an ICON of least resistance

The study into a contextually based architectural icon and its placement within a waterfront environment

Chi Lac Tran
Master of Architecture (Professional): 2017
AN ICON OF LEAST RESISTANCE

BY

CHI LAC TRAN

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

Victoria University of Wellington
School of Architecture

2017
Abstract

The purpose of the research is to explore the notion of iconic architecture and its contextual responsiveness within a waterfront environment. The underlying demand for iconic architecture can be witnessed throughout the world. These works are typically generated for the purpose of stimulating economic activity while responding to a need to exhibit an identity within a world dominated by global commercialisation.

The typical premise of such architecture is the creation of a distinct feature within the cityscape, which will draw attention to that location. The very word ‘icon’ typically carries negative connotations of ‘Starchitecture’, ‘exhibitionism’, and ‘pop culture’. Many individuals consider architectural icons as a disruptive element that removes itself from context. However, these unique structures are frequently being sought, regardless of the risk of failing to become ‘iconic’ and the potential to alienate itself within an urban setting.

The research will propose the intersection of iconicity and contextualism, to determine if the architectural icon can still retain it’s ‘spectacular’ calibre while being responsive to the local context. A set of design strategies will be established and distilled from the fundamental principles of iconicity and contextualism. These principles are considered to be ‘supportive’, which will increase the feasibility and success of the icon and its integration into our most prominent urban space - our waterfront sites.

A design case study will be subjected to the design strategies to determine their effectiveness. A variety of locations will be investigated due to their inherent differences in regards to context. These differences will foster alternative design approaches to both iconicity and contextualism.

The overall research suggests it may be possible to generate a contextually based icon within a particular waterfront context, using a relatively rudimentary building typology as a starting point.
Acknowledgements

I would like to acknowledge my family and friends whom have assisted and supported me through this entire process. I would also like to acknowledge and thank my highly knowledgeable Supervisor; Chris McDonald for his continuous support and input. Without his guidance, I do not believe I would have generated the thesis that I have.
# Table of Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>i</td>
</tr>
<tr>
<td>Review of Literature</td>
<td>02</td>
</tr>
<tr>
<td>Notion of the architectural icon</td>
<td></td>
</tr>
<tr>
<td>Precedent Studies - Group One</td>
<td>24</td>
</tr>
<tr>
<td>Prominent architectural icons</td>
<td></td>
</tr>
<tr>
<td>Design Exploration - One</td>
<td>38</td>
</tr>
<tr>
<td>Based on the notion of the architectural icon</td>
<td></td>
</tr>
<tr>
<td>Review of Literature</td>
<td>46</td>
</tr>
<tr>
<td>Notion of contextualism</td>
<td></td>
</tr>
<tr>
<td>Precedent Studies - Group Two</td>
<td>64</td>
</tr>
<tr>
<td>Prominent architectural icons within a waterfront context</td>
<td></td>
</tr>
<tr>
<td>Site Analysis</td>
<td>74</td>
</tr>
<tr>
<td>Analysis of the Dunedin context</td>
<td></td>
</tr>
<tr>
<td>Design Case Study</td>
<td>90</td>
</tr>
<tr>
<td>Urban scale - Overall site</td>
<td></td>
</tr>
<tr>
<td>Design Exploration - Two</td>
<td>104</td>
</tr>
<tr>
<td>Based on the context present at Dunedin’s waterfront</td>
<td></td>
</tr>
<tr>
<td>Design Case Study</td>
<td>112</td>
</tr>
<tr>
<td>Contextual scale</td>
<td></td>
</tr>
<tr>
<td>Design Case Study</td>
<td>124</td>
</tr>
<tr>
<td>Architectural scale</td>
<td></td>
</tr>
<tr>
<td>Design Case Study</td>
<td>144</td>
</tr>
<tr>
<td>Preliminary design</td>
<td></td>
</tr>
<tr>
<td>Design Case Study</td>
<td>174</td>
</tr>
<tr>
<td>Design Exploration - Three and Four / Developed design</td>
<td></td>
</tr>
<tr>
<td>Exegesis</td>
<td>200</td>
</tr>
<tr>
<td>Conclusions and Reflection</td>
<td>206</td>
</tr>
<tr>
<td>Bibliography</td>
<td>212</td>
</tr>
<tr>
<td>List of figures / List of references</td>
<td></td>
</tr>
</tbody>
</table>
Introduction

Research purpose and goals

Background:
Since the erection of the Guggenheim Museum in Bilbao by Frank Ghery, the notion of the 'Bilbao Effect' has been witnessed. The Bilbao Effect is a term used to describe a phenomena, in which city governments seek to revitalise their declining landscape by investing in speculative development projects. The aspiration of these developments is to employ an architecture that can gain the status of 'iconic' to assist in this urban gentrification, turning a once marginalised area into a distinct commercial and recreational location. The assumption is the potential for that intervention to gain global acclaim, therefore, producing a new identity for the city. A city that is 'spectacular' and is a 'cutting edge destination' (Patterson. 3291). These types of architectural works are continuously being requested and witnessed in a multitude of locations around the world - giving rise to the 'architectural icon'.

The architectural icon has since evolved from Ghery's Museum; however, they are still maintaining the notion of 'state of the art' architecture. Often rephrased as 'landmark building', 'signature building', 'character building of significant importance', or similar; they all parallel the ideals of an iconic building (Pipinis. 442).

The precise definition of the architectural icon can be enigmatic, depending on one's predisposition on the subject. Iconic architecture is generally defined and associated with contemporary works that are 'spectacular' in nature - a singularity imbued with "special meaning, while having the unique combination of fame, symbolism, and aesthetics" (Sklair, Iconic Architecture and Urban, National and Global Identities. 164).

However, Iconic architecture has gained notoriety and is often debated and criticized as it is (not only limited to) perceived to be an example of pure exhibitionism. The very word 'iconic' further contains negative connotations of 'elitism', 'pop culture', and 'Starchitecture'. Additionally, due to their dramatic disposition, they are often seen to be disrespectful and are contrary to the local aesthetic (Shaw. 236). Such an example can be observed at the Fondation Louis Vuitton Museum by Frank Ghery, in Paris. The Museum generated a poor

Fig. i.i
The Guggenheim Museum in Bilbao, Spain, which initiated the 'Bilbao Effect'.
The notion spawns from the belief that the city is a repository of cultural memory and building typologies. It is the search for regional identity and the post modernist rejection of objective truths and universal cultural narratives (Weston. 176).

In an architectural sense, contextualism can be defined as giving meaning to the various parts of a building through reference to it’s wider surroundings. Therefore, the research project will analyse and consider both iconicity and contextualism. The intersection of these two subjects may generate design strategies that can promote the success of an architecture, which is both distinct and respectful to the local context.

In essence, the strategies will promote the generation of a contextually based icon. The icon will be much more integrated into the urban environment, therefore, reducing the icon’s potential for alienation. Additionally, a contextually based icon may also exhibit the character of it’s location while being ‘spectacular’ - advertising itself in a positive manner at the local and international scale.

The strategies will be studied within the context of New Zealand, using Dunedin’s waterfront as the design case study. It is due to it’s current disposition - being moderately industrialised and disregarded as an urban space, it will lend a unique backdrop to ‘test’ the themes of iconicity and contextualism.

Therefore, the research question is:

*Can a building be both contextual and iconic within the context of Dunedin’s waterfront?*
Aims and Objectives:
The research will deal with the intersection of iconicity and contextualism to determine if it is possible to create a contextually based icon. It will be executed in a regimented and sequential manner due to the contentious and subjective nature of iconicity and contextualism. Primary themes of both subjects will be extrapolated from literature and distilled to generate a set of design strategies that can be applied to the design case study.

Multiple design stages will be executed at differing levels due to scale of Dunedin’s waterfront context. At the urban scale, an urban design framework will be produced to address any major issues that may impair the intervention. At the architectural level, an intuitive design, preliminary design, and a design development stage will be included. These will deal directly with the architecture of the intervention. Analysis of the designs will be undertaken to determine the success of applying the iconic and contextual design strategies.

Scope of Design Research
The research into iconicity will be limited to contemporary works within the last 50 years. This period constitutes major changes in regard to globalization and technological advancements. The result being, the increase in complexity (in terms of structural systems, services, energy and technologies, and the introduction of Computer Aided Design). This fostered the designs of highly innovative and unprecedented architectural works throughout the world (Architizer).

In regards to the design case study, it is situated within the context of Dunedin. Therefore, all works and analysis regarding context will be heavily orientated to this location. The analysis and development of three sites is executed to lend a wider range of contextual elements to explore - rather than concentrating on one explicit site with only one context. The alternative sites will demonstrate the affects that context may have on the architectural icon.

Additionally, the strict adherence to the Dunedin District Plan, in regards to building and site regulations, may not be fully explicit, as this may hinder design exploration. These regulations will still be considered to an extent.

Research Methodology:
Refer to the following diagram on opposite page.
Can a building be both contextual and iconic in the context of Dunedin’s waterfront?

**Research Methodology Breakdown:**

- **Review of literature into iconic architecture**
  - Set of definitions
    - Identify typical tenancies
  - Precedent review
    - How are they successful?

- **Review of literature into contextualism**
  - Set of definitions
    - Identify typical tenancies
  - Precedent review
    - How are they successful?

- **Case study (Preliminary)**
  - Dunedin’s Waterfront
    - Site analysis
    - Urban scale design
    - Establish three sites to investigate

- **Evaluation (Based on Criteria)**
  - Preliminary Design
    - Develop three sites

- **Case study (Developed)**
  - One site to develop
    - ‘Most successful’ in meeting criteria

- **Conclusion and Reflection**

**Design Framework**

- **Design Criteria I**
  - Set of definitions
    - Identify typical tenancies
  - Precedent review
    - How are they successful?

- **Design Criteria II**
  - Based on idea of icon

**Explorative Exercises**

- **Design exploration i**
  - Based on strategy set I, II
  - Based on context of three sites

- **Design exploration ii**
  - Based on Dunedin’s context

- **Design exploration iii**
  - Based on specific site
Research Structure:
Chapters 1 - 4 consists of the review of literature and precedent studies. Chapters 5 - 6 contain the site analysis into the Dunedin context and urban design framework. Chapters 7 - 10 is focused on the context of the three sites of investigation, which is carried into preliminary design stage and design development stage.

The exegesis follows in chapter 11. Design exploration exercises are produced in between major research segments to explore ideologies established in the literature and specificity of the site. These explorations are evident between chapters 4 - 5, 6 - 7, and at the beginning of chapter 10.

Research Structure Diagram:

Phase: one
(Chapter 1 - 4)

Literature reviews and precedent studies
Iconicity

Phase: two
(Chapters 5 - 6)

Context of Dunedin and design case study at an urban level.

Phase: three
(Chapters 7 - 11)

Site investigations and design case studies at an architectural level.

An Icon of Least Resistance
Page intentionally left blank
This section examines literature in order to gain insights into the topic of iconic architecture. The review engages with the various considerations that may contribute to the architectural success of an architectural icon. These include it’s architectural distinction, enigmatic value, public engagement, and architectural experience.
Within a society that is heavily dominated by global commercialisation, there is a desire to produce a unique ‘image’ of ones-self in order to differentiate and gain acknowledgement from the populous. (Sklair, Iconic Architecture and Urban, National and Global Identities. 164). This notion is argued to be achievable through the employment of iconic architecture.

Jencks suggests this phenomenon is typically driven by economic interests inspired partly by the ‘Bilbao Effect’ and the “crisis of the monument”, due to the perceived weakened ideological movements witnessed today (Jencks, The Iconic Building. 7). This has ultimately promoted the development of architectural icons to address this “void” and to assist in consolidating a sense of meaning and identity into the built form. Sklair argues the individuals typically engaged with architectural icons are those within the commercial / corporate sector. Commercial institutions use the built form to exhibit their identity, values, and ‘brand’ through an extraordinary piece of architecture – typically very distinctive in nature. This combination of form and aesthetics spawns the architectural icon (Sklair, Iconic Architecture and the Culture-ideology of Consumerism. 139).

The notion of ‘creating an icon’ is ambiguous, as Lipstadt proposes, ‘iconic works typically just happen’ (Lipstadt. 13). However, Pipinis would suggest that designers and clients alike have a predisposition of creating an architectural icon – to generate an architecture distinct enough to ensure it’s visibility (Pipinis. 438). The distinction of such architecture is typically developed with a dramatic disposition and is often contrary to the local aesthetic (Shaw. 236).
The Sydney Opera House by Jorn Utzon. The distinct silhouette is instantly recognisable and associated to Australia.
either being contrary or sympathetic to the local aesthetic (the latter sometimes referred to as a ‘silent aesthetic’ / ‘silent icon’). Both have their advantages and disadvantages. It can be suggested that distinction is required regardless, as architectural icons are typically ‘visualised’ and attuned to our optical senses. Architect Tom Wright simply asserts, “If you can draw a building with a few sweeps of the pen and everyone recognizes not only the structure but also associates it with a place on earth, you have gone a long way towards creating something iconic” (Simpson).

This is evident in the Selfridges Department Store in Birmingham, which demonstrates little affinity with it’s surroundings. A local critic, Peter Davey, has criticized this work and stated, “As a contribution to the cityscape, it is scaleless, uninviting, and completely out of sympathy with its surroundings” (Jencks, The Iconic Building, 13). Although gaining criticism, the iconicity of the Selfridges Department Store has succeeded, as it’s characteristic can be witnessed due to its highly contentious form.

An alternative approach to the architectural icon can be more subtle with the concentration of it’s silhouette. Pipinis suggests the very basis of an architectural icon is it’s relationship to the skyline – having a “silhouette that could be reduced without losing it’s resemblance” (Pipinis, 437). This notion does hold validity as it is evident within popularised icons, such as the Eiffel Tower in Paris, or Statue of Liberty in New York. Sklair also shares this notion and suggests the “iconic city skyline has a double function”, as it serves to forge a sense of urban identity within the city while serving as a marker for those outside of the city - generating a global presence. “Iconic skylines help to identify with specific cities” (Sklair, The Icon Project, 157).

In regards to promoting a sense of identity, Shaw asserts that a “regional architectural aesthetic” is also key in defining and aggregating a sense of place, which can ultimately serve as a strong motivation for tourism. These arguments would suggest the delicate nature of creating the icon – it should be mentioned that iconic architecture also pertains to the idea of ‘Starchitects’. FOA suggests that “iconic architecture is now cropping up in every city, these buildings are starting to cancel each other out: Gheri is peppering the world with Bilbao Guggenheim Examples of city skylines which depict a notable architectural icon.

It should be mentioned that iconic architecture also pertains to the idea of ‘Starchitects’. FOA suggests that “iconic architecture is now cropping up in every city, these buildings are starting to cancel each other out: Gheri is peppering the world with Bilbao Guggenheim...
lookalikes and if you see one building by Calatrava or Meir, you’ve seen them all”. When the icon has been attributed to such architects, the sense of iconicity begins to spread throughout the individual’s architecture (Jencks, The Iconic Building. 167).

The notion of ‘Starchitecture’ will not be fully researched, as this thesis will be focused on the architecture itself rather than the designer.

