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The city is... a state of mind, a body of customs and traditions, and of the organized attitudes and sentiments that inhere in these customs and are transmitted with this tradition. The city is not, in other words, merely a physical mechanism and an artificial construction. It is involved in the vital processes of the people who compose it; it is a product of nature, and particularly of human nature.

— Robert E. Park in the City, 1925

ABSTRACT

All urban sites around the world have their own unique, evolving historical identity. However, this identity can often become obscured, or even lost, over time due to the progressive changes that occur to the transforming urban context. An urban site's evolution may include newly reclaimed land, conflicting grid alignments as new roads are added, new buildings being constructed that fail to reaffirm site identity in relation to existing conditions and historic buildings that become re-purposed with a subsequent loss of their original architectural identity.

The site selected for this design research investigation is Queens Wharf in Wellington. Located in the heart of New Zealand's capital city, where land meets sea at the centre line of the city's skyline, Queens Wharf occupies one of the most important sites in the capital. However, the principal problem of this site is its lack of coherent place identity.

This problem has arisen in relation to five main factors: 1) very large, anonymous new metal shed buildings have been added in poor relationships with historic masonry and timber ones; 2)heritage buildings have been repurposed, and their interior programmes are no longer represented by their architectural facades; 3) enormous, contemporary, and very unattractive buildings such as the TSB Arena house programmes that change throughout the year, preventing the exterior architecture from providing identity to what is happening within; 4) a confluence of conflicting grids has developed over time at this site; and 5) Queens Wharf's important location at the edge of city and sea near the centreline of the city's skyline provides a significant opportunity for this site to act as a visual gateway to the capital city, but this opportunity remains unfulfilled.

The thesis proposes that architecture can play an essential role in establishing place identity for Queens Wharf by: 1) implicating historic architectural features into new architectural interventions - so that the historic buildings are fundamentally important to understanding the new and vice versa – by integrating the new and the old in ways that present all the stages of the site's evolution as important chapters in its overall tale; 2) exposing interior programmes to the outside to establish architectural identity through programmatic visibility; 3) establishing new architectural interventions as 'pivots' to help make sense of conflicting grid alignments; 4) arranging architectural interventions as a framing device and an important liminal threshold between the opposing conditions of land and sea.

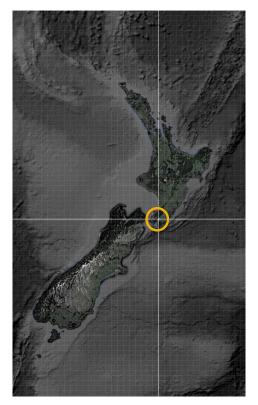


Figure A1: Research site: Queens Wharf, Wellington New Zealand.

A city is never seen as a totality, but as an aggregate of experiences, animated by use, by overlapping perspectives, changing light, sounds, and smells. Similarly, a single piece of architecture is rarely experienced in its totality ... but as a series of partial views and synthesised experiences.

— Steven Holl, in Question of Perception: Phenomenology in Architecture, 2006

PREFACE

The title of this research investigation, Overlapping Perspectives, is derived from Steven Holl's quote in the book Questions of Perception: Phenomenology in Architecture, shown on page vi.

This thesis looks at contemporary urban conditions, where the site's urban identity and historic quality are represented by "an aggregate of experiences, animated by use, by overlapping perspectives, changing light, sounds and smells". In the case of Wellington's Queens Wharf, huge temporary sheds were incorporated without acknowledging the site's historic qualities; despite the interesting programs happening on site, there is little public awareness of how the site is used because the interior programmes are changing constantly.

This thesis reflects upon how "aggregated experiences, animated by use [and] overlapping perspectives" can be reconceived to help us fully understand so that continually evolving urban sites can regain their identity once again.



To put a city in a book, to put the world on one sheet of paper – maps are the most condensed humanized spaces of all. They reverse the gardener's procedure that leads us into outdoor rooms, they make the landscape fit indoors, make us masters of sights we can't see and spaces we can't cover.

— Robert Harbison in Eccentric Spaces, 2000



ACKNOWLEDGEMENT

First, I would like to show my deepest gratitude to my thesis supervisor, Daniel K. Brown, for his constant encouragement and guidance. Daniel has walked me through all the stages from the beginning till the end of this thesis. Without his consistent and illuminating instruction, this thesis could not have reached its present form. Also, I am greatly indebted to Daniele Abreu e Lima who also guided and encouraged me throughout my thesis.

Additionally, I would like to share my appreciation to my beloved partner and family for their encouragement and loving support all through these years.

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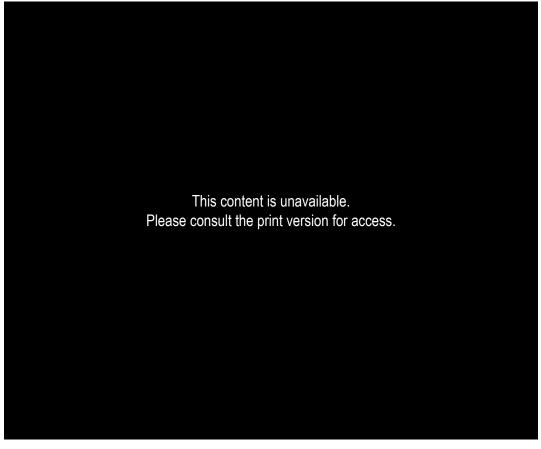


Figure 1.0: Aerial view of research site, Queens Wharf Plaza.

PROBLEM STATEMENT

All urban sites around the work have their own unique, evolving historic identity. However, this identity can often become obscured, or even lost, over time due to the progressive changes that occur to the transforming urban context. An urban site's evolution may include newly reclaimed land, conflicting grid alignments as new roads are added, new buildings being constructed that fail to reaffirm site identity in relation to existing conditions and historic buildings that become repurposed with a subsequent loss of their original architectural identity.

The site selected for this design research investigation is Queens Wharf in Wellington. Located in the heart of New Zealand's capital city, where land meets sea at the centreline of the city's skyline, Queens Wharf occupies one of the most important sites in the capital. However, the principal problem of this site is its lack of coherent place identity. This problem has arisen in relation to five main factors:

- 1. Very large, anonymous new metal shed buildings have been added to poor relationships with historic masonry and timber
- 2. Enormous, contemporary, and very unattractive buildings such as the TSB Arena house programmes that change throughout the year, preventing the exterior architecture from providing identity to what is happening within;
- 3. A confluence of conflicting grids has developed over time at this site; and
- 4. Queens Wharf's important location at the edge of city and sea near the centre line of the city's skyline provides a significant opportunity for this site to act as a visual gateway to the capital city, but this opportunity remains unfulfilled.

RESEARCH PROPOSITION

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The thesis proposes that architecture can play an essential role in establishing place identity for Queens Wharf by:

- 1. Implicating historic architectural features into new architectural interventions – so that the historic buildings are fundamentally important to understanding the new and vice versa – by integrating the new and the old in ways that present all the stages of the site's evolution as important chapters in its overall tale:
- 2. Exposing interior programmes to the outside to establish architectural identity through programmatic visibility;
- 3. Establishing new architectural interventions as 'pivots' to help make sense of conflicting grid alignments;
- 4. Arranging the new architectural interventions as a framing device and an important liminal threshold between the opposing conditions of land and sea.

Queens Wharf was commissioned in 1861 after the 1855 earthquake, and subsequent land reclamation activities significantly expanded the boundary of the original harbour edge. By 1900 Queens Wharf had been substantially extended and widened. Two of the historic cranes used for loading and unloading cargo remain on the site as evidence of the wharf's shipping heritage. The site consists of a mix of new and historic buildings (see fig. 1.2).

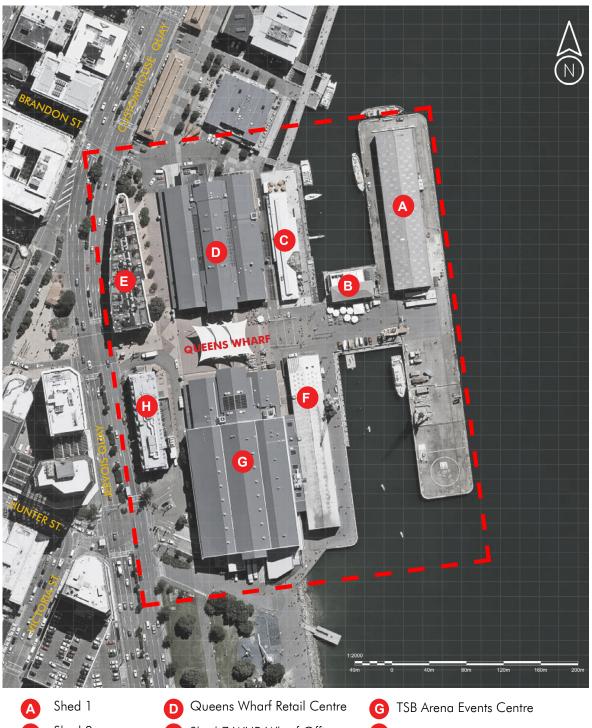
The site includes two heritage brick buildings:

- Shed 7 (Wellington Harbour Board's Wharf Offices) was built in 1896 as a woolstore and wharf office with accumulator tower; it was renovated in 2000 into 25 apartments and the New Zealand Academy of Fine Arts.
- The Bond Store was built in 1892 and renovated in 1999 to house the Wellington Museum.

The site includes two heritage timber buildings originally constructed to store goods:

- Shed 3 was built in 1887 and renovated in 1991 to become Dockside restaurant;
- Shed 5 was built in 1886 and renovated in 1992 to become Shed 5 restaurant.

Figure 1.1: Photograph taken in 1960 of a buoy floating on Lambton Harbour next to Queens Wharf.



- B Shed 3
- Shed 7 WHB Wharf Office
- H The Bond Store

- C Shed 5
- 🖪 Shed 6

Figure 1.2: Diagram indicating the boundary and building names on Queens Wharf.

The site also includes four metal sheds:

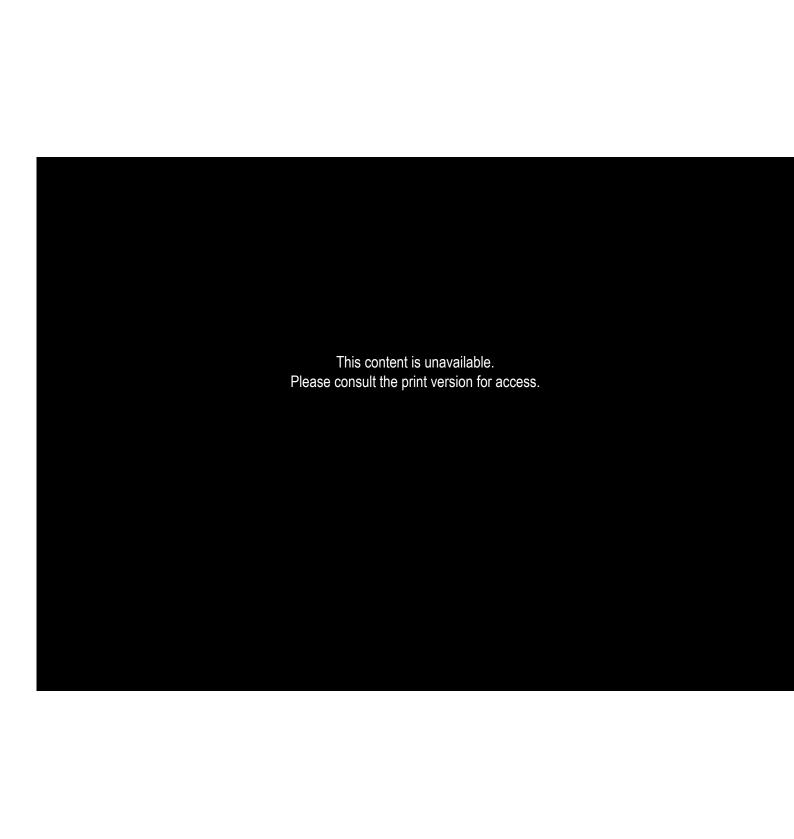
- Shed 1 was built in 1964 and houses an indoor sports centre;
- Shed 6 was built in 1959 and upgraded in 2013. It houses Ferg's Rock and Kayak on the northern end of the shed. In 2013 after the upgrade, the southern part of Shed 6 has become usable space as part of the TSB Arena event and exhibition space.
- The TSB Arena (Queens Wharf Events Centre) and the Queens Wharf Retail Centre (facing the TSB Arena) were built in 1995. "In 2007 they were voted by Dominion Post readers to be among the city's top 10 ugliest developments". The TSB Arena's programme changes continually. Over the past year it has included a number of events such as:

Future Playground Star Wars: A New Hope in Concert Sheryl Crow & Melissa Etheridge Africa Day Celebration NZ Art Show ITx Conference 2018 Hauora Unleashed ki Põneke Festival for the Future

World of Wearable Arts Show (WOW) Munchen Oktoberfest Diwali Festival DevOpsDays Wellington Wellington Go Green Expo Japan Festival of Wellington Lifelike Japan Art Exhibit

 Queens Wharf Retail Centre was initially built to house retail, but having failed, it now houses:

Bin 44 Restaurant and Bar Calibre Salon Ltd Outward Bound Z Energy Office Fronde Office ZAG New Zealand



RESEARCH QUESTION

How can a major urban centre establish place identity when its programmatic requirements are continually changing over time, its original ordering devices have become conflicted, and the identity of its original heritage buildings has become obscured or lost?

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Figure 1.3: Aerial view of Queens Wharf looking from Lambton Harbour.

RESEARCH AIMS

To address the Research Question in relation to Wellington's Queens Wharf, the principal Research Aims of this design-led research thesis are:

- 1. To establish meaningful relationships between the historic and contemporary architecture by revealing lost heritage features while celebrating the new and the old in an integrated way;
- 2. To invite the ever-changing programmes to establish the architectural identities;
- 3. To establish a clear ordering system from the confluence of conflicting grids that has developed over time at this site;
- 4. To reconceive the site as a gateway to the capital city.

RESEARCH OBJECTIVES

The principal Research Objectives of this design-led research thesis are:

- 1. To implicate historic architectural features into new architectural interventions so that the historic buildings are fundamentally important to understanding the new and vice versa by integrating the new and the old in ways that present all the stages of the site's evolution as important chapters in its overall tale;
- 2. To expose interior programmes to the outside to establish architectural identity through programmatic visibility;
- 3. To establish new architectural interventions that act as 'pivots' to help make sense of conflicting grid alignments;
- 4. To arrange the architectural interventions as a framing device and an important liminal threshold between the opposing conditions of land and sea.

DESIGN METHODS AND PROCESSES

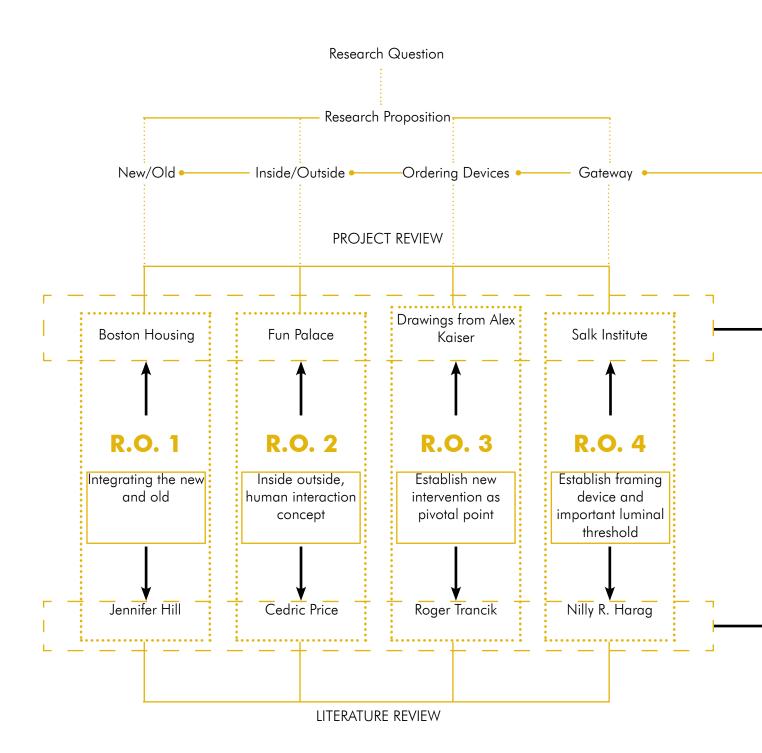
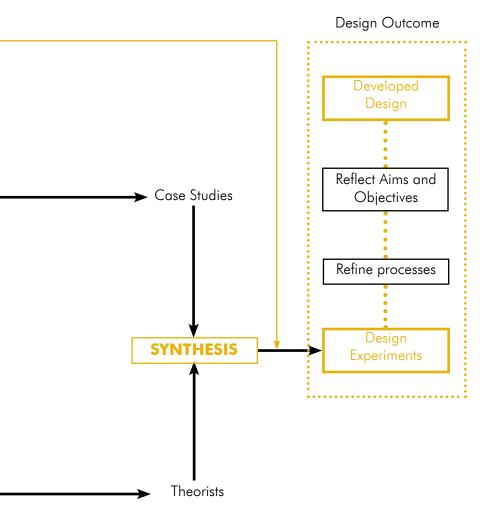


Figure 1.4: Methodology Diagram



SCOPE OF DESIGN RESEARCH

The scope of this research is limited to the remediation of the site and redesign of contemporary shed buildings that do not help establish place identity for this site. An area of approximately 50,000 square meters of site coverage on Queens Wharf will be analysed. The framework of this research is set out to study and understand the selected research site context and the programs that are being housed in each building on the research site. The research particularly focuses on the past events held in the TSB Arena building in 2018 in order to establish a robust program that will aid in rejuvenating the new architecture intervention. Structural analysis, construction details and costs are outside of the scope of this investigation.



Figure 1.5: View of Shed 1, Wellington Indoor Sports activity.

THESIS STRUCTURE

Chapter 1: Introduction

This chapter is used to inform the reader about what are the problems the research site is currently facing and what are the aims and objectives being proposed in order to critically address the problems of the site. This chapter also includes the method and processes, the scope and a brief description of the structure of the whole research thesis.

Chapter 2: Site Analysis

The site analysis chapter evaluates and critically explores the research site for this thesis. Land reclamation diagram, historic fragments of the site, history of site and urban grid pattern have been used to highlight critical factors that will be taken into consideration to achieve the Research Objectives.

Chapter 3: Program Analysis

This chapter is used to identify the program currently held within each building on the research site. The chapter also analyses and identifies matrices for each program to find out how those areas might be better connected to one and another in order to help rejuvenate the programmes on site.

Chapter 4: Literature and Case Study Review

This chapter has been set up into four sub-chapters in relation to the four Research Objectives. Each sub-chapter consists of theorist, case studies and experimental design relating to one of the five principal Research Objectives (ROs). The sub-chapters are as follows:

4.1) RO1: "To implicate historic architectural features into new architectural interventions - so that the historic buildings are fundamentally important to understanding the new and vice versa - by integrating the new and the old in ways that present all the stages of the site's evolution as important chapters in its overall tale". Jennifer Hill is the principal theorist for this objective as she has strong arguments for preserving and respecting the historic identity of architecture. The principal case study for this objective is the "urban artifacts in Boston housing" where the artifacts of the historic become part of the historic identity of the site in future growth.

4.2) RO3: "To expose interior programmes to the outside to establish architectural identity through programmatic visibility." The theorist for this objective is Cedric Price. Price's main approach to his design is more about inside out exposing human interaction in a space, creating a more playful environment and avoiding being too conventional. The case studies for this objective are Fun Palace by Cedric Price, New Babylon by Constant Nieuwenhuys, Georges Pompidou Centre by Renzo Piano and Greenwich Peninsula - New London Development by Allies and Morrison. These case study experiments provide opportunity for the design experiments to integrate with the insideout, exposing the programmatic visibility concept to achieve architectural identity.

4.3) RO4: "To establish new architectural interventions that act as 'pivots' to help make sense of conflicting grid alignments". The theorist for this

objective is Roger Trancik as he argues how to avoid undefined spaces and how to rejuvenate a lost site. The case study for this objective is Alex Kaiser's speculative architectural drawings. His drawings explore how different grid systems and anchor points blend together. Experimental design is carried out to test the pivot point of Kaiser's drawing in relation to the research site grid system.

4.4) RO5: "To arrange the architectural interventions as a framina device and an important liminal threshold between the opposing conditions of land and sea". The main theorist for this objective is Fred Koetter who theorises about sites where the threshold space is blurred and how a transitional space is used. The case study for this objective is the Salk Institute by architect Louis Khan where the building can be discussed as a transitional space between the institute entry point and the sea. Experiments will be carried out to apply Koetter's and Khan's approaches to transitional space between Wellington's urban identity on Jervious Quay and its sea identity on Lambton Harbour to create a gateway identity to the site.

Chapter 5: Preliminary Design

In this chapter, preliminary design experiments are carried out to explore the ideas developed by the case studies and theory chapter in relation to the site analysis. The chapter is broken down into several experiments and identifies the pros and cons of each scheme.

Chapter 6: Developed Design

The Developed Design chapter refines the preliminary design and also integrates

more details into it. This chapter aims to fully respond to the research question, aims and objectives to evidence that it has fulfilled the requirements of the research investigation

Chapter 7: Conclusions and Critical Reflection

The conclusions and critical reflection chapter reflects on what has been learned from this investigation research, whether this research has fully achieved the aims and objectives that were set up in the beginning introduction chapter and how the research theory and case studies relate to this investigation result.



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Figure 1.6: Aerial view of Wellington's skyline.







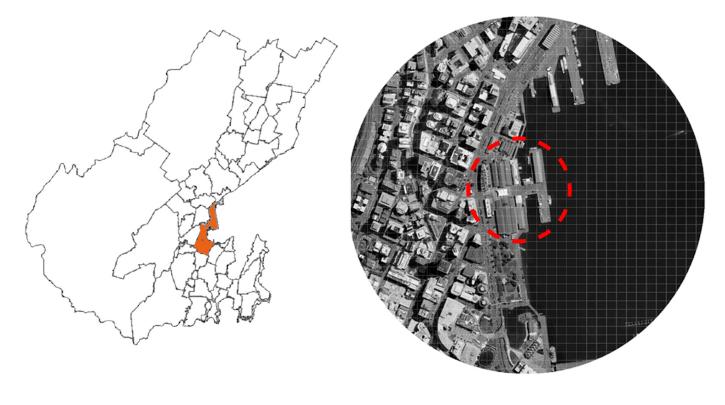
Figure 2.0: Close up diagram of research site, Queens Wharf.

Wellington is situated at the southern end of the North Island. It is the capital city of New Zealand and is also the world's southernmost capital, sitting above the Cook Strait. It is the second densest city in the country after Auckland. Wellington is home to the centre of government in New Zealand.

During the nineteenth century, Wellington's Queens Wharf was characterized by lots of vibrant activity including the active port and customs industry. Now the

port industry has become more concentrated in the northern part of Wellington city as the city grows. Wellington's waterfront has become a distinctive boundary at the threshold between the city and sea.

The skyline of Wellington city relates to historical moments and the city's prosperity. Queens Wharf was built in 1865 after the decision of Wellington Provincial Council in 1861 that Wellington needed a commercial wharf.



WELLINGTON CITY

QUEENS WHARF

The first T of Queens Wharf was built in March 1863. A few months later after completion, the wharf was considered to be too small to accommodate the numbers of vessels using it, and therefore was extended over the next 20 years. By 1899 Queens Wharf had been extended, widened and strengthened with parts on reclaimed land, making the wharf into two cross—Ts. Over the years, several cargo sheds were placed on the wharf.

By 1970, most of the land reclamation had taken place, transforming the wharf, which filled up the inner Ts; only one T is left now. Since then the waterfront has evolved substantially. Extensive work has been put into the waterfront development in order for the public to live, work and play in the user friendly spaces that connect the city to sea.

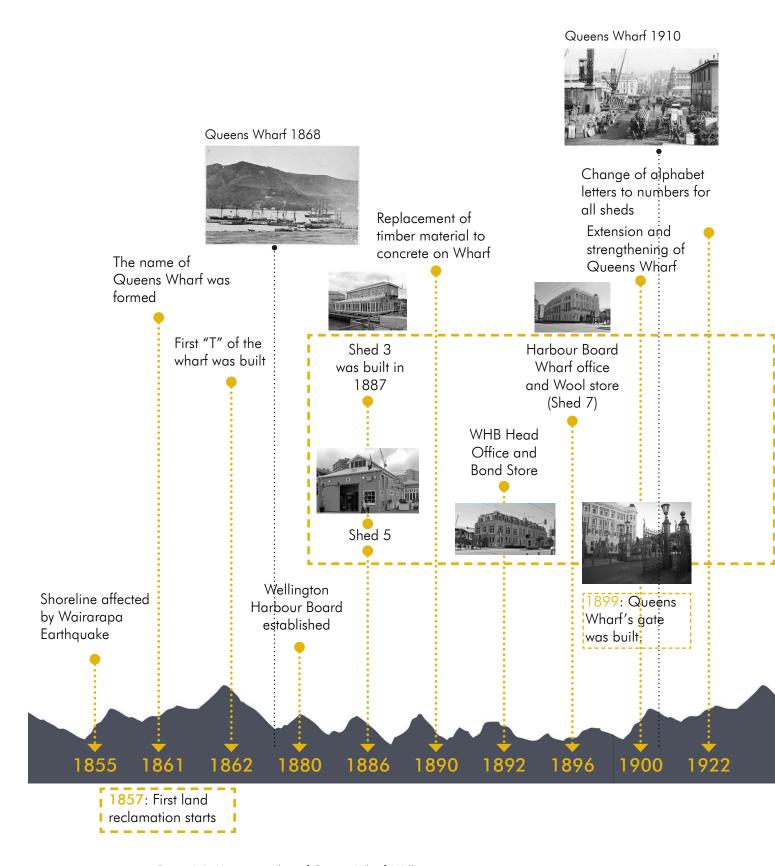


Figure 2.1: Historic timeline of Queens Wharf, Wellington.

