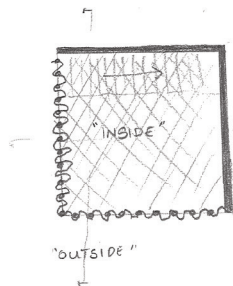
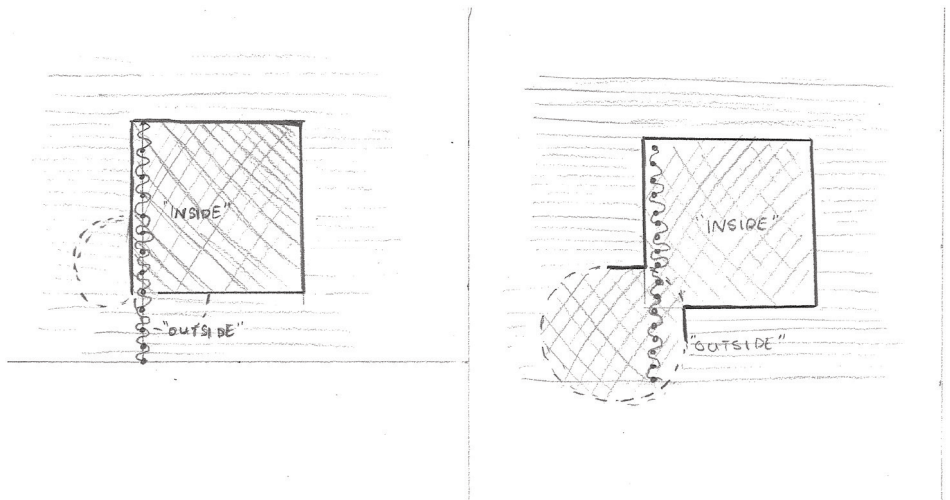


Figure 56: Initial concept models and sketches of Urban curtains highlighting the potential for an interior space to be merged with exterior space..

This chapter provides evidence of existing projects that exemplify design strategies to assist in the legibility of the proposal for *The Urban Room*. I have analysed urban interiority and threshold placemaking through existing architectures that showcase where boundaries between interior and urbanism are blurred. Each has assisted in my understanding of a public urban interior.



# Chapter Five: The Urban Room Design Proposal

This chapter formally communicates the design proposal of *The Urban Room*. The programme includes a ceramics studio and art gallery, co-working offices, a canteen, apartments, and the amenities necessary in conjunction with the Avondale Sunday Market; offices, storage and cleaning facilities, and public toilets. Opportunities for moving this market to New Lynn are discussed in detail throughout this chapter. *The Urban Room* responds to the site analysis undertaken in chapters one and two and the understanding of urban interiority and threshold placemaking discussed in chapter three. Relations between the awa (river), street, and site are brought together in conjunction with *The Stitch* and Te Whau Pathway and are supported by writings from activist and theorist, Jane Jacobs, who explores the need for a mix of programmes at one site in urban landscapes. Furthermore, the need for low impact urban design is assessed as waterways in Tāmaki Makaurau Auckland transition from a drainage network to a water sensitive system.

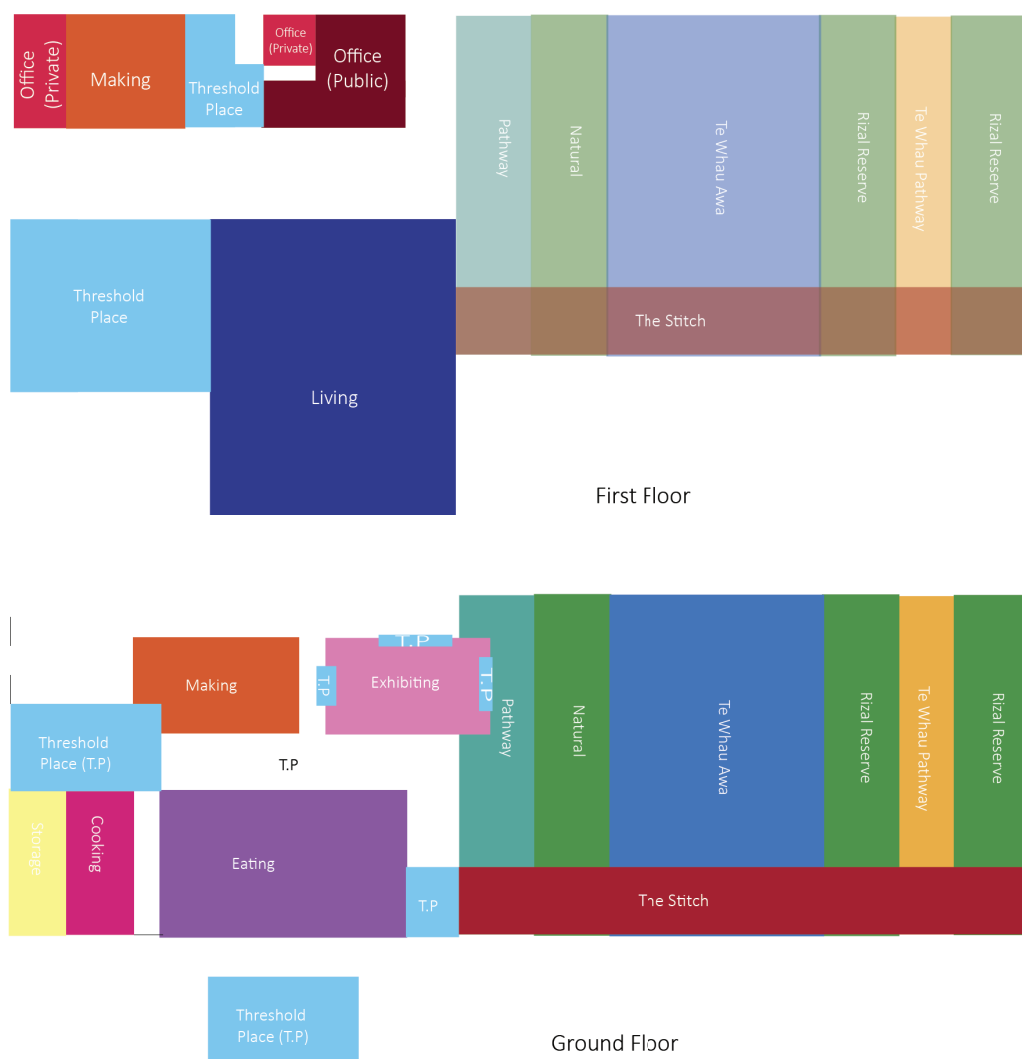
**Figure 57:** Collaged render showing the interior laneways, exterior maker space, public pathway, and exterior textile furnishings throughout the Urban Room and blurring the boundary between inside and outside spaces.



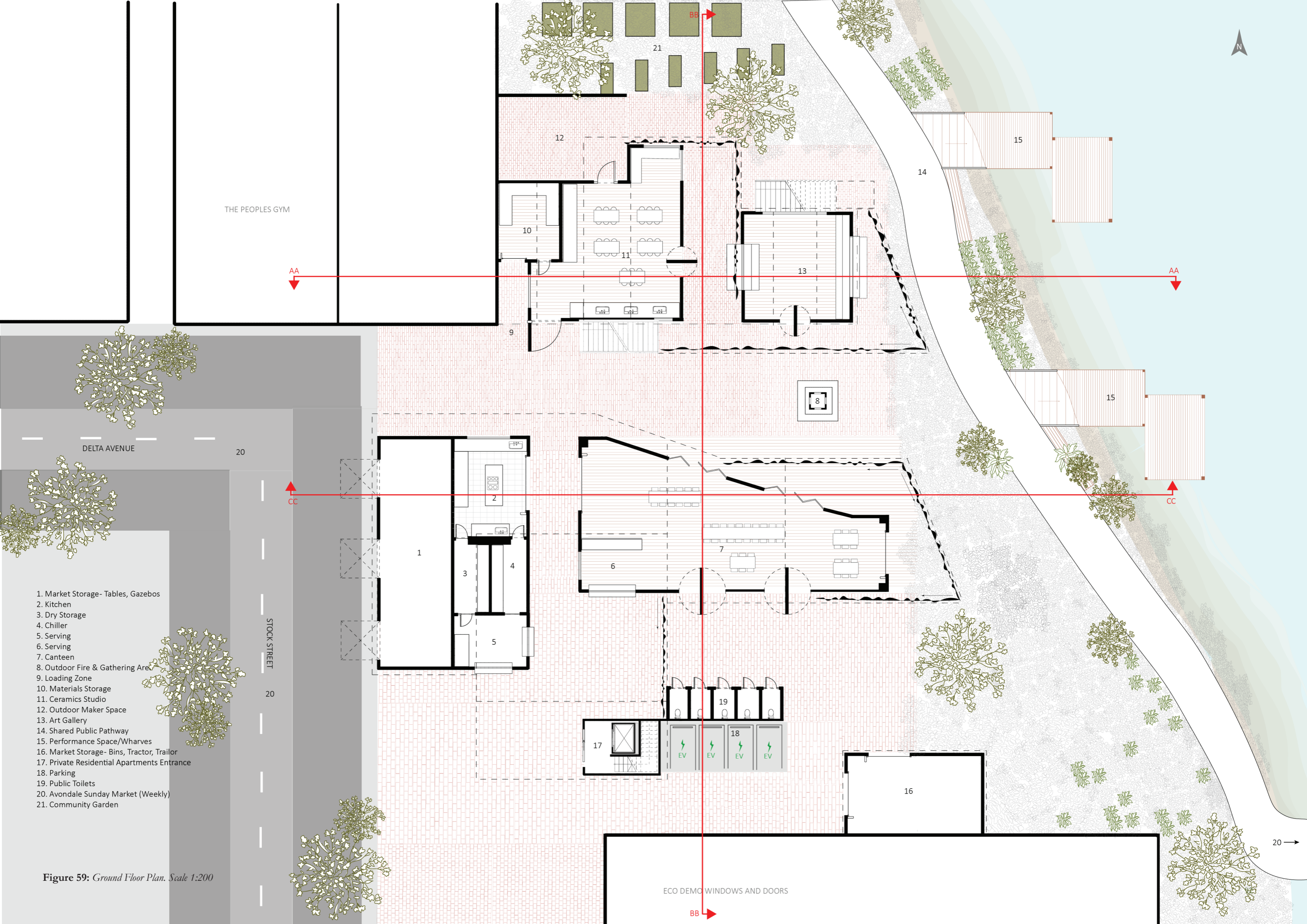
## Programme

*The Urban Room* is a series of urban interiors that accommodate a variety of inhabitation and activity across time and are interconnected via threshold places (figure 58). This is achieved through programmatically activating the term *threshold placemaking* that was explained in chapter three. Elements of the programme enclose opportunities that bring a diversity of users together across different activities and times of the day. In her book, *The Death and Life of Great American Cities*, architectural activist Jane Jacobs writes of the need for a mix of programmes in the cultivation of contemporary urban cities. For a city to thrive in terms of sustainable use, safety, and accessibility it is essential that various activities occur throughout neighbourhoods (Jacobs, 1993).

She writes that multiple programmes “*spreads a variety of consumer needs... throughout time of day, all sorts of uniquely urban and specialised services and shops [operate]... The more intricately mixed, and therefore efficient, the pools of users are, the more services and shops there can be... and in turn the more people are drawn [to the city]*” (Jacobs, 1993, p.212).



**Figure 58:** Diagram of the programmatic brief of the Urban Room. Through this diagramming process a logical spatial layout was established.