Key issues for consideration:

i. Is the silhouette discrete enough?

ii. Either a contrary piece of architecture versus one that responds to local aesthetic.

iii. Contrary to the local aesthetic can introduce ‘new technology’ and promote a sense of progress.

iv. Considering a regional aesthetic may consolidate local identity and enable interest from parties outside of the city.

v. Considering regional aesthetic may reduce urban alienation and criticism.

Fig. 1.02. / 1.03.
Examples of Calatrava’s structures depicting similar skeletal forms.
In regards to ‘judging the architectural icon’, it is subjective between individuals and groups, especially within an increasingly secular society, and with the onset of globalisation. This of course generates a dilemma, in which the symbolism and representation of the architectural icon must attempt to appeal to the various individuals within the city in order to increase it’s potential iconicity and recognition. Jencks discusses this phenomenon from a more aesthetical position, where architectural icons can be successfully experienced if one is able to interpret the form in a meaningful way.

Jencks explains this notion as the ‘enigmatic signifier’, in which the architecture is to be reminiscent in an unlikely fashion. However, it should be abundant in important metaphors that are “worthy to be worshipped” (Jencks, The Iconic Building, 21). Although Jencks does not specifically note particular symbols and metaphors that can be venerated; however, one may suggest these symbols and metaphors shall be generic enough for multiple interpretations at multiple levels. These signifiers must be able to endure the continuous shifts in fashion, beliefs, and ideals while maintaining the capacity to ‘excite one’s imagination’. This allows the architectural icon to be continuously renewed and reinterpreted - forever maintaining it's relevance. Jencks mentions “a successful iconic building will always elicit a flurry of bizarre comparisons” (Jencks, The Iconic Building, 32). Although these may be both positive and negative comparisons, it does suggest that comparisons are most likely simple and relate to ideas, concepts, and phrases that one is familiar with.

Jencks discusses this phenomenon from a more aesthetical position, where architectural icons can be successfully experienced if one is able to interpret the form in a meaningful way.

An Icon of Least Resistance

Fig. 1.04. The Longaberger Company Headquarters in Ohio USA. The nature of this building is quite obvious and literal, therefore, reinterpretations of the form can be difficult.

An example of symbolic references within architecture is the AT&T building in New York by Philip Johnson. The building incorporated historic / classical gestures into the structure, which was not typically witnessed within office buildings during the height of modernism. This use of ornamentation facilitated the transition of architecture to postmodernism.
Fig. 1.05.
Reinterpretation of London’s 30 St Mary Axe, aka ‘The Gherkin’.
However, one may suggest this enigmatic signifier may only be discernible by those whom recognise the importance of such gestures - which are those within the art / architectural industry. As mentioned later in this review, the public engagement is essential for iconification, therefore, symbolism must be clear if it is to resonate with the public. An aesthetic that is too rhetorical with multiple in-comprehensive undertones may not have as much success in being understood, as a simpler symbolic aesthetic.

However, creating symbols that could be understood and in-favour of a wider audience can lead to an icon which is unprovokative. It’s disposition would be neutral – avoiding a sense of conceptual commitment. It is also worth noting that the architectural icon – acting as a representation / symbol, it need not to represent the context or the ‘truth’ in itself. Rather, icons can suggest the ideals that a society is striving for - values that can certainly share commonalities across cultures and societies regardless of perceived differences (Jencks. The Iconic Building. 53).

Key issues for consideration:

i. The signifier is to be simple enough to be understood at local / international levels and by most demographics.

ii. Avoid complex and rhetorical symbols that are only discernible within certain cultural / social circles.

iii. The default to neutrality will avoid conceptual commitment.

iv. The icon does not need to represent truth, rather, they can reflect ideals and future aspirations of the city.

v. Literal signifiers generate a ‘one-liner’ thus making reinterpretations more difficult.

Fig. 1.06.
Central LA Public High School for the Visual and Performing Arts, which contains ambiguous forms, depicting ‘chess pieces’.

Fig. 1.07.
The Vanna Venturi House utilising traditional geometrical forms.
Examples of architectural forms likened to everyday objects.
Public Engagement

“The public will not iconify a building that was not conceived as iconic by its creators. It cannot be inconspicuous, and does not get conspicuous by chance”

An architectural icon often has the task to appeal at multiple levels – either at a local, national, or even global scale. However, depending on the icon’s purpose, the levels of public engagement will differ. The general nature of the architectural icon is focused towards recognition within a global market.

This argument is derived from the notion of (not only limited to) the rapid dissemination of images due to the evolution of technology and globalisation, therefore, “putting a greater premium on visual originality in architecture” (Sklair, Iconic Architecture and Capitalist Globalization. 42).

The visual originality or imagery is essential in developing a type of ‘branding’, which is to be consumed by individuals. These targeted individuals, as Sklair suggests, is typically “directed to those in and around architecture and the public at large”.

Although this is obvious, Pipinis reiterates the greater importance of considering and coordinating with the public, as they are the individuals whom will ultimately ‘legitimise’ the architectural intervention and will proclaim the building as an icon (Pipinis. 437).

Scruton notes, “most users of a building are not clients of the architect, they are passers-by, the residents, the neighbours: those whose horizon is invaded and whose sense of home is affected by this new intrusion” (Scruton 126).

Example of ‘brand making’ could be the erection of the ‘world’s tallest building’.

The Aspna Library was developed as part of the “social inclusion agenda” to provide equal opportunities in social and economic development to the people of Medellin.

This would propose that the success of architectural icons rests on the public’s perception and the potential services this artefact can deliver.
Fig. 1.10.
The CCTV Tower in Beijing. Although very distinct, may have limited public and urban engagement.
Pipinis suggests, in regards to public interest, what users do with the building / the program is also part of the iconification process. Therefore, the wider the social span / accessibility and the more relevant symbolism at any time that the building can be informed with, the more iconic it will be (Pipinis. 450). This concept will closely relate with the ‘enigmatic signifier’ mentioned earlier – as the veneration and re-evaluation of the icon is done by the public.

The architectural icon’s relevance to the public must be maintained or it will ultimately lose it’s iconicity and purpose.

One may surmise that architectural icons fashioned by particular corporate institutions may initially have the predisposition of purely projecting an image of itself - for the purpose of visual recognition. It’s physical accessibility is limited to those affiliated to that institution. Therefore, raises the question, would this type of icon be relevant enough to the general public, and if it was removed, would it affect the public and the quality of life?

It can be concluded that the necessity of generating an architectural icon with accessibility (physically and notional), which is more attuned to the public, is essential for the initial and continuous success of the icon. It is the public whom will ultimately iconify a piece of architecture.

Key issues for consideration:

i. Understanding the audience is essential in creating an icon that is orientated towards them and not ‘generic’.

ii. The icon can either be a tool for self-promotion or is generated for the interest of the public.

iii. As the public are the users and beholders, the icon can / should be directed at them.

iv. Should symbols be universal or should they be directed toward certain classes, genders, or ethnicity?

Refer to physical copy for image

Fig. 1.11.
The simple Vieux Port Pavilion is a highly engaging public space, effectively adding to the urbanity of that location.
Fig. 1.12. - 1.15.
Examples of public engagement with the use of differing levels of transparency. Transparent spaces can generate a 'spectacle', adding vibrancy to the urban space.
The topic of architectural icons has a particularity towards aesthetics, specifically the exterior and its placement within the urban realm. Although it is understood that aesthetical characteristics is a primary element within architectural icons, the success of these icons can also be attributed to an evocative atmospheric condition that will facilitate unique spatial experiences. Jencks states that the “pain and pleasure, love and fear, create lasting impressions, which may be why many people cannot forget the Coliseum in Rome, or a visit to a Holocaust Museum” (Jencks, The Iconic Building, 54). This suggests that the architectural icon need not to be an exemplary ground breaking masterpiece; however, it can be one that is captivating at an emotional level - as architecture itself has a higher capacity to engage our sensory perceptions over other art forms. Phenomenologist Steven Holl expresses that, “architecture holds the power to inspire and transform our day to day experience” – heightening phenomenal experience while simultaneously expressing meaning (Holl, 14).

The extent of experiential spaces can be further accentuated through the consideration of time, pertaining to light, shadow and transparency, colour phenomena, texture, material and details, which Holl argues, are all participants in the complete experience of architecture. The integration of these phenomenal elements may further an architectural intervention by generating ‘quality spaces’ for the public.

Fig. 1.16.
The Therme Vals by Peter Zumthor uses tactile elements which generates the feeling of being within an underground cave system.

Jencks also argues that the “emotional laden experience is a fundamental condition of a successful iconic building”, in which given it’s vigour and honesty, one may come away from a building with an insight into iconic buildings which should not be forgotten (Jencks, The Iconic Building, 55).

The captivation is enough at an emotional level that it is ingrained into one’s mind - forever maintaining it’s recognition and relevance. One such building Jencks recognises is Berlin’s Jewish Museum by Daniel Libeskind – being one of foremost icons of the 1990s.
Fig. 1.17.
The Chapel of St. Ignatius by Steven Holl, generating differing light qualities to create unique atmospheric conditions.
Although the architectural distinction is notable within the urban realm, the experiential element is the key in establishing and securing an identity within Berlin (Jencks, The Iconic Building. 54). The museum itself, as Libeskind describes, is to “express feelings of absence, emptiness, and invisibility”, which is informed by its design (Kroll).

The particular narration of the Holocaust through design is an example of what Holl would suggest as, “articulation of intent” - which is prudent when mediating such phenomenal elements mentioned earlier. It is the “generative forces” of the space that lies in the intention behind it (Holl. 41). One must understand the motivations of using such architectural devices that will contribute to the space. If not, the result will be a space that is deficient and potentially ambiguous.

The connection that is produced between the individual and architecture, facilitates a greater potential for veneration of a space. The spaces are captivating and experiential, therefore, will become relevant to the individual. As mentioned earlier, the necessity for architectural icons to further engage with the public promotes recognition.

The engagement of the architecture - both visually and emotionally is, as Jencks suggested, “most potent when translated into architectural experience” (Jencks, The Iconic Building. 38).

Key issues for consideration:

i. The use of Holl’s principles being the ‘11 Phenomenal Zones’ may assist in generating experiential spaces (refer to the following examples). These concepts are extracted from the literature: Questions of Perception: Phenomenology of Architecture.

ii. Consideration of the use and program and how these can be exercised to form an architectural narrative.

iii. The narrative can be more successful if relevant to the local context, possibly pertaining to a significant event, or belief.

Refer to physical copy for image

Fig. 1.18
The Jewish Museum exhibiting a cold and aggressive atmosphere through concrete materiality.
i. **Enmeshed Experience: The Merging of Object and Field:**

Architectural space being the overlap of foreground, middle ground, and background.

![Illustration of an interior space](image1)

ii. **Perspectival Space: Incomplete Perception:**

Consideration of the partial views / emersion within the urban realm, rather than distancing / aerials designers typically employ.

![Illustration of an urban street](image2)

iii. **Of Colour:**

Adding vibrancy to a space and driven primarily by the availability of light.

![Illustration of a colorful space](image3)

iv. **Of Light and Shadow:**

Metaphysical strength of architecture is orchestrated by quality of light and shadows that defines solids and voids.

![Illustration of light and shadow](image4)
v.  
*Spatiality of Night:*

Light qualities lend a new dimension to the urban experience during the day and night.

vi.  
*Time Duration and Perception:*

Dynamism of architecture, often witnessed through change in light and shadow throughout the day.

vii.  
*Water: A Phenomenal Lens:*

Transformative properties of water.

viii.  
*Of Sound:*

Resonance of sound, lending a sense of materiality and volume.
ix.
Detail: The Haptic Realm:

Pertaining to sense of touch from materiality. Sensory experience is intensified when physically engaging. Additionally, the visual aspect of ‘looking rough’ adds to the experience.

x.
Proportion, Scale, and Perception:

Reference to nature, golden ratio, human scale etc - which is perceived to be visually satisfying.

xi.
Site Circumstance and Idea:

Critical to establish relevance between concept and local context.
Expressing Iconic Elements

The following will give examples of how the following iconic elements can be manifested architecturally.

Established from the review of literature, four primary themes were extrapolated which are suggested to assist in the success of the architectural icon.

The themes are further reinterpreted and mapped to generate a set of practical, architectural strategies. The strategies constitute a variety of options which can be applied to an architectural intervention - to heighten that particular iconic theme. For example, Architectural Distinction can be accentuated with the use of scale, differing forms, colour, etc.

The field of possibilities will be used as a template for analysing precedents, the design case study, and evaluation processes in the following sections.

Architectural Distinction:
The physicality and contrasting nature of the architecture.

Enigmatic Value:
The symbolism and representation the form can express.

Public Engagement:
Orientation of the building in such a way that it is appealing and approachable by the public.

Architectural Experience:
The architecture that facilitates a unique spatial experience.
Refer to physical copy for images

Steven Holl’s Phenomenal Zones

Fig. 1.19 - Fig. 1.31 (from upper left)
Refer to Bibliography.

Refer to physical copy for images
Precedent Studies - Group One

Prominent architectural icons

This section examines various buildings that have gained popularity due to their unique disposition and are considered iconic in nature. The most prominent iconic feature will be extrapolated and the building will be evaluated against the iconic themes developed in the previous chapter.
The Iconicity of the AT&T Building was primarily spawned from the referencing of classical characteristics that contradicted the standard modernist imperatives of functionalism. The predominant feature includes the pediment atop the office building. It is suggested this gesture is “the single most important architectural detail of the last 50 years”.

This simple feature is both classical, historical (familiar), and completely unprecedented. This paradigm shift promoted an alternative approach to design; allowing a greater emphasis on culturally significant symbolism to be infused into the architecture.

Fig. 2.01.
Philip Johnson’s AT&T building demonstrating the classical roof pediment.

Refer to physical copy for image
The most conspicuous aspects of the AT&T building, being the reference to classical aesthetics.

Most evident iconic attributes:

- **Architectural Distinction**
- **Enigmatic Value**
- **Public Engagement**
- **Architectural Experience**
The Jewish Museum was implemented as a conceptually expressive tool to represent the Jewish lifestyle during and after the Holocaust. The composition of interior spaces was to impose feelings of anxiety and absence on the individual – alluding to the subversion and displacement of the Jewish culture.

Implied to be one of the more affective spaces is the 66 foot void, which is juxtaposed to other spaces within the museum in terms of atmosphere. The Jewish Museum is suggested to be less of a museum, but an emotional journey through history.

Fig. 2.02.
The emotionally powerful ‘void’ space within the Jewish Museum.
Fig. 2.03. Exterior of the Jewish Museum demonstrating a differing characteristic compared to the interior spaces.

The articulation of spaces allows an individual to perceive feelings experienced during the Holocaust.

Most evident iconic attributes:

Architectural Distinction
- Materiality
- Texture

Enigmatic Value
- Sym - Enig

Public Engagement
- Program
- Sym - Cultural

Architectural Experience
- Narrative
- Phenomenal Zones
An Icon of Least Resistance

Angular walls

Metallic flooring / faces

Change in materiality

Restricted natural lighting

Change in verticality

Dark spaces

Angular paths

Investigation into the Jewish Museum’s interior spaces in regards to Holl’s Phenomenal Zones.
Page intentionally left blank
The Guggenheim Museum played a key role in the urban transformation of Bilbao’s once decrepit port area, which spawned the notion of ‘The Bilbao Effect’. The design is more sculptural and is intended to appear randomised with curvilinear forms to capture the light throughout the day.