Queens Wharf 1940

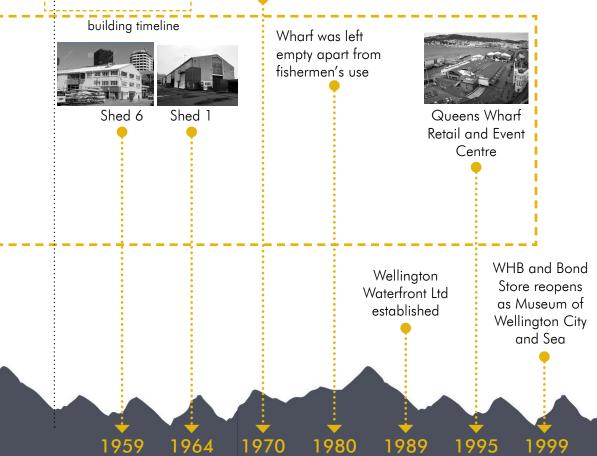




1:951: Level Luffing Crane and Tripod Crane were introduced



Inner stem of the wharf area was reclaimed



1970: Land reclamation completed

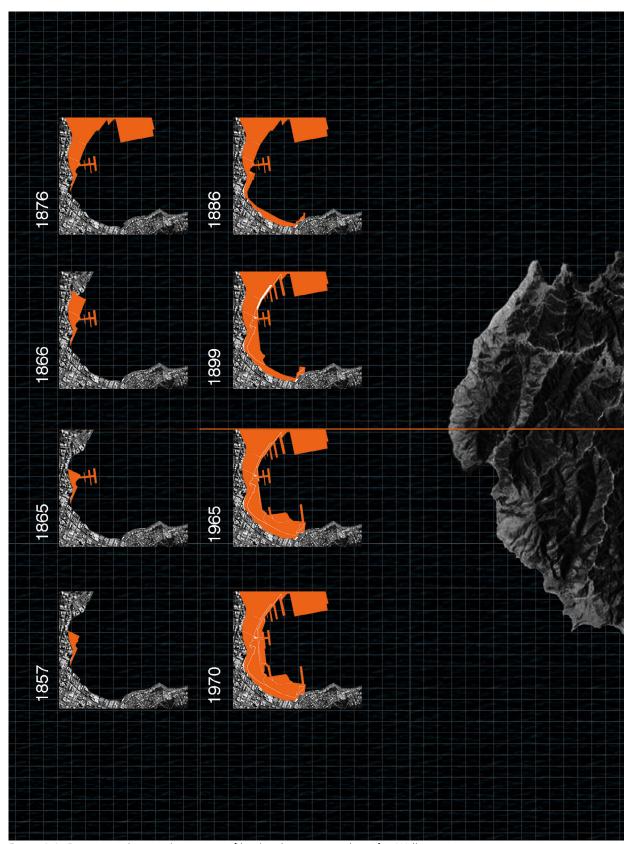
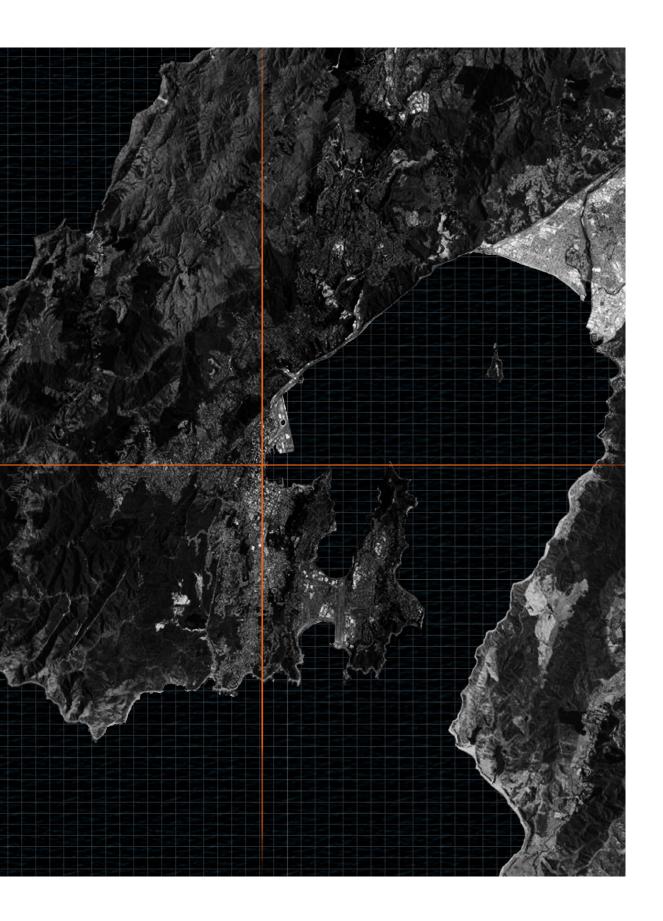


Figure 2.2: Diagram indicating the process of land reclamation timeline after Wellington's major earthquake in 1855.



2.1 Queens Wharf Wellington old photos



Figure 2.3: View looking over Queens Wharf towards harbour, circa 1865.

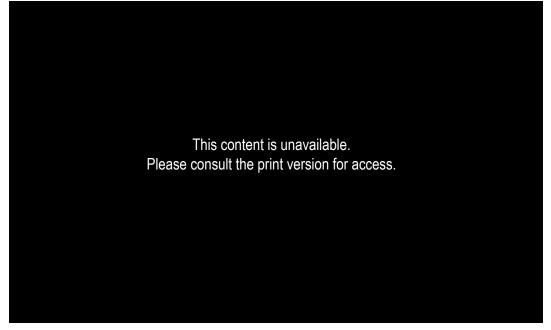


Figure 2.4: Queens Wharf circa 1910 looking towards the harbour direction.

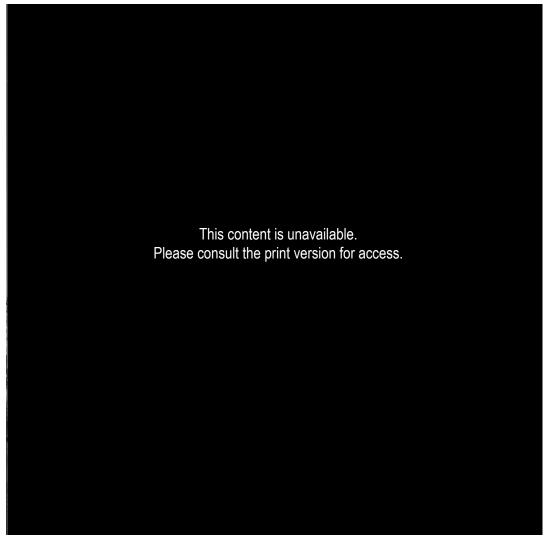


Figure 2.5: Piles being driven during reclamation construction of Queens Wharf in 1958.

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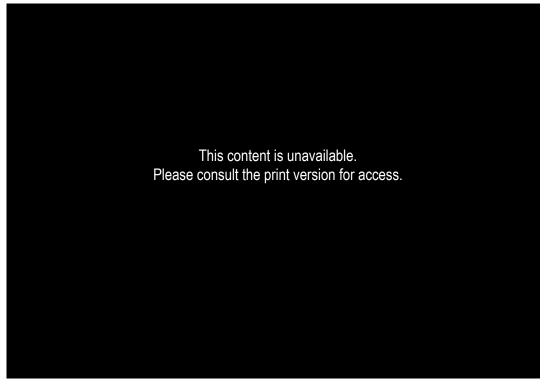


Figure 2.6: View looking over Shed 6 on Queens Wharf, 1959.



Figure 2.7: View looking at Queens Wharf's double "T" circa 1936-1942.

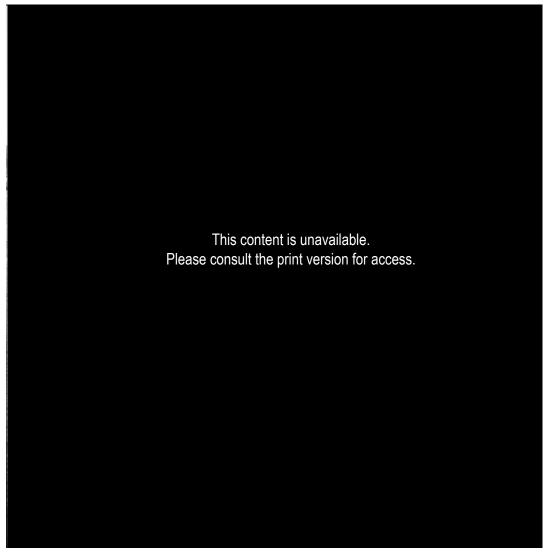


Figure 2.8: Demolition of sheds on Queens Wharf during 1958.

2.2 Queens Wharf Wellington current photos





Figure 2.9: View looking over Shed 6 on Queens Wharf





Figure 2.10: Queens Wharf axis overlooking the harbour.





Figure 2.11: View looking over Shed 5 and Queens Wharf retail centre.





Figure 2.12: View looking over Shed 1, Queens Wharf.

2.3 HISTORICAL FRAGMENTS

TRIPOD CRANE AND LEVEL LUFFING CRANE

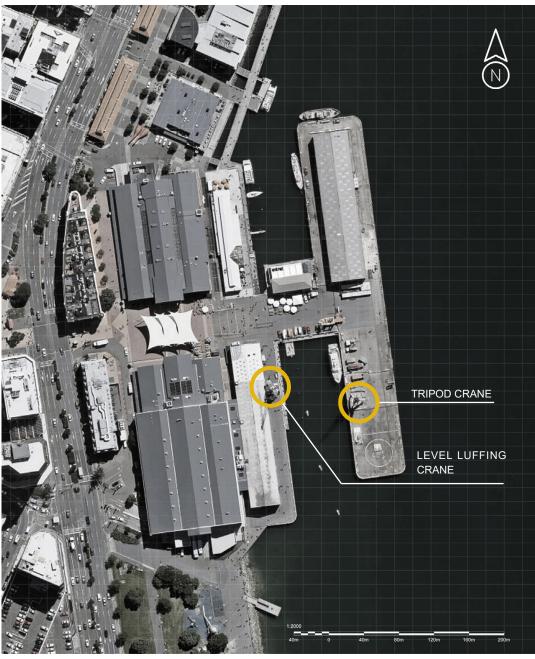


Figure 2.13: Diagram indicating the location of the historic level luffing crane and tripod crane on the research site, Queens Wharf.





Figure 2.14: View of the historic level luffing crane (left) and tripod crane (right) on the research site, Queens Wharf.

In the past decades, various activities and events have been hosted on the wharf including "vehicle displays, wine and food festivals, boat shows, helicopter operations, sports activities, amusement rides, recreational fishing, dragon boat festivals, kayak hire" (The Wellingtonian), as well as much larger indoor events such as the International World of Wearable Arts event that is held every year on the wharf.

The level luffing crane (figure 2.8) was made in 1951 by Stothert and Pitt Limited in England. This crane was once a

common crane that was placed on the waterfront from Queens Wharf to Aotea Quay. According to the Wellington City Council department, this luffing crane is the only one left in the country.

The tripod crane (figure 2.9) is the last remaining crane of its type on the waterfront as there were once nine tripod cranes situated along Glasgow Wharf. After the introduction of container shipping in the 1960s, most of the tripod cranes were then removed from the site (Wellington City Council, "Cranes").

HISTORICAL FRAGMENTS

SHED 7 (WHARF OFFICE), SHED 11 AND SHED 13



Figure 2.15: Diagram above indicating the Wharf Office (Shed 7) on the research site, Queens Wharf.

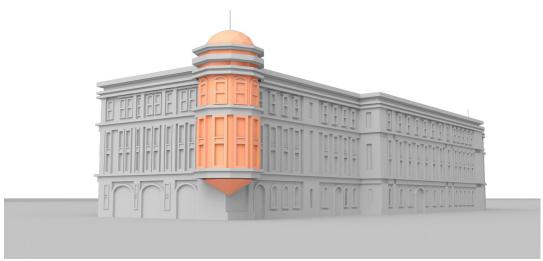


Figure 2.16: Oriel window element on the southeastern side of the Wharf Office building.

In 1880, the Wellington Harbour Board office was established. Due to the rapid development of the wharf during the 1880s, the board turned its attention to constructing a more permanent structure instead of having temporary timber and corrugated sheds. "The first building to be constructed after the Board's head office and Bond Store was the combined wharf offices and wool store later known as Shed 7"("Wellington Harbour Board Shed 7").

The Wellington Harbour Board office was built in 1896. Architect Frederick de Jersey Clere designed it and prepared the plans in 1894. Years later, the building was handed over to Lambton Harbour Management in 1989 for further commercial development. One important heritage feature of the board office is the oriel window at the southeastern corner that houses the wharfinger's office (Figure 2.17). The oriel window allowed the

officer to survey and observe the ongoing wharf activity. In 1993, the management team decided to convert the building into 25 apartments on the upper levels ("Wellington Harbour Board Shed 7").

In February 2000, the New Zealand Academy of Fine Arts purchased a large space on the ground floor of the building and the remaining ground floor space was let as commercial office suites. Today, the Board Office building (Shed 7) is known as a local landmark that is part of the gateway to Queens Wharf.

HISTORICAL FRAGMENTS

WELLINGTON HARBOUR BOARD HEAD OFFICE (WELLINGTON MUSEUM)



Figure 2.17: Diagram indicating the Wellington Museum's location on the research site, Queens Wharf.

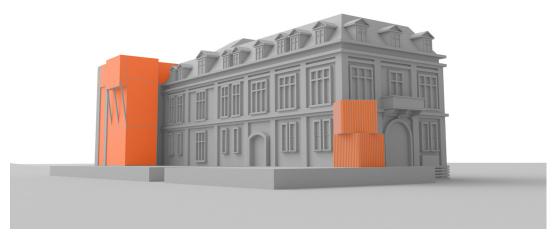


Figure 2.18: The newly added hoist room of the Wellington Museum and the stacked containers echo the industrial identity of the building.

The former Wellington Harbour Board head office and Bond Store now houses the Wellington Museum. This building was completed in 1892 by architect Frederick de Jersey Clere, the same architect who designed Shed 7, and it is classified as a heritage category building. The building originally served primarily as "bonded cargo warehouses; a holding warehouse for goods that required the payment of customs duty before they could be released to the importer" ("The Bond Store").

The former Bond Store is an example of a Victorian style building with sophisticated, elegant architectural elements and mansard roof, built upon piles on reclaimed land, "marking the building as a major landmark on the Wellington waterfront" ("Wellington Harbour Board Head Office and Bond Store (Former)"). In 1999, the Bond Store building went through a major restoration and earthquake strengthening before the reopening of the Museum of Wellington City and Sea ("Wellington Harbour Board Head Office and Bond Store (Former)").

The notable contemporary features of the Wellington Museum are the new hoist room on the southeast corner of the building and two stacked red cargo containers on the northeast corner of the building. Grey metal cladding was used for the hoist room to mimic the industrial qualities. Both hoist room and cargo containers were added to identify and evidence the relationship of the buildings to the historical port and maritime age.

Both Wellington Museum and Wellington Harbour Board Shed 7 have an important impact on Queens Wharf and add significant historical value to the site. Wellington Museum is aligned with Jervois Quay while Shed 7 is aligned with Jervois Quay on its east façade but Waterloo Quay on its west façade. Together they create a framed view to the harbour when viewed from Post Office Square.

Both Wellington Museum and Wellington Harbour Board Office (Shed 7) buildings are known as local landmarks that run along the western harbour and flank the entrance gateway to Queens Wharf.

2.4 URBAN GRID SYSTEM



Figure 2.19: Diagram indicating two different grid systems separated by the centre axis which is Jervois Quay; green represents the harbour grid and red represents Wellington urban grid.

Wellington, like many developed cities around the world, is defined by a variety of urban grid alignments. Wellington sits adjacent to the Cook Straits, which brings forceful prevailing southerlies. The harbour grid is oriented according to the prevailing wind direction to make the docking of ships easier.

The urban grid shifts continuously to align with views of the harbour, which results in several pivot points where multiple grids meet. The bus station on Lambton Quay acts as a pivotal point where the original shoreline grid meets the harbour grid (See Figure 2.20).

Jervois Quay separates the urban grid and the harbour grid. On Jervois Quay there are two principal pivot points: one at its intersection with Cable Street and the other at its intersection with Queens Wharf.

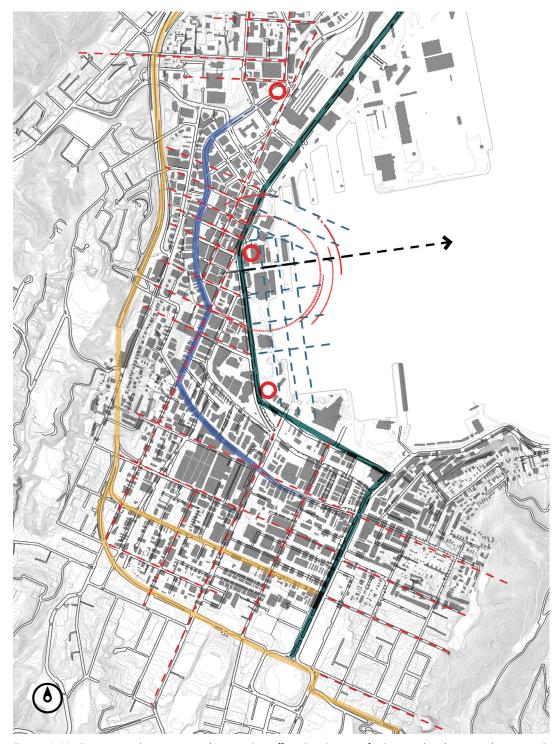


Figure 2.20: Diagram indicating pivotal points that affect the change of urban grids relating to the research site.

2.5 FRAMED VIEWS

BRANDON STREET, POST OFFICE SQUARE, HUNTER STREET







Figure 2.21: Framed views of the research site, observed from different streets looking towards the harbour.

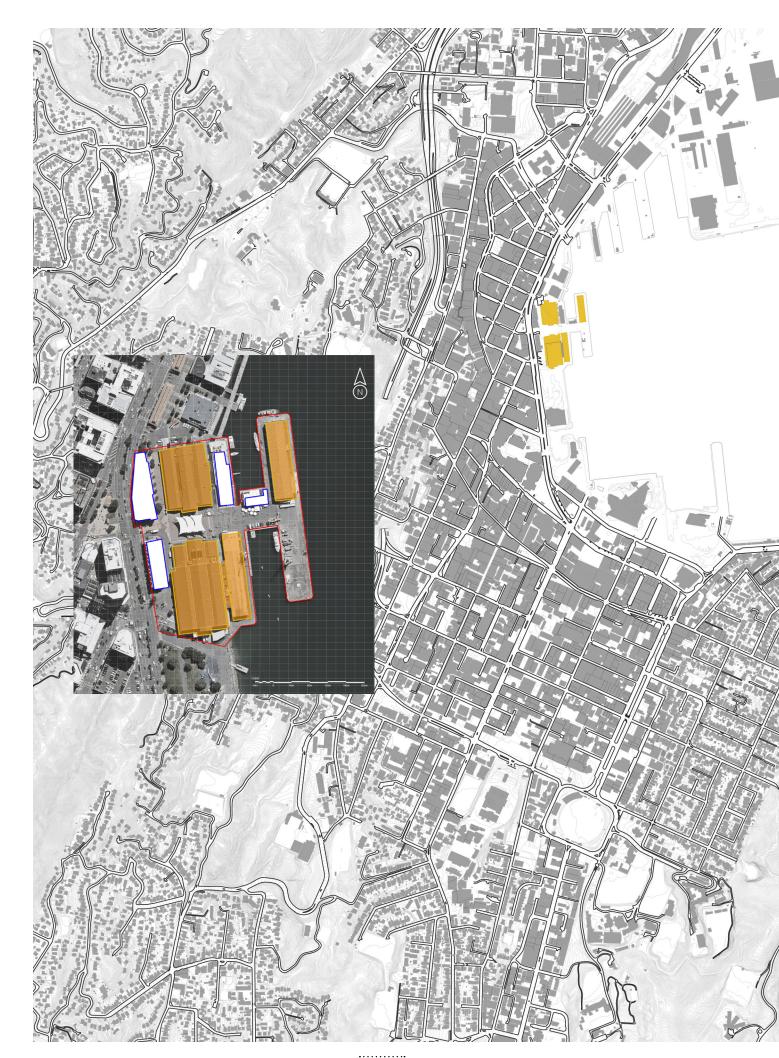
A framed view is created by drawing attention to an important focal point in the frame. It celebrates important loci and is usually attractive or interesting to the viewers.

The Queens Wharf area has several important framed views as seen in the

images above. The thesis proposes to incorporate framed views into the design experiment as important ways to enhance place identity.



Figure 2.22: Three framed view locations looking towards Wellington's harbour



DEMOLITION PROPOSAL

QUEENS WHARF RETAIL CENTRE AND TSB ARENA, SHED 1 AND SHED 6

Figure and ground are conventional architecture terms that speak of formal arrangements between varying architectural constructions' 'figure' on the landscape 'ground' of the city. I argue they might correspond more to the theatrical, literary or artistic terms of foreground and background.

— Dorian Wiszniewski, 2012



For this research investigation, based on the information collected from the site analysis, some buildings should be significantly redesigned. These include the Queens Wharf Retail Centre, the TSB Arena, Shed 6 and Shed 1.

Figure 2.23: Figure ground diagram with indication of the buildings that will be demolished and redesigned (orange) for the new architecture intervention.







Heritage buildings to be retained are shown in white. Non-heritage buildings to be demolished are shown in yellow.

North: Odd Numbered Sheds

- A Shed 1: 1964 (Indoor Sport Shed + Dom Post Ferry Office + Helipro)
- B | Shed 3: 1887 (renovated 1990: Dockside Restaurant)
- C Shed 5: 1887 (renovated 1992: Shed 5 Restaurant)
- Queens Wharf Retail Centre: 1995
- E Shed 7: 1896 (renovated 2000: NZ Academy of Fine Arts + Apartments)

South: Even Numbered Sheds

- F Shed 6: 1959 (upgraded 2013: Ferg's Kayak + Rock Climbing plus part of TSB Arena)
- G Queens Wharf Events Centre (TSB Arena): 1995
- H Bond Store: 1892 (renovated 1999: Wellington Museum)

Figure 3.0 (left): Building identification on Queens Wharf.

One of the principal problems identified on the Queens Wharf site is that the buildings do not architecturally represent the programs they contain. In addition to other approaches, the thesis proposes to expose the internal programs of some of the new design interventions, as a means of establishing architectural identity in response to the site's programs varying continually throughout the year.

Shed 1 and Shed 6 both house an array of different indoor sports, but this is not discernible from the anonymous form of the architecture. Shed 7 and the heritage Bond Store both house museums within historic buildings that were once wharf buildings. Shed 3 and Shed 5 house restaurants within historic buildings that were once wharf sheds. The relatively new Queens Wharf Retail Centre and Wharf Events Centre (TSB Arena) are both essentially identical, yet the Retail Centre houses a mixture of offices. shops and cafés, while the Events Centre houses ever-changing types of public events, ranging from used book sales to rock concerts.

All these interesting programs invite the opportunity to attract people to visit the Wharf and celebrate the values of those

multiple ongoing programs. This thesis proposes to expose and celebrate the existing multiplicity of programs on site, while incorporating the heritage buildings and enabling the new buildings and the old to both contribute equally to the site identity.

The new architectural interventions will extend beyond conventional and traditional forms, in ways that allow the occupants and public to fully celebrate the diverse and ever-changing programs while enhancing the experience of interaction with the site.



Figure 3.1: Diagram indicating the location of the Bond Store and Shed 7.

PROGRAM: MUSEUMS (PLUS LUXURY APARTMENTS)

BOND STORE — WELLINGTON MUSEUM SHED 7 — NEW ZEALAND ACADEMY OF FINE ARTS + APARTMENTS



Figure 3.2: Image identifies the location of the Bond Store and Shed 7.



Figure 3.3: East elevation of the historic Bond Store Building, indicating the location of the Wellington Museum plus internal museum office.



Figure 3.4: East elevation of Shed 7 showing the location of the New Zealand Academy of Fine Arts, with luxury apartments above.

Built in 1892, the historic Bond Store Building originally housed the former Head Office of the Wellington Harbour Board. The main purpose of the Bond Store was to hold goods that required the payment of custom duties before the goods can be released to the importer. The Bond Store was located at the ground floor of the building and the Wellington Harbour Board office occupied the upper floor space. In 1920, the Harbour Board office required more office space and therefore relocated to another building. The Wellington Maritime Museum occupied the building in 1972, and after extensive restoration and development in 1999, the whole building reopened as the Museum of Wellington City ad Sea, rebranded as Wellington Museum in 2015.

Constructed in 1896, Shed 7 was quite similar to the Bond Store; it housed a dual program that consisted of a wharf office and the wool store. In 1922, a series of modifications to the building took place. In 1989, the building was

handed over to the Lambton Harbour Management, and they decided to convert the upper levels of the building into 25 luxury inner city apartments. In 1998, the ground floor was purchased by the New Zealand Academy of Fine Arts, which opened in 2000. The remaining small areas on the ground floor are let as commercial office suites.

Both museums serve very different functions. The Wellington Museum contains a permanent, multi-storey exhibition dedicated to the history of Wellington, while the New Zealand Academy of Fine Arts showcases changing exhibitions of the work of local New Zealand artists.

PROGRAM: RESTAURANTS

SHED 3 — DOCKSIDE RESTAURANT AND BAR

SHED 5 — THE CRAB SHACK + SHED 5 RESTAURANT

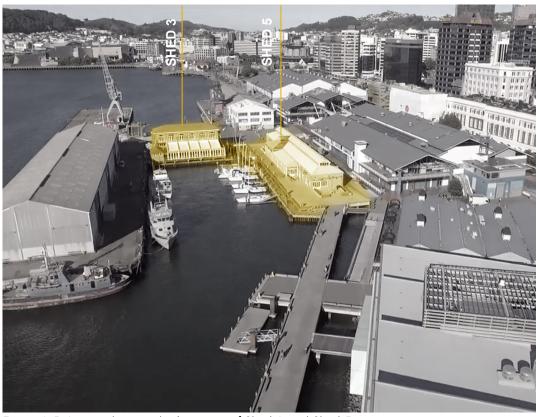


Figure 3.5: Image showing the locations of Shed 3 and Shed 5.

Built in 1887, both Shed 3 and Shed 5 are the oldest heritage architecture on Wellington's wharves. Shed 3 was originally built as a single storey building, but an additional storey was added in 1911 to provide more space for the Wellington Harbour Board. The Lambton Harbour Management was established in 1989 to help develop the waterfront area into a commercial and public zone, after which the programs of both Shed 3 and Shed 5 were converted into restaurants and bars.