THE PEOPLES GYM

DELTA AVENUE

20

STOCK STREET

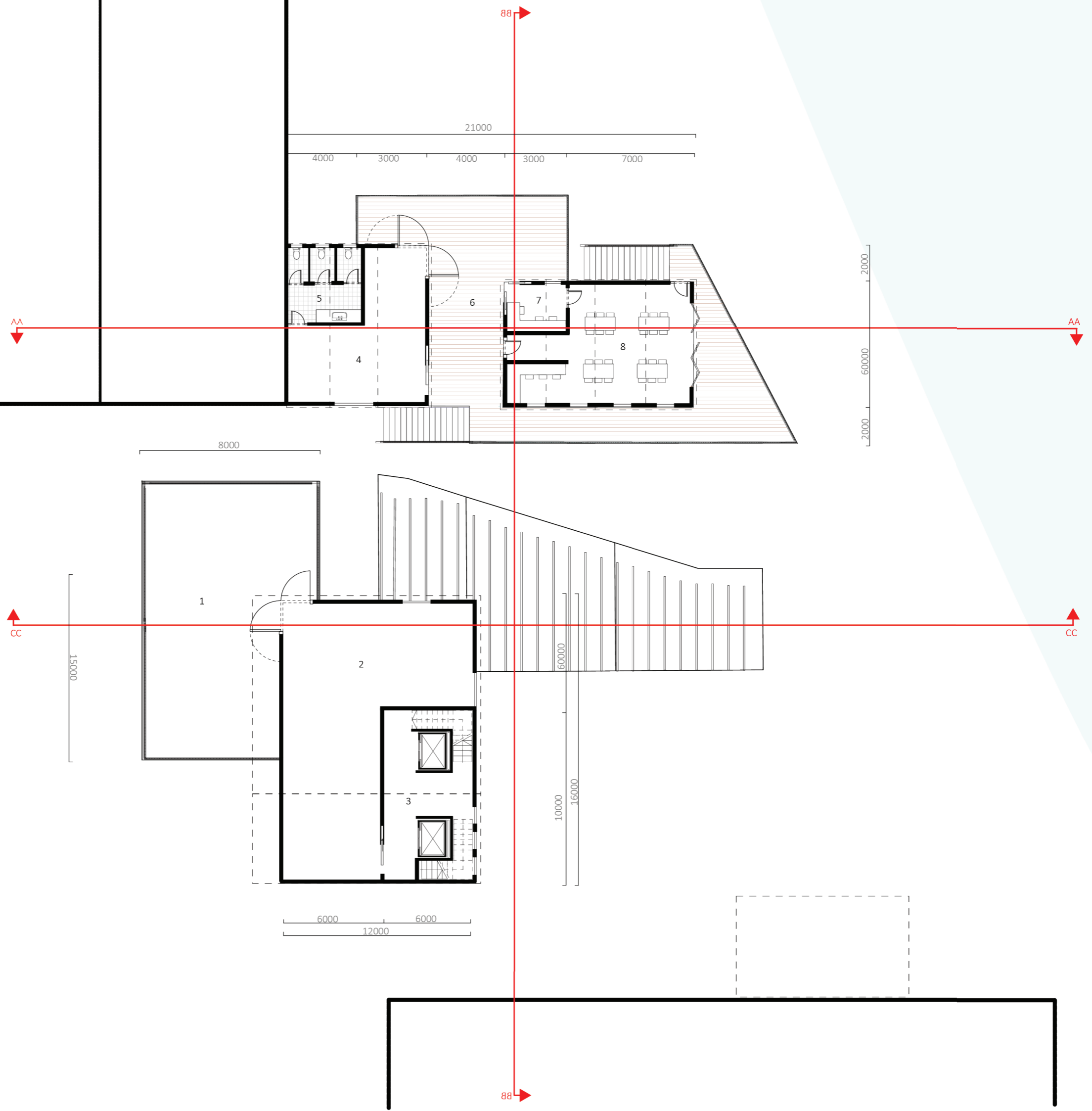
20

- 1. Market Storage- Tables, Gazebos
- 2. Kitchen
- 3. Dry Storage
- 4. Chiller
- 5. Serving
- 6. Serving
- 7. Canteen
- 8. Outdoor Fire & Gathering Area
- 9. Loading Zone
- 10. Materials Storage
- 11. Ceramics Studio
- 12. Outdoor Maker Space
- 13. Art Gallery
- 14. Shared Public Pathway
- 15. Performance Space/Wharves
- 16. Market Storage- Bins, Tractor, Trailer
- 17. Private Residential Apartments Entrance
- 18. Parking
- 19. Public Toilets
- 20. Avondale Sunday Market (Weekly)
- 21. Community Garden

Figure 59: Ground Floor Plan. Scale 1:200

ECO DEMO WINDOWS AND DOORS

20

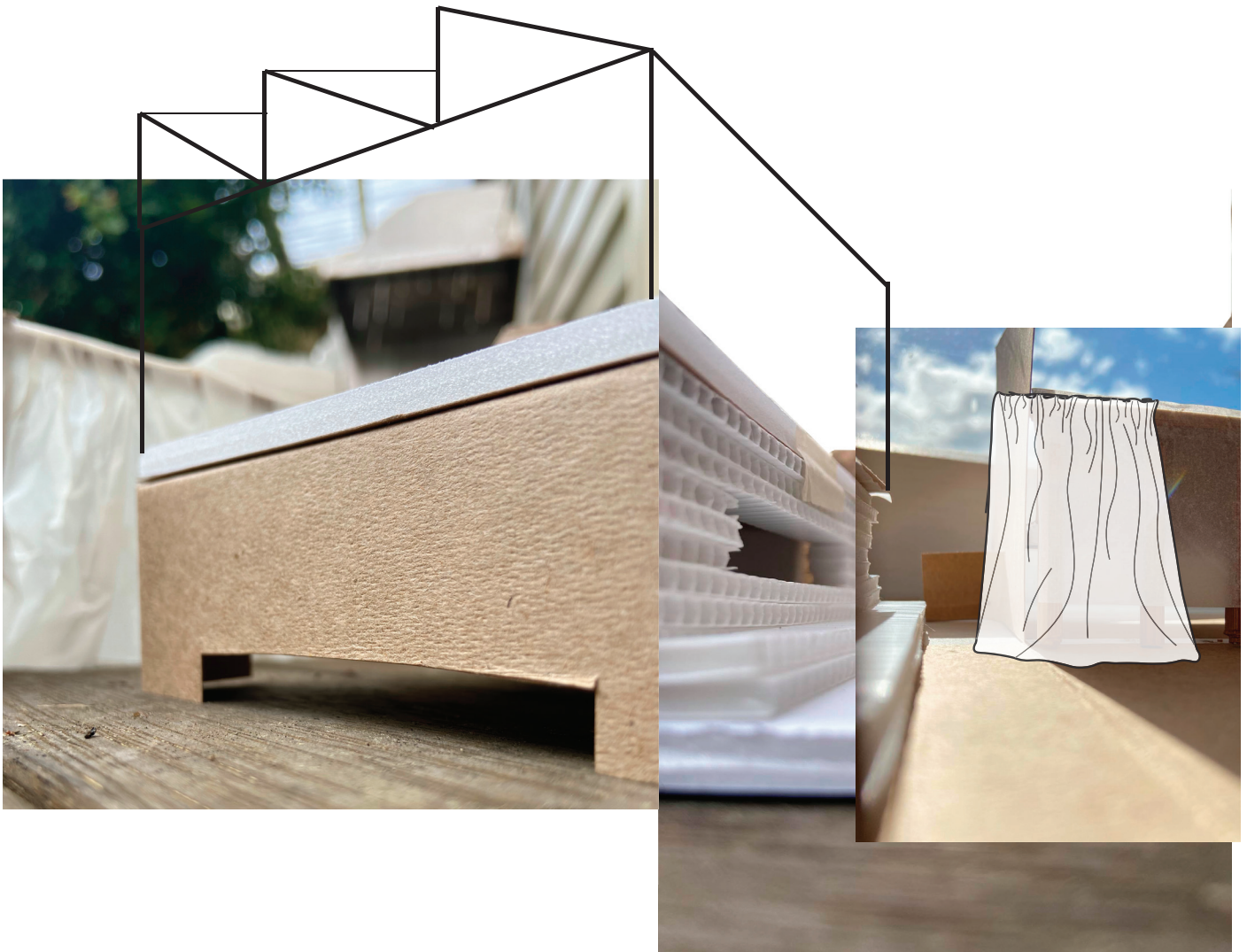


- 1. Residential Rooftop Gathering
- 2. Residential Apartment Storage
- 3. Residential Apartment Entrance
- 4. Ceramics Glazing and Drying Room with Spray Booths
- 5. Public Toilets
- 6. Public Outdoor Gathering Space
- 7. Market Officials Office
- 8. Co-working Office Space

Figure 60: Second Floor Plan. Scale 1:200

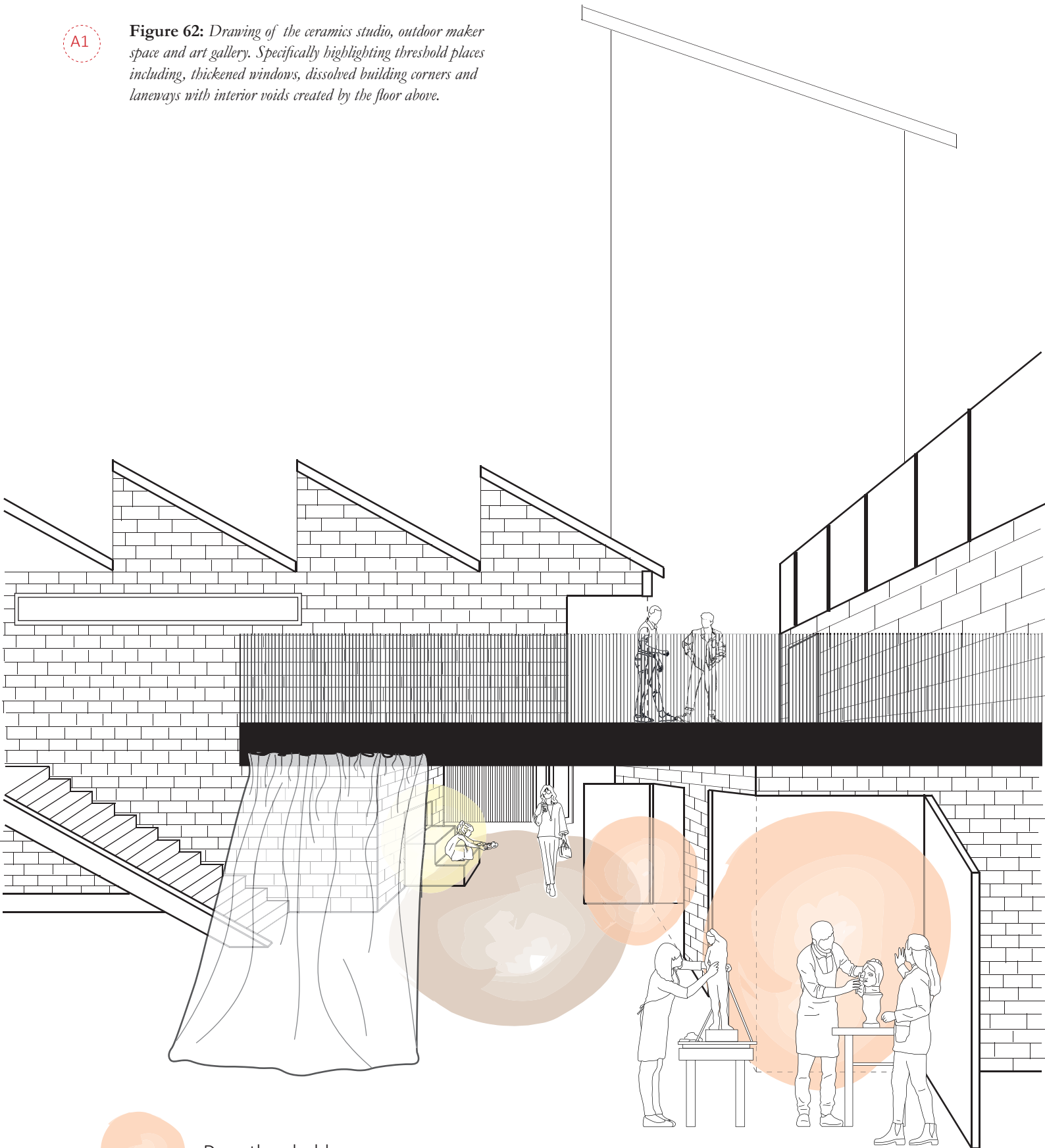
A1

**Figure 61:** Model diagram beginning to understand the composition of the Urban Room and the types of threshold places throughout it. Here you can see a thickened window, exterior urban curtains and wall openings that mean the inside can be experienced outside and the outside can be experienced inside.