Being highly distinctive in terms of form and materiality, it juxtaposes itself amongst its neighbouring bodies, which consists of a variety of more subtle structures.

*Fig. 2.04.*
The Guggenheim Museum which inspired the ‘Bilbao Effect’.

Refer to physical copy for image
Fig. 2.05. Intricate and unique forms in the titanium cladding.

The Guggenheim Museum is highly sculptural and exhibits an unprecedented form.

Most evident iconic attributes:

- Architectural Distinction
- Enigmatic Value
- Public Engagement
- Architectural Experience

Form
Materiality
Sym - Enig
Program
Phenomenal Zones
The brief for the Burj Al Arab hotel was to create a landmark for Dubai, a symbol likened to the Sydney Opera House and Eiffel Tower respectively. The design is inspired by the traditional Dhow sailing vessel used in antiquity. This depiction is evident in the simplistic and clear articulation of the form.

The hotel also achieved other feats, such as the man-made island in which it sits on while being the tallest hotel in the world (until the erection of the Rose Rayhaan and JW Marriott Marquis Dubai).

Fig. 2.06.
The Burj Al Arab hotel, which was to become Dubai’s landmark building.

Refer to physical copy for image
The distinct silhouette is instantly recognisable due to its un-convoluted form and isolation on the island.

Most evident iconic attributes:

- Architectural Distinction
- Enigmatic Value
- Public Engagement
- Architectural Experience

Precedent Studies

Scale
Form
Sym - Enig
An Icon of Least Resistance

Investigation into the Burj Al Arab’s enigmatic form and likeness to common objects.
Page intentionally left blank
Design Exploration - One

*Based on the notion of the architectural icon*

The design exploration exercise will include a simple manipulation of the State Insurance Building in Wellington, New Zealand. The building is one of the more eminent structures within the Wellington skyline. The form exploration will be focused on creating distinction and a unique silhouette, which can assist in the architectural icon’s recognition.
The State Insurance Building in Wellington will be used as a basis for exploring forms at various locations on the building. The building is selected as a design candidate because it is an office building which shares a similar rectangular form with many modern skyscrapers. The building is also highly prominent within the skyline.

The exercise will include the simple manipulation of the volume at multiple levels, using differing design / subtractive techniques. The objective is to identify the areas that can heighten distinction without over complicating the design. The ‘silhouette’ will also be investigated, which is suggested to be attributed to the success of an architectural icon.
i. 
*Exploration: Roof level*

ii. 
*Exploration: Mid level*

iii. 
*Exploration: Body and surface*
Design Exploration - Upper portion

Design Exploration - Middle portion
Design Exploration - Overall form

Design Exploration - Surface / body patterns
Design Exploration - Surface and colour
Conclusions

From the design exploration, the following conclusions were made:

i. Distinction was most notable if the manipulation of the form was viewable from most / all perspectives, rather than prioritising one particular perspective.

ii. The architectural language could be more successful if it is continuous on all sites in order to avoid a convoluted representation and symbolism. However, if alternative languages are present, this may in fact cater for additional interpretations / enigmatic signifiers.

iii. The form manipulation within the lower to mid portion is suggested to be most physically engaging with the public realm, as it intrudes directly into the street.

iv. The manipulation of the surface and body of the volume seemed least disruptive, as the overall rectangular form was visually complete and retained. An 'iconic silhouette' would not be evident if surface treatments were only applied to the volume.

Limitations:

i. This experiment dealt with a stand alone object with no program, purpose, and context. The distinctiveness of the subject can be accentuated or even inhibited when placed with neighbouring structures.
This section examines literature in order to gain insights into the topic of contextualism. The review engages with the various considerations that may contribute to a contextual intervention. These include Geometries and Allusion, Embedding and Distancing, and The Waterfront. The latter is required, as the design case study is situated within a waterfront context.
An issue with globalisation is its capability in creating ‘blandness’ within our urban landscape. This is due with the cross-fertilisation of styles and technology that can ultimately diminish local identity and ‘sense of place’ (Lambe. 35).

Contextualism advocates a more holistic approach in synthesising our urban spaces, by the generation of strong and eloquent visual relationships between structures. This concept allows the impression of the individual building to be a fragment of a larger whole. The fragment is simply a ‘contribution’ that assists in the identification of places (Unwin. 21).

Frampton asserts the importance of site criticality by suggesting one must “mediate the impact of universal civilization with elements derived indirectly from the peculiarities of a particular site” (Frampton. 21).

Unlike a specific architectural style, contextualism is likened to a set of values that can assist with new architecture and its affiliation with site - drawing upon the “past” as a legitimate source of inspiration. One may utilise the existing tangible aspects, such as geography / topography, climate, materials, and technology. The intangible aspects may include: the social, cultural, and religious ideologies. More specifically, one may also recognise the particularities of neighbouring structures, where factors including: height, scale, typology, proximity to property lines, materials, colours, and textures could be utilised (Hearn. 362).

It is in essence, a simple premise in instilling meaning into architecture with the critical use of existing visual and metaphysical cues.

Fig. 3.01.
Use of traditional styles on new structures in Gdansk, Poland.

Venturi and Scott Brown also identify these symbolic signals as a crucial aspect of the built environment and asserts that, in order to make sense of a building and hence to use it, ‘individuals rely on the imagery of the built environment’ (Venturi. 104-119).

This notion also coincides with Jencks's approach of “double coding”, where architecture is to be understood and enjoyed by the general public and yet command “critical approval”, suggesting the eclectic
Fig. 3.02. 
‘Falling Water’ by Frank Lloyd Wright, which is suggested to be highly integrated to its surrounding environment.
use of established elements from past styles (Jencks. Contextual Counterpoint in Architecture. 72). However, theorists have often criticised contextualism and suggests that it is an inhibitor of architectural progress, or is used in such a fashion, which produces a historically themed environment that debases the existing historic architectures (Levi. 149).

The notion of abstraction and sympathetic contrast would seem to place focus simultaneously on both the new and old structures, therefore, increasing the appreciation of both architectural styles, rather than prioritising one.

These notions allude to the subtle abstraction techniques discussed by Venturi; whom advocates elements that are, "hybrid rather than pure, distorted rather than straightforward, and ambiguous rather than articulated“. These are witnessed on the Lieb House In New Jersey, where the subtleties of exaggeration, inversion, and distortion of contextual forms were applied (Fauche. 6).

Wigley and Johnson asserts that, “contextualism has been used as an excuse for mediocrity, for dumb servility to the familiar” (Isenstadt. 172).

However, it should be noted, the level of allusion or replication (based on the surrounding context), will be dependent on the capability and intent of the designer.

Ray discusses multiple approaches that take into consideration the context, therefore, producing a structure that avoids “arrogantly intruding on the neighbour”. Ray suggests employing strategies, such as reproduction of the original building, abstraction, creating a focal point for the neighbourhood, becoming a background building, or a sympathetic contrast (Schmertz 65).

The promise of retaining local identity is attempted through contextualism. However, the allusion to past forms and symbolism must be approached in a disciplined manner in order to produce meaningful architecture. The goal is to contribute to the whole and to avoid default to kitsch and parody.
Key issues for consideration:

i. Contextualism is suggested to be ‘continuity and regeneration’ as opposed to merely ‘fitting in’ with what is present.

ii. The manifestation and articulation of local identity and meaning into architecture can be subjective and therefore, subject to interpretation.

iii. To create an affiliation to the surroundings, one may utilise tangible aspects that are physically available in the surrounding environment.

The more intangible attributes include: social, cultural and religious ideals.

iv. Some strategies in creating a sense of urban homogeneity include: reproduction, abstraction, focal point, background, and sympathetic contrast. ‘Adopted’ architectural elements can be simply exaggerated, inverted, and distorted.
Embedding and Distancing

“No house should ever be on a hill or on anything. It should be of the hill. Belonging to it”

Contextualism is ostensibly based on the notion of accentuating the continuity of architectural references between the new and old by utilising the particularities of that location. As discussed in the previous section, there are multiple avenues that can be employed to achieve this continuity. However, the inherent uniqueness of sites, such as the proximity of neighbouring buildings, will influence the extent of contextual congruence between the new and old structures.

Although highly dependent on the scope and type of architectural intervention, the level of responsiveness to the surrounding context can be suggested to depend on the relative proximity and location of the ‘host’ building that the new architecture is drawing from. For example, the closer the structures, the higher and more visually succinct the cross-referencing may be. However, if structures are distanced, explicit referencing maybe become liberated as the formal correlations are less evident. This notion may only apply if the surrounding context is of a stature worth referencing. Rush conveys that in some situations, “architecture might be said to operate with a freer hand, since there are fewer inherent demands imposed on the site by existing buildings of merit” (Rush. 116). Punter also suggests areas “without strong contextual clues, design control often struggles to define the qualities that is seeking to achieve” (Punter. 58).

These ideals allude to Modernism’s imperative that consists of a romantic isolationism, which values architecture that stands out from it’s environment. Theo van Doesburg, asserts that new architecture can reach a great richness by developing an “all-sided plastic way in space and time” - suggesting a multisided structure that is dependent upon separation from it’s context (Schumacher. 298 cite).

Eisenmen, however, argues that the isolation of a building leaves its inhabitants ‘detached from the ground’ and suggests the reuse of historical figure and ground relations in new contexts (Eisenman. 13). The simple figure and ground drawing involves one immediately with the essence of the urban structure of a given context (Schumacher. 301).
Fig. 3.06. The Nelson-Atkins Museum of Art Addition by Steven Holl Architects. The intent was to generate a dynamic interaction between existing landscape, architecture, and art.
The notion of isolating architecture is undesirable in contextualism. However, if executed successfully, it may in fact be beneficial and serve the existing context. Mayernik discusses how a new ‘distanced’ intervention can ironically place demand on its surroundings - fundamentally creating new contexts by virtue of their presence (Mayernik. 4). Mayernik lends the Inigo Jones Queens Wharf House as an example. Although the new Wharf House buildings vary in scale and ornament, distanced from the original Queens Pavilion, they simultaneously frame and amplify the pavilion by heightening its presence and connection to the Thames River (Mayernik. 5).

One may suggest this contextual scenario to be a ‘cumulative’ event, in which a sacrosanct structure is already present within the site, therefore, one is purely adding to the site specificity. Rush suggests, so long as the new project respects the site specificity of the existing architecture in it’s own specification of the site, then the case is no more difficult than any other. “The existing building is just a new element that has to be brought into the picture” (Rush. 118).

Such as the employment of Koolhass’s contemporary - McCormick Tribune, juxtaposed to Van de Rhee’s Modernist - Institute of Technology. The new intervention (even though significantly distanced) does not attempt to compete with the Institute’s structures; however, it heightens the existing campus while subtly presenting a sense of transition to contemporary architecture (the McCormick Tribune).

At a greater scale, distant structures can also achieve a sense of connectivity. Mayernik lends the notion of “urban echoes” and discusses this in relation to St Peter’s Basilica in Vatican City and Archbasilica of St. John Lateran in Lateran. The connection between these locations is executed by a sequence of principle facades of particular churches that refer back to each other, generating “echoes across the city”. It is the success of these mnemonic devices in lieu of a linear connective urban sequence that “stitches the city together” (Mayernik. 3).
These concepts would suggest that the proximity and distance between referential structures is somewhat limitless. The correlations can still be witnessed - so long as an aesthetical resonance is apparent.

Key issues for consideration:
i. The proximity of the new intervention, relative to the existing, may affect the level of ornamental / formal referencing.
ii. Referencing may not always be applicable, as it is dependent on the merit of the surrounding environment.
iii. The reuse of historical figures and plan relationships can assist in achieving an inoffensive continuity between the past and present.
iv. Isolation / distancing of new architecture may assist in framing and amplifying the presence of the surrounding structures.
The Waterfront

“They have a dramatic and visible impact that is capable not only enriching a city’s economy but of improving its collective self - image”

The unique qualities that waterfront sites contain, provides a highly desirable platform for urban spaces. Once were areas of industrial activity, have become central to urban renewal. Although these developments have the primary purpose of generating an urban space for the city’s residents, it has the additional function of place marketing - to attract a global clientele. In achieving this, it is typically implied that cities follow a similar pattern in regards to waterside redevelopment schemes, being office, recreational, or residential (Davidson. 5).

Breen and Rigby categorises a variety of contemporary waterfront typologies that demonstrates alternative programmatic themes. These include: the Commercial, Cultural / Educational, Historic, Recreational, Residential, and Working Waterfronts.

Due to growing popularisation of waterfront developments, it is suggested that there is an inherent risk of ‘copying’ projects that are perceived to be successes, whether they are appropriate to the new locale or not (Breen. 14). Krieger asserts that this phenomenon is imminent due to cities seeking access to broader markets and the inevitability of cultural homogenization - resulting in the potential loss of local identity. It is also suggested that this occurrence is further accentuated if such a development is focused on exploiting these spaces purely for economic gain - with minimal regard to connectivity to the local context. (Krieger. 12).

Kostopoulou proposes that generic spaces or “non-places” are typically those aligning to leisure parks, commercial, and entertainment spaces (Kostopoulou. 4583).

Due to growing popularisation of waterfront developments, it is suggested that there is an inherent risk of ‘copying’ projects that are perceived to be successes, whether they are appropriate to the new locale or not (Breen. 14). Krieger asserts that this phenomenon is imminent due to cities seeking access to broader markets and the inevitability of cultural homogenization - resulting in the potential loss of local identity. It is also suggested that this occurrence is further accentuated if such a development is focused on exploiting these spaces purely for economic gain - with minimal regard to connectivity to the local context. (Krieger. 12).

Kostopoulou proposes that generic spaces or “non-places” are typically those aligning to leisure parks, commercial, and entertainment spaces (Kostopoulou. 4583).

Due to growing popularisation of waterfront developments, it is suggested that there is an inherent risk of ‘copying’ projects that are perceived to be successes, whether they are appropriate to the new locale or not (Breen. 14). Krieger asserts that this phenomenon is imminent due to cities seeking access to broader markets and the inevitability of cultural homogenization - resulting in the potential loss of local identity. It is also suggested that this occurrence is further accentuated if such a development is focused on exploiting these spaces purely for economic gain - with minimal regard to connectivity to the local context. (Krieger. 12).

Kostopoulou proposes that generic spaces or “non-places” are typically those aligning to leisure parks, commercial, and entertainment spaces (Kostopoulou. 4583).

Due to growing popularisation of waterfront developments, it is suggested that there is an inherent risk of ‘copying’ projects that are perceived to be successes, whether they are appropriate to the new locale or not (Breen. 14). Krieger asserts that this phenomenon is imminent due to cities seeking access to broader markets and the inevitability of cultural homogenization - resulting in the potential loss of local identity. It is also suggested that this occurrence is further accentuated if such a development is focused on exploiting these spaces purely for economic gain - with minimal regard to connectivity to the local context. (Krieger. 12).