After serving as a fish market, Shed 5 underwent several renovations and reopened in 1992. Currently, both Shed 3 and Shed 5 are owned by Wellington Waterfront Ltd. The main entry of Shed 3 is on the southwest corner of the building. Shed 5 has multiple entries along its east and south facades.

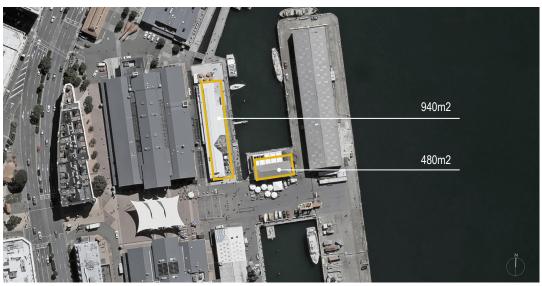


Figure 3.6: Diagram indicating the programmatic area of Shed 3 and Shed 5.

PROGRAM: INDOOR SPORTS FACILITIES

SHED 1 — WELLINGTON INDOOR SPORTS

SHED 6 — FERG'S KAYAK AND ROCK CLIMBING + PART OF TSB ARENA

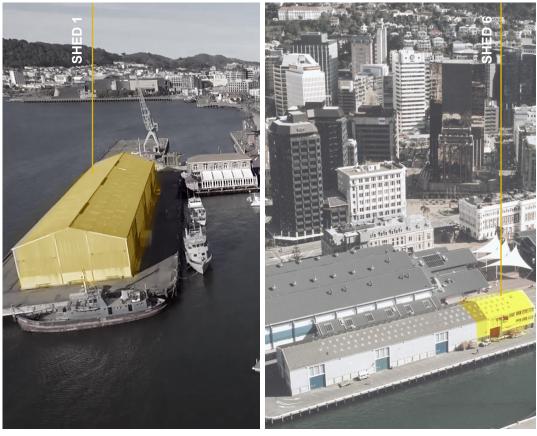


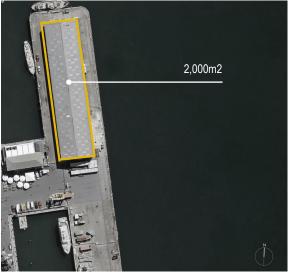
Figure 3.7: Image showing the locations of Shed 1 and Shed 6.

Shed 1 was built in 1964 as a large, open storage shed during the port era. Years later when Queens Wharf was no longer acting as a port, Shed 1 was leased primarily as an Indoor Sports Centre that includes two indoor football fields. The indoor football program runs leagues and social matches throughout the year. The public entrance to the Indoor Sports facility is located on the west façade of the shed, while the south façade houses small offices for the Dominion Post Ferry and Helipro.

Shed 6 is similar in size and appearance to Shed 1. It was built in 1959, and it is two storeys in height, with approximately 1960m2 of total floor area. The northern end of Shed 6 (approximately 562 square meters) is another Indoor Sports facility, housing Ferg's Kayak and Ferg's Rock Climbing. The large open space at the southern end of Shed 6 (approximately 1400 square meters) is leased for public exhibition.

In 2013, strengthening and refitting was done in Shed 6. Part of Shed 6 is now combined with the TSB Arena, together with an arcade running between the two buildings.

560m2



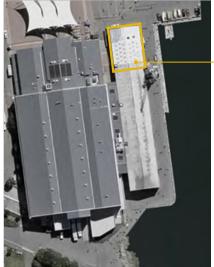


Figure 3.8: Diagram indicating the programmatic area of Shed 1 and Shed 6.

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PROGRAM: MIXED USE RETAIL, OFFICES AND CAFES

QUEENS WHARF RETAIL CENTRE

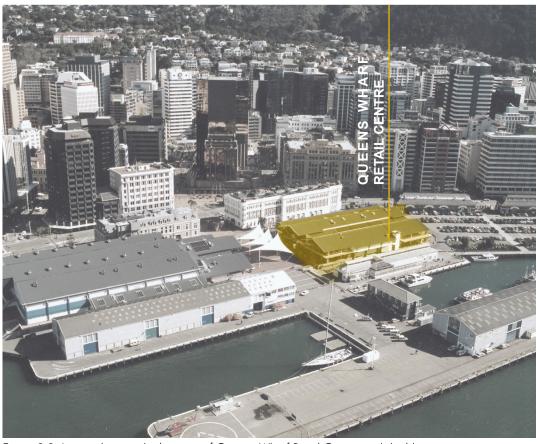


Figure 3.9: Image showing the location of Queens Wharf Retail Centre north building.

In 1980, the wharf area was left empty after the port activity had moved north to Waterloo Quay. In the 1990s, a proposal was put forward by the council to redevelop Queens Wharf waterfront, which included the current retail and events centre, casino, and hotels. The council considered the wharf's development as the flagship of the new look for Wellington waterfront.

In 1994, construction works were carried out on both the Queens Wharf Retail Centre and the Queens Wharf Events Centre. The twin buildings were completed and opened in 1995. The northern building houses the retail centre and the southern building houses the events centre.

Not long after the opening in 1995, developers had faced difficulties obtaining tenants to take over the 40 shops for the thirty-four million dollars retail centre. The state of the retail centre building ultimately became fairly desolate. Also the public raised their voices describing the ugliness of the two buildings. In 2007, the Queens Wharf Retail Centre was voted by *Dominion Post* as one of the top 10 unsightly developments.

In 1999, the Queens Wharf Retail Centre building was purchased by *Willis Bond & Co*. The company then converted the whole building into office premises, along

with a small amount of retail premises located at the front of the building.

The front retail premises are: Outward Bound, Calibre Saloon and Bin 44 Restaurant and Bar.

The remaining office premises were leased to: Z energy, Fronde Office and Soltius New Zealand.

There is also a Wilson Parking facility located in the basement of the Retail Centre.

The front retail premises are:

- -Outward Bound
- -Calibre Saloon
- -Bin 44 Restaurant and Bar

The remaining office premises were leased to:

- -Z energy
- -Fronde Office
- -Soltius New Zealand.

Due to the floundering condition of the retail centre during that time, the economy of the wharf development plans have been threatened. Two years after completion, a total of 15 shops had closed and been abandoned. Failure of spaces that were not occupied according to the plan and the lack of architectural identity caused major economic issues for the site and Wellington, as the view of the capital city from the harbour is blocked by these enormous and anonymous buildings.

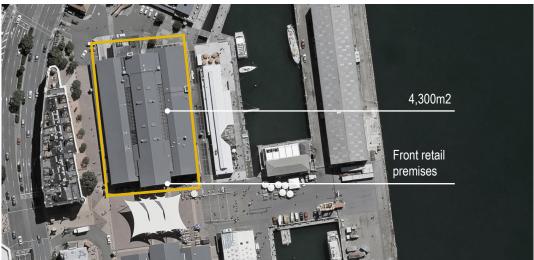


Figure 3.10: Diagram indicating the approximately area for the retail centre.

PROGRAM: CONTINUALLY CHANGING PUBLIC EVENTS

QUEENS WHARF EVENT CENTRE (TSB ARENA) + SHED 6



Figure 3.11: Image showing the locations of Queens Wharf Event Centre and Shed 6 that are partially used by the Event Centre.

Built in 1995, the Events Centre is very unique and important to local Wellingtonians as it is the first events centre to be built in Wellington. The northern part of this building is owned by Willis Bond and Co and the southern part belongs to the Events Centre.

Shed 6 was built in 1959 to serve as the port's cargo storage facilities. But after the port era, Shed 6 "has been variously used for boat building, car parking, ethnic and wine & food festivals, theatre performances and indoor sports, and as a family entertainment centre - a festival club for the 2010 New Zealand International Arts Festival and a rehearsal space for the World of Wearable Art Awards Show" ("Shed 6").

In 1997, Ferg's Rock and Kayak leased the northern part of Shed 6, leaving the remaining 1,400m2 areas for exhibition events. In 2013, Shed 6 had gone through a massive upgrade and refurbishment that also included the southern part of the building combining it with Queens Wharf's Events Centre, TSB Arena.

TSB Arena received its name in 2006 by TSB sponsorship. This large space of

8,300 square meters in area is built to accommodate a wide range of activities throughout the whole year. Inside the building, it also includes 2,200 square meters of floor space to accommodate multi-function events, exhibitions and concert events.

The Events Centre is equipped with advanced lighting technology and can accommodate more than 5,000 standing visitors during an event. There is a wide range of diverse events being held over the year. Events can be as small as a conference meeting to as large as world class international arts events and a diversity of multi-cultural events.

In 2018, there were a total of 15 events from various sizes being held in TSB Arena. Large events included the international World of Wearable Arts, Star Wars Concert, New Zealand Art Show, Festival for The Future and Dewali Festival. Larger events and concerts to requiring more space are allocated in the main hall. Smaller events that require less space are allocated to the smaller hall in Shed 6.



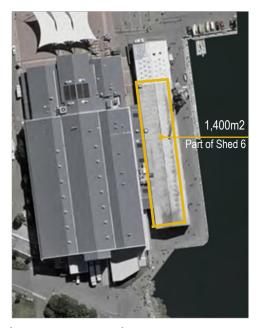


Figure 3.12: Diagram above indicating the approximate area for both Queens Wharf Events Centre and Shed 6, part of which is belongs to TSB Arena.

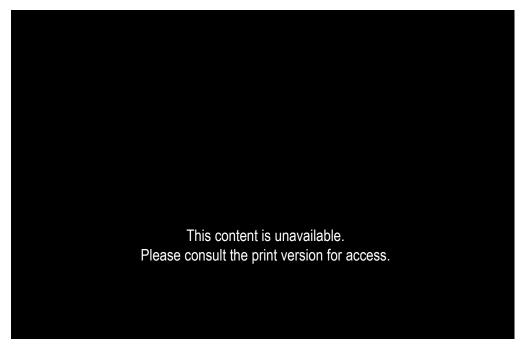


Figure 3.13: A detailed floor plan indicating the layout of the whole TSB Arena including Queens Wharf Events Centre and Shed 6.



Figure 3.14: Image on top shows the main facade of Queens Wharf Events Centre TSB Arena main entrance facade. Image below shows the interior space of the Events Centre.

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2018 EVENTS SCHEDULE

QUEENS WHARF EVENTS CENTRE (TSB ARENA)

TSB Arena Event Centre

1. Future Playground: 1–11 March 2018

2. Star Wars: A New Hope in Concert: 10-11 March 2018

3. Sheryl Crow & Melissa Etheridge: 12 April 2018

4. Africa Day Celebration: 12 May 2018

5. NZ Art Show: 31 may-4 June 2018

6. ITx Conference 2018: 11-13 July 2018

7. Hauora Unleashed Ki Poneke: 15 July 2018

8. Festival for the Future: 27–29 July 2018

9. World of Wearable Arts Show (WOW): 11–14 October 2018

10. Munchen Oktoberfest: 19-20 October 2018

11. Diwali Festival: 28 October 2018

12. DevOpsDay Wellington: 5-6November 2018

13. Wellington Go Green Expo: 10-11 November 2018

14. Japan Festival of Wellington: 24 November 2018

15. Lifelike Japan Art Exhibit: 24 November 2018

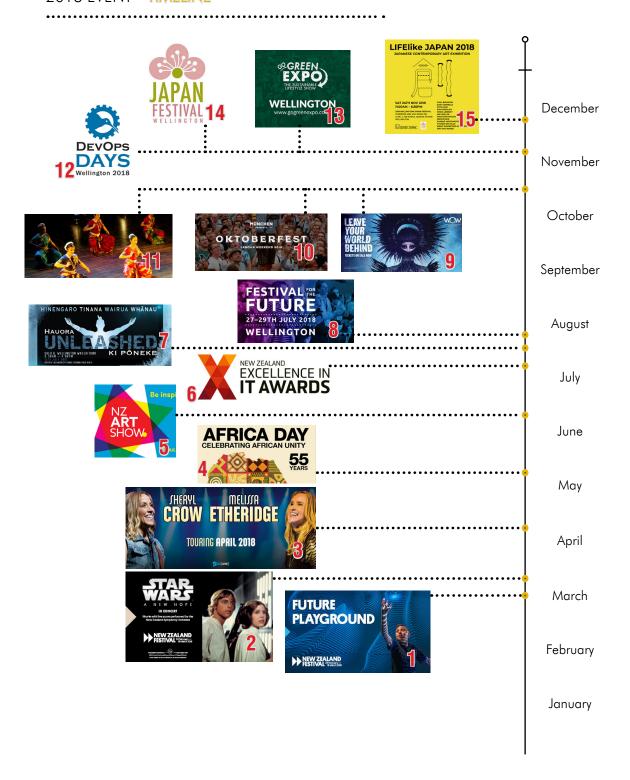


Figure 3.15: Timeline showing events happening in TSB Arena and the waterfront during 2018.

PROGRAMS FOR THESIS DESIGN INTERVENTIONS BASED ON EXISTING PROGRAMS ON SITE

The diverse programs in the Queens Wharf buildings represent the major activities on Queens Wharf that draw both locals and tourists. The aim of the thesis design interventions will be to allow both visitors and occupants to celebrate and interact with the changing programs that will be exposed by the architecture.

This thesis investigation will also explore adding a new hotel program, because

Wellington hopes to accommodate a 5-start hotel eventually on this site. The nearest hotel from Queens Wharf is currently the InterContinental Wellington, but it is not a waterfront hotel. The addition of a new hotel program as a new layer of identity on Queens Wharf will also invite new narrative perceptions of the site.



Figure 3.16: Photo shows the southern elevation view of Shed 6.

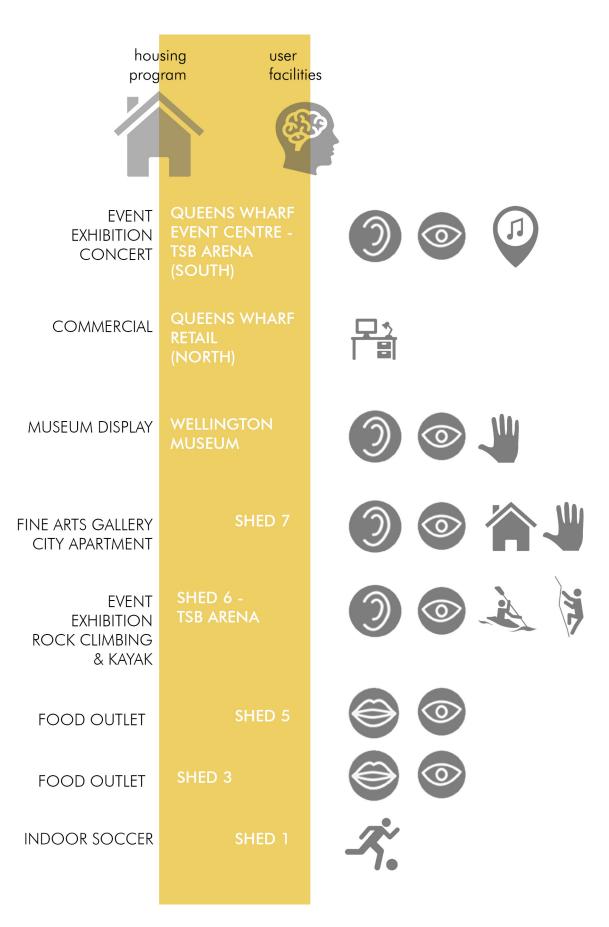


Figure 3.17: Diagram analyzing each building's program in relation to the user facilities and experience.





RESEARCH QUESTION

How can a major urban centre establish place identity when its programmatic requirements are continually changing over time, its original ordering devices have become conflicted, and the identity of its original heritage buildings has become obscured or lost?

RESEARCH AIMS

To address the Research Question in relation to Wellington's Queens Wharf, the principal aims of this design-led research thesis are:

- 1 To establish meaningful relationships between the historic and contemporary architecture by revealing lost heritage features while celebrating the new and the old in an integrated way;
- 2 To invite the ever-changing programmes to establish the architectural identities:
- 3 To establish a clear ordering system from the confluence of conflicting grids that has developed over time at this site;
- 4 To reconceive the site as a gateway to the capital city.

RESEARCH OBJECTIVES

The principal objectives of this design-led research thesis are:

- 1 To implicate historic architectural features into new architectural interventions – so that the historic buildings are fundamentally important to understanding the new and vice versa – by integrating the new and the old in ways that present all the stages of the site's evolution as important chapters in its overall tale;
- 2 To expose interior programmes to the outside to establish architectural identity through programmatic visibility;
- 3 To establish new architectural interventions that act as 'pivots' to help make sense of conflicting grid alignments;
- To arrange the architectural interventions as a framing device and an 4 important liminal threshold between the opposing conditions of land and sea.



This chapter summarises and reflects upon the literature and project review, and how it helped to guide design strategies for experiments leading to new architecture interventions that address the Research Objectives. The four main design strategies include encouraging the architecture to establish strong and meaningful place identity by exposing the ever-changing internal programs; creating a major gateway to enhance urban identity for the city; linking historic artifacts to new architectural interventions so that old and new can reinforce identity; and responding effectively to multiple conflicting arids.

Case studies were examined in relation to each theorist to further explore how these strategies can be incorporated into new architecture interventions in order to achieve the principal Research Objectives.

While each section of this chapter primarily relates to one of the four principal Research Objectives, several theorists and case studies relate to more than one RO (research objective), as will be noted in the discussion.

Figure 4.0 (left): Image showing the historic level luffing crane next to Shed 6.

4.1 RO1: To implicate historic architectural features into new architectural interventions – so that the historic buildings are fundamentally important to understanding the new and vice versa – by integrating the new and the old in ways that present all the stages of the site's evolution as important chapters in its overall tale.

JENNIFER HILL

Jennifer Hill is an Australian architect and a heritage conservation expert, as well as a member of the Royal Australian Institute of Architects (RAIA). Her research relates to RO1. Hill presents a strong argument for preserving and respecting the historic identity of architecture not just as it originally was, but also including the changes that tell the story of its evolution. In discussing a heritage building in Australia that changed considerably over time, Hill points out:

The current building's appearance, returned to its 1951 condition, belies the complexity of its building history which involved the removal of layers, reinsertion of earlier elements and the introduction of new materials (Hill 64).

She proposes that new contemporary architecture could blend together with the old, challenging the traditional architectural responses that often simply return heritage buildings to their original condition. Traditional approaches to remediation of historic buildings often aim to fully restore the original building; however, Hill argues that the existing

building removes the sequential chapters of a building's identity, which are also important of the historic value for the building. Hill believes that contemporary interventions can be successfully applied in ways that preserve the historical identity of the particular building while enabling both contemporary and historical stages of a building's life to coexist. Hill argues:

Sometimes it is necessary to demolish and remove layers to recover the powerful identity that existed at a particular time or present the layers in a cohesive way (Hill 65).

Hill reflects that new contemporary interventions can be introduced to historical sites in ways that positively aid the preservation of historical transformations by framing moments where it plays an important role in reciting the building's ongoing history.

The following case study will examine how Hill's theories might be applied to the research site to help address the Research Objectives.

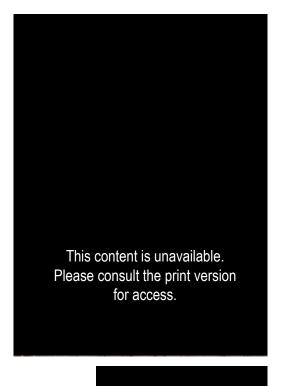
CASE STUDY: URBAN ARTIFACTS IN BOSTON HOUSING

A city develops according to the dynamics within urban elements and it can be analysed by its form... In this respect, all the cities have their own individuality, derived from a specific destiny and a life of each urban artefact, and furthermore urban artifacts and primary elements participate in the process of evolution of the city (Kim).

In Boston, a number of historic buildings have a unique iron fixture at the foot of each stoop. They were known as "boot scrapers" by the community since the founding of the city in the early 1620s to scrape mud and dirt off of shoes before stepping into private homes (Berardi). Nowadays, these historic objects simply serve an ornamental function; hence they have become part of the historic identity of the site.

This concept can be incorporated into my research site on Queens Wharf by adopting the characteristics of the heritage buildings (Wellington Museum and Wharf Office). As urban planner and creative consultant, Derek Berardi writes: "there is plenty your city or

neighbourhood has to tell you about its past without visiting a library or a museum" (Berardi).



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Figure 4.1: 'Boot scrapers' are known as an urban artifact in historic Boston era.

Design Experimentation: Enhance the Relationship of The New and Old

In relation to the theory and case studies examined for Research Objective 1, preliminary concept experiment were carried out to examine how new architecture interventions could enhance or act as a focal frame to provide a clear view point towards the historic fragments on the research site.

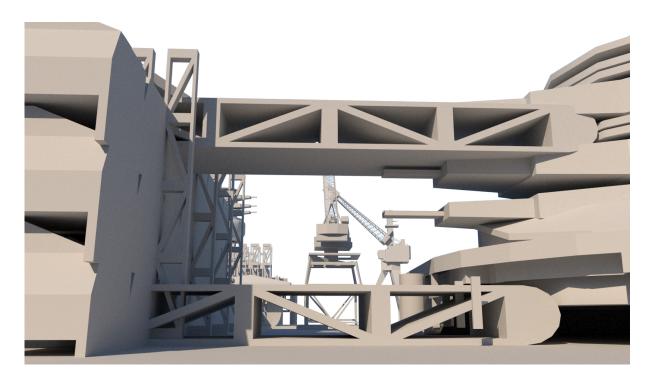


Figure 4.2: Concept experiment as a framing device for the historic crane.

Preliminary concept experiments were also carried out to investigate how new interventions could act as framing device for the historic elements by elevating the new architecture intervention to allow clear visibility of the heritage buildings and also not overshadow them.

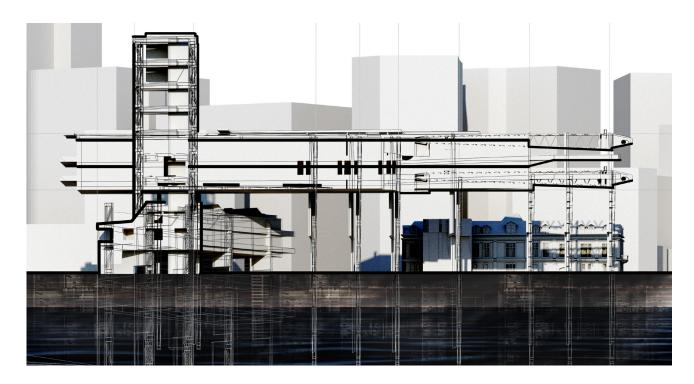


Figure 4.3: Concept experiment as a framing device for the historic Bond store (Wellington Museum).

4.2 RO2: To expose interior programmes to the outside to establish architectural identity through programmatic visibility.

CEDRIC PRICE

The English architect Cedric Price inspired many contemporary architects including Rem Koolhaas, Renzo Piano and many others. One of Price's unique approaches to design is his interest in allowing human interaction within a space and use of unconventional approaches is his design. According to architectural critic Peter Murray:

Architecture for him is not only about making and playing, whether with form, color, drawings or technology – all of which he loves to do – but architecture is also about believing and Cedric Price believes in an architecture which must also work for humans (Murray 15).

Applying Price's idea to Queens Wharf could provide an opportunity for revitalisation to the site, generating not only economic benefit on the site, but also enhancing stimulation of the public when engaging in a multi-programmatic site. This will be discussed further in the following case study.

According to St John's College University of Cambridge:

Price's architectural vision of a collaborative and ever-changing environment which would be a "laboratory of fun", [features] moving walls and floors, interactive panels and even an "inflatable conference centre (St John's College).

He also believes that the idea of human interactive and playful design allows an occupant to acquire more freedom to control and to shape the occupant's own environment, as is reflected in the following case study.

CASE STUDY: FUN PALACE

In relation to these theoretical approaches, Cedric Price designed the project Fun Palace that is unlike normal conventional buildings. His design of the Fun Palace inspired the Pompidou Centre in Paris. The original idea of the Fun Palace was taken from the late avantgarde theatre producer Joan Littlewood. Littlewood was also the founder of the Theatre Workshop in London's East End. "Price had already been exploring ideas for an interactive and improvisational architecture, and Littlewood's dream became the program for his new Fun Palace" (Mathews, "The Fun Palace as Virtual Architecture" 40).

The Fun Palace is a continually interacting project responding to people. During that time, leisure was as important an issue as any a major political, economic, or architectural issue in Britain. While Price was developing his ideas about the Fun Palace, he wrote the following:

Old systems of learning are now decayed; the new universities will be of the world and in each man. The old clubs and condescension no longer operate. It is necessary to extend the frontiers of the minds. To know how to work out a problem for oneself ... The variety of activities cannot be completely forecast; as new techniques and ideas arise they will be tried. The structures themselves will be capable of changes, renewal and destruction. If any activity defeats its purpose it will be changed. The elimination of the word 'success' is important. The place is a constantly changing experiment in which the old human categories are forgotten, e.g. brilliant, superior, stupid, dull. Here each person can discover in himself new skills and increase his enjoyment of life. Each man and woman has one life, one mind, one body, unique and 100% unrepeatable. Each is capable of what was once called genius (Mathews, "The Fun Palace" 78,79).

In Price's concept, he was focusing more on the process, as events happening in time. He believed that time is a critical yet forgotten component in architecture. He argues that one should not simply place an object on a site and incorporate an undetermined statement as a core design principle. Price uses system theory and diagrams to provide an open generative design process that remedies the confusion between cluttered complexities of informational society with the necessities of architecture.

Mary Lou Lobsinger from Harvard University wrote, "Price's architecture dispenses with the visual and invites us to reconsider the experience of time and social interaction in the present" (Lobsinger 28). As for Price, time is not an accumulative historical process for him. The social plays an important role in producing the architecture in time but the new social forms of time and space have been lacking in producing an interactive space that interacts with its programs and inhabitants.

Programs and activities

The program of the Fun Palace is highly unconventional. The way Price designed his Fun Palace with Littlewood has also resulted in blurring the boundaries within the context. According to Stanley Mathews, the Fun Palace's program is "much closer to what we understand as the computer programme... The three dimensional structure of the Fun Palace was the operative space-time matrix of a virtual architecture" (Özkoc 68). Instead of a static process with a specific outcome, it is an ongoing process that enables changes of the experiential environment.