A1

**Figure 62:** Drawing of the ceramics studio, outdoor maker space and art gallery. Specifically highlighting threshold places including, thickened windows, dissolved building corners and laneways with interior voids created by the floor above.



Door threshold



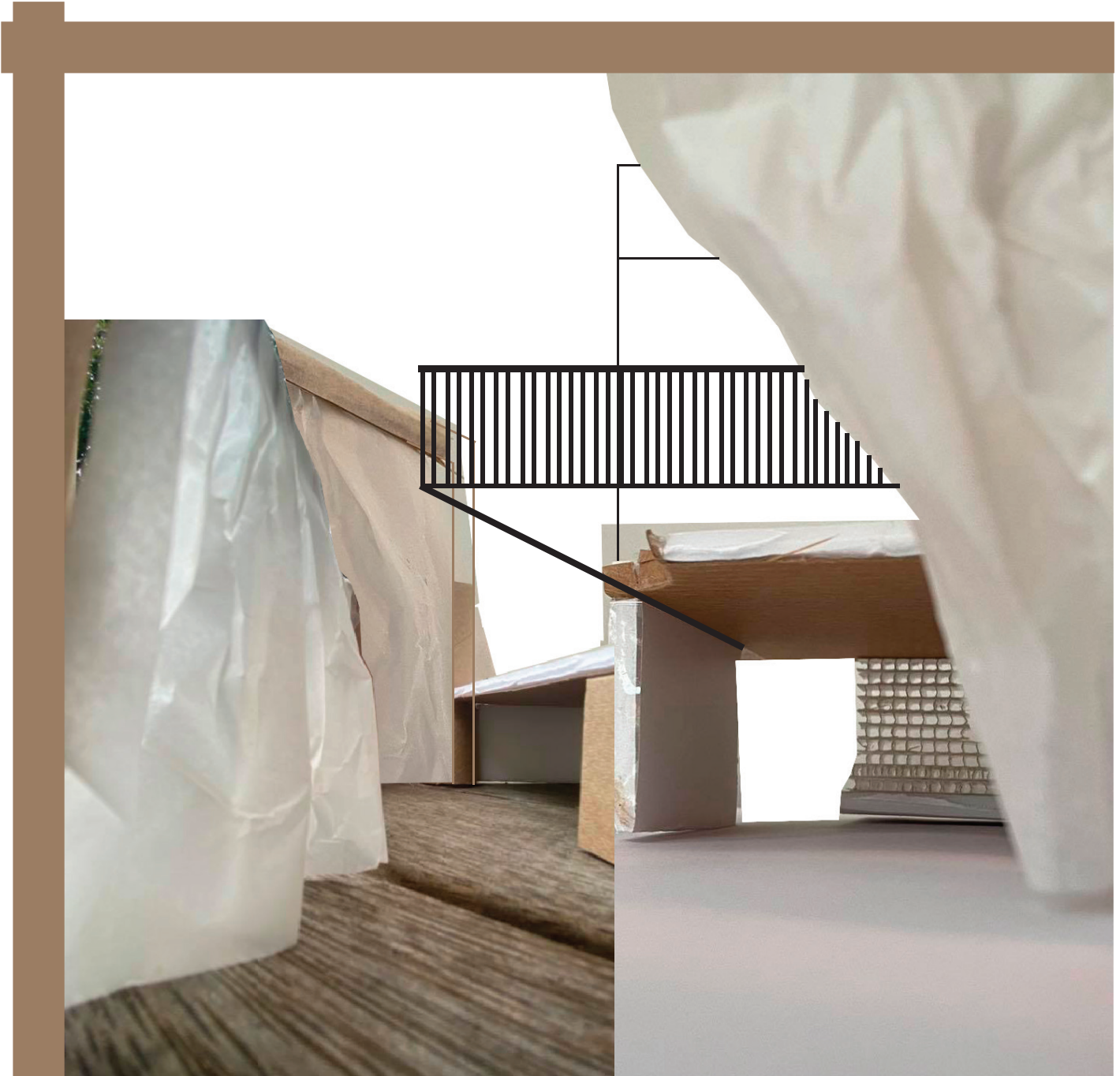
Window threshold



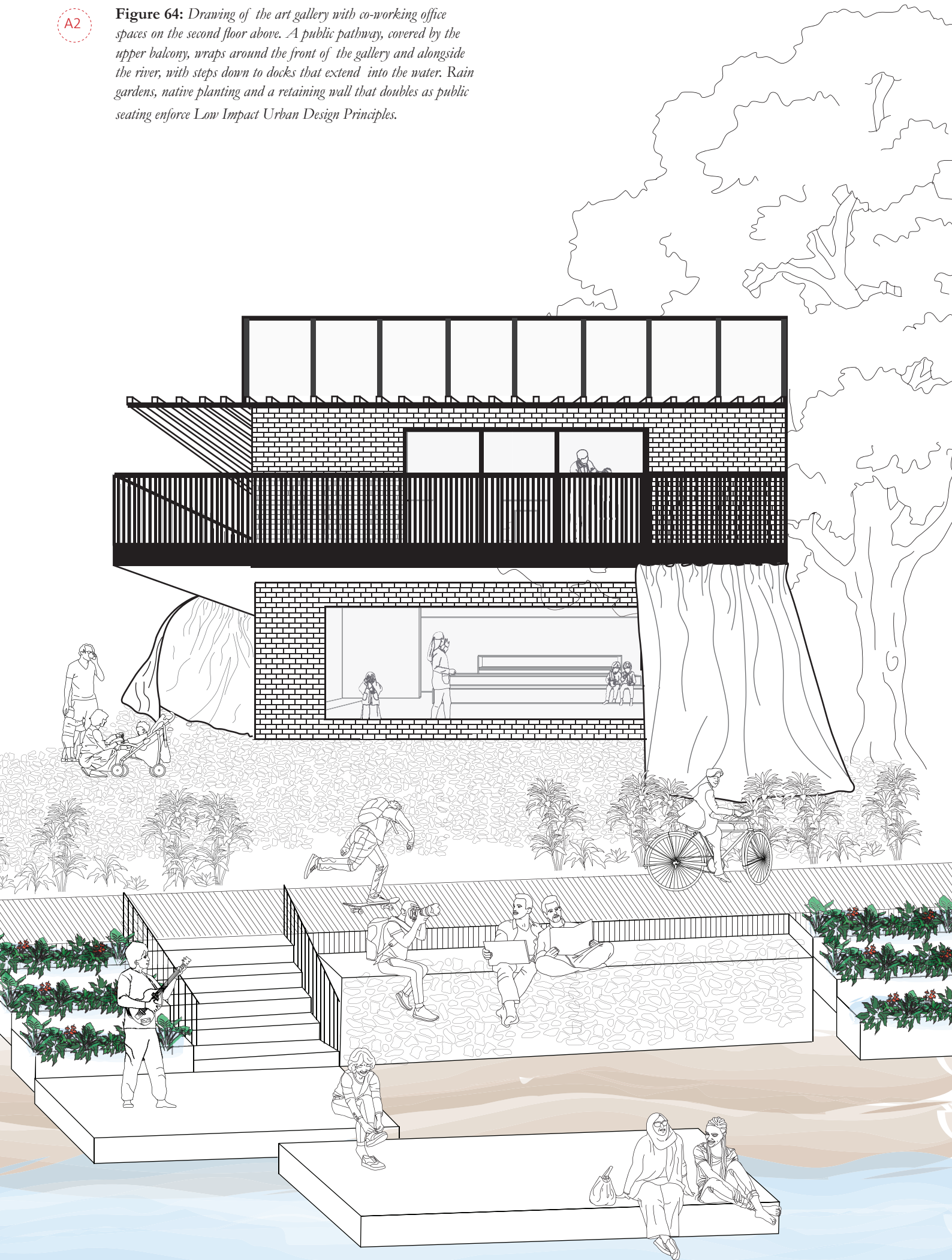
Laneway threshold

A2

**Figure 63:** Model diagram beginning to understand the composition of the Urban Room and the types of threshold places throughout it. Here you can see laneways created by urban curtains and dissolved building corners.



**Figure 64:** Drawing of the art gallery with co-working office spaces on the second floor above. A public pathway, covered by the upper balcony, wraps around the front of the gallery and alongside the river, with steps down to docks that extend into the water. Rain gardens, native planting and a retaining wall that doubles as public seating enforce Low Impact Urban Design Principles.



A3

**Figure 65:** Model photograph showing laneways with interior conditions, including urban curtains and shelter from the floor above.



A3

**Figure 66:** Drawing of the canteen, courtyard, public gathering space around the fireplace and public pathway in front of the Urban Room alongside the river. This drawing highlights interior conditions in the urban realm; exterior textile furnishings, warmth and shelter. Rain gardens and native planting along the public pathway enforce Low Impact Urban Design Principles.



Window threshold



Courtyard/Fireplace threshold



Curtain threshold



Jacobs' writing supports the aim for New Lynn, as discussed in chapter two, to grow into an advanced residential and business hub that hosts a variety of amenities to become the gateway between Auckland City and West Auckland (*Auckland Council, 2010*). As Delta Avenue is developed into a pedestrian and cyclist-friendly boulevard, the site marks a prime opportunity for mixed-use development. Already, approximately 100 metres along Delta Avenue from the site is an abundance of medium density housing undergoing development. This is possible due to the change of zone highlighted in the Auckland Unitary Plan. Additionally, connection to Te Whau Pathway and *The Stitch* enables the need for safe treatment of the river's edge as pedestrian movement around Tāmaki Makaurau Auckland increases. The design proposal addresses this by implementing Low Impact Urban Design principles as a crucial strategy for sustainable urban growth. The programmatic cross-over aims to create safe and active community engagement with Te Whau Awa.