Kostopoulou proposes that generic spaces or “non-places” are typically those aligning to leisure parks, commercial, and entertainment spaces (Kostopoulou. 4583).

Due to growing popularisation of waterfront developments, it is suggested that there is an inherent risk of ‘copying’ projects that are perceived to be successes, whether they are appropriate to the new locale or not (Breen. 14). Krieger asserts that this phenomenon is imminent due to cities seeking access to broader markets and the inevitability of cultural homogenization - resulting in the potential loss of local identity. It is also suggested that this occurrence is further accentuated if such a development is focused on exploiting these spaces purely for economic gain - with minimal regard to connectivity to the local context. (Krieger. 12).

Kostopoulou proposes that generic spaces or “non-places” are typically those aligning to leisure parks, commercial, and entertainment spaces (Kostopoulou. 4583).
Fig. 3.11.
The recognisable Bryggen waterfront in Norway which reflects the traditional Hanseatic character.
“Mono-thematic” interventions can also arise, in which the waterfront development is orientated to particular social classes, alienating others within the community. This dilemma would suggest a balanced use for the waterfront; proposing a mixed use approach, which not only offers economic opportunities for private investments, but also is accessible to individuals of the community. Additionally, it will ensure the harbour-side is continuously in use and maintaining a vibrant atmosphere; a prerequisite for a successful waterfront development (Bender. 35).

The notion of ‘sense of place’ has also been proposed - being an essential element in creating a more contextually and culturally anchored development. This can be argued to be more pronounced within the Cultural / Educational, Historic, and Working Waterfront developments. These typologies are assumed to have more relevance and connection to context. To enhance sense of place, as suggested by Kostopoulou, one may consider “creative industries” that take into account the cultural, educational, emotional, social, and participative interactions of the city. It is suggested that these are highly associated to that city and it’s residents. (Kostopoulou. 4580).

Programs aligning to these elements will be more situated and permanent. It will ensure a waterfront development with a higher sense of sophistication and integrity.

Fig. 3.12. Public aquarium called ‘The Deep’ in Yorkshire, United Kingdom. It orientates itself towards an educational and cultural theme.

Key issues for consideration:

i. The contemporary waterfront can have alternative programmatic themes, including: commercial, cultural, educational, historic, recreational, residential, and working. These themes can also correlate with the overall context / theme of the city.

ii. Non-places are suggested to be leisure parks, commercial, and entertainment spaces.

iii. A mix use approach would minimise a mono-thematic waterfront which is orientated towards particular social classes.
Page intentionally left blank
Expressing Contextual Elements

The following will give examples of how the following contextual elements can be manifested architecturally.

Established from the review of literature, three primary themes were extrapolated that is suggested to assist in the success of a contextual building.

The themes are further reinterpreted and mapped to generate a set of practical, architectural strategies. The strategies constitute a variety of options that can be applied to an architectural intervention - to heighten that particular contextual theme. For example, Geometries and Allusion can be accentuated with the adoption of street grids, symmetry, etc.

The field of possibilities will be used as a template for analysing precedents, the design case study, and evaluation process in the following sections.

Geometries and Allusion:
Use of surrounding geometries to inform the new building.

Embedding and Distancing:
Based on location of the new architecture, relative to the existing. Closer the structures, the higher the sense of connectivity.

Appropriate Use:
The promotion of a particular activity that heightens and reflects the already established culture.

Note:
Appropriate Use was generated from the literature based on waterfronts, which discusses thematic activities a waterfront may be orientated towards.
Referencing to Other Buildings
Symmetry / Similarities
Street / Grid / Site Pattern
Scale / Proportion
Styles (materials, colour, ornament)
Bearing by Proximity of Other Buildings
Referencing to Other Buildings
Heightened by Other Buildings
Notional (visual) Connection (lock and key)
Program

Fig. 3.13 - Fig. 3.21 (from upper left)
Refer to Bibliography.
Refer to physical copy for images
The review into iconicity and contextualism revealed some key elements which may be considered when applying both themes to an architectural intervention.

One example is the notion of ‘Architectural Distinction’ and ‘Geometries and Allusion’. The most prominent aspect of architectural icons is its distinctive and contrasting disposition, which allows it to be recognised instantly within an urban setting. However, conforming to the immediate styles in the surrounding environment can in fact inhibit the extent of distinction. Therefore, strategies such as Venturi’s notions of “hybrid rather than pure, distorted rather than straightforward, and ambiguous rather than articulated” may be a suitable solution.

By utilising an existing geometry and then manipulating it carefully, may generate a building which is seemingly similar, however, is also distinguished. This is additionally important when considering the intervention’s silhouette within the skyline. A structure which shares a similar form to its neighbour/s will not be easily discernible. A successful icon is implied to be one that is divergent and can be automatically associated to a location.

In regards to the ‘Enigmatic Value’, the symbolic aspects and reinterpretation of the architecture may be more successful if it was of a nature which facilitates it. One could speculate; it would require a sense of distinction and complexity within the form. If an intervention follows strictly to a rudimentary context, the extent of distinction would be minimised and ultimately hinder the enigmatic and alluring aspects of the architecture.

As Jencks suggested “a successful iconic building will always elicit a flurry of bizarre comparisons”. A rudimentary form may offer little comparisons to be made. Additionally, one may also surmise that an architecture must be distinct enough in order for an individual to initiate the action of analysing and comprehending the architecture. An architecture which is too recognizable and established, may not receive an analytical response.

A correlation between iconicity and contextualism is the ideologies of ‘Public Engagement’ and ‘Appropriate Use’. Both concepts considers the orientation of the architecture (symbolic and programmatic) towards the general public.
Precedent Studies - Group Two
Prominent architectural icons within a waterfront context

This section examines various buildings that have gained popularity due to their unique disposition and are considered iconic. Additionally, these buildings are located within a waterfront context. The most prominent contextual features will be extrapolated and the building will be evaluated against the iconic and contextual themes developed in the previous chapters.
The Elbphilharmonie Concert Hall accommodates two concert halls, a hotel, residential apartments, and a viewing plaza. The hall utilises an existing 1960s warehouse as the base, a fully glazed upper portion, and finished with a distinct rooftop. The upper portion follows directly from the existing brick structure of the warehouse, creating a more homogenous relationship. The juxtaposition of materials and colour between the two elements, even the curvature of the roof, would seem to suggest a transition from ‘antiquity to the contemporary’.

Fig. 4.01. The Elbphilharmonie Concert Hall is essentially extending from an existing warehouse.
The juxtaposition of the new building places emphasis on the existing warehouse / context.

Fig. 4.02. An elevation of the structure showing proportions and contrast of materials.

Most evident iconic attributes:

Most evident contextual attributes:

- Geometries & Allusion
- Embedding & Distancing
- Appropriate Use

<table>
<thead>
<tr>
<th></th>
<th>Site Pattern</th>
<th>Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bearing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heightened</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Notional Connection</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Sydney Harbour

Location: Sydney, Australia
Architectural Icon: Sydney Opera House
Architect: Jorn Utzon
Date of Construction: 1973

The Sydney Opera House is a multi-venue performing arts centre and is arguably Australia’s most recognisable building. The structure is highly sculptural, utilising organic forms, which was intended to relate to the harbour and sails of its yachts. Visually, the structure juxtaposes itself from most surrounding bodies, while its isolated position at the end of Bennelong Point - further enhances its presence. The unique forms are also experienced and witnessed from various vantage points around the harbour.

Fig. 4.03. The unique forms of the Sydney Opera House being instantly recognisable.

Refer to physical copy for image
In regards to materiality, the plinth is of a similar material as the existing promenade - creating a simple ‘anchoring’ to the site.

4.04.
The Sydney Opera House is said to be reminiscent of sail boats in the Sydney Harbour.

Most evident iconic attributes:

Most evident contextual attributes:

- Geometries & Allusion
- Embedding & Distancing
- Appropriate Use

Refer to physical copy for image
Harpa is a concert hall and conference centre. The most notable aspect of the structure is the sculptural / geometric facade that encompasses the building. It is suggested to have been inspired by basalt crystals. The repetitive, reflective, and colourised elements of the facade, creates a glittering effect throughout the day which reflects the dynamic nature of the surrounding environment / harbour.

Fig. 4.05.
The Harpa Concert Hall with a unique facade treatment which is highly distinct.

Refer to physical copy for image
Transparent spaces are oriented towards the city to generate a ‘spectacle’ characteristic.

Fig. 4.06.
The facade is inspired by the surrounding landscape and basalt geometries.

Most evident iconic attributes:

Most evident contextual attributes:

Precedent Studies
Stavanger Harbourfront

Location: Stavanger, Norway
Architectural Icon: Waterfront Housing
Architect: AART Architects & Studio Ludo
Date of Construction: 2015

The Stavanger Waterfront project is designed as one of the largest wooden residential developments in Europe. The development pays homage to Stavanger’s tradition of wooden houses. It expresses both the local identity and a global vision of a ‘pioneering city’ in the field of modern wooden architecture.

The overall faceted form also reflects the surrounding Norwegian landscape while corresponding to old wooden buildings that wind along the bay. Alley-ways are also installed to promote glimpses to the harbour.

Fig. 4.07.
The wooden residential development reflects the traditional houses of Stavanger.

Refer to physical copy for image
The development creates a notional connection to the site by following the water’s edge.

Most evident iconic attributes:

<table>
<thead>
<tr>
<th>Geometries &amp; Allusion</th>
<th>Site Pattern</th>
<th>Scale</th>
<th>Style</th>
</tr>
</thead>
<tbody>
<tr>
<td>Embedding &amp; Distancing</td>
<td>Bearing</td>
<td>Reference</td>
<td></td>
</tr>
<tr>
<td>Appropriate Use</td>
<td>Program</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Fig. 4.08.
The wooden structures and alley-ways are reminiscent of traditional housing styles in Stavanger.

Most evident contextual attributes:
5

Design Case Study - Site Analysis
Analysis of the Dunedin context

The following section will analyse the city of Dunedin, New Zealand - specifically the waterfront precinct. The initial site analysis will determine any issues that may need to be addressed to ultimately improve the existing context and to assist in the success of the architectural icon.
The design case study, in which the design strategies (extrapolated earlier) will be explored, is located within the waterfront precinct in Dunedin, New Zealand.

The Dunedin waterfront has continuously been an area of discussion, as it is an urban space that holds much potential in terms of redevelopment. Similarly witnessed in many waterfront sites around the world, Dunedin's waterfront has been moderately industrialised and disregarded as an urban space. The Dunedin City Council has also acknowledged this issue and has previously generated approaches to rejuvenate sections of the Dunedin waterfront. Some architectural interventions were proposed and were controversial, such as a 28-story hotel complex in 2012.

The current Mayor, Dave Cull, stated in a Otago Daily Times article (5/09/2015), “There’s an enormous opportunity, recreationally and socially, to bring the area alive […] it could really take off […] that (development) would transform the place - it would more than transform it; it would revolutionize it” (Morris).

In addition to the potential of the waterfront site, Dunedin itself provides a unique backdrop that can further heighten the specificity and contextual relationship of an architectural intervention. Such notable attributes include: Dunedin's reputable tertiary education, unique wildlife, topography, and fine examples of Victorian and Edwardian architecture. In 2014, Dunedin was also designated as the UNESCO “Creative City of Literature”.

Fig. 5.01.
ODT article showing proposed developments at Dunedin’s waterfront.
Fig. 5.02.
The University of Otago Clock Tower Building is one of the many significant structures that represents Dunedin’s Scottish histories.
The following site analysis will be focused on Dunedin’s waterfront precinct. The analysis will identify the immediate contextual components within this area and any issues that may need to be considered and remedied to improve its current condition.

_Dunedin’s waterfront precinct and harbour from the suburb of Morningon (right). The major suburbs / hubs in Dunedin’s CBD (below)._
5.3 Figure Ground

Building foot prints showing the relationships between solids, voids, and urban densities

5.4 Urban Form

General grid layout of urban areas within the city centre
5.5 **Topography**

Significant elevated areas within the city centre

- Area of reclaimed land
- Contour lines - 20m increments

5.6 **Sight Lines**

Visibility of the site from various roads and neighbourhoods

- View corridors from street
- Views from road / water’s edge
- Views from elevated suburbs
5.7 Circulation
Primary circulation routes

5.8 Recreational
Natural and artificial spaces for recreation

- Railroad
- Primary roads
- Bus routes
- Secondary roads
- Recreational - soft
- Recreational - hard
- Harbour / water’s edge
Town Zoning

Authorised activities depicted in the Dunedin District Plan (2015)
5.10 Major Landmarks and Facilities

Landmarks and prominent publicly assessable facilities

1. Forsyth Barr Stadium
2. University of Otago Language Centre
3. Hocken Library
4. University of Otago Central Library
5. Otago Museum
6. Dunedin Hospital
7. Otago University Medical Library
8. Otago University Dental School
9. Knox Church
10. St Hilda’s High School
11. Cadbury’s Chocolate Factory
12. Moana Pool
13. Otago Boy’s High School
14. Dunedin Library
15. Information Centre
16. Dunedin City Hall
17. St Paul’s Cathedral
18. The Octagon
19. Kavanagh High School
20. St. Joseph’s Cathedral
21. Otago Girl’s High School
22. Speights Brewery
23. First Church
24. Dunedin Law Courts
25. Taieri Gorge Railway Station
26. Otago Settler’s Museum
27. Chinese Gardens
28. Queen’s Garden
S.W.O.T. Analysis - Strengths

Capabilities and resources that can be used as a basis for generating a competitive advantage over other developments / sites.

- Public spaces
- Primary transport route
- Popular eateries
- Walking distance
- Views to harbour
- Unobstructed site
- Views towards city
- Views towards city / hills
- Views to otago harbour

An Icon of Least Resistance
S.W.O.T. Analysis - Weaknesses

The absence of certain strengths which may be viewed as a weakness or detrimental to the development

5.12

- Unkept sites and car parks
- Poor permeability
- Barrier - land
- Minimal entry points
- Barrier - roads
- Zoning issues

Existing waste station
Existing overpass
Existing scrap yard
5.13 S.W.O.T. Analysis - Opportunities

Factors in the external environment which may offer new opportunities for growth and development

- Possible waterfront hubs
- Accessible to water
- Major tourist spots
- Heritage precinct and structures
- Convergence point for various neighbourhoods
- Significant spaces for redevelopment

Major barrier that could be developed in the future
S.W.O.T. Analysis - Threats

Challenges in the external environment that may present obstacles to the current or future development

- Industrialisation of the area
- Sound from highway and railroad
- Zoning could inhibit development
- Hazard - being reclaimed land
- High traffic bypassing the site
Conclusions

Primary issues regarding Dunedin’s waterfront precinct which may need to be addressed to lend support for the architectural icon and future developments

From the site analysis, the following conclusions were made:

i. A primary issue is the distinct disconnection between the city centre and waterfront precinct. Currently, there are only five corridors that lead into the area. A singular bridge is dedicated to pedestrians, while other corridors tend to be utilised by general traffic and large scale industrial trucks. The most prominent physical and psychological barrier is the railway line that bisects the waterfront and city. The railway line is still in use and is typically for tourist trips and intermittently, the transportation of goods from Port Chalmers.

ii. The urban grid within the waterfront seems to orientate itself against the Otago Harbour and Steamer Basin. The transition of these two grids creates ambiguous intersections which prevents more free flowing / legible streets. Major circulation and public transportation routes bypass the waterfront, suggesting the area is not perceived as a ‘destination’.

iii. Zoning within the waterfront is primarily industrial / port zones and some large scale retail zones to the west.

iv. Due to the absence of alternative zones, it limits the amount of individuals accessing this area.

v. Currently, there are minimal pedestrian zones - except within the mouth of the Steamer Basin. This further accentuates the psychological barrier of the location, as it contains minimal pedestrian life.

vi. The Dunedin Railway Station is in close proximity of the waterfront and attracts a notable amount of individuals - both local residents and tourists. The building is a highly prominent landmark.
From the initial site analysis into Dunedin’s waterfront precinct, there appears to be many issues that may need to be addressed to improve the area’s current condition. The following exercise will include the generation of an urban design framework to improve the precinct. Major changes will be prevented to avoid impeding on the existing character of the waterfront.
As identified in the site analysis, it has been found that Dunedin’s waterfront precinct contains multiple accessibility and connectivity issues that are to be addressed.