Price and Littlewood conducted questionnaires for the participants for them to picture what sorts of activities they would want to have fun with in the Fun Palace. The feedback that they collected from the participants was used to provide the knowledge of activities. With the intention of blurring the boundaries of those activities, diverse and overlapping programmes can become even more fascinating.

Building Space

The development of the Fun Palace by Price arranges reflections of the programs on a physical space. "Price's first sketch for Fun Palace (1961) is more diagram than the expression of a form to be built" (Lobsinger 24). Price begins with his initial scheme by illustrating random massing areas, also known as "massparticipation areas", in a large central space. The masses are then connected by mechanical flexible servicing masses at the centre of the central space, which are known as service towers.

The analysis drawing of the Fun Palace by Özkoc indicates that Price places major activities -"mass-participation areas"- at the centre of the Fun Palace such as movies, theatres and exhibitions.

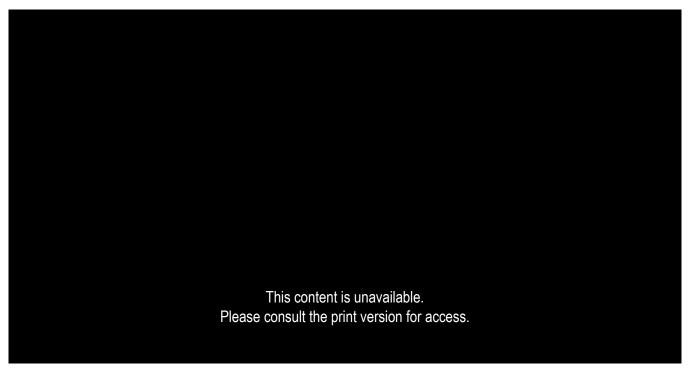


Figure 4.4: Perspective drawing of Fun Palace by Cedric Price. University of Brighton, 2014.

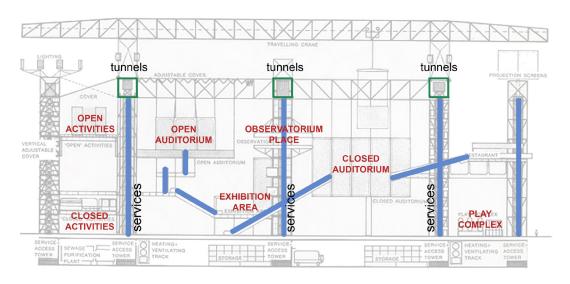


Figure 4.5: Program analysis of Fun Palace by Cedric Price. Edited by Author, 2018

He then establishes rotating escalators or "mechanically controlled servicing masses" in the centre of Fun Palace as they allow different experiences achieved by the same space while moving through the machines. For example, one visitor could get to a different space by just obtaining an escalator. The mass participation areas do not just sit on one level, but they can also be placed on the datum level or suspended in a three-dimensional space. The mass participation areas provide options of close interacting relationships with each mass on the same level and within the surrounding areas on the datum and suspended levels. This is reflected in what Özkoc writes: "Thus the mass participation areas are also provided with the option of interaction within itself as well as with the surrounding frame on three dimensions" (Özkoc 69).

Encircling the mass participation areas are areas known as "static activity decks", consisting of spaces like restaurants and observation decks that act as frames inside the structural element. These activity decks use less space compared to the mass participation areas. Activities such as these also obtain the beneficial qualities of providing observation views

for the users. Along both outer sides of the Fun Palace, Price placed two multideck car parking programs. These can be utilized for both private and public use.

Price designed the Fun Palace as an interactive and cybernetic model of architecture. He strongly believes in the concept of an interactive, performative architecture, which can be adaptable to the varying needs and desires of the individuals. Price's concept of interactive, performative architecture could be applied to the thesis proposition as a means of enabling multiple, everchanging programmes in a variety of building types to make sense to visitors.

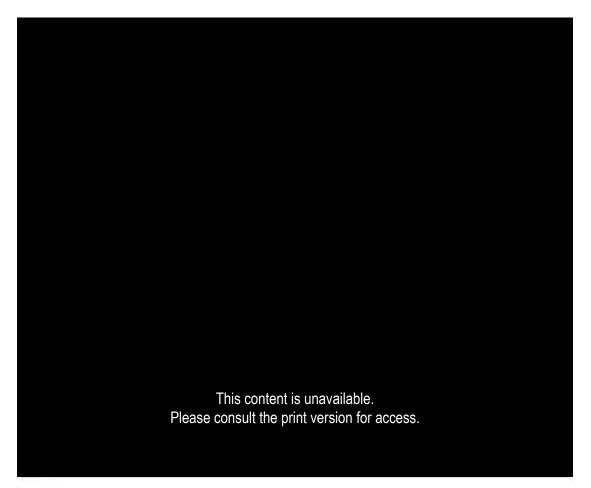


Figure 4.6: Physical interior zoning for Fun Palace by Cedric Price.



Figure 4.7: Analysis of rotating escalators in Fun Palace by Cedric Price.

CASE STUDY: NEW BABYLON

Conceived as an anti-capitalist city, the New Babylon was foreseen and designed by Amsterdam painter, graphic artist and musician, Constant Nieuwenhuys-Hangende. He was inspired to discover what potential added value art could incorporate into daily life, in which there is space for creative expression. In 1952, he started to develop an interest in spatial architecture. With the New Babylon, Nieuwenhuys-Hangende created an image of worldwide networks connecting cities in the future. "Land is collectively owned and labour fully automated. The need to work is replaced by a nomadic lifestyle of creative play" (Foundation Constant).

Nieuwenhuys-Hangende started his New Babylon project in 1956. Architecture critic Sarah Williams Goldhagen wrote how he:

...had already been working for years on his "New Babylon" series of paintings, sketches, texts, and architectural models describing the shape of a post-revolutionary society. Constant's New Babylon was to be a series of linked transformable structures, some of which themselves were the size of a small city—what architects call a megastructure. Perched above ground, Constant's megastructures would literally leave the bourgeois metropolis below and would be populated by homo ludens—man at play (Goldhagen).

Nieuwenhuys-Hangende's design for New Babylon city was mainly conceived for a specific characteristic of the human personality called "homo ludens". The phrase "homo ludens" is taken from a book written by Johan Huizinga, a Dutch sociologist. He argued for the importance of play elements of the culture and society. Although the phrase homo ludens is an important part of game studies, Constant admired the theory of it and took it onto another level in architectural propositions. Huizinga's homo ludens was an important factor in the development of Constant's New Babylon. He argued that New Babylon could stimulate a creative lifestyle rather than impede it. Therefore, people can dedicate themselves fully to the development of creative ideas. The New Babylon can be occupied by homo ludens who do not even have to be artistic in a traditional sense; they can be creative in their approach to daily life, with no more work and feeling free to move around. Ethnographer and science writer Cara Giaimo wrote:

After automation took care of production, he thought, people would be free to be purely creative, and would embrace an environment that enabled this. To that end, every single structure in New Babylon would be made from interconnected units called "sectors" (Giaimo).

Giaimo also described in her article how citizens of New Babylon:

could rearrange these sectors at will to create different types of space, and customize the aesthetic environment within each sector—color, temperature, light, texture—with the help of "technical implements" they carried around (Giaimo).

"Playful Stairs" by Nieuwenhuys-Hangende (see fig.4.12) showcases the qualities that Giaimo refers to as immersive environments, giving the users a visual sensation of physical presence. Nieuwenhuys-Hangende uses thin wooden platforms suspended from the ceiling. Each of the wooden platforms was hung at a different level, creating a three-dimensional space in between. Instead of covering the stairs with walls, he actually exposed them, allowing the users to celebrate the exposure of the environment of the platform. For the future generations, we do not want to live and work in a confined space, sealed off from the rest of the universe... "We want services and social spaces to be part of our everyday experience" (Mossessian).

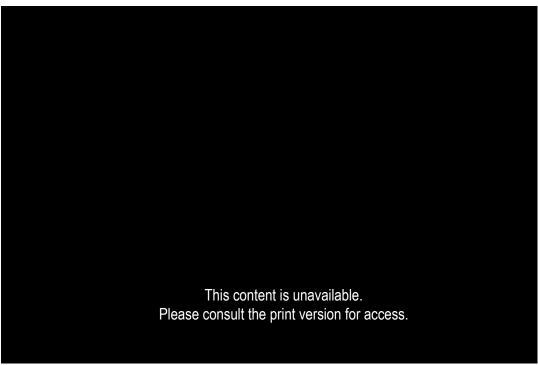


Figure 4.8: "Playful Stairs" by Nieuwenhuys-Hangende displayed at Gemeentemuseum Den Haag.

CASE STUDY: GEORGES POMPIDOU CENTRE

The Pompidou Centre, designed by architects Renzo Piano and Richard Rogers, became one of the most iconic works of architecture in Paris, France. "The Centre Pompidou is one of the major architectural statements of the expectations of the Modern Movement in the 60s" (Centre Georges Pompidou 10). The building was opened to the public in January 1977. Almost fifty years has passed and the building known as the cultural centre of Paris houses:

four major activities: Museum of Modern Art; a reference library; a centre of industrial design; and a centre for music and acoustic research, plus supporting services such as car park, restaurant etc (Centre Georges Pompidou 1).

Programs and Activities

The Pompidou Centre "was to be a live centre of information, entertainment and culture, the building to be both a flexible container and a dynamic machine.."(Centre Georges Pompidou 1). The inside-outside concept of the Pompidou Centre allows the "building's service systems [to be] fully exposed on the exterior..." (Glaves-Smith and Chilvers). A glass wall is placed on the west façade of the Pompidou Centre to allow the public on the courtyard to see the inside program activity. The integration of human activity with the program and human activity outside the building has achieved the experiential quality of inside-outside.

The project was inspired by concepts of collectively and community — new attitudes to urbanism and urban space. The architecture is a building that supports and represents freedom of change in direct response to the desires of its users.

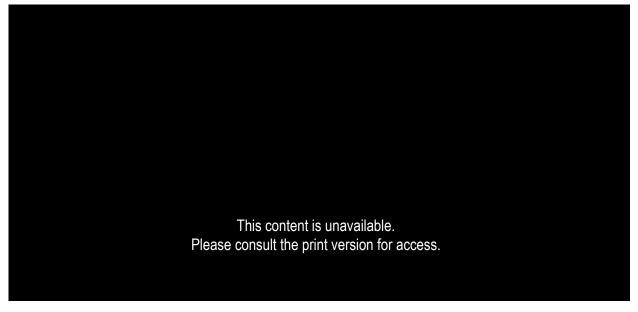


Figure 4.9: One of the early sketches of the Pompidou Centre by Renzo Piano and team.

CASE STUDY: GREENWICH PENINSULA: NEW LONDON DEVELOPMENT

In describing the New London Development at Greenwich Peninsula, architectural critic Ella Thorns writes:

Social interaction is key in these designs, integrating large flexible spaces that can adapt to suit the inhabitants as well as leisure activities such as the basketball court on the roof terrace and pop-up bar. The contact with the public is further prompted by an external staircase that can be accessed at all times (Thorns).

Masterplan architects Allies and Morrison, along with a design district team at Greenwich London, has developed this new intervention on Greenwich Peninsula that enhances the quality of indoor and outdoor spaces. With the idea of exposing indoor activities, this intervention blurs the boundary of both indoor and outdoor space, allowing the outside public to also visually take part and experience the quality of indoor activities such as the indoor rock climbing and soccer as well as special events such as those that take place in the Events Centre on Queens Wharf.

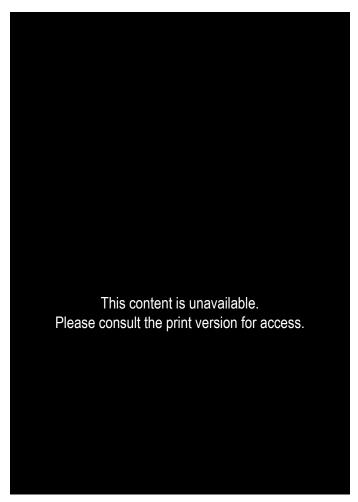


Figure 4.10: Concept masterplan for Greenwich Peninsula: New London Development.

CASE STUDY: TIMBER MODEL BY MATTEO PERICOLI

A story is not like a road to follow ... it's more like a house. You go inside and stay there for a while, wandering back and forth and settling where you like and discovering how the room and corridors relate to each other, how the world outside is altered by being viewed from these windows. And you, the visitor, the reader, are altered as well by being in this enclosed space, whether it is ample and easy or full of crooked turns, or sparsely or opulently furnished. You can go back again and again, and the house, the story, always contains more than you saw the last time. It also has a sturdy sense of itself of being built out of its own necessity, not just to shelter or bequile you (Munro).

The model was designed by New York based Italian-born architect Matteo Pericoli. He mainly designs architecture with influence taken from literary texts. In the model, he has placed his structural component wrapping around his narrative intervention. Pericoli has exposed his internal intervention clearly by avoiding the closure of the structural frame (Garvin). This makes the architectural program more responsive to the form and also allows exploration of narrative qualities in the space. With the synthesis of indoor programs with outside atmosphere, architecture can be more meaningful rather than just enormous with a lack of identity.

At the same time, this preliminary experiment examined the various building heights while relating them to new interventions derived from New Babylon. The various heights would create a sense of playfulness and hierarchy for the architecture rather than taking a more conventional approach.



Figure 4.11: A timber model by Matteo Pericoli to show the narrative qualities in the interior.

CASE STUDY: BEST RETAIL STORE IN FLORIDA, DESIGNED BY SITE ARCHITECTS

SITE's Best Retail Store in Miami is an example of exposing the interior activity on the outside, blurring the threshold boundary of the inside-outside. The figure utilises a cut away section of the façade to reveal the layers of normally enclosed retail space and services system within. Despite being on an attractive site like Queens Wharf, it is essential for the public to understand functions rather than having no idea what program is going on inside.

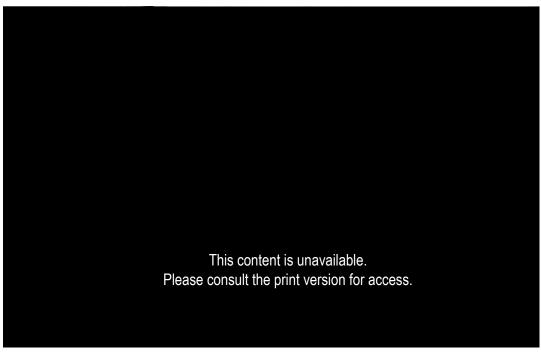


Figure 4.12: A cut away section of a retail store in Miami as an example of Inside/Outside and relationship of new and old.

Design Experimentation: Inside-Outside

Preliminary thesis design experiments were carried out to test the idea of these case studies involving the freedom of human interaction within a space, as well as the exposure of interior programmes, allowing the public outdoors to view indoor activities happening inside and vice versa. The exposure of the inside program could help establish and reinforce meaningful architecture identity for the research site.

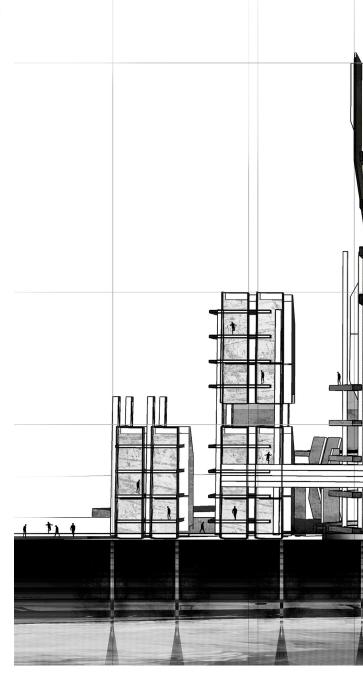


Figure 4.13: Thesis preliminary design sketch exploring how the layers of exposed program and inside-outside concepts can help create a more human interaction environment for the public.



4.3 RO3: To establish new architectural interventions that act as 'pivots' to help make sense of conflicting grid alignments

ROGER TRANCIK

In Roger Trancik's book *Finding Lost Space*, Trancik defines lost space as:

Lost space is the leftover unstructured landscape at the base of a high-rise tower or the unused sunken plaza away from the flow of the pedestrian activity in the city (Trancik 3).

Similar to Trancik's notion of lost space, the proposed research site of Queens Wharf acts as a "residual area" that sits between the commercial strips of the so called Queens Wharf Shopping Centre (TSB Arena and the Retail Centre). Trancik argues that "pedestrian links between important destinations are often broken, and walking is frequently a disjointed, disorienting experience" (Trancik 2). The development of the Queens Wharf Shopping Centre has created a dull 'lost' space between the two buildings.

The Queens Wharf Retail Centre does not operate as planned; only a few cafes and restaurants are open at the front plaza. This has caused "significant and negative influence on the extent and flow of the street activity" (Trancik 47). According to Trancik, "urban space must not be destroyed but should be complemented by new buildings... If urban space is poorly defined, new buildings must create it" (Trancik 73). Redesigning Queens Wharf plaza would provide an opportunity to enhance the quality of the urban space around the plaza while creating a space that makes itself special that draws people into it.

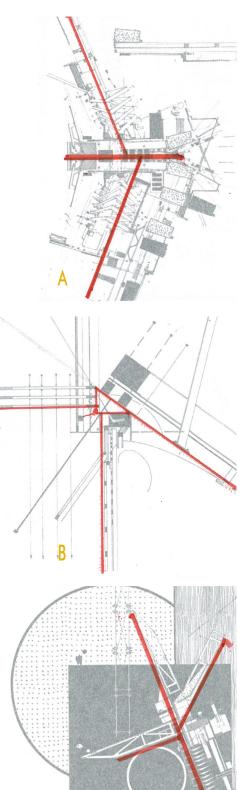
CASE STUDY: ALEX KAISER

Alex Kaiser is an Irish designer based in London. "Kaiser experiments between the intersection of visualisation, architecture, drawing and materiality" (Kaiser). Kaiser's drawings incorporate different elements such as pivot points, anchor points and shifting objects. These elements are essential for enabling complex grids to respond meaningfully to the urban or surrounding grid system. By incorporating such elements, new architectural interventions can become more responsive to the site condition.

The diagram on the right evidences an anchor mechanism that allows different grid systems to all come together in meaningful relationships with one another.

The diagram on the right describes how a triangular space is created in the centre caused by the forty-five degree turn of the anchor. Instead of intersecting, the different angles become meaningful by creating a triangular space between them. The triangular space acts like an ordering device between the three other directions.

The diagram on the right describes how a centre focal point device makes three different angles become meaningful, treating them almost like the hands of a clock.



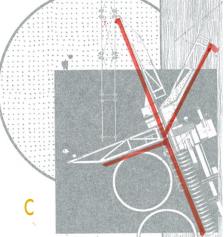


Figure 4.14: Drawings from Alex Kaiser analyzed by Author, 2018.

Design Experimentation: Conflicting Grids

A series of preliminary design experiments tested how these case studies can be applied to the research site to address the problem of the conflicting grids. Four concept masterplans were created to test different orientations of each building on the research site in relation to the main axis grid of Jervois Quay.

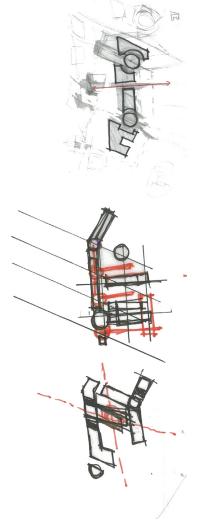
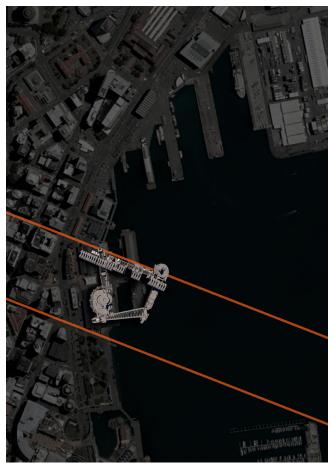
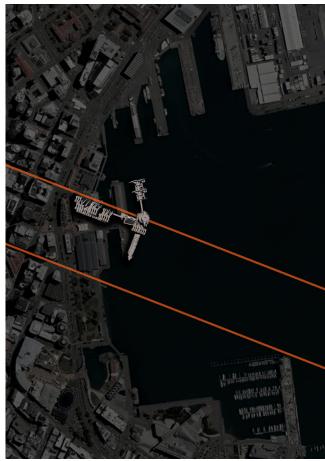
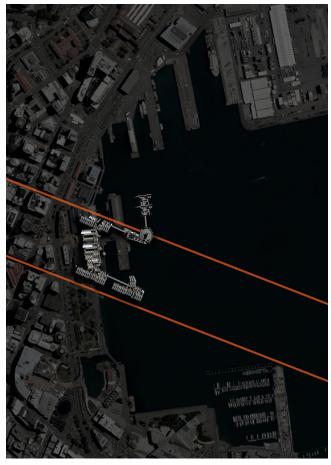


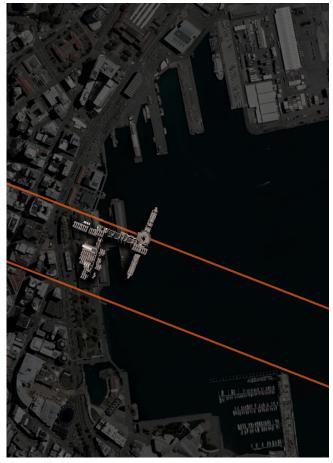
Figure 4.15: Sketch experiment responding to the conflicting grid on site.

Figure 4.16: Diagram indicating four concept iterations responding to the conflicting grid on site.









RO4: To arrange the architectural interventions as a framing device and an important liminal threshold between the opposing conditions of land and sea.

NILLY R. HARAG

In her article "Architecture as Liminal Space", Nilly Harag, architect and senior lecturer in architecture at Bezalel Academy of Arts and Design in Israel, wrote:

Architecture is a lens, an instrument one looks through to bring new perspectives into focus, enabling the transformation of experience from a magnified self-concentrated space to a wide horizon (Harag 87).

The architecture of Queens Wharf can actively engage and benefit from Harag's theoretical approach by creating a threshold that invites people into the space and that acts as a magnifying process and reveals a wider perception of space; in such a way, it might for example enable people to better understand the meaning and value of the wide horizon line at the edge of Queens Wharf.

In his article "Threshold: Link and Separator", Luis M Diaz, practicing architect and lecturer at the University of Brighton, writes:

Thresholds acknowledge that the character of any two adjacent rooms is rarely identical; therefore, some form of transition is often desirable (Diaz).

The research site, Queens Wharf, can be reconceived as a threshold connecting two adjacent spaces: the urban land and sea. The centre axis of the wharf can become the door-less transitional space providing the public with access from Jervois Quay to the edge of the wharf.

Relationship between Spaces

Located to the west of Queens Wharf is the main central business district for the capital city Wellington; to the east lies the magnificent skyline view of Wellington's Lambton Harbour. Both land and sea together provide a very unique individual identity for each space.

According to Diaz, "the idea of threshold is also about mediating movement from one type of spatial status to another" (Diaz). Such a spatial status can be provided to the research site whereby the western end of the site echoes the urban configuration, while the eastern end becomes smoother, reflecting the subtle sea surface.

Transition

In his article "Note on the In Between', Fred Koetter defines the in-between 'liminal zone' as:

... the realm of conscious and unconscious speculation and questioning – the 'zone' where things concrete and ideas are intermingled, taken apart and reassembled – where memory, values, and intentions collide (Koetter 69).

It is a space where the boundary or threshold is blurred, a transitional space between two spaces. A liminal stage can occur when a person from a previous state enters a liminal space but has not yet entered the coming state.

The historic Queens Wharf gates were erected in 1899, and they were the first harbour gates to be installed along Wellington's harbour (see fig. 4.17). The gate had a very robust relationship with the Wellington Harbour Board where it helped in operating the port facilities, creating a boundary and control access for public safety and the port activities in the wharf area. At that time, the gates were also serving as an urban transit node from Post Office Square to the sea.

To gain access to the edge of Queens Wharf via the main wharf axis, public must first enter the historic Queens Wharf gates located on the eastern side of Jervois Quay. The threshold sequence can be very direct; apart from the wharf gate threshold, the link to the wharf edge was created by the sequence of heritage buildings on both sides beyond the gates, and the contemporary buildings followed by temporary sheds until the wharf's edge. This sequence provides a certain amount of expression but new interventions and planning are needed to establish a more meaningful threshold linking land and sea.

The Salk Institute was designed by Louis I. Khan in 1965. The unique nature of this building is the contrast between the view from the east elevation and west elevation. When viewing from the eastern direction towards the horizon, it gives a sense of monumentality to the viewers. The material used on the eastern façade also gives a sense of public to the viewers. When viewing from the western direction inland, the view is more people orientated, a more private approach as we can see that there is more material involved and the building floor details are clearly shown on the west façade.

Gateway

The gateway views from both eastern and western directions are different: subtle when viewed looking west, and more complex when viewed looking east toward the urban area, thereby actively changing the building's sense of place identity. The water feature located between the two buildings enhances the viewer's sense of gateway, drawing the viewer's point of view to the sea and back again.

Transition

In his thesis *Liminal Space in Architecture:* Threshold and Transition, Patrick Zimmerman argues that:

In any threshold space, the occupant is in a transitional stage in which he is neither part of what he has left or what he is entering, but is inbetween, in an ambiguous condition (Zimmerman 10).

The Salk Institute acts as a threshold and provides a transition stage between the urban space to the east and the natural sea to the west. Through this use of threshold and transition, it transforms the viewer experience while inhabiting the courtyard space.



Figure 4.17: The historic Wellington Harbour Gates at Queens Wharf.

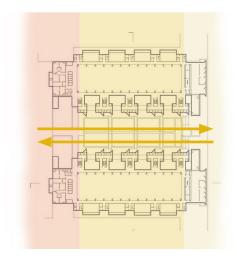


Figure 4.18: Diagram indicating the Salk Institute acting as a threshold creating a transitional space from one end to the other.

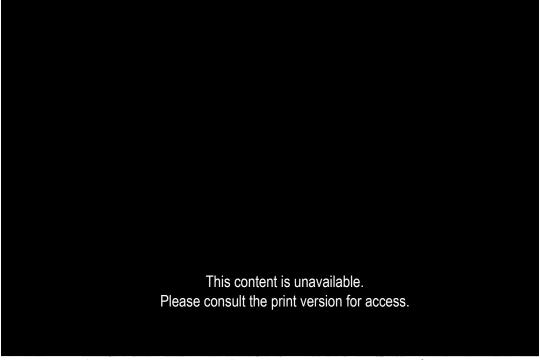


Figure 4.19: Looking toward the west, the Salk Institute creates a gateway viewing from the urban towards the open sea providing a sense of monumentality.