As figure 67 shows, the mix of programmes already in the area includes a variety of industrial purposes. These industrial businesses tend to be open across day-time hours and with the exception of the gym, are not active on weekends. Therefore, opening the possibility for the Avondale Sunday Market to take place on these streets. Jacobs cautions how the danger of underused city blocks across time is inefficient for the sustainability of any ecosystem; natural or built. She explains how lifeless parts of cities become unsafe for inhabitants. And so, spreading people throughout time of day and across a variety of activities is crucial in design (*Jacobs, 1993, p.202*). *The Urban Room* addresses this need for activities to spread across day and night through its mix of programmes. Occupancy over time is further supported by moving the Avondale Sunday Market to this site, along with the incorporation of residential apartments included in the programme. These programmes host both private and communal activity, while creating permanent settlement in a suburb that is otherwise only occupied during working hours of the day.

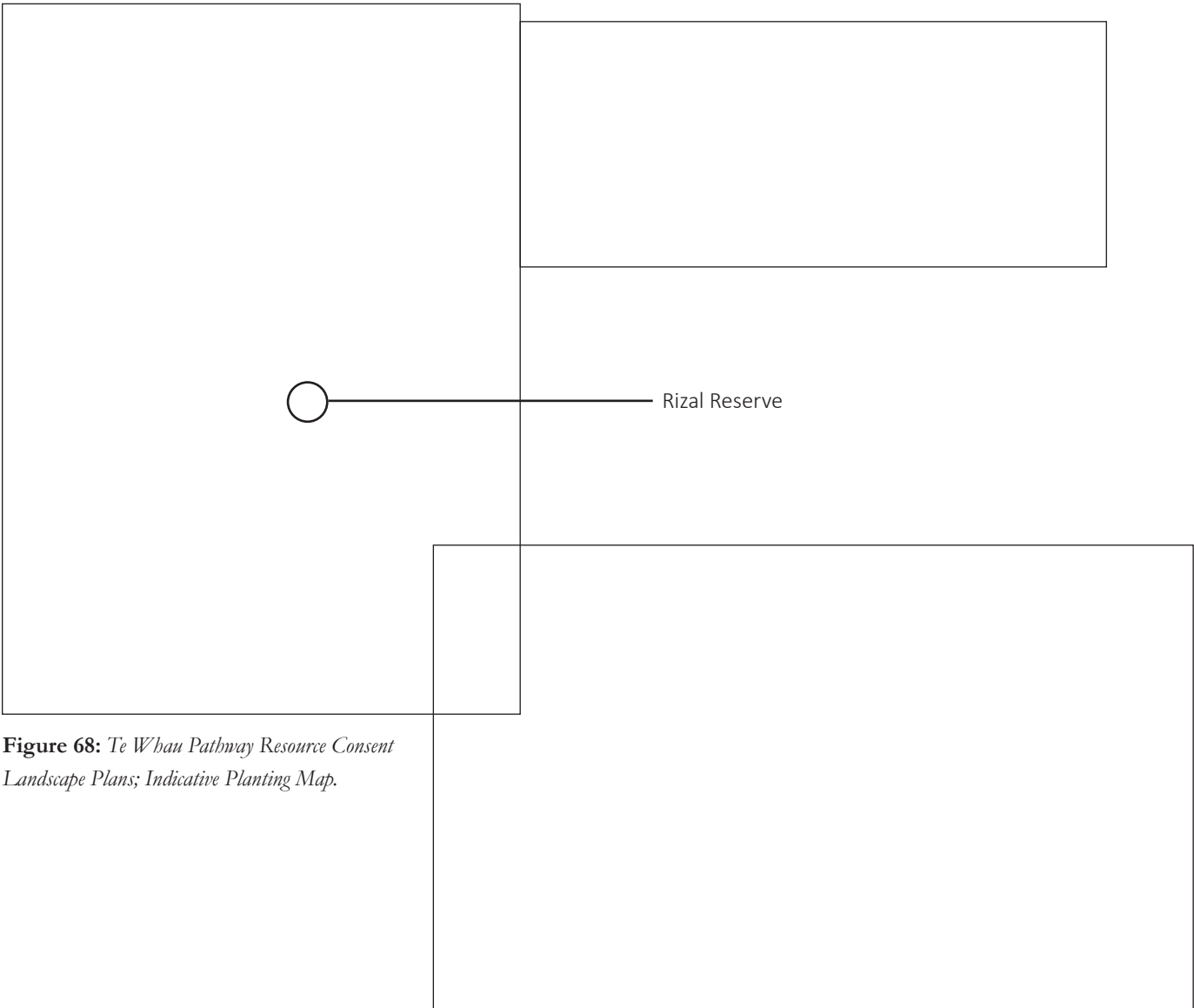


**Figure 67:** A timeline of the industrial business's opening hours in the area of the Urban Room. This timeline showcases the potential for the Avondale Sunday Market to be moved to Delta Avenue and Stock street because the majority of businesses are closed on Sundays. This will increase activity at the site across a temporal setting.

## Low Impact Urban Design

In previous chapters of this thesis, issues dating across history including pollution and extraction of land at Te Whau Awa have been brought to light. A group of Melbourne experts who assessed Auckland Council's stormwater management in 2014 found that the majority of Auckland's 64 urban streams have known drainage issues. Many are identified as environmental hazards to public health and natural ecosystems. They carry water, and therefore everything in it, including trace metals, daily pollutants, sewage, and rubbish to the ocean. Accordingly, this design proposal regenerates the health and wellbeing of Te Whau Awa, a river that is currently identified as one of these environmental hazards (Warne, 2017).

Low Impact Urban Design and Development (LIUDD) examines the sustainability of healthy waterways in cities. The objective takes a catchment approach, considering the mauri (essential life force) of waterways and assesses the interconnected impact human activity has on natural ecosystems (van Roon & van Roon, 2009). Architectural scholar Dr Marjorie Ruth van Roon writes of low impact urban design stating, "*Applying LIUDD means looking at how human activities affect the environment both now and in the future...and helps assess how to work with nature's cycles to maintain ecological resources*" (van Roon & van Roon, 2009, p.1). Her work elaborates on the idea that humans must operate alongside the natural ecosystem for survival. Time is simply a concept whereby pollutants from everyday lives build up over longer periods than humans may see. Therefore, architects must produce buildings that integrate with their surrounding environment (van Roon & van Roon, 2009). From her work, I have developed an understanding of integrate to mean a building that adapts in tandem with the natural environment over time. and therefore maintains the wellbeing of the natural ecosystem. Thus, the human cycle is rewarded in future generations. We must remove the idea that we are building for the human system and address how human behaviours impact the natural environment. Not to confuse what I have previously outlined as the psychological interior being of the human needs in chapter three, I believe low impact urban design is a core human need to sustain urban life.



**Figure 68:** *Te Whau Pathway Resource Consent Landscape Plans; Indicative Planting Map.*

**Figure 69:** *Te Whau Pathway Resource Consent Landscape Plans; Section at Rizal Reserve.*



**Figure 70:** *Te Whau Pathway Resource Consent Landscape Plans; Images and table defining the types of plants that will be found alongside Te Whau Pathway. These plants are also used along the pathway in front of the Urban Room at the site opposite the Rizal Reserve section of Te Whau Pathway.*



## The Design Proposal

*The Urban Room* explores the extensive history of Te Wai te Whau. As land development occurred, brick kilns that once bordered and provided landmarks at the awa have been demolished. These sites are now the green reserves being connected via Te Whau Pathway (Bade, 1990). The design reintroduces the brickwork industry at Te Whau Awa in the form of a ceramics studio and art gallery. Both rooms open into a courtyard where a fireplace with an 8-metre tall chimney provides interior conditions to an exterior place—warmth, gathering and seating. The fireplace chimney, which can be seen from Te Whau Pathway, mimics the industrial language of the brick kilns, recalling the site's history. The art gallery expands to the river's edge in the form of a threshold place. Windows are thickened into interior and exterior seating or to display art exhibitions. In front of the gallery is a 4-metre wide pathway that circulates movement to a nearby community garden.

As previously mentioned, I am investigating LIUDD principles in relation to Te Whau Awa and *the Urban Room*. As urban intensification occurs the area of permeable ground has rapidly declined resulting in insufficient natural infrastructure to filter invisible pollutants before they enter the river (Warne, 2017). Therefore, native planting along the pathway in front of the gallery creates a threshold of human and non-human interaction. Acting as natural infrastructure, the pathway is a corridor of native plants; kōwhai, tī kōuka, (cabbage tree), toetoe, harakeke (flax) and more that mirror the planting strategy of sections of Te Whau Pathway (figures 68, 69 and 70) (Beca, 2019). Their roots stabilise the riverbanks, and trees provide shade and natural air conditioning in the north-facing art gallery and ceramics studio, while habitats for insect and animal life are effectively regenerated adding to the overall biodiversity in the area. Additionally, the design includes permeable paving, roof gardens, and rain gardens to assist with the natural treatment of water before it enters Te Whau Awa.

Located opposite the studio and gallery, and opening into the same courtyard is a canteen. Seating areas are used during the day for the lunch rush of industrial workers, while at night turned into a centre for cooking classes or functions hosted by members of the public. The ceramics studio, art gallery, and canteen are connected via threshold places including 4-metre wide laneways and a central courtyard. On the second floor, above the studio, you will find a ceramics glazing room with spray booths. Walking across a balcony that provides interior comforts to the laneway beneath it, you enter into co-working office spaces that overlooks to Te Whau Awa. There is also a private market office situated on this floor for the Avondale Sunday Market business manager. A 2 meter wide balcony wraps around the second floor, with planting that helps to regenerate natural ecosystems. Hanging off these balconies are urban curtains that drape to the ground level to enforce the perception of interiority. When closed, the curtains provide shelter and privacy between the ceramics studio, gallery, and canteen as a type of bio-climatic architecture. When they are drawn open, the two places adapt, and inhabitation changes.

The design of these curtains enforces the concept of *threshold placemaking* where they create interior rooms that are sheltered by the surrounding architecture and environment. Additionally, another example of *threshold placemaking* in *the Urban Room* are the façades. Four metre wide pivoting doors lock into place and project the interior to the exterior, creating new atmospheric rooms within the surrounding landscape. These large-scale doors are also found at the right angle of some rooms, completely dissolving the corner of the building upon opening them.

Finally, Jacobs uses the example of residential populations bringing economic development to cities based upon increased human needs in different areas; shopping, eating and travelling (*Jacobs, 1993, p.199-204*). And so, figure 71 introduces one bedroom residential apartments in the plan for *the Urban Room* to accommodate the artists using the gallery and studio below. This, coupled with the Avondale Sunday Market happening weekly along Delta Avenue and Stock Street, further establishes a variety of activities in one place. The residential population ensures New Lynn becomes safer, cleaner, and more enjoyable while supporting a growing population. Activating public recreation and living in this way enables social and economic advancement in this part of Tāmaki Makaurau Auckland. *The Urban Room* and its mix of programmes effectively bring people to the river in the safe and comforting way of activating the interiority of a contemporary urban city. I use the term ‘safe’ to include the mauri (lifeforce) of Te Wai te Whau; inclusive of all its inhabitants and thus, the design proposal takes advantage of the many opportunities present at its site.