The following section will identify four primary urban design principles which will assist in improving Dunedin’s waterfront. The improvements will lend a suitable context for the architectural intervention.

This exercise will also produce an urban framework which demonstrates the future aspirations for Dunedin’s waterfront.

The following principles will be investigated (refer to following pages for details):

- **Improve connectivity between the waterfront and city**
- **Introduce mixed use activity**
- **Promote continuous movement through the waterfront**
- **Establish green spaces**
Dunedin’s current waterfront precinct. The area which is toned orange is the primary region to be investigated.
6.2 Principle 1: Improve Connectivity Between the Waterfront Precinct and City

Currently, there is a multitude of activities and functions in and around the waterfront site. However, there is a minimal amount of physical access routes - essentially preventing ease of access to the waterfront site.

Additional new access routes will assist in homogenising the waterfront site with the city centre and promoting more traffic to this space.

Diagram which shows the primary areas that will be targeted to improve connectivity between the city and waterfront.
Response 1:
Improve connectivity from west / CBD.

New connections established from the west which will connect parts of the city centre to the waterfront precinct. The use of existing road geometries would create more visually direct routes.

Response 2:
Create additional connections at the north and south.

New connections established from the north and south. A primary connection would be from the north - improving permeability from a heavily used road that leads to North Dunedin and Port Chalmers.
6.3 Principle 2:
Promote Continuous Movement Through the Waterfront

In regards to both pedestrian and vehicular articulation, there are notable issues in street legibility within the waterfront precinct. Multiple primary roads do not adhere to a functional grid system, while pedestrian paths are minimal. The improvement of these routes within the waterfront will promote ease of movement and generation of pedestrianised pathways that will draw individuals to the site.

Diagram showing the existing road network and publicly accessible areas.
Response 1: Create a continuous boulevard around the water’s edge.

Establish a new publicly accessible and pedestrianised promenade around the water’s edge to connect residential suburbs to the city. The promenade will also link various cultural, commercial, and residential structures within the waterfront.

Response 2: Improve the legibility and permeability of the street grid.

Redevelop particular roads to improve the legibility of the site, which promotes articulation within the waterfront.
The existing waterfront is currently zoned for industrial-type activities - further heightening the segregation from the city centre. Introducing additional uses to the waterfront will encourage a variety of appropriate activities that will establish a new cohesive living, working and entertainment destination. It will also attract additional individuals and social groups to the vicinity of the architectural icon.

Diagram showing the existing zoning within the Dunedin’s waterfront.
Response 1:
Rezoning of land to allow mixed use activities to occur.

Response 2:
Generation of various hubs that cater to a particular use.

Many prominent spaces around the water’s edge is to be rezoned to encourage additional activities to be established. Introducing activities such as residential and commercial, will further assist in pedestrianising the area.

A variety of character areas can promote differing uses - ranging from residential to industrial, to recreational and communal. These unique areas will lend an identifiable urban character and context.
There is minimal green / public spaces within the waterfront precinct. Introducing additional public spaces and green landscaping will assist in eliminating the negative ‘industrialised’ connotations that are attached to the current waterfront - infinitely improving imagability. New green / public spaces will attract further individuals, while forming a positive entry-point into the waterfront precinct.

Diagram showing the minimal amount of public space within Dunedin’s waterfront.
Response 1:
Introduction of additional green spaces / green belt.

The installation of green spaces will provide recreational areas - drawing more individuals to the area. The green belt which follows the edge of the waterfront will assist in removing a notional negative barrier, by disguising the existing railroad tracks.

Response 2:
Accentuating the primary entry points.

The primary entry points into the waterfront will include unique recreational spaces - accentuating the entrance and creating a pleasing transition into the precinct.
Proposed Urban Framework

New connections to link city to waterfront:
1. Connection from motorway and link to student suburbs.
2. Pedestrianised zone to link landmarks.
3. New link from lower CBD to the waterfront.
4. Removal of overbridge into level crossing to direct traffic to the waterfront.
5. New green zone to link lower suburbs.

Improved legibility of internal streets and ensuring continuous movement in the precinct:
6. Rearranged grid pattern of streets with minimal affect on existing structures.
7. Pedestrianised boulevard at the water’s edge connecting the north and south.
8. New road to divert traffic from Portsmouth Drive.

Introducing green spaces and recreational areas:
9. Green spaces to accentuate primary entrances into waterfront.
10. Water feature encroaching into land.
11. Refurbished pier.

Introducing additional activities and rezoning:
13. Rezoned spaces as follows:
Proposed urban framework for Dunedin's waterfront precinct - addressing issues established previously.
Design Exploration - Two
Based on the context present at Dunedin’s waterfront

The design exploration exercise follows similar principals in Design Exploration - One. However, this exercise will be utilising a building typology already established in Dunedin’s waterfront - being the simple gabled warehouse.
This design exploration will be focused on the manipulation of an established building typology within the context of Dunedin’s waterfront, which is the simple gabled warehouse.

Because this type of structure is the most common and entrenched within Dunedin’s waterfront, it can be suggested that this is vernacular of that location.

The exercise will follow ideologies of Robert Venturi, in which he suggests that one is able to generate a form that is perceptually ‘new’ through the simple distortion of the vernacular.

The overall gable form should still be maintained (to an extent) and be discernible, in order for it to retain its notional aesthetical connection to the waterfront context.

An example of the gabled warehouse typology in Dunedin’s waterfront.
i. Exploration: Roof level

ii. Exploration: Body

iii. Exploration: Surface
An Icon of Least Resistance

Design Exploration - Upper portion

Design Exploration - Surface / body patterns
Design Exploration - Overall form
Manipulation to the upper portion (at the gable level) may have disrupted the basic warehouse form. However, this may be required to generate a distinctive structure - if the surroundings are of a similar gabled typology.

Disruption to the lower portion and retaining the gable (to maintain the base form) is a measure to generate a distinctive motif. However, this may not be as noticeable within the city’s skyline.

The gable is only evident on two ends. If these ends are to be retained, ‘distinctiveness’ can be generated on the adjacent longitudinal ends instead.

The manipulation of the body or application of unique surface treatments is the least disruptive to the overall warehouse form.

Limitations:

i. Because the overall gabled warehouse form was retained, the extent of manipulation was limited.
Page intentionally left blank
Design Case Study

Contextual scale

The following section establishes three primary sites of investigation for the design case study. These sites demonstrate varying contextual circumstances which may define the specificity of the architectural intervention.
The following section will be focused on three primary sites of investigation that will establish the architectural icon. Each site is chosen based on the differing set of contextual factors, which may influence the architecture - both physically and programmatically (This will to ensure a more succinct connection to that particular location). Significant elements will be documented. These include: elevations of neighbouring bodies, general site grid layouts, and material pallets. Some overall contextual elements will apply to all sites (shown on the opposing page). These are suggested to be highly connected to Dunedin / waterfront context. These factors will be utilised in each design (architectural scale in the following chapters).
Factors which are evident within the overall context of the Dunedin and it’s waterfront:

Building Typology of the Waterfront:
As mentioned earlier, a prominent building typology witnessed within Dunedin’s waterfront is the gabled warehouse structure. The structures are typically 1 - 3 storeys in height. Many are very simple and are typically constructed from masonry and concrete with metal roofing. Therefore, the following design iterations will take this aesthetic into consideration.

Activity associated with Dunedin:
Dunedin's tertiary education facilities has been well established since the birth of the city. Additionally, in 2014, UNESCO (United Nations Educational, Scientific and Cultural Organization) has designated Dunedin the “City of Literature”.
A program relating to education and research can be concluded to have a higher correlation with Dunedin.
Existing Site Photos

Site One: Bauchop Street

Site Two: Thomas Burns Street

Site Three: Birch Street

Existing conditions of Site One.
Existing conditions of Site Two

Existing conditions of Site Three
Site One: Bauchop Street

Significant components in the surrounding environment on Bauchop Street which can direct the intervention

Site One - Bauchop Street is a modest site with relatively simple surroundings. The site is surrounded by light to medium industrial activities and structures - no more than 2 storeys high. A majority of these structures are simple / large warehouses; however, smaller office type buildings occupy the Jutland Street side of the site.

Overall, building structures are consistent in regards to their scale, window sizes, and simple ornamentation - which reflects their utilitarian use.

Prominent horizontal grid / geometries evident around the site.
Typical materiality around the site - mostly masonry construction.

Various elevations and prominent architectural features.
Site Two: Thomas Burns Street

Significant components in the surrounding environment on Thomas Burns Street which can direct the intervention

Site two is situated on Thomas Burns Street - diagonally behind the highly prominent Dunedin Railway Station and adjacent to a skate park. The site also offers a marginal pedestrian bridge that serves as a connection point between the city and the waterfront precinct.

The most significant aspect of the site is the existing railway station, which is arguably one of Dunedin’s most notable landmarks. Currently, it serves daily sightseeing trains and is a terminal for bus and shuttle services, while being home to the Dunedin Art Society.

Prominent horizontal grid / geometries evident around the site.
Typical materiality of the railway station, which contains mostly stone and terracotta.

Various elevations and prominent architectural features.
Site Three: Birch Street

Site three is located at the bend on Birch Street. This particular site has the characteristics of a peninsula - given its pointed shape and highly exposed disposition. The site can be witnessed from a number of neighbourhoods around the city, including a notable amount of hill-top residential areas.

There are a mixture of small scale and ‘mature’ structures located on Birch Street, with some newly constructed warehouses. Ornamentation is relatively scarce on the neighbouring structures.

**Prominent horizontal grid / geometries evident around the site.**
Typical materiality around the site - mostly masonry construction. Newer structures are notably precast concrete and profiled metals.

Various elevations and prominent architectural features.
The following design case study will be at the architectural scale, where various initial / intuitive schemes are generated for each of the sites - drawing from the contextual features established earlier. The designs are also to incorporate distinctive elements that may assist in the intervention’s iconic status.
Initial Form Finding

Initial form finding exercise using primarily the notional urban grid layout which are based on the geometries, existing buildings, and circulation paths of that site.

Site One - Bauchop Street:
The primary horizontal geometries found on Site One are extrapolated primarily from neighbouring structures and road boundaries. The grids are relatively orthogonal in nature. If one was to conform to these notional grids, it may generate a simple rectangular layout which will blend into the surrounding environment.

Site Two - Thomas Burns Street:
The grid can be extended from multiple structures around the immediate site, which consists of various angular geometries. However, due to the stature of the existing railway station, deviating from this particular grid may denote a departure from this sacrosanct structure.

Site Three - Birch Street:
Site Three contains a very prominent pointed format - similar to a small scale peninsula. These two grids create a distinct intersection and shape, which can further generate a sense of site specificity. These angles cannot be readily replicated on another site.
Site One: Bauchop Street

Overall form design
- One primary geometry

Overall form design
- Two separate geometries

Overall form design
- Two intersecting geometries
Site Two: Thomas Burns Street

Overall form design
- One primary geometry

Overall form design
- Two separate geometries

Overall form design
- Two intersecting geometries
Site Three: Birch Street

Overall form design
- One primary geometry

Overall form design
- Two separate geometries

Overall form design
- Two intersecting geometries
Site One: Design Strategies

Identification of surrounding components on Bauchop Street and design strategies which are to assist in the architectural intervention’s iconic and contextual success

The following investigation will be focused on significant items surrounding Site One - Bauchop Street and the iconic and contextual responses to these unique factors.

Proposed Program:
A modest program which may suit this site and is orientated to education - is perhaps student accommodation. The proposed facility will not only bring additional students to this area, it will also supplement the multiple halls throughout the campus. The facility will also include a study hub where students can also congregate and socialise.

Diagram showing primary elements which can inform the design.
Improving Iconicity:
Strategies which can be applied to potentially improve the building’s iconicity.

- Accentuate experiential quality of common areas
- Program orientated towards the public
- Materials to juxtapose against existing
- Simple symbolism - expressed through structure. Over abstraction may not be appropriate within the modest site
- Subtle manipulation of gable form
- Use of existing geometry and increasing the scale

Improving Contextualism:
Strategies which can be applied to potentially improve the building’s contextual relationship.

- Program orientated towards students
- Consideration of recreational spaces to the north and surrounding roads
- Use of existing materiality
- Use of existing warehouse form as basis
- Use of notional urban grid
Site One: Intuitive Design

**Primary Iconic Qualities:**
Visually dynamic / repeating ends and change in materiality (primarily timbers).

**Primary Contextual Qualities:**
Abstraction of gable forms at multiple scales and is fixed to notional site grids.

**Primary Iconic Qualities:**
Augmented roof profile. Coloured facade also juxtaposes to surrounding monochromatic structures.

**Primary Contextual Qualities:**
Continuous warehouse forms based on building to the west. Orientation is towards recreational area in front of the site.

**Primary Iconic Qualities:**
Cylindrical form juxtaposing against existing rectilinear forms and materiality.

**Primary Contextual Qualities:**
Rotated to reference site geometries. The cylindrical motif alludes to near-by silo structures.

**Primary Iconic Qualities:**
Distinct motif through surface treatment.

**Primary Contextual Qualities:**
Horizontally and rectangular / monolithic form (likened to a parapet construction in neighbouring structures).
Primary Iconic Qualities:
Singular Irregular / heightened cylindrical form amongst primarily rectangular and triangular geometries.

Primary Contextual Qualities:
Cylindrical motif alluding to near-by silo structures.

Primary Iconic Qualities:
Manipulation and rotation of simple gable form on site. The facade generates a engaging aesthetic on the street.

Primary Contextual Qualities:
Rotation of a simple gable form on site.

Primary Iconic Qualities:
Irregular triangular form and use of colour and materiality.

Primary Contextual Qualities:
Manipulation and separation of simple gable form (vertically) into two structures.

Primary Iconic Qualities:
Surface treatments to juxtapose against neighbouring structures.