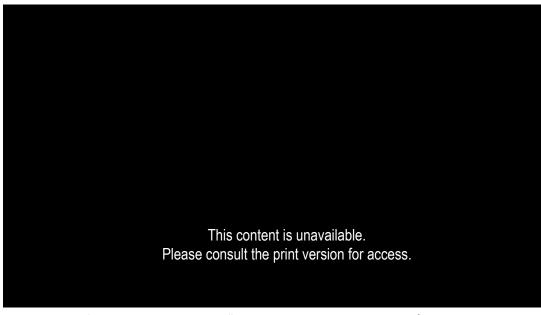


Figure 4.20: Looking toward the east, the Salk Institute creates a gateway viewing from the sea towards the urban area providing a sense of complexity to the viewers from the sea.

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CHAPTER SUMMARY

This Literature and Project Review have helped establish a strategic set of design principles that can be incorporated into and investigated through the thesis preliminary design experiments. The design principles arising from the Literature and Project Review include: encouraging the architecture to establish strong and meaningful place identity by exposing the ever-changing internal programs; creating a major gateway to enhance urban identity for the city; linking historic artifacts to new architectural interventions so that old and new can reinforce identity; and responding effectively to multiple conflicting grids.







5.1 Master Plan Iterations

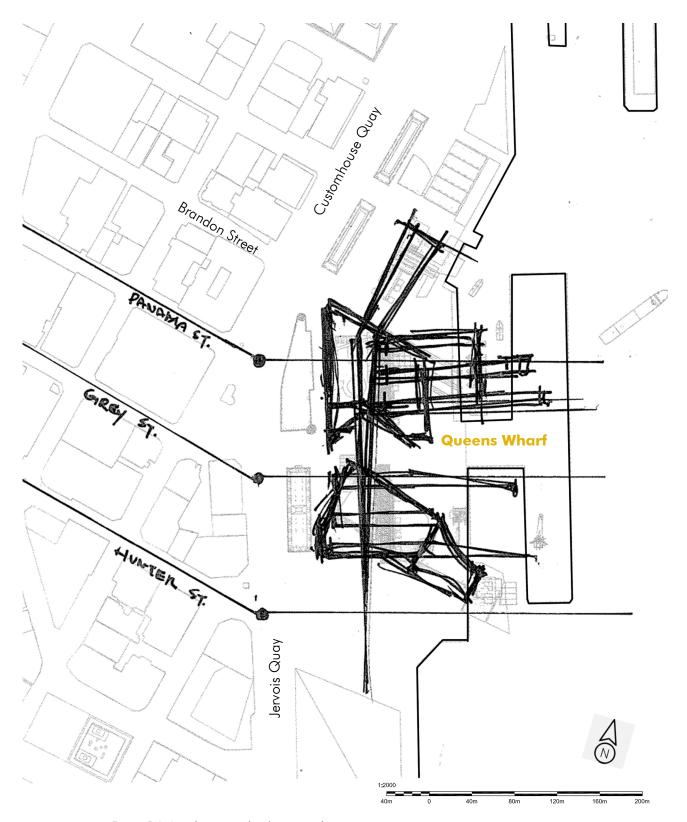


Figure 5.0: Initial concept sketch master planning experiment

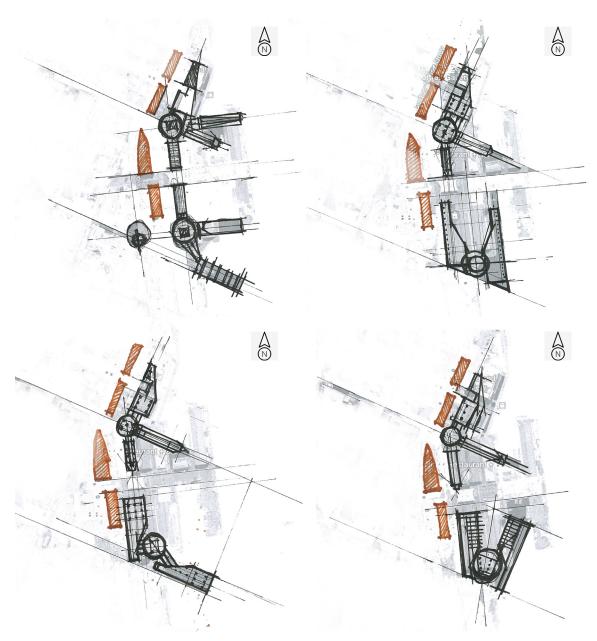


Figure 5.1: Concept sketch master planning experiments 1 to 4.

The initial concept and master plan sketches of the design explore ideas to rejuvenate the problem of the conflicting grids on the research site. The experiment started by using parts of the historical crane to form a basic concept of how architecture could act as an "anchor point" for the changing grids of Waterloo Quay to Jervois Quay and the urban city grid to the Lambton Harbour grid.

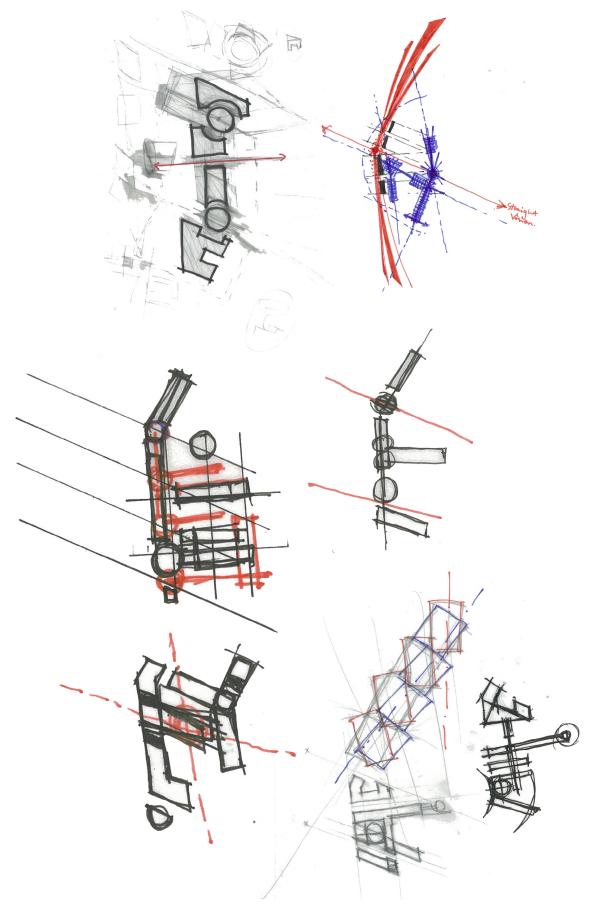


Figure 5.2: Hand sketch master planning experiment 1.

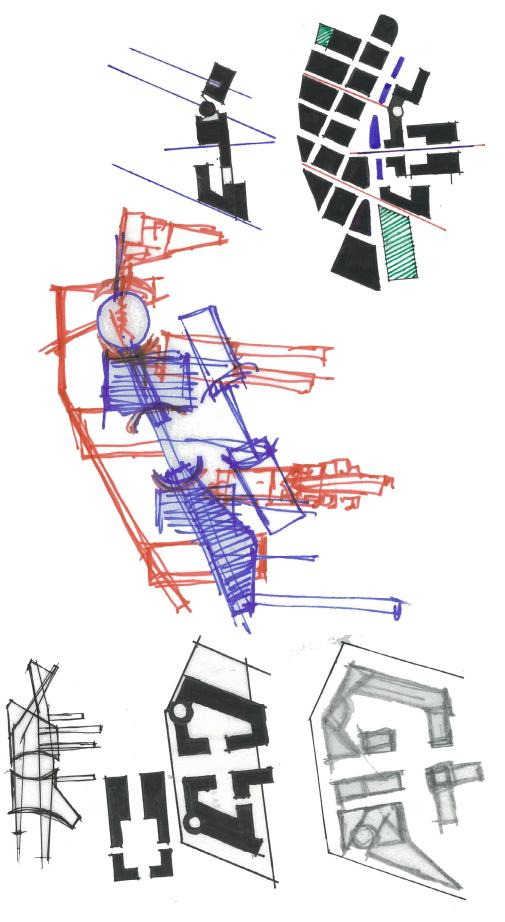
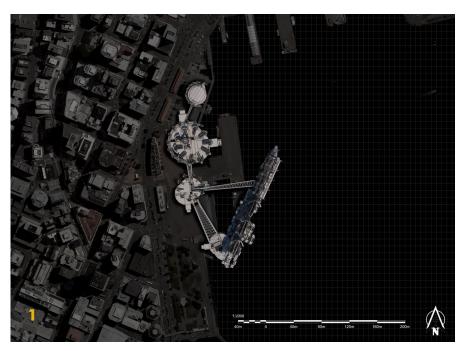


Figure 5.3: Hand sketch master planning experiment 2.



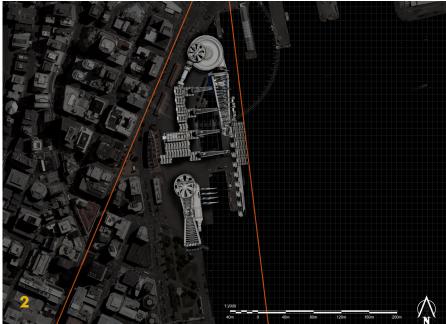


Figure 5.4: Preliminary design master planning experiments 1 and 2.

Preliminary master planning experiments began by creating multiple concept interventions by utilising the parts from the level luffing crane and tripod crane. A variety of forms were obtained by collaging the crane parts. This process explored ideas of linkage quality whereby the experimental modules are connected by lines or bridges so that they generate a pivoting approach to the design that helps make sense of the conflicting grid alignment.

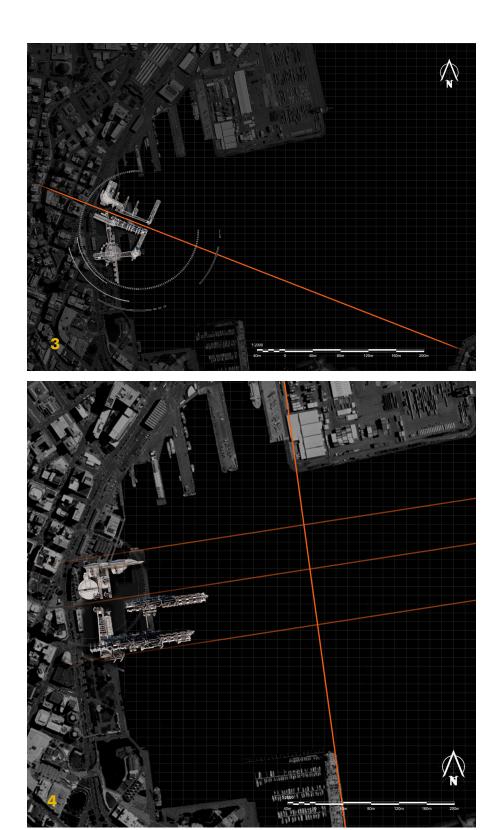


Figure 5.5: Preliminary design master planning experiment 3 and 4.

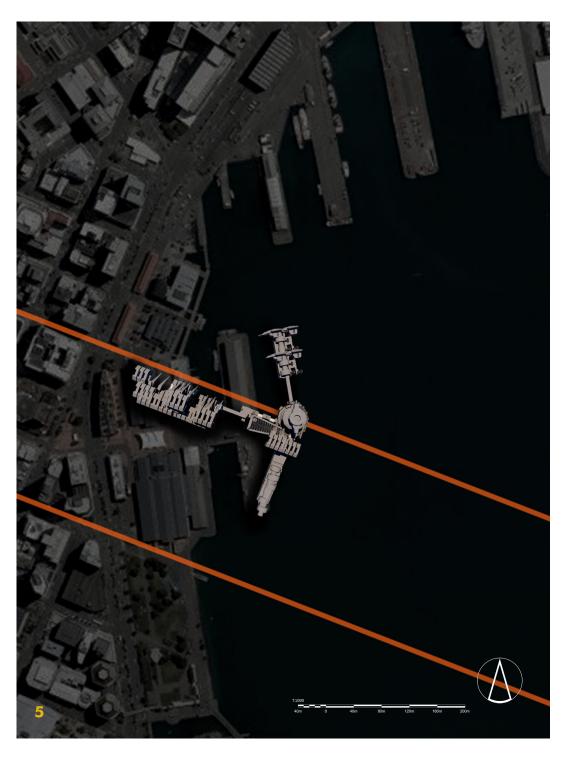


Figure 5.6: Preliminary design master planning experiment 5.



Figure 5.7: Preliminary design master planning experiment 5a (aerial view).

The second stage of master planning iterations mainly involved experimenting with both the harbour grid on Queens Wharf and the urban grid west of Jervois Quay. At this stage, the scale of the new architecture intervention was particularly taken into consideration. The experiments looked to achieve a proportional scale within the urban research site.

Strengths

The various preliminary design architecture interventions tried to implicate historic architectural features by re-creating a second "wharf" that uses new architecture elements to mimic the original wharf at the turn of the century when there was

a double "T" wharf that was reclaimed during urban expansion.

Weaknesses

This iteration involved too many shifting directions that might lead to confusion. Half of the artificial wharf itself has shifted from the harbour grid to the urban grid direction. There is another intervention running perpendicular to the urban grid from the anchor point of the artificial wharf.

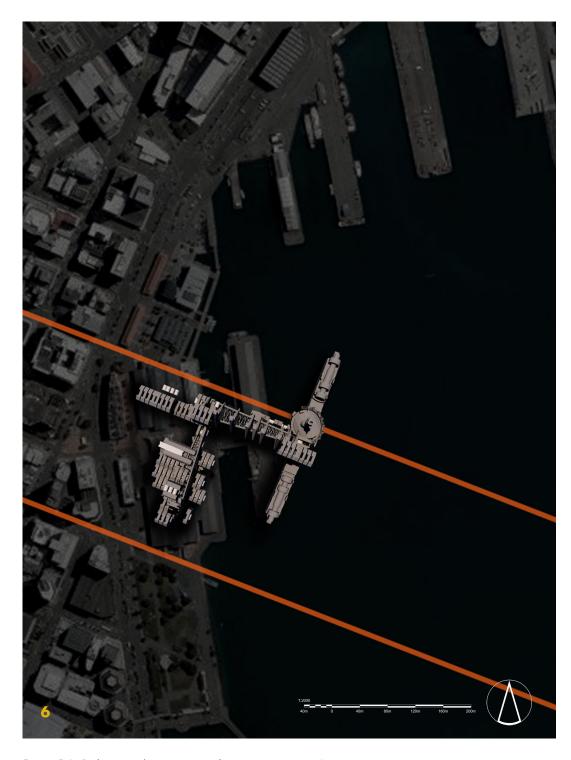


Figure 5.8: Preliminary design master planning experiment 6.

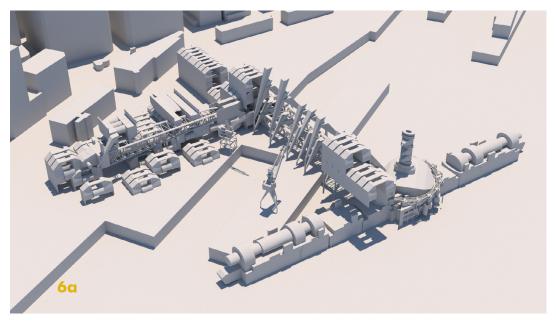


Figure 5.9: Preliminary design master planning experiment 6a (aerial view).

Strengths

Significantly more space and areas are provided in this new intervention. It also explores a new approach to enhance the relationship of the new architectural intervention by integrating the land and water.

Weaknesses

The new architecture intervention is only following the urban grid and has ignored the harbour grid, which it should also belong to.

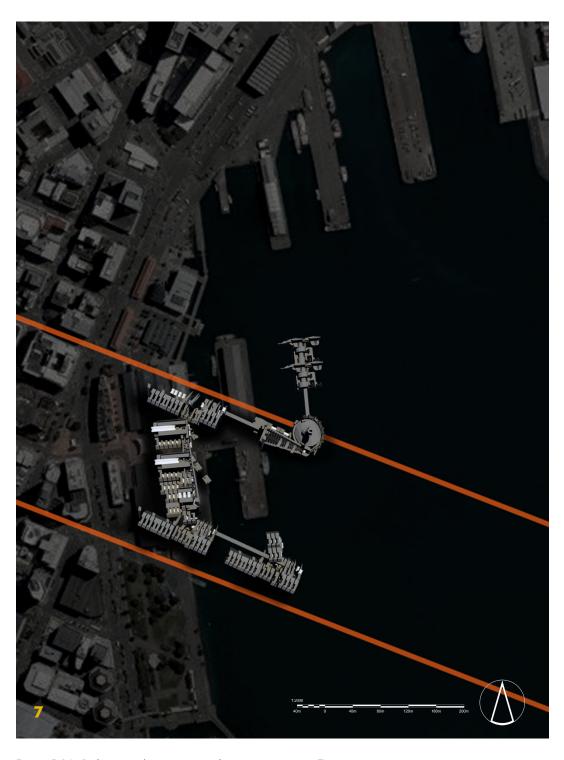


Figure 5.10: Preliminary design master planning experiment 7.

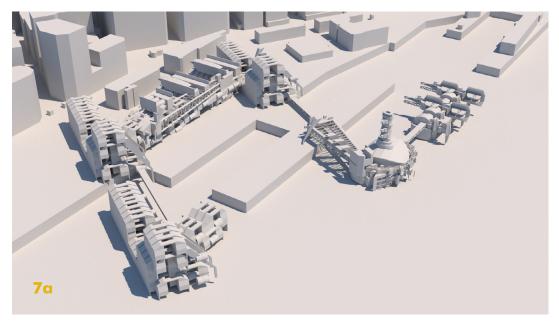


Figure 5.11: Preliminary design master planning experiment 7a (aerial view).

Strengths

The orientation of the new architectural intervention is better integrated and reflects both the harbour grid and urban grid. Experimentation was also conducted relating to different framed views from Brandon Street, northwest of Queens Wharf.

Weaknesses

The new concept architectural interventions seem to be oversized, and the massive architecture blocks views of the historic Wellington Museum and Harbour Board Wharf Office (Shed 7).



Figure 5.12: View frame from Brandon Street towards Lambton Harbour.

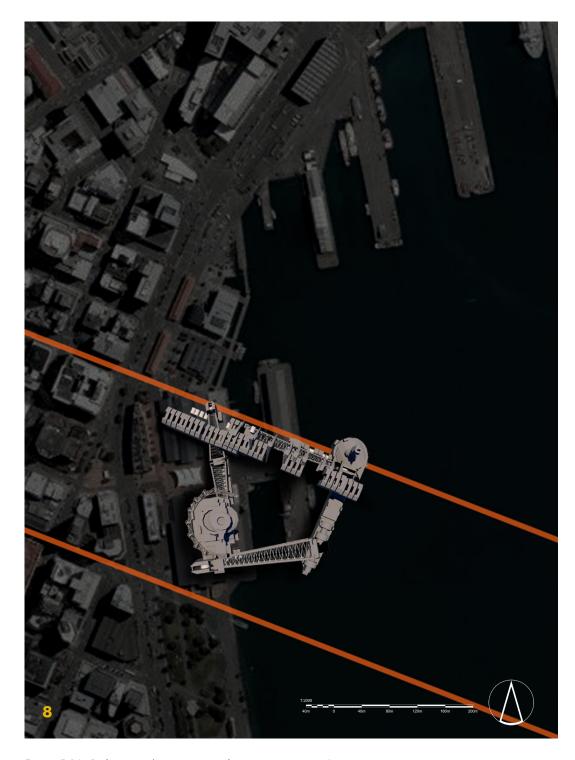


Figure 5.13: Preliminary design master planning experiment 8.

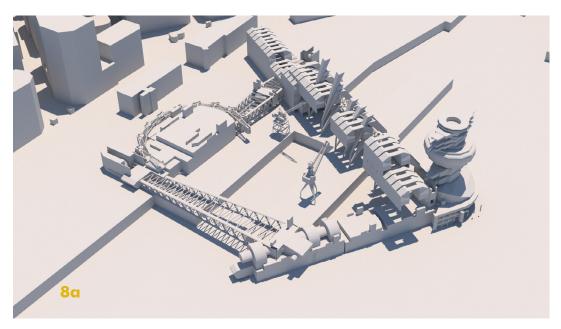


Figure 5.14: Preliminary design master planning experiment 8a (aerial view).

This experiment explored bringing back the historic cranes that were once on site during the busy port era. The experiment integrates the idea of creating a plaza that encloses and protects both cranes, creating a story that tells the audience the meaning of the historic machines that once served the busy port.

However, through the critical analysis of this design experiment, the variety and complexity of scales and shapes intersecting one another seemed to adversely restrict functions and operations.

5.2 Industrial Heritage Concept Experiments

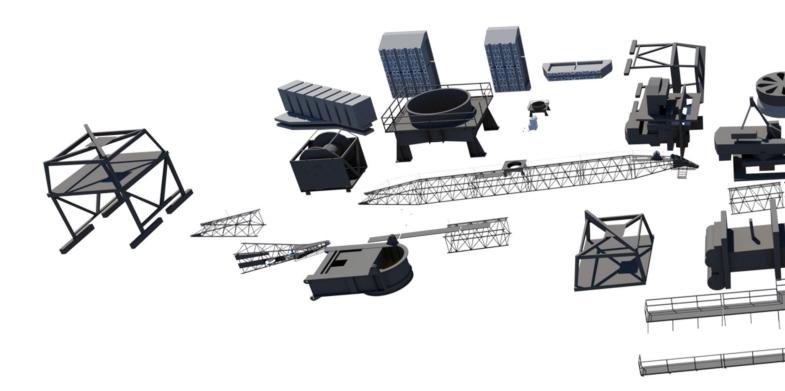


Figure 5.13: Mechanical parts of the historic cranes that were build in 3D model.



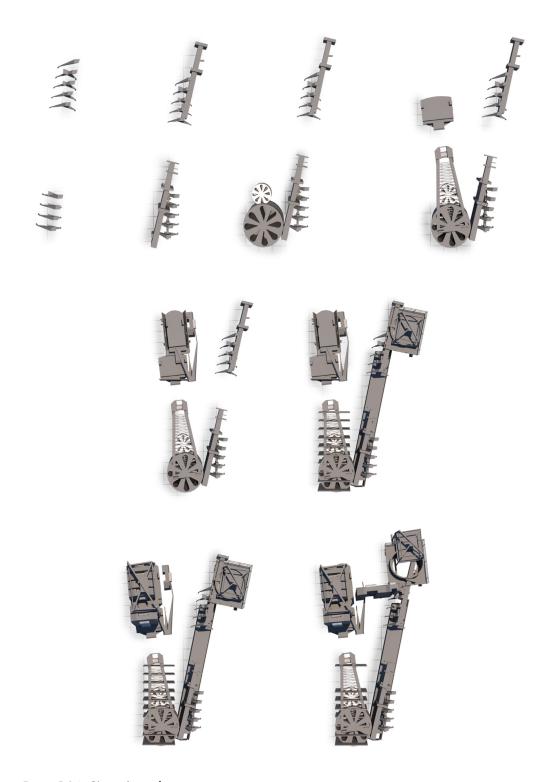


Figure 5.14: Chronology of concept experiments.

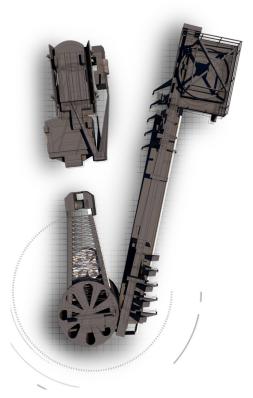


Figure 5.15: Outcome of chronology concept experiment.

The historical level luffing crane and tripod crane were build in 3D model and then dismantled into individual components parts, as experiments to see how these historical industrial wharf elements might be appropriated for new architectural interventions reflective of the wharf's original program, identity and history. The idea was to utilise the cranes' mechanical parts because both cranes represent one of the wharf's important heritage elements representing the port era.

After completing the sketch experiments, the cranes' mechanical components were used to help develop a concept approach for initial master planning, to establish the idea of architecture interventions that relate to and help ameliorate the loss of place identity caused by the urban conflicting grids.

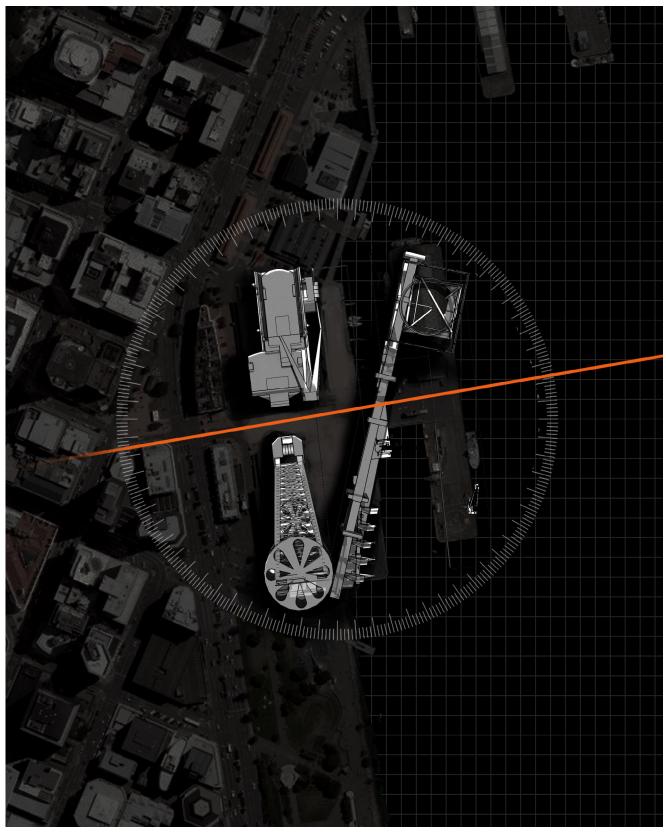


Figure 5.16: Experiment outcome placed on research site.