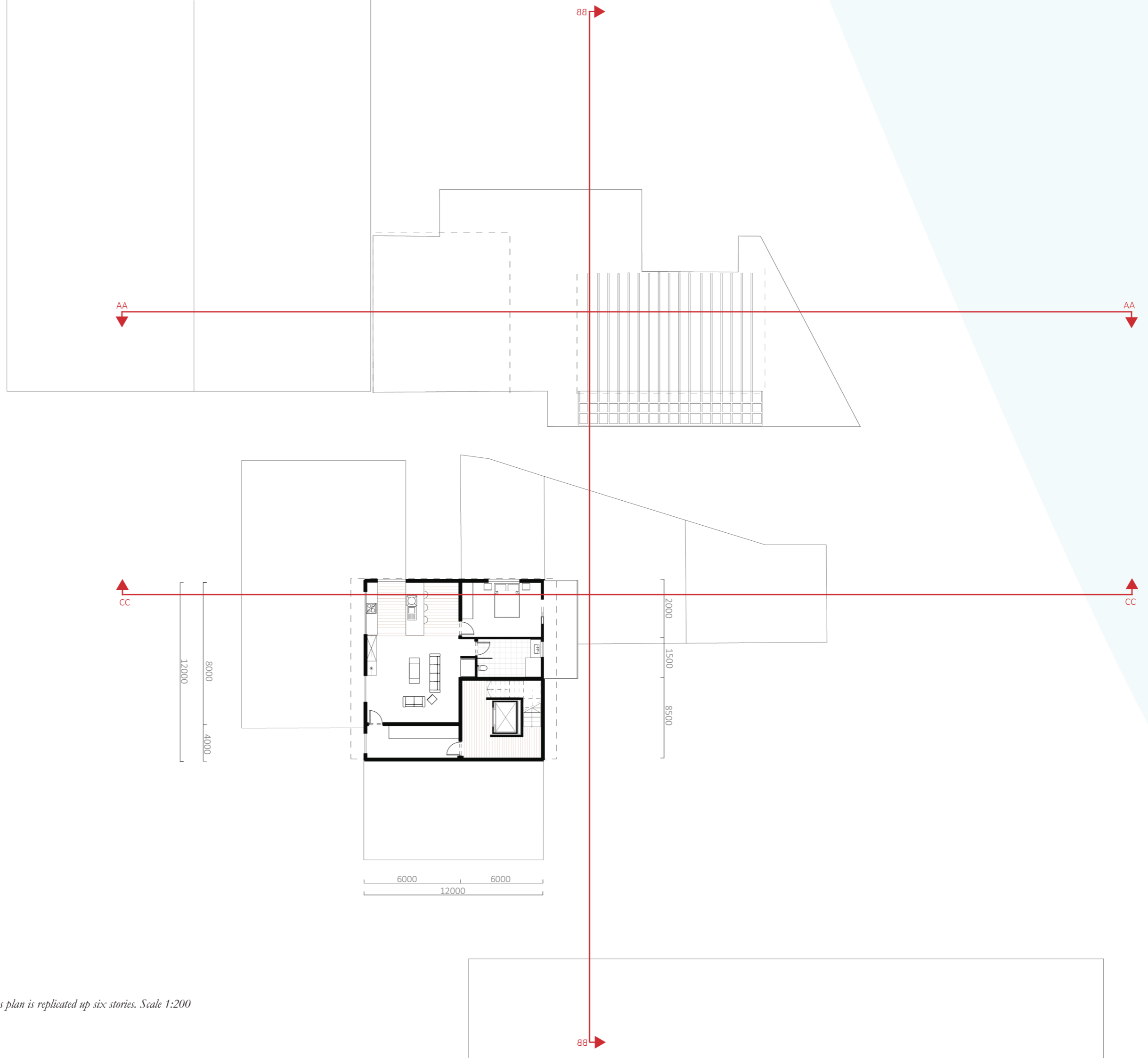


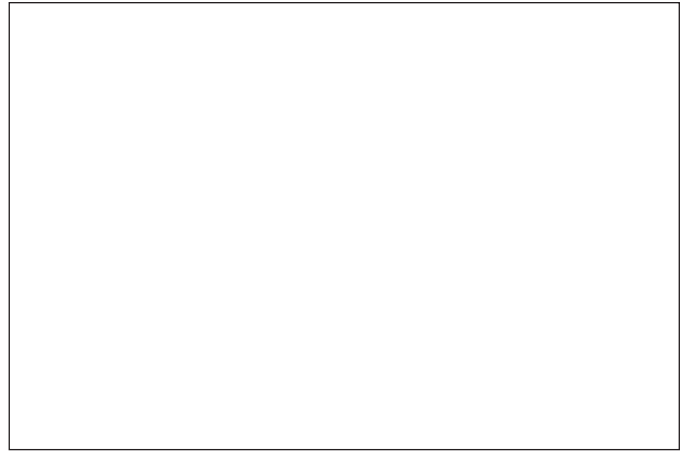
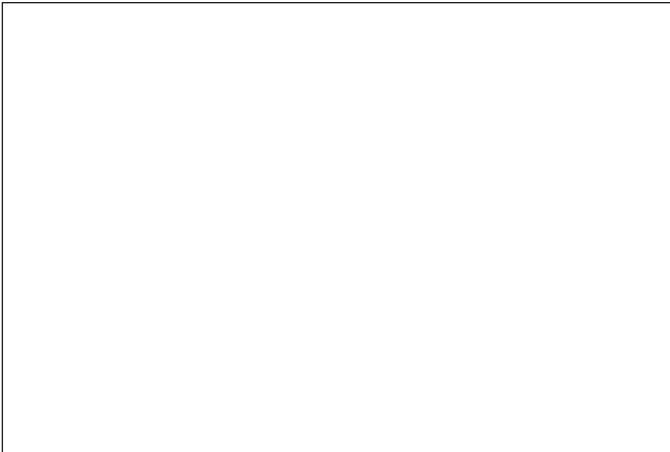
Figure 71: Residential Floor Plans. This plan is replicated up six stories. Scale 1:200

## Avondale Sunday Market

One of the opportunities identified through the analysis of the Delta Avenue Precinct is provided by the lack of activity in the area on weekends. In this short section, I discuss the viability of relocating the Avondale Sunday Market as part of the speculative design proposal for *The Urban Room*.

The Avondale Sunday Market is currently sited at the Avondale Racecourse on Ash Street in Tāmaki Makaurau Auckland. It opened in the early 1980s as a fundraising campaign led by the West Auckland Labour Party. As records show, “*Avondale Racecourse, with its large area of open space, car parking and public facilities appear[ed] well suited to a flea market*” (*Timespanner*, 2020). The market's original operation was on the basis that over a six month time period second-hand trade would not impose on the Avondale Shopping Centre or increase traffic in the suburb. However, as the market grew in popularity week-by-week, by 1984 over 200 stalls were selling not only second-hand goods but fresh produce, meat, fish, flowers and plants, home-baked goods, shoes, clothing and more (figures 72 and 73). Gates opened at 8 am and often closed by midday as stallholders sold out of their products. Consent to permanently run the now privately owned business, was given in 1989 and it has opened every Sunday (excluding weekends affected by COVID-19 restrictions) at the Racecourse ever since (*Timespanner*, 2020). Today, the Avondale Sunday Market is Aotearoa New Zealand's largest market, attracting upwards of 20,000 visitors every Sunday (figure 74) (*Avondale Sunday Markets*, 2012). The Avondale Sunday Market is a historic asset in Tāmaki Makaurau Auckland. It provides community connection and accessibility across the city along with urban food security and business to the communities it serves.

Protection of this business is critical for future development in Tāmaki Makaurau Auckland. Due to the unknown future of the Avondale Racecourse and in response to current development outlined in the New Lynn Urban Plan (*Auckland Council*, 2010), this thesis proposes a new and permanent home for the Avondale Sunday Market to happen on Delta Avenue and Stock Street, additionally expanding across the area, via *The Stitch*, onto Wingate Street. Moving the market, its storage, offices, and public facilities to this site continues its availability for current traders and market-goers, with only a short walk across the racecourse to access it. Furthermore, this is an example of threshold placemaking, in that the whole project – on a Sunday - expands *The Urban Room* into a place exchange and transaction on the street before returning to a street at the end of the day.

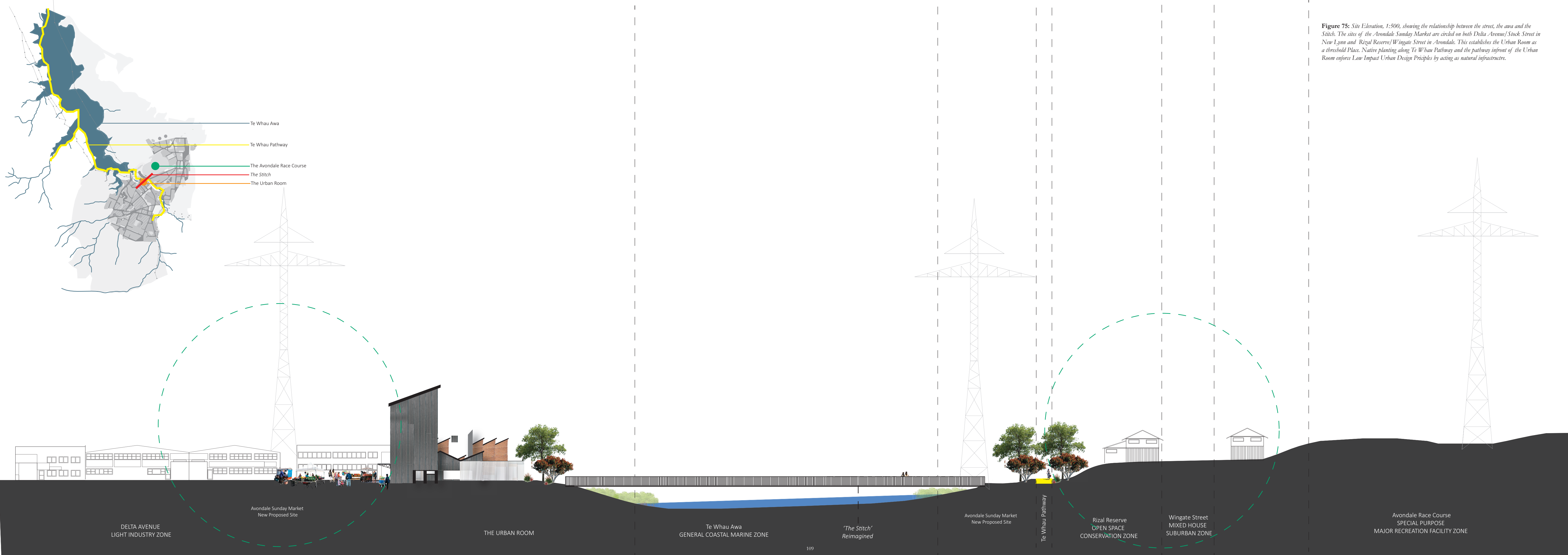


**Figure 72:** *New Zealand People: Avondale Sunday Market.*  
*View of two women standing beside a stall at a market.*

**Figure 73:** *New Zealand Recreation: Avondale Market*  
*View of women standing in an outdoor market, in front of a Hotdog Express caravan.*