Primary Contextual Qualities:
Borrowing directly from gabled warehouse forms and increasing scale vertically.
Site Two: Design Strategies

Identification of surrounding components on Thomas Burns Street and design strategies which are to assist in the architectural intervention’s iconic and contextual success

The following investigation will be focused on significant items surrounding Site Two - Thomas Burns Street and the iconic and contextual responses to these unique factors.

Proposed Program:
The proposed site will house a new public art gallery. The new premises will extend the existing use of the railway station, which currently holds art exhibitions and is home to the Dunedin Art Society. This also corresponds with the creative / art disciplines of education.

Diagram showing primary elements which can inform the design.
**Improving Iconicity:**
Strategies which can be applied to potentially improve the building’s iconicity.

- A distinct motif visible from a distance (whilst driving)
- Program orientated towards the public
- Materials to juxtapose against existing
- Heighten sense of symbolism due to the proximity of an existing landmark and tourist attraction
- Creating sympathetic and distinct relationship by separating the building into two portions
- Creating a journey from existing to new structure

**Improving Contextualism:**
Strategies which can be applied to potentially improve the building’s contextual relationship.

- Use of art / creative program to coincide with existing art centre
- Maintain similar materiality
- Due to close proximity of railway station, notional or physical connections can be made
- Use of similar proportions - particularly height, to maintain continuity with existing
- Improving on existing pedestrian walkway
- Use of notional urban grid
### Site Two: Intuitive Design

**Primary Iconic Qualities:**
Distinct manipulation of form / surface to one elevation - heightening sense of juxtaposition.

**Primary Contextual Qualities:**
Rectilinear form and proportions drawn from the railway station. Physical connection made between the two structures.

---

**Primary Iconic Qualities:**
Distinct manipulation of form / surface to one face - heightening sense of juxtaposition.

**Primary Contextual Qualities:**
Triangular form and materiality drawn from the railway station and is evident on the elevation opposing the station.

---

**Primary Iconic Qualities:**
Distinct surface patterning / motif and heightened scale to one elevation.

**Primary Contextual Qualities:**
Forms and materiality is similar on the elevation opposing the railway station.

---

**Primary Iconic Qualities:**
Alternative materials and use of curved forms which contrasts against the railway station.

**Primary Contextual Qualities:**
Scale and proportions being sympathetic with railway station.
**Primary Iconic Qualities:**
Curvilinear recesses to one elevation. Curvilinear geometries creating juxtaposition with overall recliner form.

**Primary Contextual Qualities:**
Use of similar scaled cladding - likened to masonry of the railway station.

---

**Primary Iconic Qualities:**
Surface patterning in a curvilinear fashion and materiality to contrast against the ‘fineness’ of the materiality on the railway station.

**Primary Contextual Qualities:**
Overall volume to be of a similar proportion as the railway station.

---

**Primary Iconic Qualities:**
Distinct motif at the end of the intervention, which includes an existing covered walkway.

**Primary Contextual Qualities:**
Extension of the existing covered walkway to create a unified whole that also includes the existing pedestrian walkway.

---

**Primary Iconic Qualities:**
Distinct motif at the end of the intervention, which includes an existing covered walkway.

**Primary Contextual Qualities:**
Extension of the existing covered walkway. Geometries are borrowed from the walkway and increased in scale.
Site Three: Design Strategies

Identification of surrounding components on Birch Street and design strategies which are to assist in the architectural intervention’s iconic and contextual success

The following investigation will be focused on significant items surrounding Site Three - Birch Street and the iconic and contextual responses to these unique factors.

Proposed Program:
The site is highly visible and should promote the literacy and educational aspects of Dunedin much more evidently. A school of marine biology may benefit from the opportunities of being in close proximity to the harbour and with marine life. These facilities have also been established at the Otago University and at the Otago Peninsula. This intervention will expand on those existing facilities.

Diagram showing primary elements which can inform the design.
Improving Iconicity:
Strategies which can be applied to potentially improve the building’s iconicity.

Improving Contextualism:
Strategies which can be applied to potentially improve the building’s contextual relationship.

Program orientated towards the public

Materials to juxtapose against existing

Creating unique experiential spaces which overlook the harbour

A distinct motif visible from many angles

Subtle manipulation of gable form

Use of existing geometry and increasing the scale

Use of notional urban grid

Program orientated towards marine biology

Use of existing materiality

Extending building to have connection to harbour

Use of existing warehouse form as basis

Use of existing

138
Site Three: Intuitive Design

*Primary Iconic Qualities:*
Distinct motif and differing timber materialities that is not evident in surroundings.

*Primary Contextual Qualities:*
Direct correspondence to warehouse structure to the west and with the recessed water feature at the end of the site.

*Primary Iconic Qualities:*
Distinct motif while having glazed sections to the north, overlooking the harbour.

*Primary Contextual Qualities:*
Use of notional site grids and use of existing corrugated metal materiality.

*Primary Iconic Qualities:*
Use of colour and materiality to contrast against neighbouring structures.

*Primary Contextual Qualities:*
Direct correspondence to the warehouse structure to the west, which is also incorporated into the new intervention.

*Primary Iconic Qualities:*
Distinct motif and angular section giving sense of dynamism.

*Primary Contextual Qualities:*
Use of notional site grids and orientation of the building towards the harbour, which physically enters Steamer Basin.
Primary Iconic Qualities:
Irregular triangular form that is visible from multiple directions.

Primary Contextual Qualities:
Use of horizontality and site grids, while being physically connected to the harbour.

Primary Iconic Qualities:
Unique silhouette with a ‘top heavy’ characteristic.

Primary Contextual Qualities:
Orientated towards the harbour, the elevated ‘pods’ are to overhang the harbour edge.

Primary Iconic Qualities:
Notable position on the water’s edge with heightened facade orientated towards the harbour.

Primary Contextual Qualities:
Direct connectivity to the harbour and use of water’s edge to inform layout.

Primary Iconic Qualities:
Distinct motifs and curvilinear form differs from rectilinear forms apparent in the surroundings.

Primary Contextual Qualities:
Direct connectivity to the harbour and use of water’s edge to inform layout.
From the intuitive design stage, the following conclusions were made:

i. It was found that the sites that contained additional and unique contextual cues generated more radical design iterations. This could be attributed to the supplementary factors which could inform the designs. This coincides with the idea that contextual correspondence can be made if the surroundings are ample and of merit. The Dunedin Railway Station allowed further adaptations (either sympathetic or contrasting) to the iterations due to the station’s close proximity and forms.

ii. Stand-alone sites such as Site One, was relatively removed (by distance) from surroundings buildings. Therefore, visually, the architectural gestures may seem arbitrary, as there are no immediate structures to make comparisons with.

iii. The additional contextual factors not only contributed more components to inspire the designs, it also created further site specificity by responding to these site specific elements.

iv. Height and proportion were effective. In most cases, the increase in scale assisted in creating distinction. However, scale increases was to be relatively subtle as to maintain a sense of homogeneity with the low laying surroundings.

Limitations:

i. Program / layout was not investigated thoroughly within this chapter. It will be further developed in the preliminary design stage.

ii. Many of the design iterations were initiated by investigating a long warehouse gable form. Other geometries could be ‘tested’ in future research. In this instance, the gabled warehouse was a principle form to be alluded to (primarily Site One and Site Three).
The following section depicts the development of one design from each of the three sites. The development will include exploration of primary architectural elements. These include: the overall form, materiality and the consideration of circulation. The designs will then be evaluated to determine the success of its iconic and contextual disposition.
9.1 Preliminary Designs

*Identification of the three sites which will be further investigated in regards to it’s iconic and contextual elements*

**Site One - Bauchop Street:**
The proposed intervention is relatively humble in nature and contains a unique roof profile, which is inspired from neighbouring warehouse structures. It also features a coloured facade and alternative materiality which will add further contrast to it's environment.

**Site Two - Thomas Burns Street:**
The primary structure is in two main sections that reflects the existing Dunedin Railway Station while juxtaposing it. The intervention will attempt to create a sympathetic relationship to the century old building; while being highly distinctive and contemporary.

**Site Three - Birch Street:**
The intervention is the simplest form and corresponds most obviously with the site conditions. It also contains the most dramatic tenancy - with the direct connection to the Otago Harbour.
Proposed program for the Student Accommodation.

Proposed program for the Dunedin Art Gallery.

Proposed program for the School of Marine Biology.

Site One: Design Exploration

Design Exploration into overall form, surface / materials, and circulation / Interior layouts

- Progressive circulation - from public to private
- Multiple entry points directed to each space
- Central public areas / living at perimeter
- Exterior circulation with all spaces at centre
- Maze circulation / random

Surface / material exploration

Circulation / layout exploration
Form / silhouette exploration
9.3 Site One: Overall Form

The proposed Student Accommodation on Bauchop Street.

The proposed student accommodation building is in close proximity to many other student flats and halls on Anzac Avenue (one block away to the west). The facility will accommodate approximately 100 students and includes a common space where students can study and socialise. This allows other students to come and use the facilities.

The overall layout is dictated not only by the site, but also is to correspond with the directionality of students coming from the university campus. The end wing on Ward Street acts as an entry point - demonstrated by it’s enlarged scale, setback, and publicly accessible facilities in this part of the building.

Aerial view showing the proposed student accommodation building.
The following elements are extracted from Steven Holl’s notions of the “Phenomenal Zones”, which are suggested to aid one’s perception of space. These notions will be applied to public spaces and circulation routes as these areas hold the most foot-traffic.

- Proportion, Scale, and Perception
- Of Colour
- Of Light and Shadow
- Detail, the Haptic realm
- Accentuated height
- Natural colours
- Skylights
- Timber vs Concrete

An Icon of Least Resistance
Indicative view of the main entry lobby showing study hub to the right and accommodation spaces to the left.
## Analysis of Iconic Success

*Analysis of the architectural icon based on iconic principles*

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Success</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Architectural Distinction</td>
<td>![Icon]</td>
<td>The accentuated form of the roof creates distinction that juxtaposes itself from the surrounding structures. The patterned, full height glazing also breaks away from the smaller scaled windows found in adjacent frontages.</td>
</tr>
<tr>
<td>Enigmatic Value</td>
<td>![Icon]</td>
<td>The overall form is relatively simple and literal, therefore, the capacity to support multiple interpretations may be minimal. It may be comparable to a ‘mountainous terrain’ - alluding to Dunedin’s own mountains.</td>
</tr>
<tr>
<td>Public Engagement</td>
<td>![Icon]</td>
<td>The intervention caters primarily to students of the university or polytechnic which live in this complex. There would be no real reason for the wider public to engage with this building and its use.</td>
</tr>
<tr>
<td>Architectural Experience</td>
<td>![Icon]</td>
<td>‘Atmospheric’ spaces were typically applied to the common areas of the building, while living quarters are left relatively simple, purely for functionality.</td>
</tr>
</tbody>
</table>

**Comments:**

Overall, the building does achieve some of the principles of iconicity, with some areas more successful than others. Areas that are lacking is the ‘Public Engagement’. Although the building is orientated to the public, it perhaps is only significant to those studying in the tertiary institutions.

The addition of another function may draw further social groups to this building, which will increase it’s significance. Additionally, the floor layout is prosaic in nature. Simple planning serves the purpose of student accommodation; however, does limit the extent of achieving specialised interior spaces.
## 9.5 Analysis of Contextual Success

*Analysis of the architectural icon based on contextual principles*

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Success</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geometries &amp; Allusion</td>
<td><img src="image1.png" alt="Image" /></td>
<td>The site did not contain a notable geometry which could inform the overall layout of the building - other than the street grid. However, the continuous gable form draws inspiration from neighbouring facilities that consists of a row of warehouses which resembles one structure. The site is free from existing structures, with roads on three sides. The proposed structure is therefore, isolated within the site. However, the building does positively reinforce the block pattern.</td>
</tr>
<tr>
<td>Embedding &amp; Distancing</td>
<td><img src="image2.png" alt="Image" /></td>
<td>Student accommodation does suit the context of the ‘university city’ and it is in relatively close proximity to the university campus and other student accommodation to the west.</td>
</tr>
<tr>
<td>Appropriate Use</td>
<td><img src="image3.png" alt="Image" /></td>
<td>The most successful aspect is perhaps the proposed use of the building, as it relates directly and services the ‘university city’. It also alleviates the student housing shortage that Dunedin typically experiences. An unsuccessful aspect is the building’s isolation on the site. This is due to the existing site conditions - specifically land de-voided of any physical structures and bounded on three sides by roads. The roads, although essential, can in fact isolate building - especially those at the end of the block. However, the building does assist in consolidating the street frontage and block pattern within this area.</td>
</tr>
</tbody>
</table>

*Comments:*

- The most successful aspect is perhaps the proposed use of the building, as it relates directly and services the ‘university city’. It also alleviates the student housing shortage that Dunedin typically experiences. 
- An unsuccessful aspect is the building’s isolation on the site. This is due to the existing site conditions - specifically land de-voided of any physical structures and bounded on three sides by roads. The roads, although essential, can in fact isolate building - especially those at the end of the block. However, the building does assist in consolidating the street frontage and block pattern within this area.
Site Two: Design Exploration

Design Exploration into overall form, surface / materials, and circulation / Interior layouts

Surface / material exploration

Circulation / layout exploration
Form / silhouette exploration
The proposed art gallery facility is essentially an extension to the already established Dunedin Railway Station. The gallery expands the additional use of the station - as a facility which holds art exhibitions and is home to the Dunedin Art Society. The main entry extends from the existing station (in the same position as the existing pedestrian bridge), over the railway line and to the new facility. The gallery utilises a central core which holds private spaces while being encompassed by the circulation / gallery spaces. This is repeated over each floor to maintain a free-flowing effect with minimal obstructions.
Publicly accessible

Private spaces

Circulation / gallery

Entry

General displays / notice boards

Sculpture garden

Cafe

Gift shop / reception

Theatre room

Workshops

Offices
Interior Spaces

Primary elements which are used to generate experiential spaces - derived from Steven Holl’s ‘Phenomenal Zones’

The following elements are extracted from Steven Holl’s notions of the “Phenomenal Zones”, which are suggested to aid one’s perception of space.