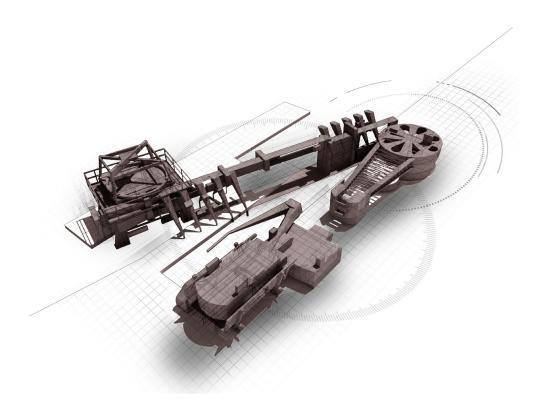


Figure 5.17: Aerial view of experiment outcome.

The preliminary design experiment concept models were then placed on the research site to test the scale, the proportions, and the relationships of the concept models to the site. The eastern side of the concept model is aligned to the harbour grid whereas the western side of the model is shifted and aligned to the urban grid.

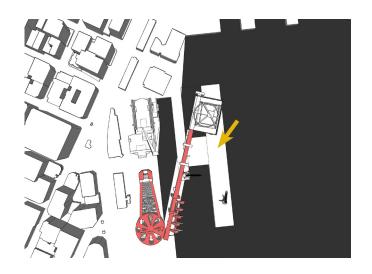
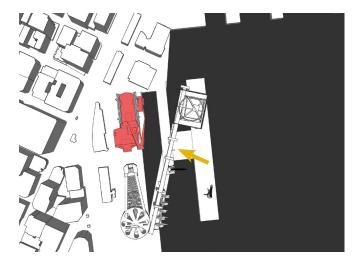




Figure 5.18: Concept view of TSB Arena Events Centre from the end of Queens Wharf.



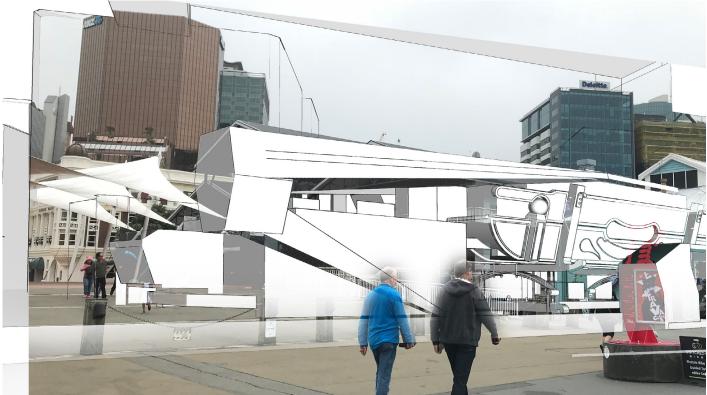


Figure 5.19: Concept view of Queens Wharf Retail Centre looking from the harbour towards city.



Figure 5.20: Concept view from the harbour showing new architectural interventions in relation to the historic cranes.







Figure 5.21: Historic level luffing crane (left) and tripod crane (right) as seen today on Wellington's Queens Wharf.

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5.3 Framed views experiment

Enhancing frames views from the city to the waterfront were explored in order to provide a stronger place identity from the public perspective. These experiments originated from a trial and error process to test how new architectural interventions might be visually captured by using selected view frames from Brandon Street and Post Office Square, while also framing views of the historic cranes. The scale of the architecture determined the hierarchy of the framed view.

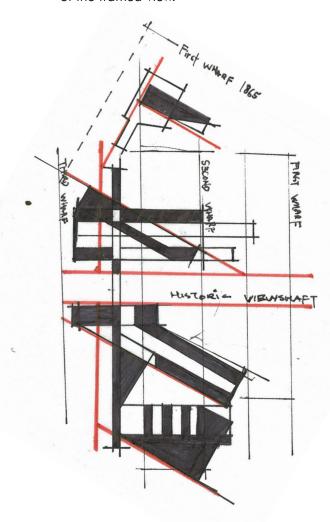
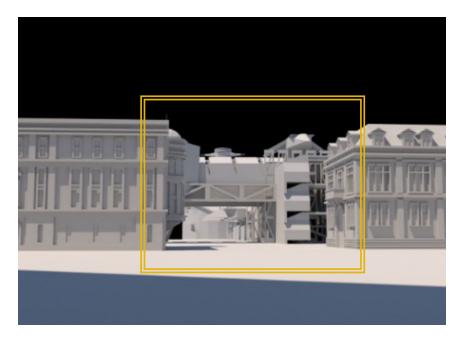


Figure 5.21: Historic level luffing crane (left) and tripod crane (right) as seen today on Wellington's Queens Wharf.





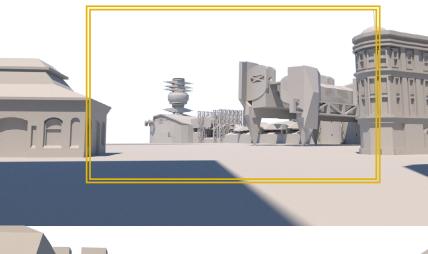








Figure 5.22: Framed views experiment indicating viewing from three locations, Post Office Square, Brandon Street and inside Queens Wharf looking over the historic cranes.

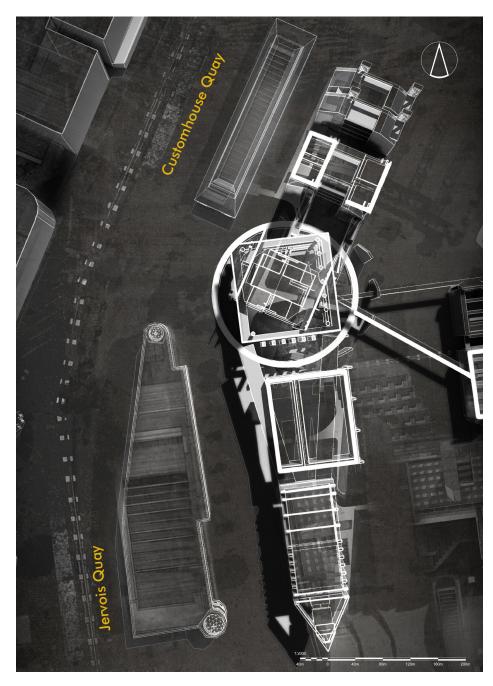


Figure 5.23: Experimental framed view with top section perspective cut.

A partial detail experiment was carried out on just a segment of the design by incorporating view frames from an aerial perspective relating to the proposed new building grid system.

Strengths

The new intervention was oriented in accordance with the line of Jervois Quay and Customhouse Quay, creating a node at the centre of the new intervention where the meeting point of two modules is coming from different directions.

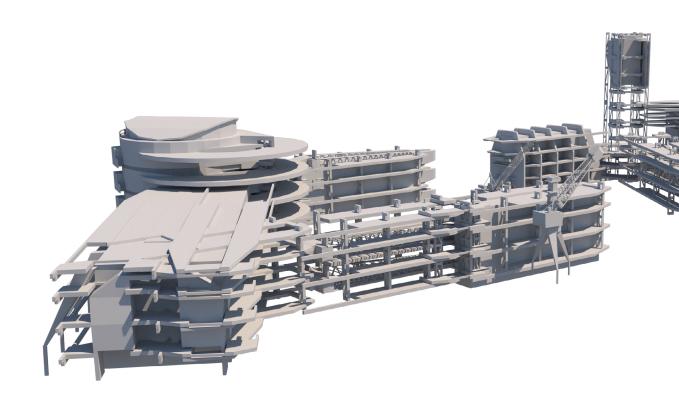
Weaknesses

The experimentation seems to be somewhat ambiguous as it overtakes the existing building on the north that is not included in the research site. The form of a square and the circle as an "anchor point" cause the intervention to shift from one angle to another, becoming too dominant.

5.4 Inside-Outside

"[Cedric Price's Fun Palace] was not a museum, nor a school, theatre, or funfair, and yet it could be all of these things simultaneously or at different times."

— Stanley Mathews, 2005



The idea of Cedric Price's Fun Palace and Renzo Piano's Georges Pompidou Centre played a significant influence on the concept of inside-outside, exposing the interior activities to the outside. This idea contributed to experiments exploring how the program can become exposed from inside to outside by architecture. This helps to achieve the objectives for the research proposal by inviting the everchanging programmes to participate in the site identity of Queens Wharf.

Based on Price's theoretical approach, the first experimental attempt looked to create an exposed skeleton of the model. The idea of this was to allow the ever-changing program to be exposed. This idea will also enhance public awareness of international yearly events such as the World of Wearable Arts (WOW) happening in the TSB Arena.



Figure 5.24: Experiment of *Inside* outside where only the building's skeleton is revealed.



Figure 5.25: Plan view of Inside-Outside master planning experiment 1.

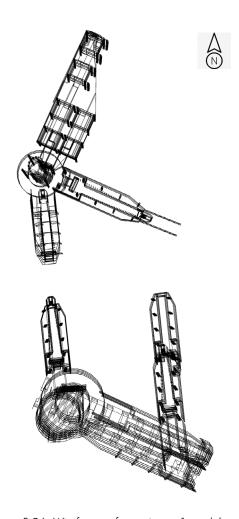
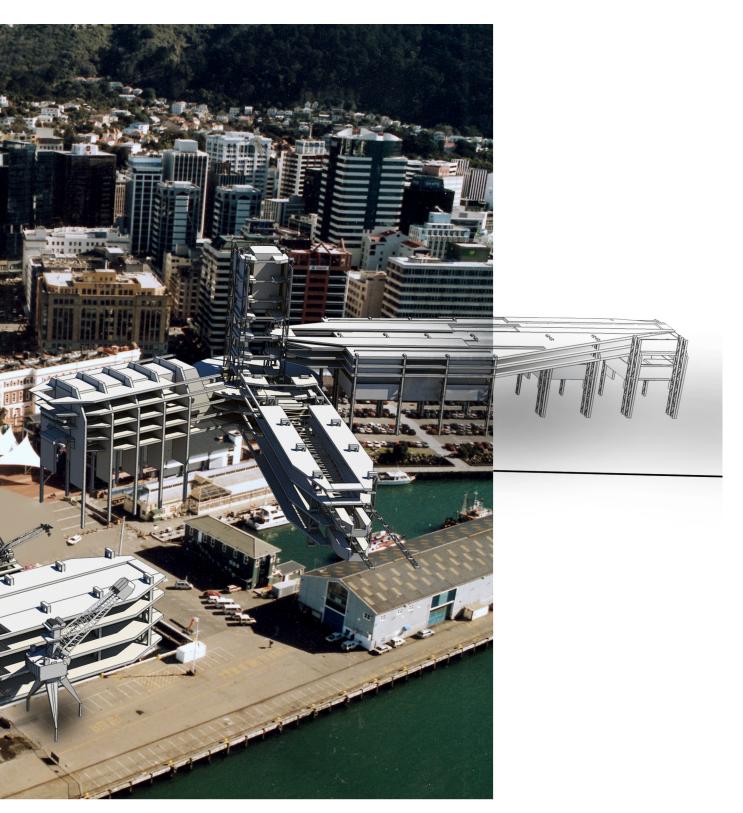


Figure 5.26: Wireframe of experiment 1 model.

The preliminary design experiment was then placed on Queens Wharf for further development. The design intervention was expanded towards the northern part of Queens Wharf to enhance its scale proportion. Both southern and northern buildings together established a connection between the urban grid line and the interventions orientations.

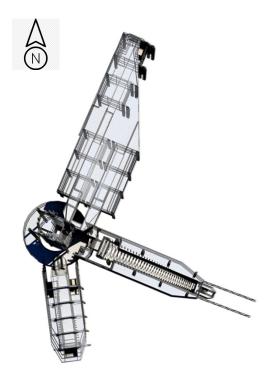




 $\label{prop:prop:signature} \mbox{Figure 5.27: Experimental model integrating with surrounding context.}$



Figure 5.28: Plan view of Inside-Outside master planning experiment 2.



"Restoration, to reveal the building at a particular point, is as much about creating an image as the design of the original building had been."

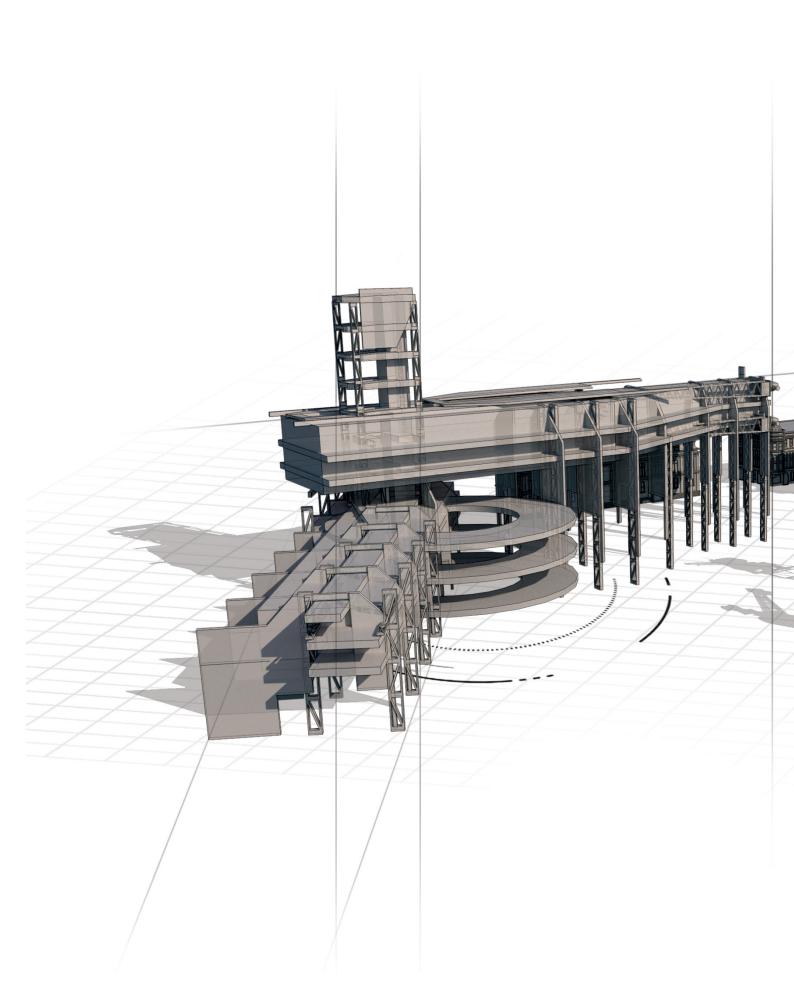
- Jennifer Hill, 2004

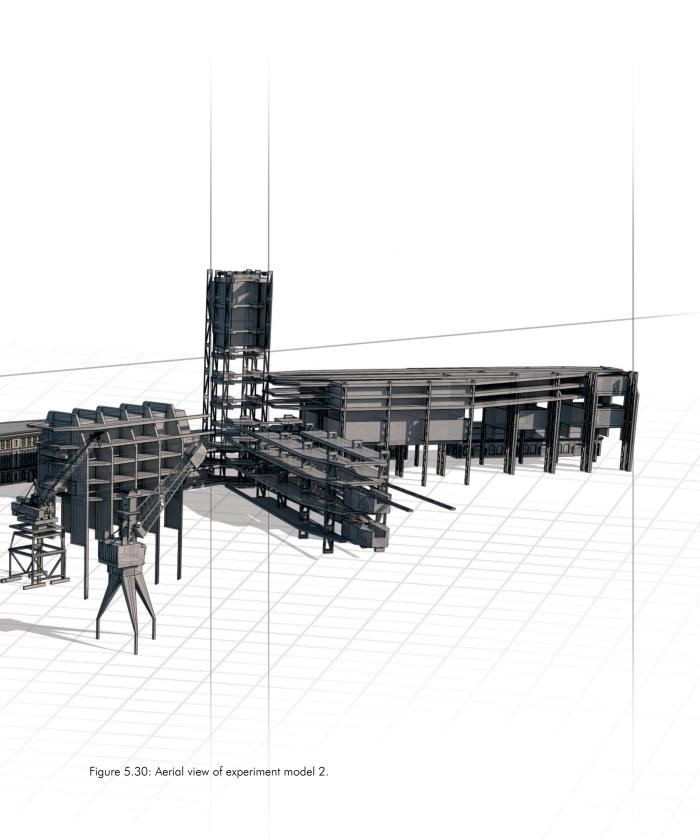


Figure 5.29: Wireframe of experiment model 2.

The approach of inside-outside continued to be explored and developed further. The preliminary design experiments relating to this Research Objectives how architecture could integrate the new and old in order to establish a strong relationship between the new intervention and heritage buildings such as the Wellington Museum and Wharf Office (Shed 7).

Heritage buildings contribute significant identity to the site. The preliminary design idea was to allow heritage buildings to be seen from the human perspective from the direction of Post Office Square and also from the harbour view.





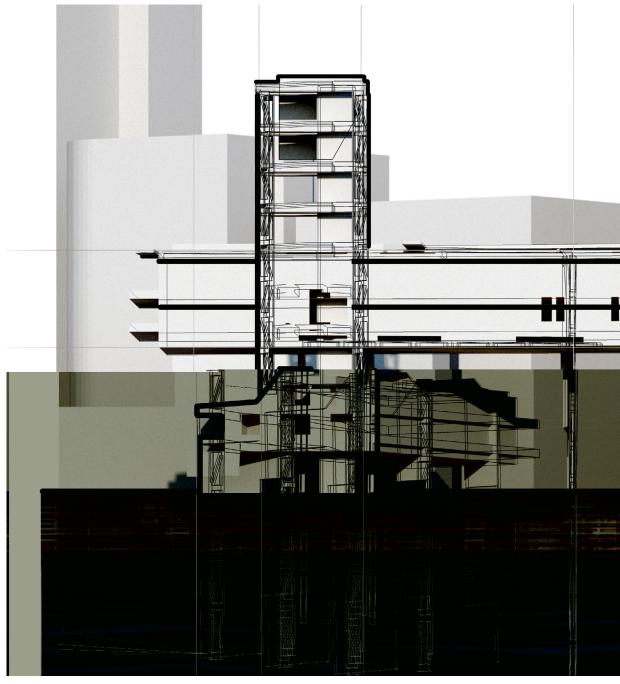
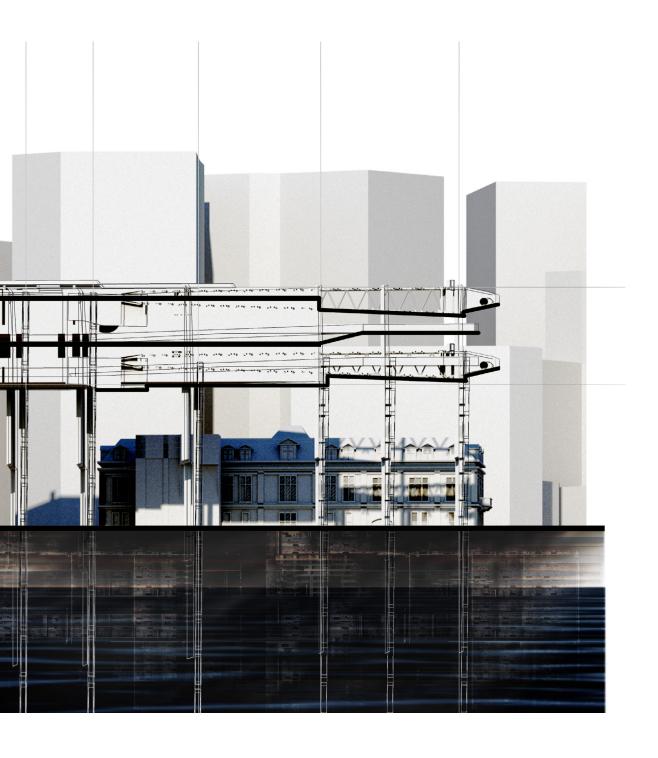


Figure 5.31: Sectional perspective of experiment model 2.

This preliminary design experiment explored raising the new architectural intervention by integrating pilotis for support. The elevated layers would avoid the heritage buildings being overshadowed by new layers of architecture. This would also enable the historical buildings to be appreciated when viewed from Lambton Harbour.



5.5 Entry Foyer

"Another category of solids in the city is formed by directional or edge-defining buildings that are generally nonrepetitive, specialized forms, often linear in configuration. These could be buildings that are intentionally designed to violate the predominant field and adjusted to face a boulevard, circle, or square, or to establish the edge of a district."

— Roger Trancik, 1986

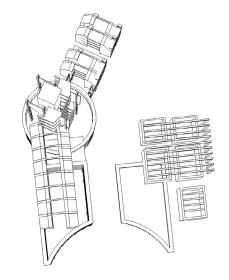


Figure 5.32: Experimental model establishing entry foyer for Queens Wharf.

The Preliminary Design experimental Master Plan integrates the idea of using a module to create program spaces for the site. On the southern side of Queens Wharf, the massing model houses the Events Centre where the sphere becomes an anchoring point holding two adjacent elements to the east and north. Another module was added on the northeastern side of the Event Centre to accommodate more exhibition space.

On the northern section of Queens Wharf was located a new hotel and indoor sports program. The hotel module is placed on the west and indoor sports module on the east. The hotel module follows the harbour grid line, and therefore acts as an additional pivot point. The idea of having the Indoor Sports module located at the edge of the wharf was because the kayak activity requires water access.

A circular courtyard space was formed from the shape of the northern prototype and the southern prototype. The centre courtyard on Queens Wharf's central axis becomes an entry foyer that establishes a transitional passage for the public to the edge of the Wharf.



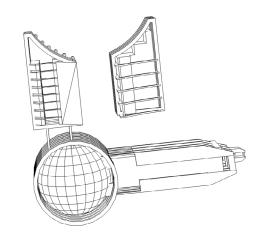


Figure 5.33: Wireframe of experiment model.

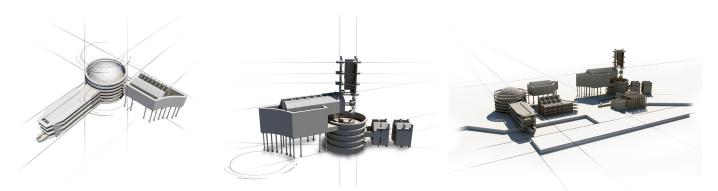


Figure 5.34: Series of experimental elements that forms the master plan.

5.6 Liminal Threshold + Vertical Elements

"so great is the incompatibility between the profane and the sacred worlds that man cannot pass from one to the other without going through an intermediate stage."

—Arnold Van Gennep, 1960



Figure 5.35: Liminal threshold experiment (aerial view).

The strategic location of the research site, Queens Wharf sitting on the edge of land and sea, has provided the opportunity for an important liminal threshold approach. New architecture interventions can act as framing devices to help provide advantage points in order to enhance the liminal threshold concept.

The initial experiments for this approach looked at placing tower-like modules on the side of the main wharf axis to create a column-like threshold. The "tower-like" approach can provide benefits to the idea for the new proposed hotel program. These two elements become a framing device when looking from the harbour, by creating a void in between.





Figure 5.36: (Right) Tower-like experimenting models.





Figure 5.37: Gateway experiment looking from Brandon Street towards the harbour.

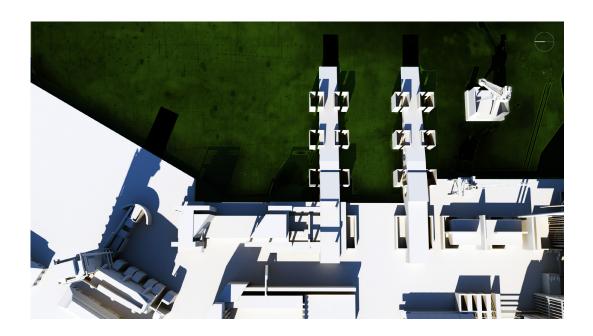




Figure 5.38: Diagram indicating shadow casting experiment. Image 1 is on PM time zone and image 2 $\,$ is on AM time zone.

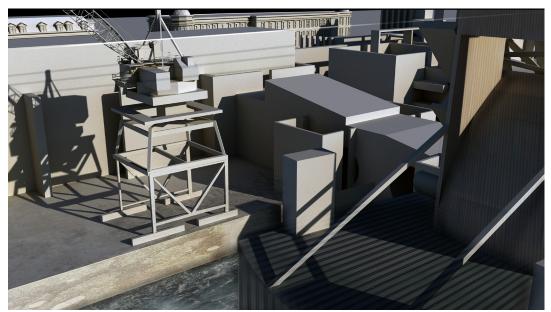


Figure 5.39: A view from the top of the tripod crane towards the level luffing crane.



Figure 5.40: A view from human perspective towards a tower-like new intervention.

A quick experiment was carried out to test how does the new intervention of vertical elements respond to the shadow effect throughout morning and evening time zones (Fig 5.38). During the experimentation of the vertical element in the new architecture intervention, views were captured to test the scale of human

perspective from one higher point to a lower point or vice versa (Fig 5.40). In Fig.5.39, the frame is captured looking towards the historic level luffing crane and new architectural interventions. Both elements create a comparison between the new and old.