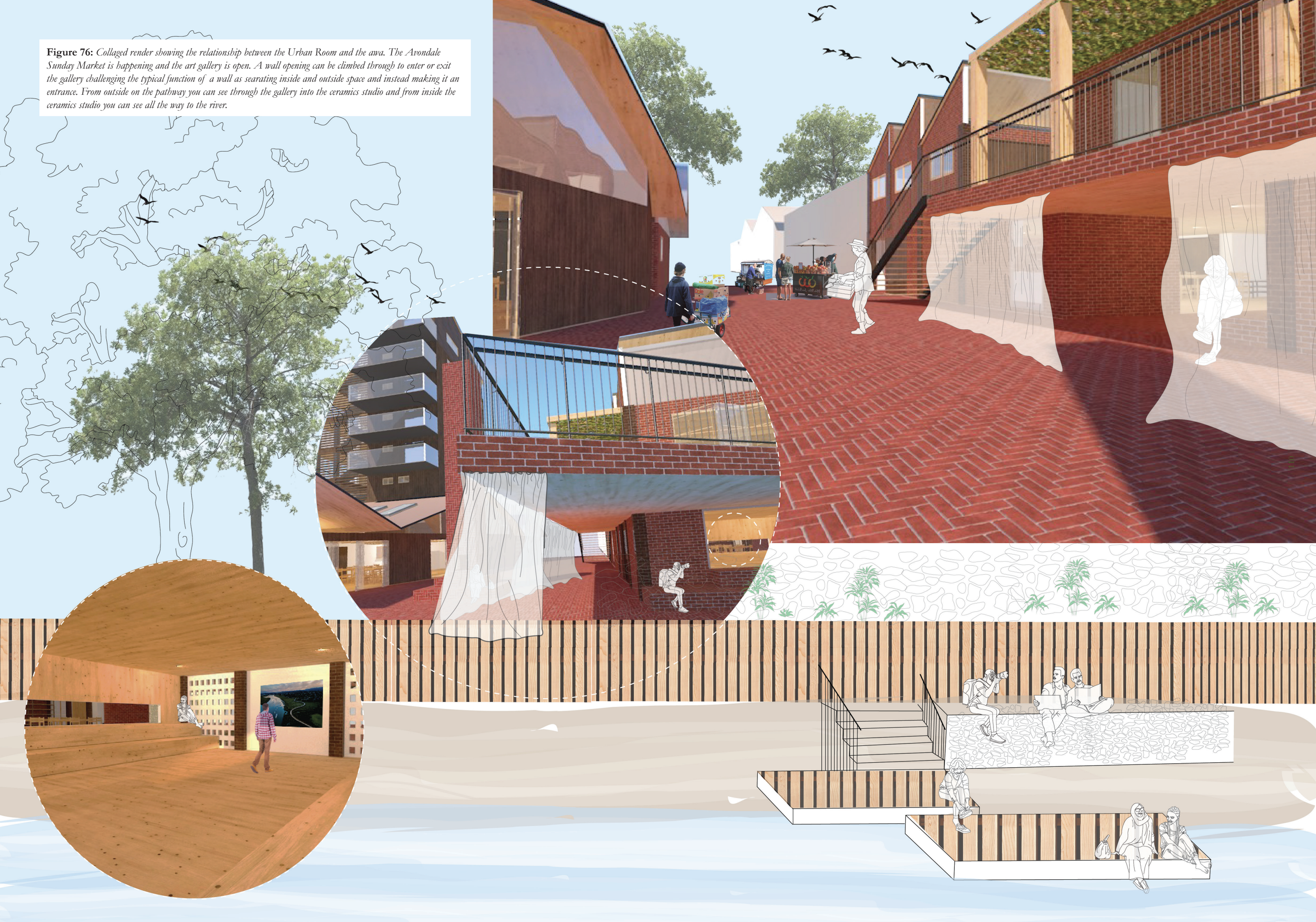


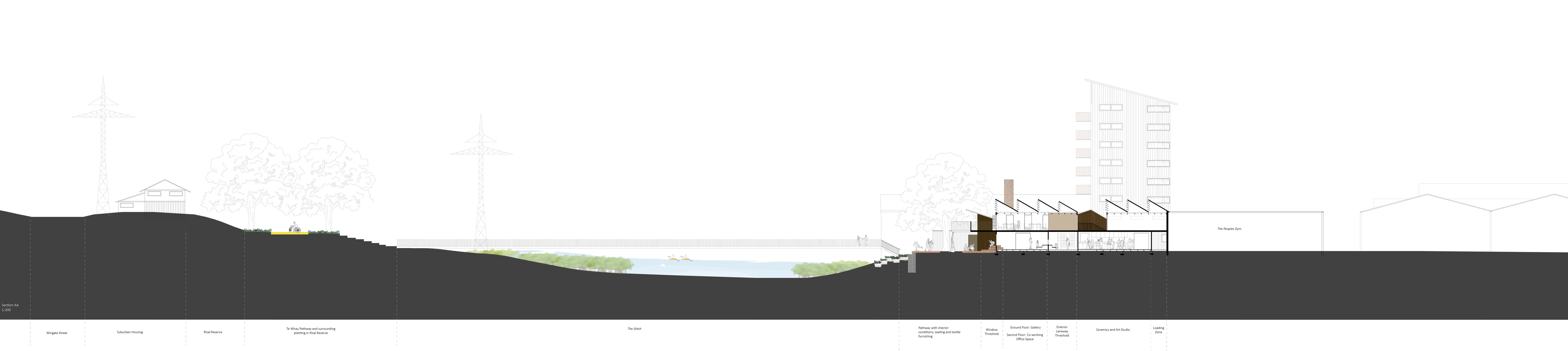
**Figure 74:** *Photographs of the Avondale Sunday Market.*



**Figure 75: Site Elevation, 1:500, showing the relationship between the street, the awa and the Stitch. The sites of the Avondale Sunday Market are circled on both Delta Avenue/Stock Street in New Lynn and Rizal Reserve/Wingate Street in Avondale. This establishes the Urban Room as a threshold Place. Native planting along Te Whau Pathway and the pathway in front of the Urban Room enforce Low Impact Urban Design Principles by acting as natural infrastructure.**

**Figure 76:** Collaged render showing the relationship between the Urban Room and the river. The Avondale Sunday Market is happening and the art gallery is open. A wall opening can be climbed through to enter or exit the gallery challenging the typical function of a wall as separating inside and outside space and instead making it an entrance. From outside on the pathway you can see through the gallery into the ceramics studio and from inside the ceramics studio you can see all the way to the river.





Section AA  
1:200

Wingate Street

Suburban Housing

Rizal Reserve

Te Whau Pathway and surrounding  
planting in Rizal Reserve

The Stitch

Pathway with interior  
conditions; seating and textile  
furnishing

Window  
Threshold

Ground Floor: Gallery  
Second Floor: Co-working  
Office Space

Exterior  
Laneway  
Threshold

Ceramics and Art Studio

Loading  
Zone

The Peoples Gym

Figure 77: Section AA, Scale 1:200

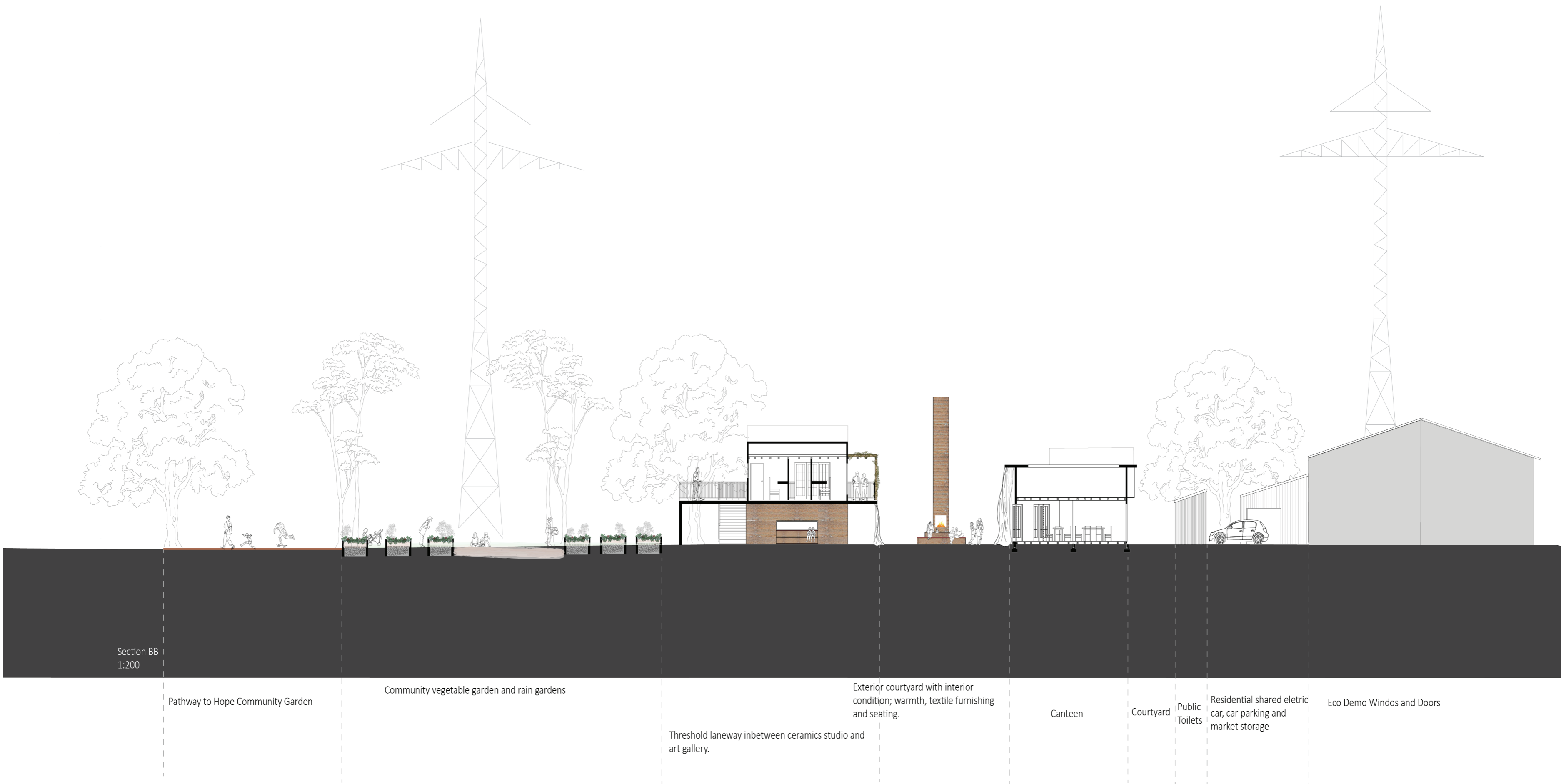
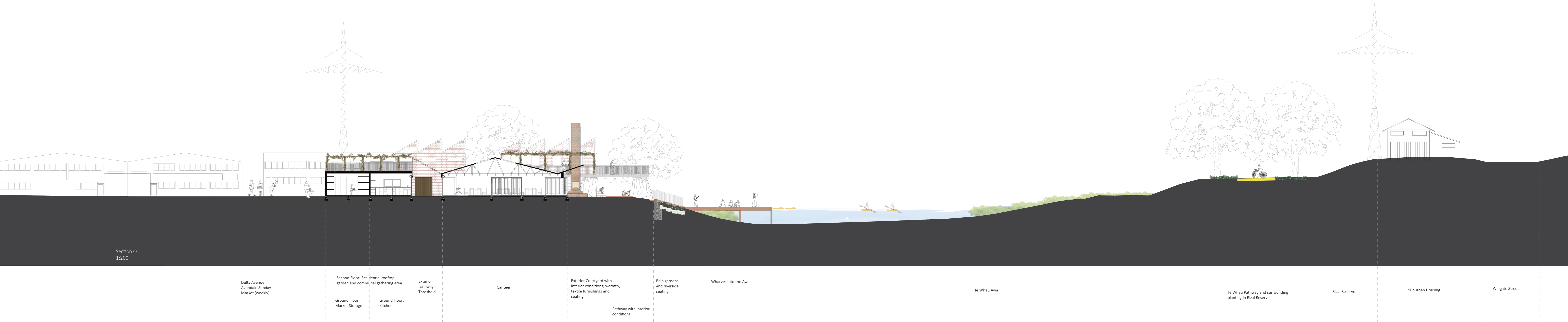


Figure 78: Section BB, Scale 1:200



Section CC  
1:200

Delta Avenue:  
Avondale Sunday  
Market (weekly)

Second Floor: Residential rooftop  
garden and communal gathering area

Ground Floor:  
Market Storage

Ground Floor:  
Kitchen

Exterior  
Laneway  
Threshold

Canteen

Exterior Courtyard with  
interior conditions; warmth,  
textile furnishings and  
seating.