These notions will be applied to public spaces and circulation routes as these areas hold the most foot-traffic.
Indicative view of the corridor leading from the railway station to the main entry of the art gallery.
### Analysis of Iconic Success

*Analysis of the architectural icon based on iconic principles*

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Success</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Architectural Distinction</td>
<td><img src="https://example.com/icon" alt="Icon" /></td>
<td>Distinction is created by ‘gradual transition’ demonstrated by portioning the building into two sections. The more eccentric section faces Thomas Burns Street, which juxtaposes itself to the remaining building - facing the railway station. The elevation facing Thomas Burns Street possesses a dynamic characteristic as it is gradually elevated at the south end. This also reaffirms the theme of ‘transition’ as described above.</td>
</tr>
<tr>
<td>Enigmatic Value</td>
<td><img src="https://example.com/icon" alt="Icon" /></td>
<td>One may surmise that the intervention will cater to those within the art community and not the general public. However the gallery can be used for other functions / events and is open to the public.</td>
</tr>
<tr>
<td>Public Engagement</td>
<td><img src="https://example.com/icon" alt="Icon" /></td>
<td>Access to the gallery (via the bridge) is intended to generate a memorable journey from ‘old’ to ‘new’, which is heightened though the change in materiality and scale.</td>
</tr>
<tr>
<td>Architectural Experience</td>
<td><img src="https://example.com/icon" alt="Icon" /></td>
<td></td>
</tr>
</tbody>
</table>

**Comments:**

Subtlety is required to prevent alienation and a sense of respect to the existing building - particularly on the elevation facing the station. Appropriately, the new gallery is simply an ‘extension’ of that already housed in the railway station. One may also note that the art gallery is designed to promote the view of art. Therefore the architecture is required to minimise distractions, at least in the exhibition areas. The result may be simple, generic white-walled spaces, which are inimical to the ‘iconic’ architectural experience.
### Analysis of Contextual Success

*Analysis of the architectural icon based on contextual principles*

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Success</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geometries &amp;</td>
<td><img src="image1.png" alt="Image" /></td>
<td>The existing railway station was the primary source of inspiration that informed much of the proportions and materiality of the new intervention. This applies particularly to the elevation opposing the station.</td>
</tr>
<tr>
<td>Allusion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Embedding &amp;</td>
<td><img src="image2.png" alt="Image" /></td>
<td>The direct connection to the prominent Dunedin landmark assists in the building's anchorage to the site. A formal relationship is also created with the use of similar - styled materiality.</td>
</tr>
<tr>
<td>Distancing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Appropriate Use</td>
<td><img src="image3.png" alt="Image" /></td>
<td>An art gallery expands the current use of the railway station, i.e. Being home to the Dunedin Art Society. However, this fact may not be widely known to the general public.</td>
</tr>
</tbody>
</table>

**Comments:**

The new intervention maintains a sympathetic relationship with the existing railway station, which is more evident on the elevation opposing the station. This relationship is further heightened by the relatively close proximity of both buildings. In regards to use, the attached art gallery may not be seen as ‘appropriate’ to some, as knowledge of the building being the premises for the Dunedin Art Society may not be widely known. Therefore, a more successful program is one that is more relatable to the original function / typology of the railway station. This would increase the resonance with the existing context.
Site Three: Design Exploration

Design Exploration into overall form, surface / materials, and circulation / Interior layouts

- Surface / material exploration
- Circulation / layout exploration

- Public / private segregation
- Public / private unsegregated
- External circulation
- Centralised spaces with surrounding circulation
- Liner / centralised circulation
- Off centre circulation
- Common areas centralised
Form / silhouette exploration
The proposed school of marine biology positions itself on the Otago Harbour. The facility incorporates laboratories, teaching facilities, breakout spaces, auditorium, cafe, and public spaces. The layout is dictated by the site geometries; where the entry points are also aligned to. Individuals continue along this axis to the teaching facilities at the end of the building, which lends the experience of progressing toward and into the harbour. This concept is further heightened by the overhanging portion of the facility that contains the wet laboratories, therefore, creating a physical and metaphysical connection with the water.

Aerial view showing the proposed school of marine biology overhanging site.
The following elements are extracted from Steven Holl’s notions of the “Phenomenal Zones”, which are suggested to aid one’s perception of space. These notions will be applied to public spaces and circulation routes as these areas hold the most foot-traffic.

**Interior Spaces**

*Primary elements which are used to generate experiential spaces - derived from Steven Holl’s ‘Phenomenal Zones’*

- **Proportion, Scale, and Perception**
- **Of Colour**
- **Of Light and Shadow**
- **Detail, the Haptic realm**
- **Accentuated height**
- **Skylights**
- **Off the form concrete**
- **Not Utilised in Entry**

*An Icon of Least Resistance*
Indicative view of the main entry corridor of the facility.
### Analysis of Iconic Success

**Analysis of the architectural icon based on iconic principles**

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Success</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Architectural Distinction</td>
<td>![Icon]</td>
<td>The distinctive aspect of this intervention is the unique triangular profile / silhouette which is apparent from multiple directions - ensuring it’s memorability. This is further accentuated by projecting the structure into the water.</td>
</tr>
<tr>
<td>Enigmatic Value</td>
<td>![Icon]</td>
<td>The abstracted gable roof is a symbolic reference - alluding to the traditional gabled warehouse typology of Dunedin’s waterfront. The angled walls also create a sense of intrigue and dynamism to the building.</td>
</tr>
<tr>
<td>Public Engagement</td>
<td>![Icon]</td>
<td>It can be concluded that the intervention is strongly oriented towards students / individuals with an interest in marine biology. However the facility also contains recreational areas and auditoriums that can be used by the public.</td>
</tr>
<tr>
<td>Architectural Experience</td>
<td>![Icon]</td>
<td>Teaching spaces are glazed and possess spectacular views over the harbour. However, Lab spaces must maintain a sanitary / functional condition. Therefore the latter makes less contribution to the unique architectural character.</td>
</tr>
</tbody>
</table>

**Comments:**

A successful aspect of the intervention is the abstracted gable form that is relatively unconventional. This was derived from the high number of gable roof structures found on adjacent sites. The profile can also be observed from multiple vantage points, which ensures a higher chance of experiencing the building’s distinct silhouette. Interior spaces (specifically the lab spaces) are constrained by the requirement for order and serviceably. The more architecturally developed spaces correspond to circulation areas and public spaces - where most foot-traffic is concentrated.
### Analysis of Contextual Success

*Analysis of the architectural icon based on contextual principles*

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Success</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geometries &amp; Allusion</td>
<td></td>
<td>The intervention utilises the unique ‘pointed’ aspect of the site, which is evident in the layout of the building. It also utilises geometries found on the long warehouse structure to the west. This fosters a notional ‘projection’ from the existing built environment.</td>
</tr>
<tr>
<td>Embedding &amp; Distancing</td>
<td></td>
<td>In order to generate a connection to the water (the most prominent aspect of the site), the structure has been situated closer to the harbour edge. This positioning isolates the building from its neighbours.</td>
</tr>
<tr>
<td>Appropriate Use</td>
<td></td>
<td>The marine biology program highlights Dunedin’s unique wildlife and is also well established at the Otago University. Additionally, this use is very appropriate for the water-edge location.</td>
</tr>
</tbody>
</table>

**Comments:**

The intervention is an extension to the existing marine biology departments at the Otago University and the facilities at the Otago Peninsula. The intervention highlights this aspect and strengthens the identity of Dunedin as a city of education, research, and unusual biological diversity.

To increase affinity with the site, the design draws upon and accentuates the unique geometries of the surrounding port. However, one may note the disconnection from neighbouring structures. This resulted from the desire to connect the building directly to the harbour, promoting site specificity.
Conclusions

Explanation of the most successful design iteration.
The design will be continued in the developed design stage

From the preliminary design stage, the following conclusions were made:

i. When both iconic and contextual factors are considered, Site Three - The School of Marine Biology was the most successful of the three locations. Site Three demonstrated the highest connection to the context due to the distinctive triangular site - which can be likened to a peninsula. By aligning the building with these unique geometries, the design increases both the distinctiveness of the architecture and the site specificity of the building’s form.

ii. Direct physical connectivity to the Otago Harbour adds to site specificity and gives the design a quality that cannot be replicated in other locations.

iii. The school also promotes the notion that Dunedin is a of ‘City of Literature’. This branding aligns itself with literacy, education, and research. Additionally, the marine biology aspect correlates with Dunedin’s unique ecosystem and wildlife.

iv. The site itself also shares similarities with the Sydney Opera House. The site is highly visible and is witnessed from multiple vantage points (nearly a 360 view due to Dunedin's topography). This aspect is advantageous for the potential dissemination of the building.
The developed design section is the expansion of Site Three: the School of Marine Biology. Various elements which were not as successful will be further developed to improve the intervention’s iconic and contextual status. The Initial portion of this chapter will include additional form and spatial exploration exercises.
Design Exploration - Three

Volume Used: Proposed School of Marine Biology
Location: Dunedin waterfront - Site Three
Generated from preliminary design studies

The third design exploration will be based on the forms developed in the preliminary design phase. The form is borrowed from the proposed School of Marine Biology on Site Three.

The form manipulations will primarily be surface applications, with the fundamental goal of heightening distinctiveness to the existing form. The overall form and motif / structure should be relatively retained.
i. 
*Exploration:*
Accentuate parts of structure; however, retain overall form.

---

ii. 
*Exploration:*
Surface patterns.

---

iii. 
*Exploration:*
Use of colour.
An Icon of Least Resistance

Design Exploration - Distinction in two planes

Design Exploration - Surface / body patterns

Design Exploration - Surface colour
Conclusions

From the design exploration, the following conclusions were made.

i. The intersecting forms from two directions has been maintained in order to preserve the correspondence to site geometries. Therefore the extent of form manipulations were limited.

ii. The manipulation of the surface and body of the volume is the least disruptive to the overall form. This allows the form to be retained while different effects are applied through unique surface treatments.

iii. Due to the intersecting geometries, the surface and body treatments can create engaging effects that incorporate both wings of the structure. Rather than highlighting each wing individually, the treatments may ‘cross-over’, creating a dynamic feature which differs as one progresses around the structure. This accentuates the unique configuration of the site.

iv. The junction between the bisecting geometries can also be accentuated by manipulating the form in that location. This may create a climatic feature at the intersection of site geometries - perhaps highlighting a prominent activity within.

Limitations:

i. The uniqueness of this site was not fully explored as a form has already been established. This may have affected the extent of the ‘architecture to harbour relationship’.
Further design exploration of primary interior spaces to improve ‘Architectural Experience’

The spatial qualities are further investigated within three primary areas. These spaces are strictly circulation and public areas, which are believed to receive the most use throughout the day. Therefore the atmospheric qualities will be of high importance to achieve a positive and memorable experience - for both the students and public. These spaces include:

i. Entry Corridor
ii. Atrium
iii. Laboratory Corridors.

As suggested earlier, the primary architectural elements that are explored in relation to interior spaces and Steven Holl’s ‘Phenomenal Zones’ are:

Colour
Light and Shadow
Proportion, Scale, and Perception
Detail, the Haptic Realm (Tactility)
i.i
Entry Corridor
Exploration:
The use of a low entry ceiling that leads into a triple height atrium space. This creates a feeling of awe with the sudden change in spatial proportions.

i.ii
Entry Corridor
Exploration:
Completely open entry that reflects the verticality and unique shape of the facility. The slits within the wall to the left allows light to filter through and lending glimpses of the harbour.

i.iii
Entry Corridor
Exploration:
Essentially the reverse of the concept above. The high amount of glazing allows a sense of transparency and promoting connectivity to the harbour.
**i.iv Entry Corridor**
*Exploration:*
Partial height walls at the entry that is completely open above. This assists in emphasising the triple height space and unique form of the facility over.

---

**ii.i Atrium**
*Exploration:*
Fully exposed triple height atrium space with a triangular central feature that assists in diverting individuals into the corridors. The angles also refer to the unique disposition of the site.

---

**ii.ii Atrium**
*Exploration:*
The use of a faceted form that reflects the triangular characteristic of the exterior. However, the angles are much more fluid in this instance.
ii.iii
Atrium
*Exploration:*
Semi-exposed atrium space with a medium height ceiling that incorporates a void over the seating area. This creates a dramatic element within the atrium space and reveals the angular roof over.

ii.iv
Atrium
*Exploration:*
Use of curvilinear forms to fully contrast against the triangular / rigid nature of the exterior. Most elements are covered and glazing is only apparent at an elevated level.

iii.iii
Laboratory Corridor
*Exploration:*
Corridor space utilises deep light-portals, which will create unique lighting effects. The coloured doorways will add more vibrancy within a typically standardised circulation route.
An Icon of Least Resistance

iii.ii
Laboratory Corridor
Exploration:
Completely transparent roof-light which increases the sense of openness to the sky. These spaces will contrast against other rooms, where the typical focal point is towards the harbour.

iii.iii
Laboratory Corridor
Exploration:
Natural lighting into the space is through slits in the ceiling. The slits emphasises the boundaries of the space by highlighting the walls. The slits also draws the eye towards the open end of facility and to the harbour.

iii.iv
Laboratory Corridor
Exploration:
Angled slits located in the wall to create irregular lighting effects while reflecting the angular nature of the building and site.
Conclusions

From the design exploration, the following conclusions were made.

i. Particular architectural themes are stronger when juxtaposed to each other - exemplifying the atmosphere of the previous or subsequent space. An example would be the use of proportion, where a confined space transitions into a large void space.

ii. However, over-use of differing spatial conditions may lead to an architectural language that is convoluted. The entirety of the spaces may only need to alternate between one or two themes, such as colour (poly-chromatic spaces versus monochromatic), proportion (big versus small), materiality (concrete versus timber), and transparency (open versus closed), etc.

iii. The interior spaces can also be considerate of the site conditions to provide a higher resonance to the exterior environment. The most visually discernible strategy would be the use of materiality that reflects the exterior. The case study utilised brick, concrete, and the vastness of the interior space to represent the surrounding warehouse typology.

Limitations:

i. The exercise only utilised three public spaces. Alternative spaces, such as private areas, could be investigated to establish further aesthetical continuity throughout the facility.
**10.3 Proposed Architectural Intervention**

*Developed design stage consisting of various design advancements to improve the intervention’s iconic and contextual condition.*

A majority of the development was to interior spaces, as this area was not as refined in the previous preliminary design stages. In order for the intervention to excel within the experiential aspect, publicly accessible and circulation spaces were advanced.

To exploit the views over the harbour and to heighten the sense of transparency / connectivity to the water, additional glazed spaces have been installed along the water’s edge. Additionally, the auditorium is relocated to the south west and replaced with teaching facilities. The additional glazing also allows onlookers to view students at work - creating a more publicly engaging element, rather than completely separating the students from the public.

In regards to the envelope, ‘denser’ materials (i.e. Concrete and masonry) was the primary material. This corresponds to the materiality used in the neighbouring structures. The overall abstracted gable form was retained. However, the ends of the structure was accentuated by maintaining the glass and juxtaposing it with concrete walls and canopies.

Development of exterior spaces were also employed to further beautify the surrounding space. It also allows the general public to come and use these recreational areas.
Aerial view of the site and the school of marine biology.
Primary Floor Plans

1. Entry
2. Library
3. Cafeteria and seating
4. Auditorium
5. Dry laboratory and equipment
6. Wet laboratory and equipment
7. Staff
8. Post-graduate and research area

An Icon of Least Resistance

Ground Floor Plan
First Floor Plan
Third / Forth Floor Plan

0 25m
View of the school from the opposite side of Steamer Basin.
Elevations

North Elevation

East Elevation

South Elevation

West Elevation
View of the school from the mouth of the Steamer Basin, parallel to Wharf Street.
View of the school entrance from Birch Street.
Interior view of the atrium space from the main entry corridor.