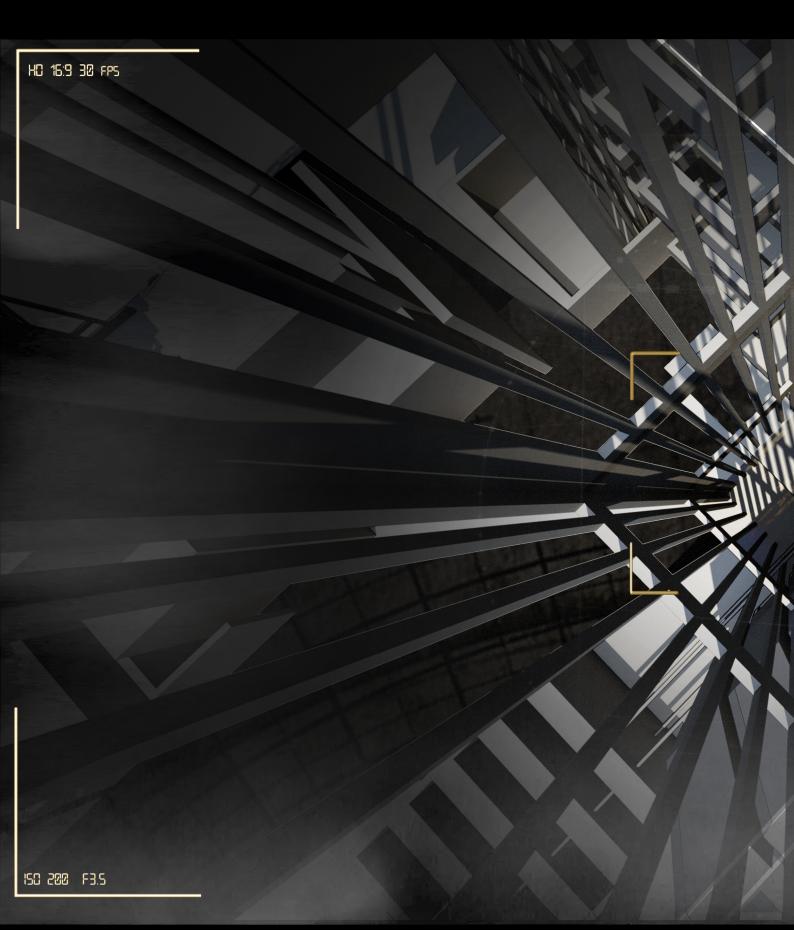
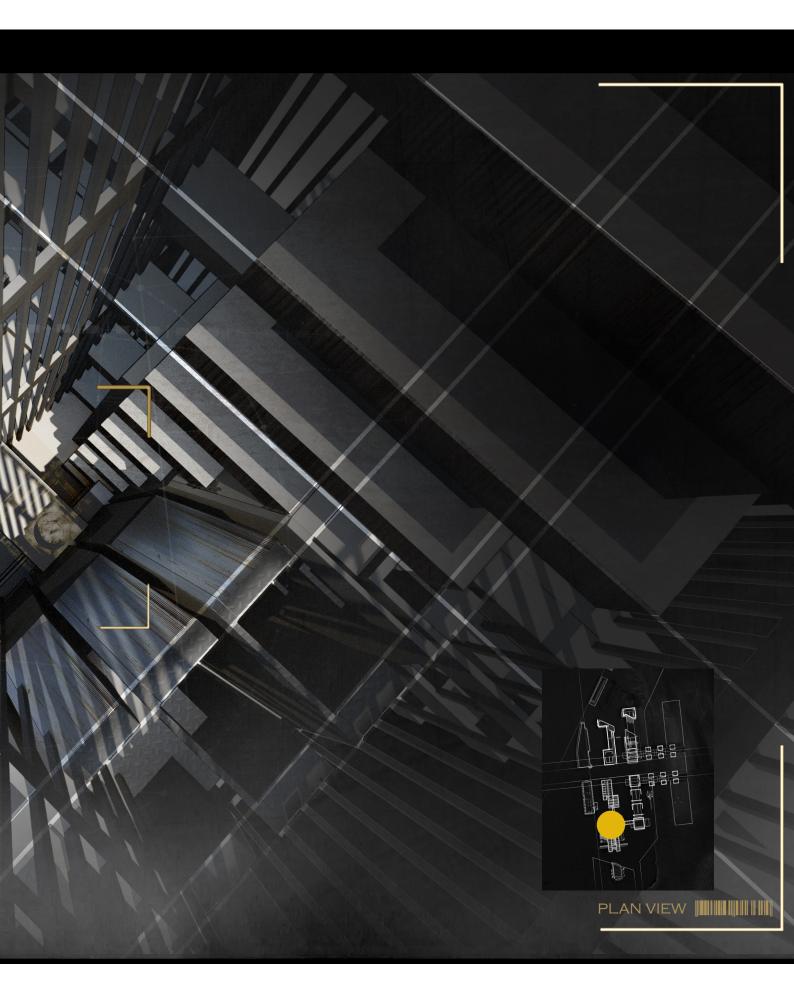


Figure 5.41: A framed view was captured looking down one of the new intervention service core vertical elements.



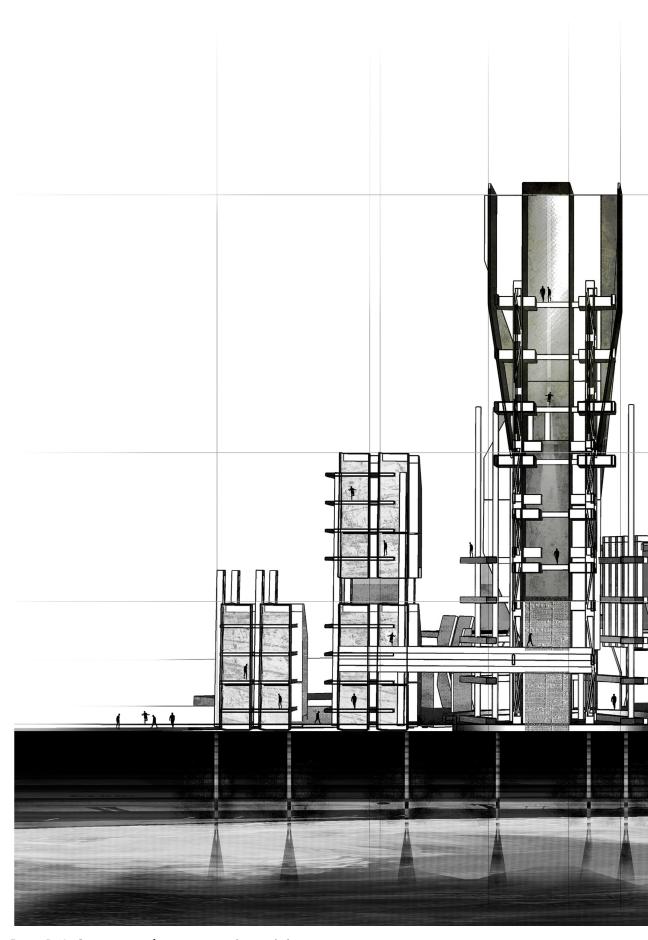
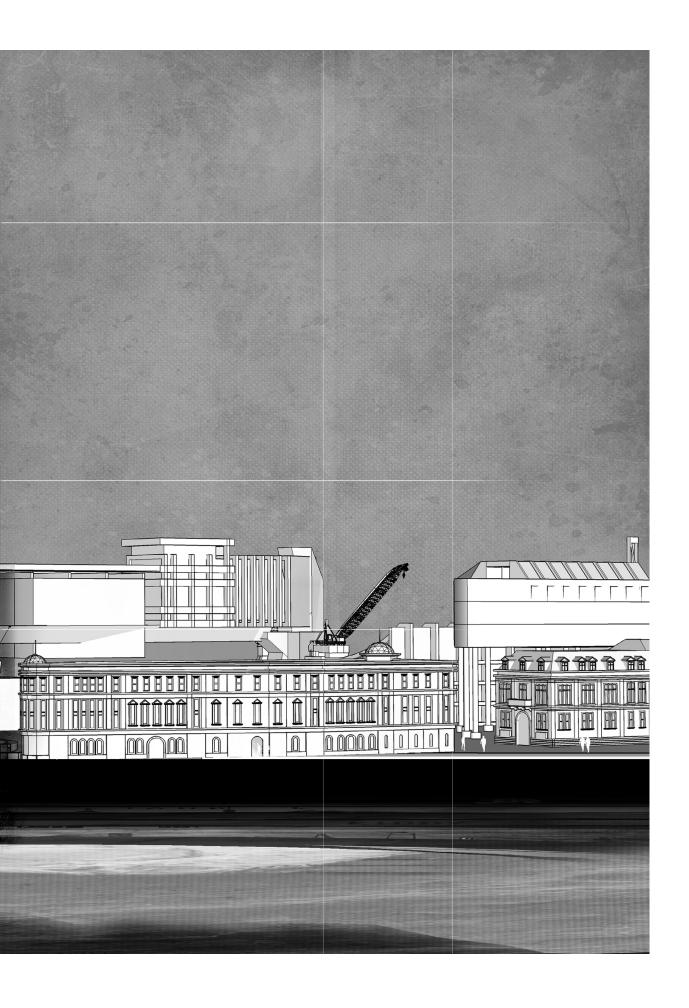


Figure 5.42: Cross section of an experimental vertical element.



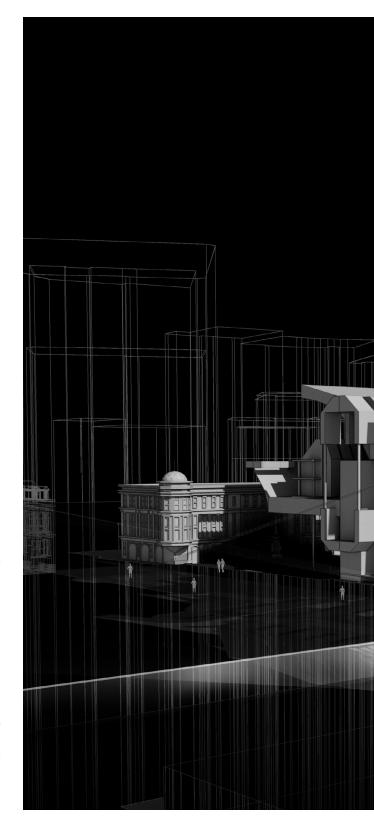
5.7 Stand-alone Element



Figure 5.43: Experimenting with master plan 1 towards the "stand-alone" concept



This experiment is to create a new architecture intervention as a stand-alone element. Each element has its own identity instead of the whole research site having the same identity. This experimental approach is to create a sense of uniqueness for each building to make it look entirely different from another.



Strengths

The new intervention has integrated both land and sea, blurring the boundaries in between the two elements. The ideas of exposing inside activities are incorporated at the upper level of the new intervention.

Weaknesses

The new intervention did not address any of the historical qualities of the site. Also, the height of the new intervention will cover the harbour view from the apartments in the Wellington Harbour Board Wharf Office building.

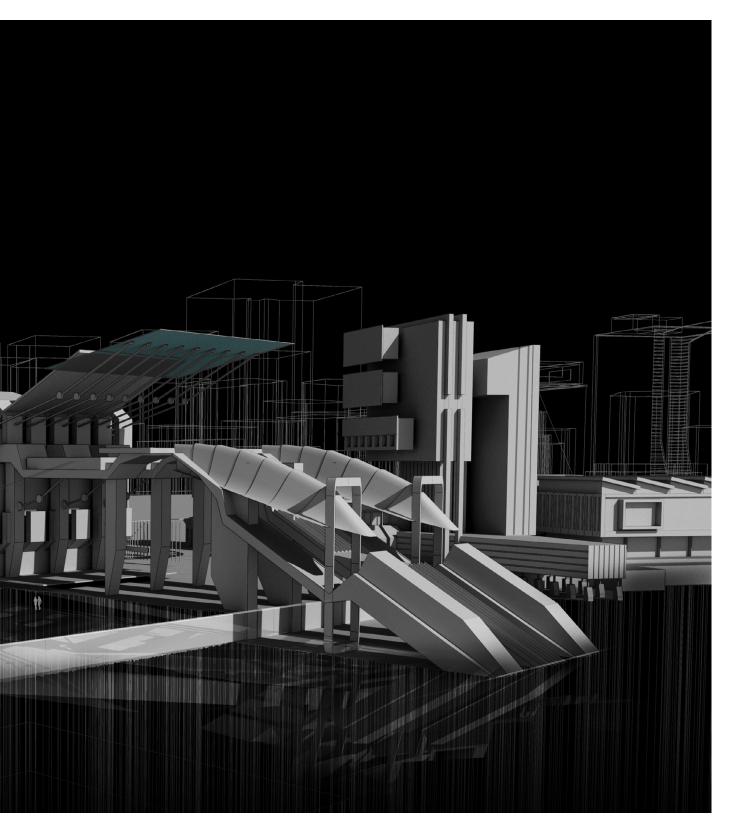


Figure 5.44: Perspective view of the new intervention of indoor sports centre, looking from the harbour towards the city.





Figure 5.45: Experimenting with master plan 2 towards the "stand-alone" concept (aerial view 1).

Strengths

The new intervention has invited more details and higher complexity to it. Larger public space at the centre of Queens Wharf makes the site more welcoming.

Weaknesses

It has not addressed any pivotal point that aids the shifting harbour grids. The new intervention seems over complex and does not represent any identity from the site and the heritage buildings. The large volume of the new intervention has completely blocked the view of the heritage buildings when looking from the harbour to the city.

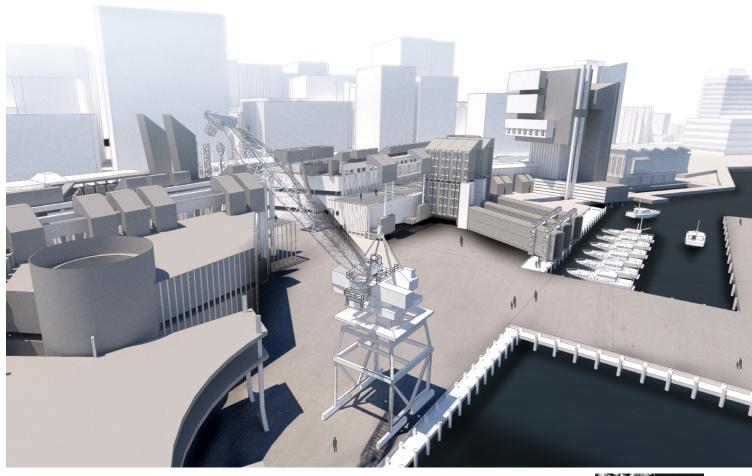
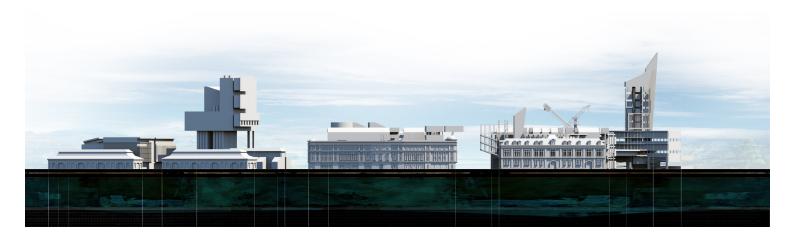


Figure 5.46: Experimenting with master plan 2 towards the "stand-alone" concept (aerial view 2).





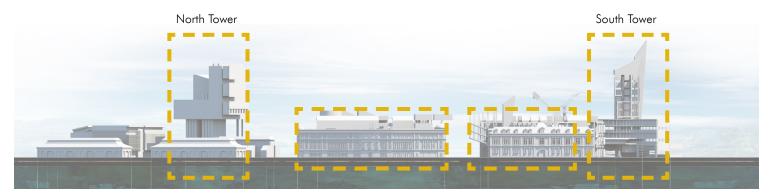




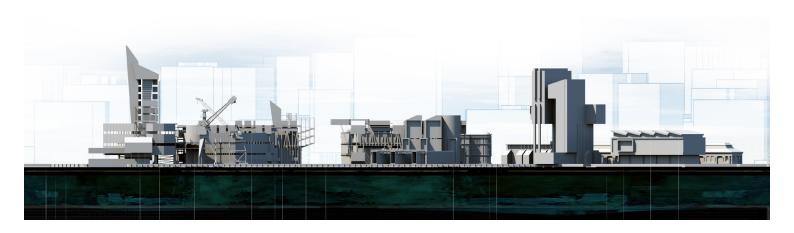
Figure 5.47: Street elevation looking towards the harbour direction.

Strengths

A preliminary form of new architecture intervention, it is derived from the industrial nature of the site. The two tower elements that are located on the north and south form a framing device, and then there is the negative in between. The two horizontal elements also act as a farming device to those smaller view frames in the centre.

Weaknesses

The experimental process relating to the north tower has exceeded the boundary of the site. When viewed from the city towards the harbour, the historic qualities of Wellington Harbour Board Wharf Office (Shed 7) and Wellington Museum have been lost. The new intervention has a lack of functionalism.



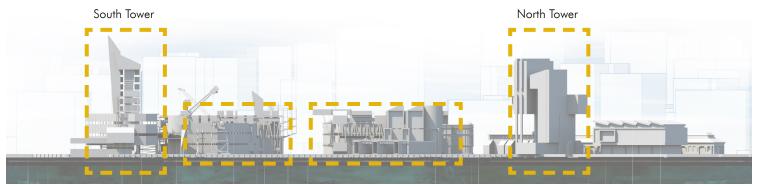


Figure 5.48: Street elevation looking towards the city from the harbour direction.







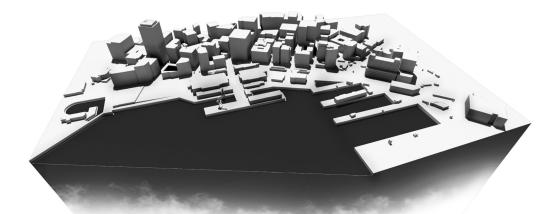


Figure 6.0: A 3D model of Wellington's Lambton Harbour.

The Developed Design chapter brings together the ideas and reflects upon the results of the preliminary design experiments. The Developed Design incorporates the following newly developed facilities: Hotel Block A, Hotel Block B, Indoor Sports Centre, Rock Climbing and Kayaking Facilities, and a new Events Centre.

The principal Research Objectives of this design-led research thesis are:

- 1. To implicate historic architectural features into new architectural interventions so that the historic buildings are fundamentally important to understanding the new and vice versa by integrating the new and the old in ways that present all the stages of the site's evolution as important chapters in its overall tale;
- 2. To expose interior programmes to the outside to establish architectural identity through programmatic visibility;

- 3. To establish new architectural interventions that act as 'pivots' to help make sense of conflicting grid alignments;
- 4. To arrange the architecture interventions as a framing device and an important liminal threshold between the opposing conditions of land and sea.

The first step involved enhancing and integrating the relationship between old heritage and new interventions. New interventions on the southern end of Queens Wharf were elevated above ground level and supported by pilotis. Interventions on the northern end integrated voids in order to see through to the historic Shed 7 from the direction of the harbour view. The integration of voids also allows residents living in the apartments in Shed 7 to enjoy the harbour view. This elevating and penetrating approach to the new interventions encourages better appreciation of the historic buildings because they were originally designed to face the harbour.

The second step encouraged the tourist or public to fully appreciate and visually engage with the activities and programs that are happening on the site by incorporating materiality and adjusting orientations to help contribute a higher level of human-scale visual interaction within the space. The original Queens Wharf Retail and Events Centres were mainly constructed of reinforced concrete and steel that covers up each entire building apart from the glass entrance spaces. By strategically composing transparent materials and penetrations, the interior programmes of the TSB Arena Events Centre were exposed outside and in this way, ever-changing interior programmes helped to establish architectural identity through programmatic visibility.

The third step provided viewers with a sense of gateway when looking towards the harbour and vice versa. The main journey to Queens Wharf is by entering the historical gate and walking along the central axis of Queens Wharf. The current architecture does not take advantage of the threshold site condition of land and sea. These elements should be considered vital to address, as they are part of the site's unique identity. The idea was to conceive of architecture as a framina device that frames the wharf's central axis. The approach was accomplished by creating two vertical elements set as a frame boundary. These primary vertical elements house the hotel program, which is a new program proposed for the site.

The fourth step was to accommodate a hotel program and indoor sports facilities along the northern boundary of the site. An architectural core will be integrated into the hotel to provide services for the hotel and to enable guests to gain access to their hotel rooms. The new architectural intervention of the indoor sports program for rock climbing, indoor soccer, and kayaking will be situated along the water's edge of Queens Wharf. The core on the northern end of the site will allow new architecture to establish an anchor point to the shifting harbour grid from Customhouse Quay to Jervois Quay.

Proposed Space Requirements (volume):

Indoor Sports Facilities

Rock climbing 9,700m3 Indoor soccer 6,800m3 Kayak rental 2,500m3 Bike rental 1,200m3 Other facilities 300m3

Event Centre

Main event hall 30,000m3 Exhibition hall 8,000m3 Other facilities and amenities 8,000m3

Hotel

Main hotel room block 60,000m3 Secondary hotel room block 45,600m3 Lobby and restaurants 10,000m3 Other facilities 4,000m3

6.1 Hotel Block A and B

The hotel program is a new proposed program that will be situated at the location of the current Queens Wharf Retail Centre. This program has been proposed previously by developers in 2006, but the proposal was rejected by the Wellington court and the Waterfront Watch. The reason for rejection was primarily because the size of the hotel was too big and it was felt that it might not be responsive to the heritage buildings on the wharf and would also result in significant loss of public space. Also, the Waterfront Watch does not want traffic access on the outer T of Queens Wharf, which is where the hotel proposal was located.

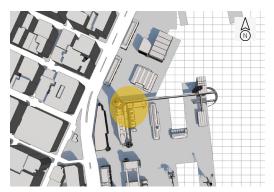


Figure 6.1: Site indicating location of proposed new Hotel program.

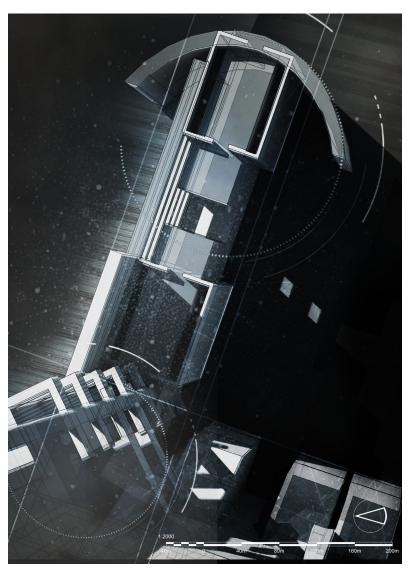


Figure 6.2: View from top of hotel floor to the ground.

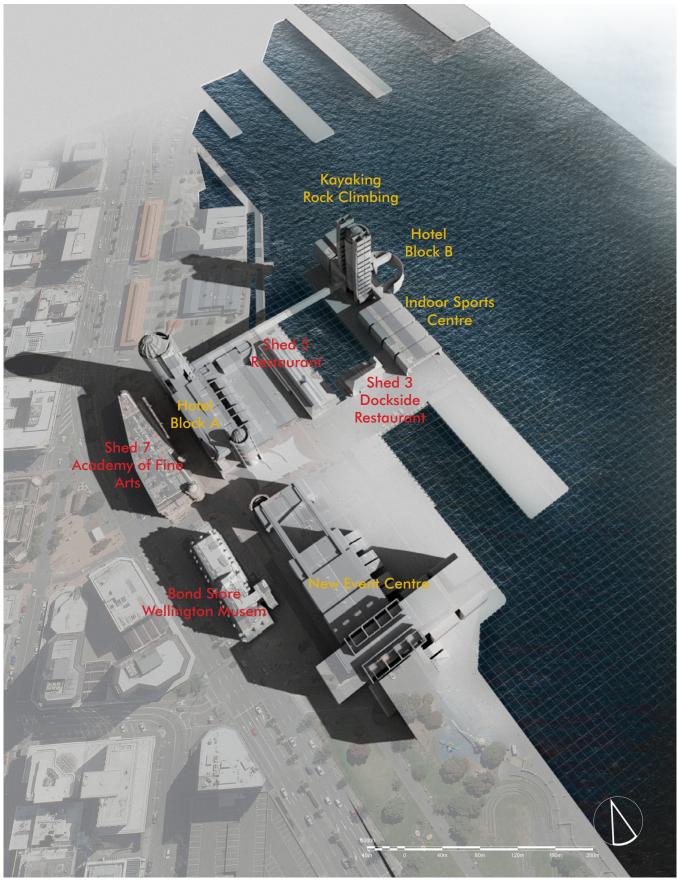


Figure 6.3: View of master plan of Developed Design. Red font represents existing building; orange font represents new architectural intervention.

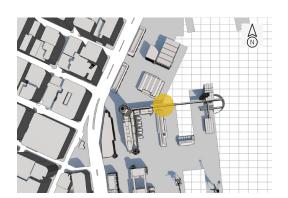


Figure 6.4: Site indicating Hotel Bridge.

The new hotel is being proposed in order to help reinstate and aid the failing Queens Wharf Retail Centre. The new intervention has been divided into two separate blocks, spreading across the Outer T of Queens Wharf. The location of Block A is in the northwestern corner of Queens Wharf (next to shed 7) and Block B is on the northeastern side, the Outer T of Queens Wharf. A bridge has been designed as a link between the two blocks so that human activity can be observed from above and below. This approach aims to accomplish programmatic visibility as one important step in enhancing place identity for this site.

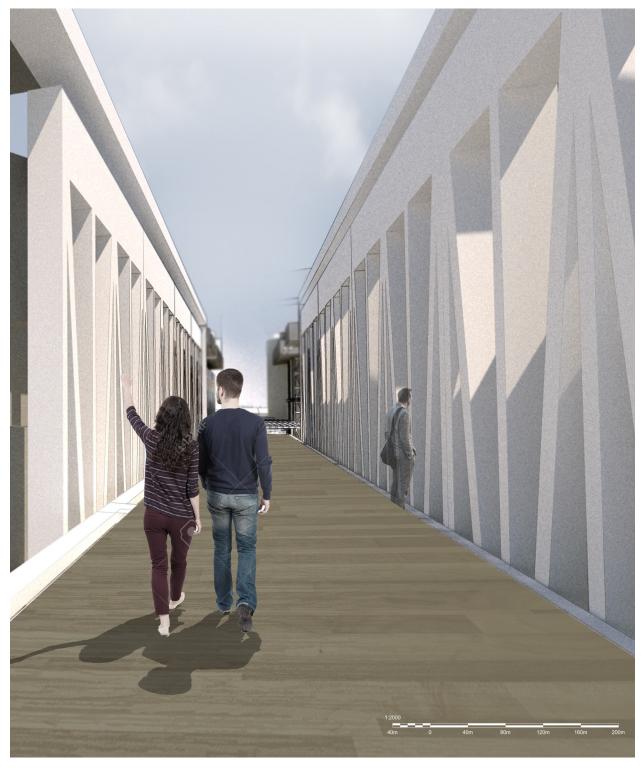
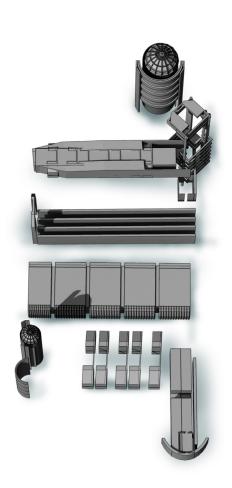


Figure 6.5: View along the Hotel Bridge from Block A to Block B.

By elevating the top level of the hotel rooms in Block A, they establish a framed view towards the historical Shed 7 from the harbour. This brings together layers of new and old contemporary and heritage buildings integrated together to achieve the objectives of this research investigation.