Pathway with interior  
conditions

Rain gardens  
and riverside  
seating

Wharves into the Awa

Te Whau Awa

Te Whau Pathway and surrounding  
planting in Rizal Reserve

Rizal Reserve

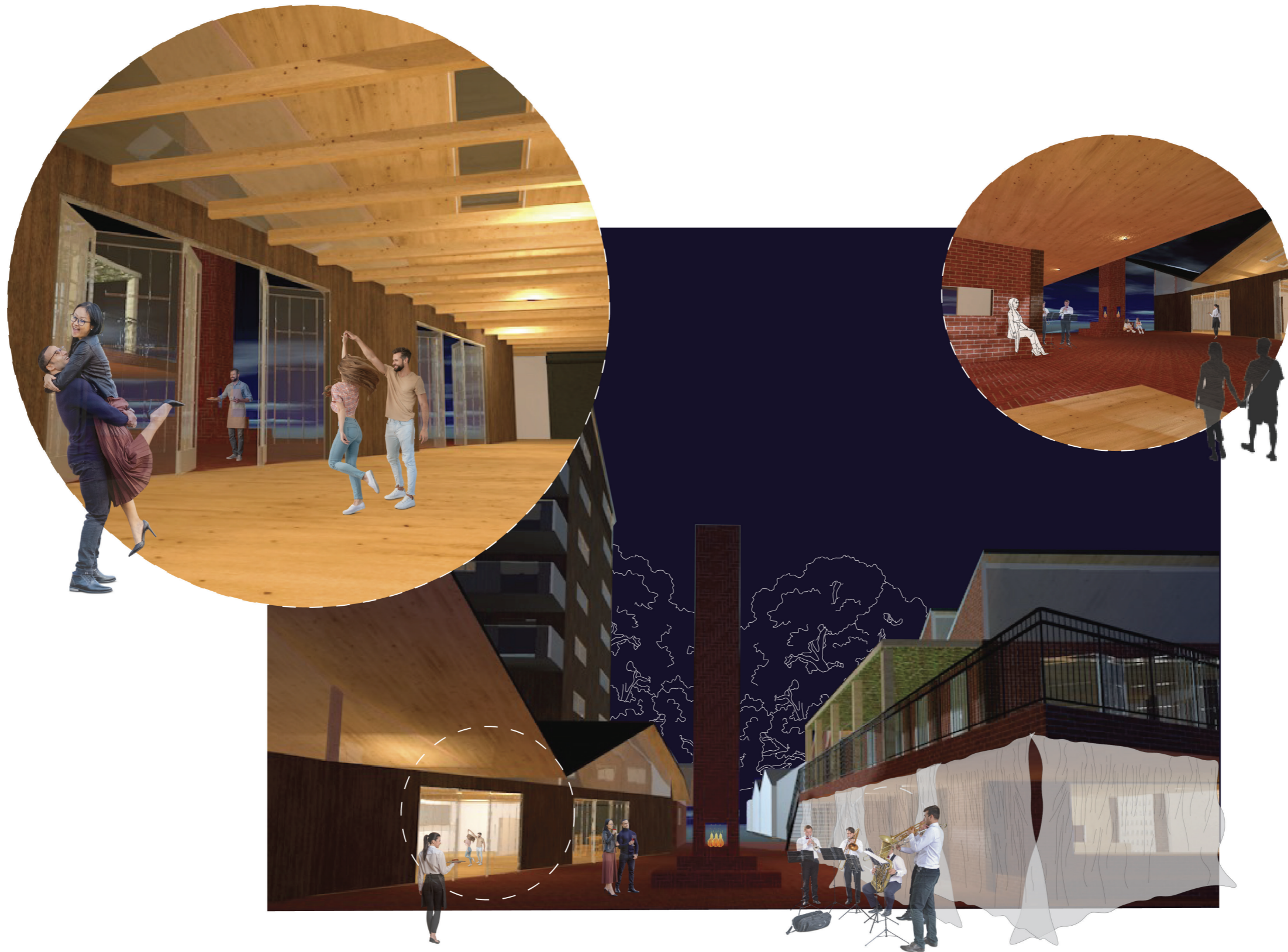
Suburban Housing

Wingate Street

Figure 79: Section CC, Scale 1:200



Figure 80: Collaged render of the Urban Room showing the relationship between the laneways, the courtyard and the Avondal Sunday Market, as well as the Stitch that extends from the public pathway and crosses over the avia.



**Figure 81:** Collaged render of the Urban Room at night. The art gallery is closed by the urban curtain which has become the backdrop for a live band playing. People gather around the fireplace for its warmth and dancing is happening in the space that is the canteen during the day. Food and drink is able to be passed around, made in the on site kitchen.

To conclude this chapter I have established the programmatic brief for *The Urban Room*. Clearly identifying a key theorist, Jane Jacobs, whose work strongly underpins my design decisions by understanding the issues of underused cities. *The Urban Room* closely responds to low impact urban design strategies that are necessary to meet future development goals outlined in the Auckland Unitary Plan, discussed in chapter two, and closely analyses relationships the site has with Te Whau Pathway and *The Stitch*. The design proposal of *The Urban Room* delivers a clear example of urban development that regenerates the health of Te Whau Awa and its natural ecosystems, as well as fosters community connection between rapidly advancing suburbs in Tāmaki Makaurau Auckland.





## Chapter Six: Findings

This chapter explains the findings of the research and design proposal that have allowed me to conclude the thesis. Over the course of this project I explored a variety of design research methods to answer specific research question(s); examining and evaluating ideas of public interiority through critical mapping, model making, and photography and drawing. The findings have been exhibited in the design proposal as evidence that supports my understanding of what a public urban interior is.

## River Regeneration

The proposal began in the context of Te Whau Awa and by gaining a concise understanding of the impacts of urbanisation on rivers. I established that river health and pollution issues need to be improved in order to sustain healthy waterways. The initial research methods included reading, writing, and mapping information about Te Whau Awa and its connection with people and urbanisation throughout the history of Aotearoa New Zealand. I found that Te Whau Awa was an historic portage route and the site of Tāmaki Makaurau Auckland's brick industry. This industry marks a cornerstone in the cities urbanisation. The site of this industry along the riverbanks uncovered a multitude of issues along the awa; pollution, congestion, loss of biodiversity and low community engagement were of most concern. Furthermore, research into the awa and its surrounding land established that throughout history New Lynn has acted as a threshold to move around Tāmaki Makaurau Auckland. I began to identify relationships between interior and urban landscapes, questioning if interiors could integrate with natural-urban suburbs. It became critical that low impact urban design methods be addressed in order to develop a viable urban development proposal for Tāmaki Makaurau Auckland. Without early recognition of threshold places, the opportunity to integrate a public urban interior into the natural urban realm would remain lost. This research allowed me to define a site for the design proposal which hosted an abundance of sustainable urban development opportunities, as well as a reconnection with the river via an existing project under development—Te Whau Pathway.

## Re-homing the Avondale Sunday Market

Following this site discovery I began to recognise its close proximity to not only Te Whau Pathway but also The Avondale Racecourse where I discovered, through council resources, probable plans to develop this land as population increases. The Racecourse currently hosts a variety of activities and most importantly is the site of the Avondale Sunday Market. Further research identified the necessity of market business in less developed areas of cities. This research became the cause for ensuring this asset does not lose its site of business as future urban development occurs.

I noticed the possibility for the market to move to Delta Avenue and Stock due to the areas lack of use as most industrial businesses closed over the weekend. It was here that I found yet another relationship with the term threshold. By expanding the market onto the Avondale side of the river, connected via a pedestrian bridge, I found that the design acted as a threshold corridor that connected New Lynn to Avondale. Developing threshold relationships between the street, site and river activated Te Whau Pathway in the form of *threshold placemaking*, a term I was able to define in the context of this awa (river) and the suburb of New Lynn.

## Threshold Placemaking

*Threshold placemaking* is a design strategy I developed through the writings of Suzie Attiwill and others who extend upon ideas about public interiority. We know thresholds to be a transitional zone, often drawn in architecture simply as a line to cross over. A threshold's common function is to separate the inside and outside via a wall, a door, or a window.

A threshold place, however, can host interior or exterior conditions and in turn accommodate a variety of activities and inhabitants. Threshold places connect interiors directly to their environment, building strong relationships between all inhabitants—human and non-human inclusive—while blurring boundaries between architectural realms. This part of my research allowed me to question the role of a threshold in the public urban realm. Could they become places of interaction and activity? Could they change the nature of transitioning from inside to outside? Could that change how we approach architectural design in the natural-urban realm?

As I designed and tested *threshold placemaking* through modelling at 1:100 scale, I constructed evidence whereby making the threshold a place of inhabitation the boundary between inside and outside was blurred. I then investigated how I could design a building without the need of an exterior architectural envelope, yet one that focused on the inside to determine its needs and found that thresholds play a key role in the success of interior architecture. Expanding internal components into the exterior established interior architecture as a combination of space, activity, and atmospheres that naturally integrate with a natural and urban site, and that respond to the conditions of the people it inhabits and the environment it is found.

### Integration Through Perceiving Public Interiority

As I explored the idea of threshold placemaking there seemed to be a missing link in discovering what a public urban interior truly is. An analysis of case studies and additional research supported by psychologists, found that interior architecture is a perceived condition of the human experience, one that comprises our human needs: connection, interaction, and health. Subsequently, I found that an interior does not need to be bound by architectural form and can be designed from the inside out. The interior is more than the materials and components used to create a void of space. Rather, it is depicted from experiences that occur within the human system; body-sensory experiences that are reinforced by memories.

In other words, I found that perceived conditions of interiority come from understanding what we need as humans: warmth, comfort, food, interaction etc. This advancement in my research allowed me to finalise the design proposal in such a way that I was able to create exterior spaces that feel like interior ones and therefore blur the boundary between inside and out. An example where I have exhibited this in the design is through the integrating of normatively interior elements with the exterior. Large scale curtains provide shelter and privacy when needed, or can be opened to expand the interior into the exterior.

I have found that interior architecture is an integral part of the built environment at a psychological and programmatic level; and that I could develop a proposal for a series of interior spaces interconnected through threshold places that integrate with the surrounding environment.

## Conclusion

As this thesis concludes, the question stated in the beginning; “*What is a public urban interior?*” is answered. In the context of Te Whau Awa, New Lynn, urban interiority, and *threshold placemaking*, a potential development that regenerates this urban river in Tāmaki Makaurau Auckland is design and proposed. *Threshold placemaking* extends from the history of the New Lynn site and is developed into an overall understanding of the public urban interior. It is at the threshold interface, which is found across all fields, where the cross over between urbanism and interiority occurs, thus proving that a public urban interior is a space that is integrated into its surrounding landscape. Designing from the inside-out, meaning from within the human body outwards, enables this to be present. Our core human need is the sustainability of the human system. Analysing low impact design and psychological conditions of interiority, I understand that this can only come from the human system coinciding with the natural system.

I have successfully provided an opportunity for urban development that aligns with the AUP and the redevelopment strategy outlined in the New Lynn Urban Plan 2010-2030 by integrating *the Urban Room* with its site. I have proven the need for relocating the Avondale Sunday Market as part of the urban development strategy. This market provides social, cultural, and economic growth, specifically to the communities within the Whau Ward. Additionally, with the market site now being Delta Avenue, Stock Street and expanding onto Wingate Street via *The Stitch*, Te Whau Pathway is activated in the form of a permanent place. This answers the additional question also stated at the beginning of this thesis; “*How can a public urban interior activate the Te Whau Pathway?*”

Finally, to formally answer the critical research question, a public urban interior is a place where a complex programmatic crossover exists at one site. Activity at the threshold place is critical to define the public urban interior. These threshold places blur the boundary between inside and outside and allow for them to adapt to their surroundings. And so, I close this thesis by stating that the interior is uniquely individual and can be developed as its own field of practice. A practice that integrates with its surroundings without the need for an architectural form to encase it. Ultimately, a public urban interior can exist within a natural or urban landscape.



## Bibliography

- Attiwill, S. (2011). *Urban Interior: Informal Explorations, Interventions and Occupations*. Spurbuchverlag.
- Attiwill, S. (2011). *Urban Interior: Interior-making in the urban environment*. 2011 IDA Congress Education Conference.
- Auckland Council. (2010). *New Lynn Urban Plan 2010-2030*. Auckland Council. <https://www.aucklandcouncil.govt.nz/plans-projects-policies-reports-bylaws/our-plans-strategies/place-based-plans/docsnewlynnurbanplan/new-lynn-urban-plan-2010-part-1.pdf>
- Auckland Council. (2012). *New Lynn Matters, New Lynn Community Newsletter*. [https://at.govt.nz/media/imported/4687/new\\_lynn\\_matters\\_June2012.pdf](https://at.govt.nz/media/imported/4687/new_lynn_matters_June2012.pdf)
- Auckland Council. (2019). *TE WHAU SHARED PATHWAY Landscape and Visual Assessment*. <https://www.aucklandcouncil.govt.nz/ResourceConsentDocuments/53BUN60337530AppxKLVA.pdf>
- Auckland Council. (2020). *W hau Local Board Plan 2020*.
- Auckland Council. (2021, August 13). *Auckland Unitary Plan*. [https://unitaryplan.aucklandcouncil.govt.nz/pages/plan/Book.aspx?exhibit=AucklandUnitaryPlan\\_Print](https://unitaryplan.aucklandcouncil.govt.nz/pages/plan/Book.aspx?exhibit=AucklandUnitaryPlan_Print)
- Avondale Sunday Markets. (2012). *Avondale Sunday Market*. <https://www.avondalesundaymarkets.co.nz/aboutus.html>
- Bade, J. N. (1990). *West Auckland Remembers* (Vol. 1). <https://ehive.com/collections/7178/objects/809715/west-auckland-remembers-volume-1>
- Baillieu, A. (2003). *Contemporary windows*. London : Mitchell Beazley. <http://archive.org/details/contemporarywind0000bail>
- Beca. (2019). *Te Whau Pathway—Resource Consent Landscape Plans*. [https://www.aucklandcouncil.govt.nz/ResourceConsentDocuments/59BUN60337530AppxQ%20Landscape%20Plans\\_Part1.pdf](https://www.aucklandcouncil.govt.nz/ResourceConsentDocuments/59BUN60337530AppxQ%20Landscape%20Plans_Part1.pdf)
- Bianchini, R. (2021, April 29). *Storefront for Art and Architecture—NYC* | Inexhibit. <https://www.inexhibit.com/mymuseum/storefront-art-architecture-new-york/>
- Boettger, T. (2014). *Threshold Spaces: Transitions in Architecture. Analysis and Design Tools*. Walter de Gruyter GmbH. <http://ebookcentral.proquest.com/lib/aut/detail.action?docID=1652502>
- Borden, I. (1998). *Thick Edge: Architectural Boundaries and Spatial Flows*. *Architectural Design*, 66(11–12), 84–87.
- Catchment Definition & Meaning | Dictionary.com. (n.d.). Retrieved 23 September 2021, from <https://www.dictionary.com/browse/catchment>
- Chapter A Introduction.pdf*. (n.d.). Retrieved 26 August 2021, from <https://unitaryplan.aucklandcouncil.govt.nz/Images/Auckland%20Unitary%20Plan%20Operative/Chapter%20A%20Introduction/Chapter%20A%20Introduction.pdf>
- Couzens. (2012, April 6). *Ken Yeang and Bioclimatic Architecture*. <https://www.architecture.org.au/news/enews/354-ken-yeang-and-bioclimatic-architecture>
- Cresswell, T. (2014). *Place: An Introduction*. John Wiley & Sons, Incorporated. <http://ebookcentral.proquest.com/lib/aut/detail.action?docID=1780033>

Cultural Survival. (2012). *I Am the River and the River is Me: The Implications of a River Receiving Personhood Status*. <http://www.culturalsurvival.org/publications/cultural-survival-quarterly/i-am-river-and-river-me-implications-river-receiving>

Definition of threshold | Dictionary.com. (n.d.). [www.dictionary.com](http://www.dictionary.com). Retrieved 21 September 2021, from <https://www.dictionary.com/browse/threshold>

Ellwood, M. J., Wilson, P., Vopel, K., & Green, M. (2008). *Trace metal cycling in the Whau Estuary, Auckland, New Zealand*. *Environ. Chem.*, 5, 289–298. <https://doi.org/10.1071/EN7077>

*F2 Coastal—General Coastal Marine Zone.pdf*. (n.d.). Retrieved 26 August 2021, from <https://unitaryplan.aucklandcouncil.govt.nz/Images/Auckland%20Unitary%20Plan%20Operative/Chapter%20F%20Coastal/F2%20Coastal%20-%20General%20Coastal%20Marine%20Zone.pdf>

Government, L. (n.d.). *Auckland Council—Main. Local Government*. Retrieved 31 August 2021, from [https://www.localcouncils.govt.nz/lqip.nsf/wpg\\_URL/Profiles-Councils-Auckland-Council-Main](https://www.localcouncils.govt.nz/lqip.nsf/wpg_URL/Profiles-Councils-Auckland-Council-Main)

Hang Yan Lam, J. (2017). *Delta Works: Adaptive Reuse of the Industrial Shed*. The University of Auckland.

Jacobs, J. (1993). *The death and life of great American cities* (Modern Library edition.). The Modern Library.

Jasmax. (2017). *TE WHAU PATHWAY: Landscape and Urban Design Framework*. <https://at.govt.nz/media/1973047/te-whau-pathway-uldf-volume-2.pdf>

Kirkcaldie, I. (n.d.). *Riverside Market. Kirkcaldie*. Retrieved 27 September 2021, from <https://kirkcaldie.com/riverside-market>

Macdonald, F., & Kerr, R. (2009). *West: The history of Waitakere*. Random House.

Mackay, J. (2001). *The Whau, our rivers, our streams, our backyards*. Waitakere City Council. <http://projecttwinstreams.com/wp-content/uploads/2012/10/thewhau.pdf>

Newth, K. (2019, January 6). *Meet you at the Market*. <https://www.pressreader.com/new-zealand/latitude-magazine/20190601/281526522698531>

Panuku. (2017). *Unlock Avondale, High Level Development Plan*. Auckland City Council. [https://infocouncil.aucklandcouncil.govt.nz/Open/2017/09/WH\\_20170927\\_AGN\\_7521\\_AT\\_SUP\\_files/WH\\_20170927\\_AGN\\_7521\\_AT\\_SUP\\_Attachment\\_55887\\_1.PDF](https://infocouncil.aucklandcouncil.govt.nz/Open/2017/09/WH_20170927_AGN_7521_AT_SUP_files/WH_20170927_AGN_7521_AT_SUP_Attachment_55887_1.PDF)

Panuku. (2017). *AVONDALE Town centre regeneration High Level Project Plan – November 2017*. Auckland City Council. <https://www.panuku.co.nz/downloads/assets/4896/1/avondale>

Park, K. (1993). 1993.11\_The Facade: A Collaborative Building Project (071.1993), Violence in Collaboration. [http://archive.org/details/Facade\\_Violence\\_Collaboration](http://archive.org/details/Facade_Violence_Collaboration)

Parliament, N. Z. (2017, December 13). *New Lynn: People—New Zealand Parliament*. [https://www.parliament.nz/en/mps-and-electoralates/historical-electorate-profiles/electorate-profiles-data/document/DBHOH\\_Lib\\_EP\\_New\\_Lynn\\_People/new-lynn-people](https://www.parliament.nz/en/mps-and-electoralates/historical-electorate-profiles/electorate-profiles-data/document/DBHOH_Lib_EP_New_Lynn_People/new-lynn-people)

Quinn, B. (2006). *Textiles in Architecture. Architectural Design*, 76(6), 22–26. <https://doi.org/10.1002/ad.348>

- Riley, T. (1999). *The un-private house* (Vol. 1–152). The Museum of Modern Art: Distributed by H.N. Abrams. <https://www.moma.org/calendar/exhibitions/192>
- Riverside. (2019a). *Riverside*. <https://riverside.nz>
- Riverside. (2019b, September 30). *The Riverside Market is open!* [www.riverside.nz](http://www.riverside.nz)
- Scott, D. (1979). *Fire On the Clay*. Southern Cross Books in association with David Brett Ltd.
- Steven Holl Architects. (1993). *STOREFRONT FOR ART AND ARCHITECTURE - STEVEN HOLL ARCHITECTS*. <https://www.stevenholl.com/projects/storefront-for-art-and-architecture>
- Storefront for Art and Architecture. (1993). 1993.11\_The Facade: A Collaborative Building Project (071.1993), *The Facade Extended Narrative*. [http://archive.org/details/Facade\\_Narrative](http://archive.org/details/Facade_Narrative)
- Tanzer, K. (2003). *When Practice Leads Theory*. Phi Kappa Phi Forum, 83(3), 30–34.
- Teston, L. (2020). *On the Nature of Public Interiority*. Interiority, 3(1), 61–82. <https://doi.org/10.7454/in.v3i1.72>
- Timespanner. (2020, March 25). Timespanner: *Avondale's Racecourse by the River Part 2: Surrounded by Change* (1923-2019). Timespanner. <https://timespanner.blogspot.com/2020/03/avondales-racecourse-by-river-part-2.html>
- Townsend, C. R., & Niyogi, D. K. (2004). *Development of a Tool to Facilitate Participation of Maori in the Management of Stream and River Health*. EcoHealth, 1, 184–195. <https://doi.org/10.1007/s10393-004-0006-9>
- Van der Kolk, B. A. (2014). *The body keeps the score: Mind, brain and body in the transformation of trauma*. Allen Lane.
- van Roon, M., & van Roon, H. (2009). *Low Impact Urban Design and Development: The big picture*. Landcare Research Science Series, 37.
- Waghorn, K., & Barrie, A. (2013). *Muddy Urbanism*. Lulu.com.
- Warne, K. (2017, June). *No swimming*. New Zealand Geographic. <https://www.nzgeo.com/stories/no-swimming/>
- Weinthal, L. (2008). *Bridging the Threshold of Interior and Landscape: An Interview with Petra Blaisse*. Architectural Design, 78(3), 64–71. <https://doi.org/10.1002/ad.676>