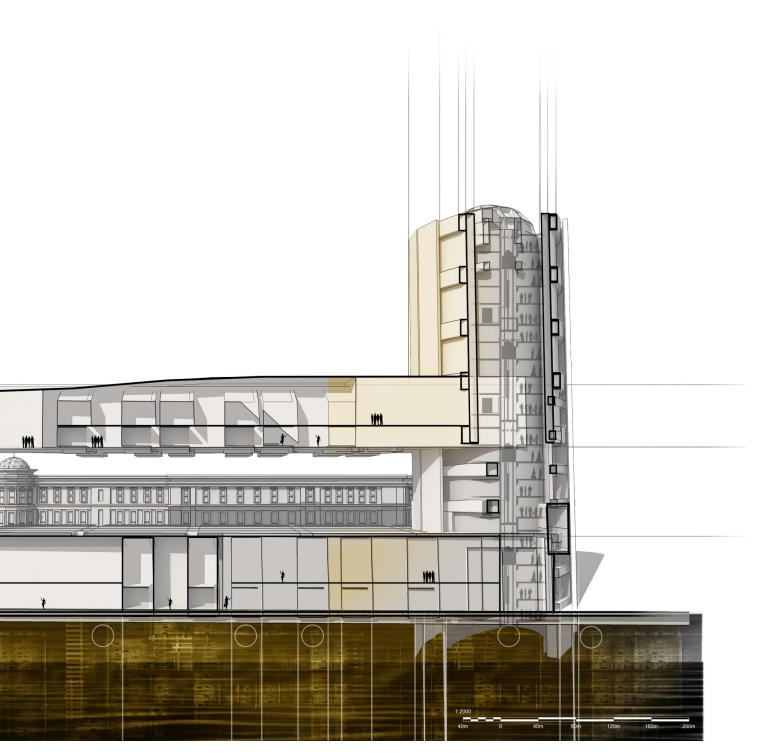


Figure 6.7: Sectional cut from developed hotel program, showing framed view of Shed 7 through Hotel Block A.

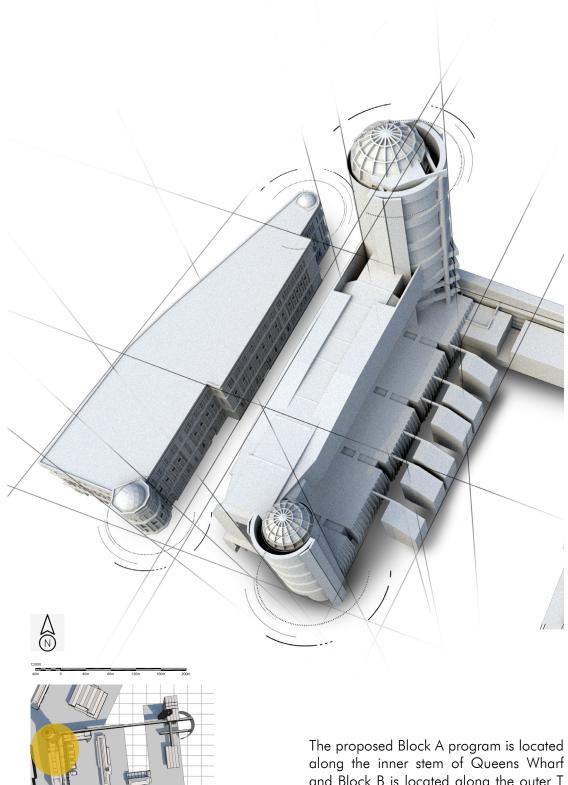
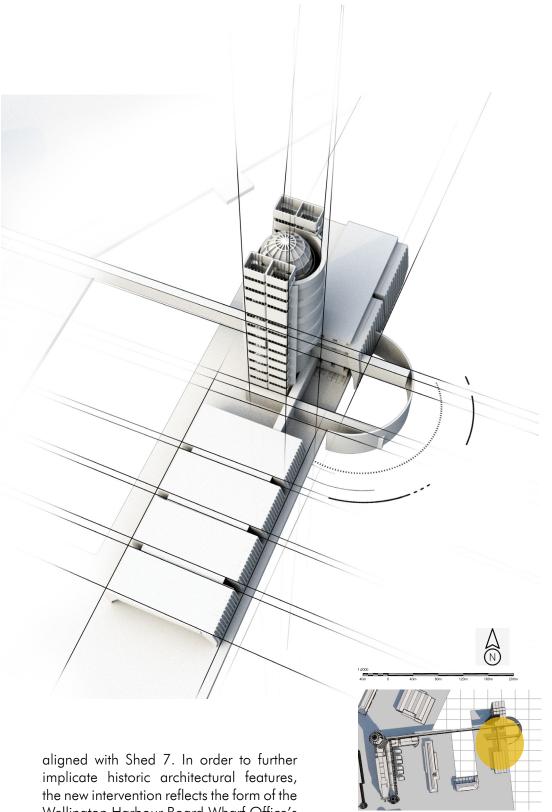


Figure 6.8: 3D model of Hotel Block A.

along the inner stem of Queens Wharf and Block B is located along the outer T of the wharf. Separating the hotel into two blocks helps to enhance and rejuvenate Queens Wharf by creating more outdoor space while not blocking views of the harbour from Post Office Square. Parts of the heritage Shed 7 building will be visible from the harbour because the hotel incorporates integrated penetrations



aligned with Shed 7. In order to further implicate historic architectural features, the new intervention reflects the form of the Wellington Harbour Board Wharf Office's oriel window and northern curved façade. The new intervention reinterprets those forms as the cores of the architecture for the new hotel program.

Figure 6.9: 3D model of Hotel Block B.

6.2 Indoor Sports Centre, Rock Climbing and Kayaking Facilities

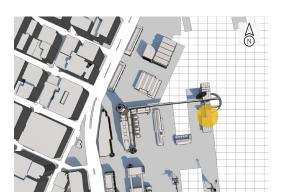


Figure 6.10: Site indicating proposed location for indoor sports program

The new indoor sports centre is located next to the Block B hotel program. Situated at the outer T of Queens Wharf, both Wellington Indoor Sports and Freg's Kayak and Rock Climbing share a common sports facilities. This is to allow easy access by the visitor. The idea for indoor soccer facilities was to integrate concepts from Price's Fun Palace, exposing the inside program to the outside to allow visitors to have visually engaging experiences, while interacting with the environment. The location of the new intervention sits on the outer T as it requires water access for kayaking facilities.

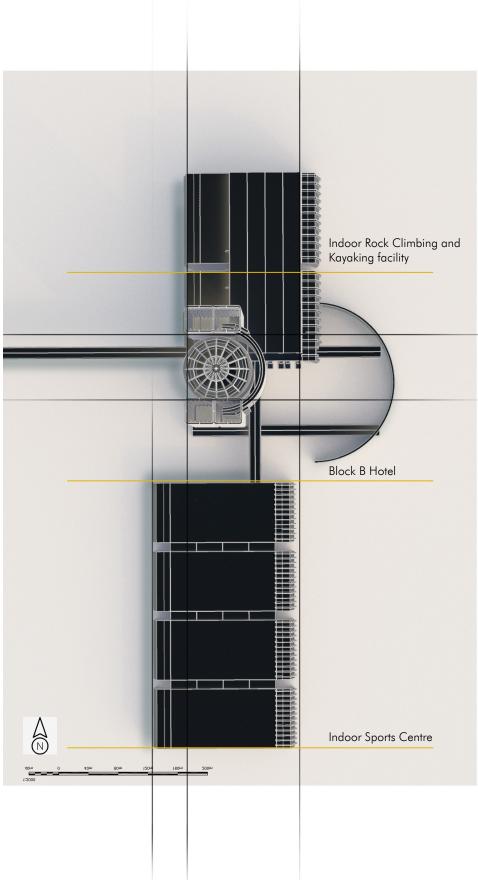
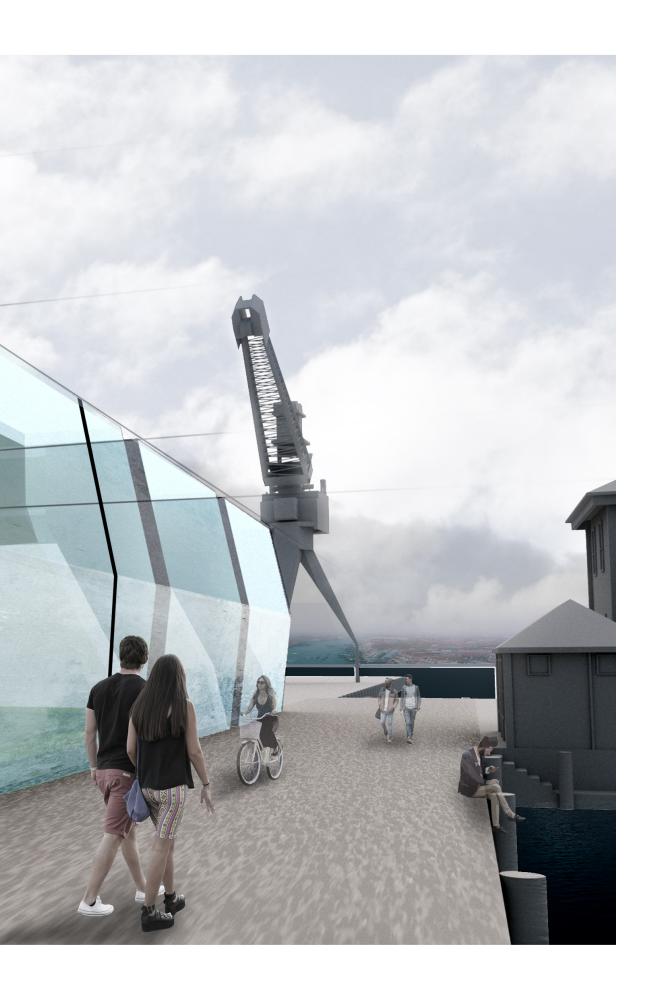


Figure 6.11: Developed plan indicating proposed Block B Hotel, Indoor Rock Climbing, Kayaking Facility, and Indoor Sports Centre.





Figure 6.12: Perspective view showing the idea of exposing interior programs to the outside by integrating transparent material.



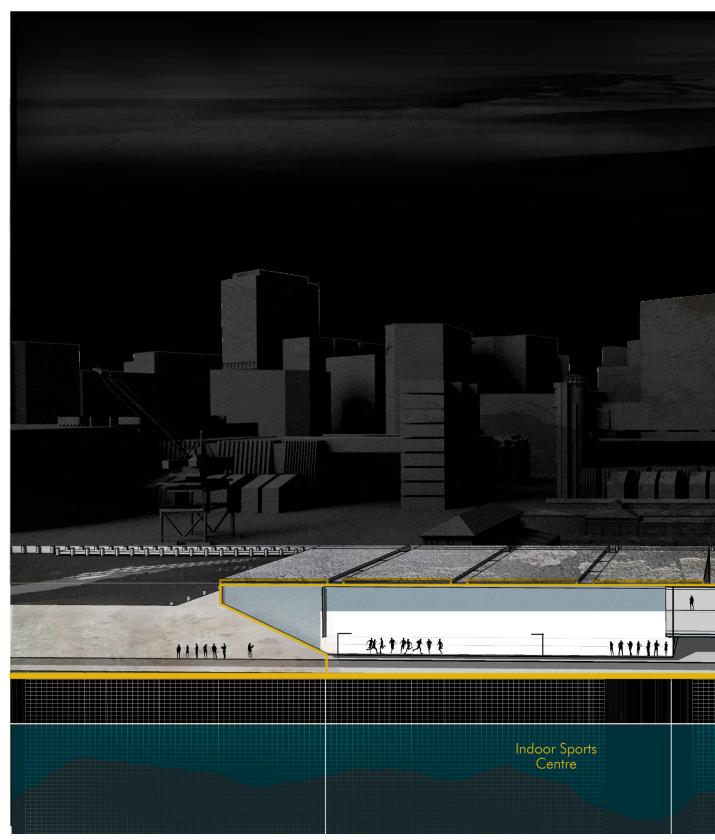
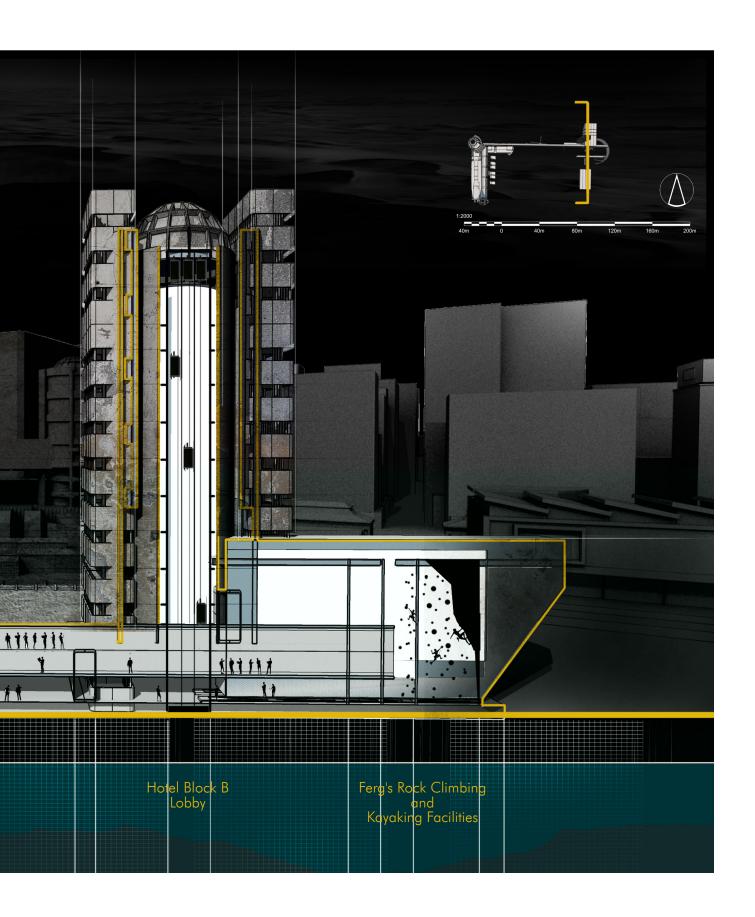


Figure 6.13: Sectional view looking west of new hotel Block B lift core at the centre, indoor soccer to the south and indoor rock climbing to the north.



6.3 Newly Developed Events Centre

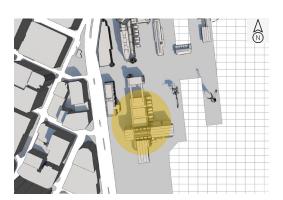


Figure 6.14: Site indicating proposed location of new Event Centre.

The continually changing programs in Queens Wharf's TSB Arena are considered to be one of the site's identifying feartures. Because these programs are completely hidden by the existing architecture, they do not currently contribute to place identity. The approach of the new architectural interventions is to demolish the old Event Centre and Shed 6 and design a completely new intervention that allows the ever-changing programs to be completely visible from the outside.

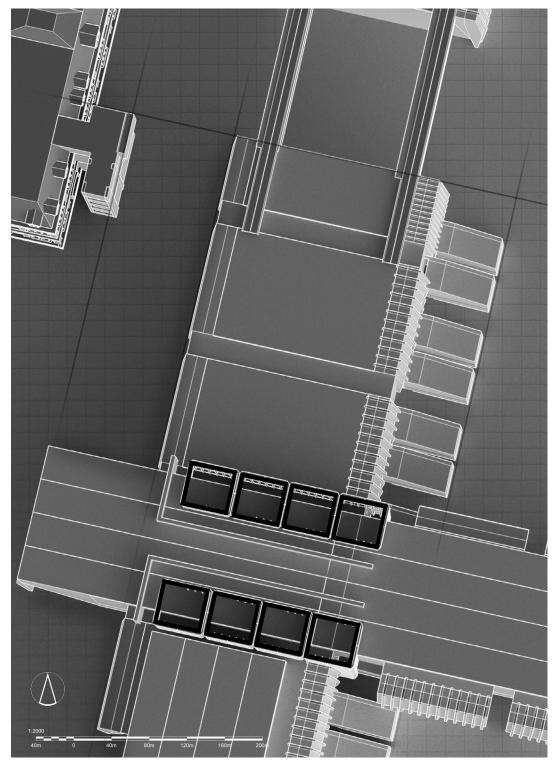


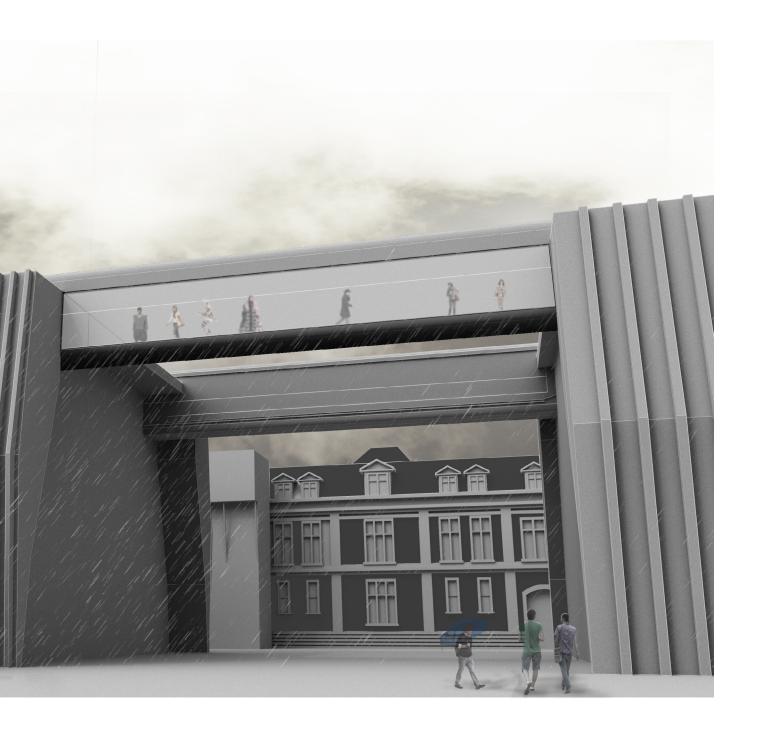
Figure 6.15: Top view of Events Centre.

The new architecture intervention is based on ideas from Price's Fun Palace, integrating playfulness and exposing interior programmes to the outside. The whole intervention for the new Event Centre integrates and exposes key features. The inside-outside approach is particularly suitable for the yearly international fashion show event, World of Wearable Arts (WOW), which incorporates movement and audience activities.





Figure 6.16: Perspective view of Events Centre with bridge and void to establish integration with the site's heritage features.



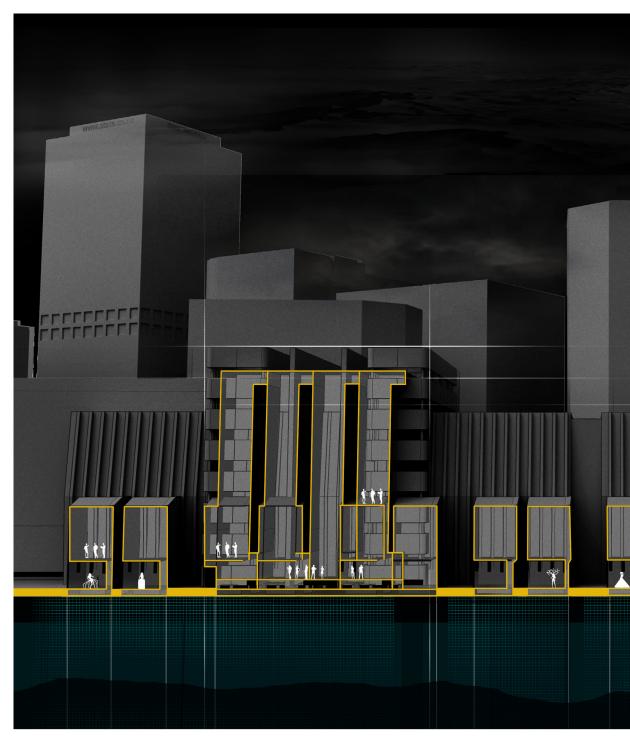


Figure 6.17: Sectional view of the Events Centre looking west, enabling visitors outdoors to see events such as the World of Wearable Arts.



6.4 Conclusions and Critical Reflections



Figure 6.18: Diagram locating framed view as seen from Brandon Street looking toward the harbour.

The framed view shown in Figure 6.18 looking towards the harbour provides an example of how old and new have been visually integrated throughout the new design. The tower element seen in this framed view has a similar shape to the historic Wellington Harbour Board wharf office's curved window. This new intervention serves as an architectural core that provides services and access to the hotel floor.



Figure 6.19: Framed view from Brandon Street looking towards the harbour.



Figure 6.20: Diagram indicating area of shifting grids

By establishing an anchor point for the shifting grids along the harbour grid on the northwestern corner, the new architectural intervention will act as an ordering device between the two shifting grids. The placement of the new intervention helps rejuvenate as well as evidence the shifting grids.

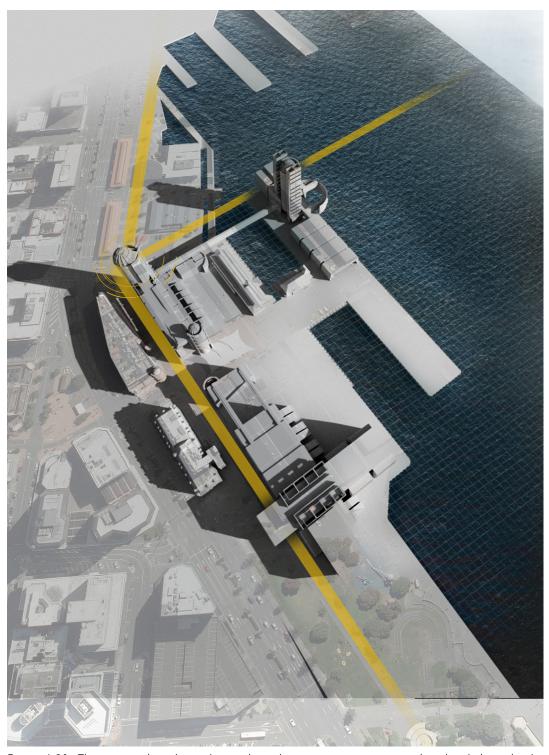


Figure 6.21: The master plan above shows where the new interventions are placed to help make the shifting grid make sense.

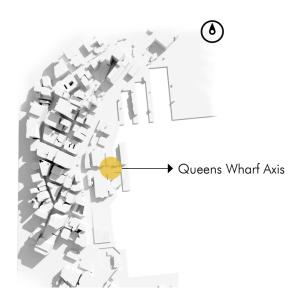


Figure 6.22: Diagram indicating view of the gateway approach.

The concept of blurring is particularly evidenced along Queens Wharf's central axis to the city and back to the harbour. In this way, the new architectural intervention acts as a liminal threshold between two elements, the land and sea. When looking towards the city from Lambton Harbour, more details are exposed in order to reveal the intricacy of the urban form. When looking towards the sea from the city, fewer details are revealed by the new intervention. This represents the harbour in opposition to the urban environment, while enabling the historic buildings of the Wellington Harbour Board and Wellington Museum to stands out.

The entire journey through the research site, Queens Wharf has contributed many aspects such as the heritage approach, programmatic visibility approach, pivotal approach and gateway approach. All these aspects have become the research's primary objectives, and the developed design achieved these objectives by the support of case studies. Some of the approaches apply to a single architectural intervention, while some apply to the whole concept plan. Overall the research site of Queens Wharf has become more understandable with all these approaches, and the Developed Design plays a significant role in answering the Research Question: How can a major urban centre establish place identity when its programmatic requirements are continually changing over time, its original ordering devices have become conflicted, and the identity of its original heritage buildings has become obscured or lost?

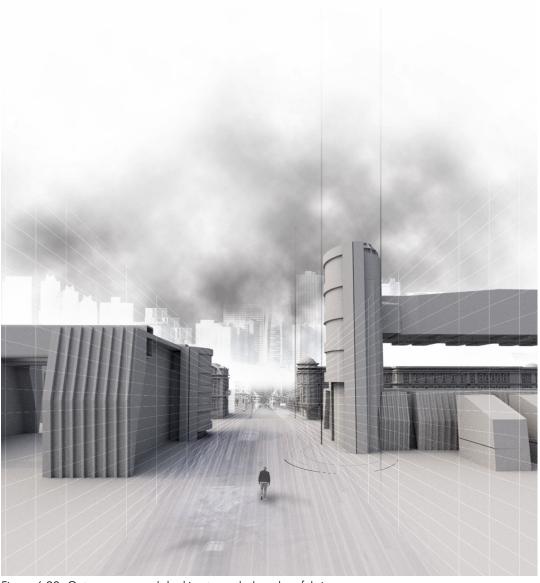


Figure 6.23: Gateway approach looking towards the urban fabric.



CONCLUSIONS AND CRITICAL REFLECTION

Most urban sites have developed their own unique, evolving historical identity. Because of rapid development, place identity can often become neglected or lost, becoming less responsive to the site's historical qualities and contexts. When architecture can contribute to enhancing site identity, the form and design often become more exciting and meaningful.

As for this research site, its place identity was lost due to the rapid development of conventional buildings that did not address the site's unique attributes and the continually changing programs in the Events Centre. These problems generated the principal research question: How can a major urban centre establish place identity when its programmatic requirements are continually changing over time, its original ordering device has become conflicted, and the identity of its original heritage buildings has become obscured or lost? The focus of this research involved the design of a new Events Centre, a new Hotel program and a New Indoor Sports Centre on Wellington's Queens Wharf. The intention was to transform the site from an unattractive collection of buildings that did not contribute in positive ways to the identity of the site to a site that evidences unique place identity, that is a thriving tourist attraction and that celebrates its continually changing programmes by exposing them to the outside.

Locations for public user spaces such as sports facilities, hotel and entertainment spaces needed to be carefully considered in relation to the conflicting urban grid system. The Developed Design explored various opportunities to not only develop an architectural form that responds to the shifting grid, but also to incorporate and celebrate the idea of being on the edge of land and sea.

When designing a vast urban space, various considerations have to be taken into account. The size of the site and the large number of buildings meant that the scope of the investigation was limited due to the time frame available.

Cedric Price's theories about architectural playfulness inspired this research

particularly in terms of how a new intervention for the Events Centre can be more visually interactive with the public. The idea of inside/outside provided the opportunity to explore this further, as well as to enhance the site's identity.

In conclusion, this thesis has analysed various experimental processes to achieve the principal aims and objectives. Because the area of this research is so vast, there is opportunity to continue this research in the future, especially by incorporating interior architecture and landscape architecture design. In this way, new design layers will contribute to changing and further rejuvenating this important research site.

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