**Interior Spaces**

*An Icon of Least Resistance*

*Ground Floor Plan*
First Floor Plan

*Interior view of corridor from the library at the upper level.*
10.4 Analysis of Iconic Success

Analysis of the architectural icon based on iconic principles

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Success</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Architectural Distinction</td>
<td>The distinctive aspect of the design is the triangular motif that subtly contrasts itself from the surrounding bodies. This is further accentuated by the canopies which frames the motif. The increase in height and proportion also promotes visibility. However, due to the connection to the water and prominent location, the building is already highly visible. Colour is included through the use of brickwork and by the subtle green glazing, which removes itself from the generally monochromatic surroundings.</td>
<td>The increase in height allows the intervention to have a greater presence in the skyline.</td>
</tr>
<tr>
<td>Enigmatic Value</td>
<td>The most notable enigmatic feature is the angled, inward sloping walls. This creates a sense of unbalance as the structure is seen to lean towards one side. This notion is also accentuated by the top-heaviness of the concrete roof structure and glazing at the lower levels. The highly obvious intersecting wings may also be interpreted as two bodies, merging (either forcefully or elegantly) to create a single complex form. The sharp pointed roof and heavy materiality also alludes to some of Dunedin’s masonry church structures, creating a further notional connection to local architecture.</td>
<td>Accentuation of the gable ends with canopies. Colour through materiality and glazing introduces more vibrance to the intervention. Alternative imagery extrapolated from the intersecting motifs. The architectural gesture of the form aligns with notions of top heaviness and unbalance.</td>
</tr>
</tbody>
</table>
Increased transparency of the exterior promotes a dialogue between the students and public, while the creation of a park beside the facility for the public, allows individuals to be in the vicinity of the intervention. Although the building is for students, the interior spaces are still accessible to the general public. Architecturally, the design is reminiscent of many churches in Dunedin with heavy materiality, repetition, arches, and pointed forms. However only a portion of the population will understand these gestures.

The need to maintain a regulated environment, especially within the laboratory spaces, means that the majority of the private spaces are standardised. The more architecturally developed spaces are public areas and circulation routes, as these areas will be utilised the most and experienced by students and public.

The use of materiality reflects the exterior while the triple height void in the atrium, creates a sense of awe, transparency, and lightness. This reflects the openness and ephemeral nature of Otago Harbour.

The pointed motif and wings shares similarities to many of Dunedin’s churches.

Developed park space beside the intervention to promote public visitation.

Void spaces adding additional drama to the interior.

Use of materiality, such as concrete, brick, and timber. The triple height space also creates a dramatic element within the facility.
## Analysis of Contextual Success

**Analysis of the architectural icon based on contextual principles**

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Success</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Geometries &amp; Allusion</strong></td>
<td>The use of the warehouse gable profile, although abstracted, is still notable and generates a congruence with neighbouring structures. The primary built form corresponds with latent grids on the site. This relationship is highly conspicuous and is evident from most vantage points. It also helps to organise interior spaces. Proportions - such as the emphatic horizontality and the relatively flat and regimented nature of the facade (on the north side), replicate those of the adjacent warehouse structures.</td>
<td><img src="image1" alt="Correspondence to the notional grid of the site which is utilised in the layout." /></td>
</tr>
<tr>
<td><strong>Embedding &amp; Distancing</strong></td>
<td>Creating a sense of embeddedness on the site may not be possible due to the area's highly exposed and isolated disposition. In addition, the desire to connect with the body of water also accentuated a sense of disconnection to neighbouring structures. Nevertheless, the design succeeds in creating a strong visual connection with the warehouse structure to the west of the site. Deliberate pairing of the two buildings creates juxtaposition.</td>
<td><img src="image2" alt="New form based on the existing warehouse gable, and horizontality." /></td>
</tr>
<tr>
<td></td>
<td></td>
<td><img src="image3" alt="Embedding is difficult when the site itself contains minimal structures." /></td>
</tr>
<tr>
<td></td>
<td></td>
<td><img src="image4" alt="Figure - Ground study showing relationship between solids and voids." /></td>
</tr>
</tbody>
</table>
The installation promotes the educational culture that is highly specific to Dunedin. The School of Marine Biology corresponds to a field of enterprise, teaching, research, and culture, which Dunedin is already immersed in. Dunedin’s cultural identity has been acknowledged by UNESCO, which granted Dunedin the title of ‘City of Literature’.

Overall, the installation is successful in meeting the requirements of both an iconic and contextual building. However, the program suits the location and thanks to the highly visible site, further promotes ‘The City of Literature’ locally, nationally, and even internationally.

The major aspects which could be improved on is the ‘Public Engagement’, ‘Embeddedness’, and ‘Architectural Experience’. These qualities were harder to incorporate due to the emptiness of the existing site and nature of the functional program. The program is relatively specific to one social group and can be perceived as an exclusive and privatised activity.
The following section will be focused on the findings which contributed to determining if a building can be both iconic and contextual within Dunedin’s waterfront.
Exegesis

The outcomes from the design case study (developed design phase)

The significant element established in this research is the primary themes of iconicity and contextualism, which were extrapolated from literature and structured to produce a set of architectural strategies. Together, themes and strategies provide an architectural approach that heightens the possibility of success when creating an iconic and contextual building. The themes also underpin the structure of the thesis as they form a basis for the precedent studies, design case studies, and evaluation criteria.

The following are some of the significant findings from the design case study, which contribute to determining if a building can be both iconic and contextual within Dunedin’s waterfront context.

Most effective iconic and contextual themes:
The most effective strategies in creating an contextually based icon, are those which gravitate towards emphasis of the visual elements. As suggested in the literature, the icon is typically of a nature that demonstrates distinction within the public realm. Therefore, the strategies that pertain explicitly to visual distinction, while displaying a responsiveness to context, was the most successful. These include: Architectural Distinction, Geometries and Allusion, and Embedding and Distancing.

The design case study presents this though the use of the most obvious building typology within the Dunedin waterfront as a precedent. This was the gabled warehouse typology, which was then abstracted to create a unique motif that could be utilised as a tool to represent Dunedin and its waterfront precinct (the idea is the distinct silhouette can be recognised and associated to Dunedin). The motif is simple enough to be understood by the general public, as the existing gable and new triangular form are both very similar, as they are pointed, sharp, aggressive, and demonstrates directionality. However, the design is also exclusive and distinguishable from other building forms in Dunedin.

An indicative image of Dunedin’s skyline that incorporates the new architectural icon.

This suggests that an icon must also consider the wider city in order to determine if similar forms exist. The icon should be unique and unprecedented to be fully distinct.
The overall exterior remains relatively simple, being primarily monolithic and composed of familiar materials, such as concrete and brickwork. However, the alternative colours for these materials creates further contrast - heightening the intervention’s presence within the area. This is most evident on the north facing elevation, which is designed to correspond with the neighbouring warehouse structure, while being subtly divergent.

The heightened amount of contextual elements assisting in iconicity:
Supplementary contextual cues present within an area may heighten the local disposition of the architectural intervention. These cues provide design criteria that promotes site specificity.
In the case of the design case study, the site was unique in it’s geometry. The intervention exploits this through the use of intersecting forms and positioning itself by the water’s edge. The protrusion into the harbour creates drama and emphasises the unique abstracted gable end / motif. Therefore, the intervention promotes the geometries of the site, while the site promotes and emphasises the unique motif.

The arrangement of the building, based on the site geometries, also ensures the building / motif is highly visible from multiple vantage points.

The site itself is relatively minimal and contains one structure in close proximity. This is the long warehouse structure immediately to the west. This structure served as the primary referent - triggering both similarity and contrast.

This heightened the presence of the intervention. As the only structure to juxtapose against, the warehouse helped to set up architectural gestures in the new building. If additional structures had been present, the increased referencing could have diluted the gestures and the architectural language.

One should mention that this technique grants a stronger sense of embeddedness into the site due to the increase in correlations between the intervention and it’s surroundings.

Primary contextual elements of the site which informed the design.

This concept aligns with Jencks’s notion of an urban language being “hetero-style”, as the architectural character of a structure can vary in response to the changes in the immediate context (Jencks, Contextual Counterpoint in Architecture. 73).

Contextual cues are essential in grounding the icon within a location. If no cues are available, there would be no foundation for the new architecture, therefore, the possibility of generating an arbitrary language is substantially increased.
The uniqueness of the location produces distinctive architectural gestures, provided the building responds to this aspect of context, either sympathetically or through juxtaposition. As the cues became numerous, the designer is able to execute more references to the surroundings. The context of the design case study offered relatively few cues. However, it contained enough unique components to allow a site specific intervention to be conceived.

Hindrance for and of the program:
It was found that both the program and the architecture had a great bearing on each other. The extent of formal complexity within the architecture can be reduced by the need for functional interior spaces. This was more evident with a program of a intricate nature. Additionally, functionality was dependant on the configuration of spaces and if the rooms were in close proximity to the exterior shell. The adherence to the unique site geometries indeed allowed for a unique layout and overall form; however, at the expense of functionality of the spaces. The horizontality and intersection of the two axes created irregular and relatively impractical circulation spaces. This was further accentuated by the strict needs of a marine biology facility.

Walls were manipulated to produce a unique motif. Although visually effective on both the interior and exterior, while alluding to the gabled warehouse form, the angled walls had the potential to create impractical working spaces. The intervention located an angle wall on one side of the plan, while the working spaces were positioned on the opposing orthogonal wall for the sake of practicality. The disadvantage was the creation of standardised spaces. However, despite it's limitations, this treatment answered the needs of the facility. Surface treatments were applied to create a more memorable experience without compromising the exterior envelope.

The design case study attempted to simultaneously address Architectural Distinction (through form), Architectural Experience (experiential spaces), Geometries and Allusion (angular motif and layout axes), and Appropriate Use (marine biology facility). However, the design process became inhibited as a result of attempting to achieve so many objectives. The intervention in fact oriented towards exterior aesthetics, as this was deemed the primary objective to achieve. One may propose the potential conflict between the four strategies mentioned.

An intricate exterior form that aligns itself with the site geometries may inhibit the experiential spaces within. Site geometries may also not grant a suitable foundation for the program, especially if it requires a highly regimented space. The utilitarian requirements of the interior may restrict the extent of form manipulation to the exterior.

Most efficient placement of working areas was to the vertical wall (right diagram).
Can a building be both contextual and be iconic in the context of Dunedin’s waterfront?:

It would seem one can, to an extent, generate a building that is both contextual and iconic within the context of Dunedin’s waterfront. However, certain themes (be they iconic or contextual in origin) may prevail due to their inherent ‘impacting’ nature. Achieving all themes simultaneously may be considered ambitious, as one may encounter conflicts with ideas which are contrary to each other.

The most effective iconic and contextual design strategies were those that provided an instant visual appeal. These themes include: Architectural Distinction, Geometries and Allusion, and Embedding and Distancing.

The above themes deal directly with the physicality / visceral nature of the architecture, which allows one to automatically acknowledge the intervention and it’s relationship to the surrounding context.

The design response was dependant on the site itself and the surrounding environment, as it contained the contextual cues, which is either alluded to or completely juxtapose against, or both.

It should be mentioned that the design is also dependant on the disposition of the designer themselves, as they will determine the context in which will be utilised or un-utilised.
Conclusions and Reflection

The critical reflection of the project. Various aspects which may have limited the research will also be discussed.
Conclusions and Reflection

Conclusions:
The imperative to create architectural icons is a response to the necessity to exhibit a sense of identity, values, and a ‘brand’ within a world dominated by global commercialisation. Institutions turn to these types of architectural works in order to differentiate themselves for the purpose of advertisement. However, due to their atypical composition, architectural icons are prone to the criticism that they are a disruptive element, which violates urban decorum. There continues to be a demand for these unique structures even though such projects are risky, frequently failing in their promise to deliver an iconic image. In this case, the outcome is all the more disappointing if the building also alienates itself within the urban environment.

An appropriate response to the latter is the consideration and application of contextual imperatives that advocates architecture to be more critical and holistic with the wider surroundings. Therefore an architectural icon that acknowledges context may result in an intervention which is well integrated into the urban environment and therefore, reducing it’s potential for alienation.

The investigation involved the intersection of iconicity and contextualism. The result generated four primary iconic themes and three contextual themes. These themes are suggested to increase the probability of success in achieving both iconic and a contextualist response. These primary themes were extrapolated from literature.

The themes relating to iconicity includes:
1. Architectural Distinction
2. Enigmatic Value
3. Public Engagement
4. Architectural Experience

The themes relating to contextualism includes:
1. Geometries and Allusion
2. Embedding and Distancing
3. Appropriate Use

The themes laid parameters for developing a contextually based icon. These parameters also provided a basis for evaluating existing precedents and the design case study.

The results demonstrated that the icon would typically gravitate towards a particular theme or themes (such as ‘Architectural Distinction’). This was also evident in the precedents. Achieving all themes simultaneously may heighten the iconic and contextual properties of a design. However, integration of so many factors can be considered ambitious. Also, it was found that some themes of iconicity and contextualism caused conflict in the design case study. ‘Geometries and Allusion’ conflicted with ‘Architectural Distinction’.
This occurred because the first two properties conformed to the existing environment, while ‘Architectural Distinction’ relied on juxtaposition.

However, the application of Venturi’s notion of ‘creating something perceptually new’ through the simple distortion of the vernacular was a technique that appeared effective. One may allude to existing geometries; however, subtly distorting them may create distinction. This was apparent within the design case studies and Design Exploration - Two. The generation of differing forms, extrapolated from the simple gabled warehouse was relatively successful, so long as the original base form remained evident. This strategy was also assisted by the proximity of the ‘host’ building with it’s pure vernacular form. This demonstrated that proximity is useful for both iconicity and contextualism, as both allowed correlation and contrasting to be produced within the architecture.

The sequencing of themes was significant. In regards to the design exercises, the context was the initial factor that was to be considered. The design was initially grounded, then iconic themes were consciously applied to heighten it’s condition (in regards to the surrounding context). This was done either to sympathise or juxtapose. This sequence suggests that the iconicity was (to an extent) governed by context, even if the latter was subsequently disregarded.

As stipulated and demonstrated in the design exploration exercises, architectural forms were harder to generate if context was not considered. Of course, the design outcome is highly dependent on the merit of the surrounding environment. However even the most simple form / ‘host’ (e.g. a simple gabled warehouse) could be utilised to create iconic architecture. Nevertheless, as a general rule, the more unique a context is, the more opportunities there are to draw inspiration from.

Therefore, one may suggest that contextualism does not necessarily prevent / inhibit iconicity; it may in fact be helpful for conceiving the architectural icon.

Reflection / Limitations:
Some factors may be considered to have affected the outcome. The design case study at the urban level, which was to improve connectivity and accessibility to the waterfront, may have unintentionally furthered the success of the architectural icon. This outcome could have reduced the requirement to utilise the design strategies to their full extent. However, in this research, all the design strategies were utilised and tested. A follow-up study may produce a design case study that avoids any changes to the existing environment.

Additional form finding exercises could also be implemented within future research, e.g. to determine alternative ‘host’ geometries. Although the gabled warehouse form was heavily utilised in this research, other geometries may have been present which could produce dramatically different results.
As with any design case study, there was an element of personal preference in the selection of the 'gable' motif.

Despite these limitations, the result of the research produced a set of themes and explicit architectural strategies which may assist in heightening the success of a contextually based icon. The design case study also demonstrated a unique approach in applying those themes, which yielded positive results, while revealing limitations which may arise when considering such subjective topics. However, through the process of ‘testing’ notions of iconicity and contextualism within a waterfront environment, a contextually based icon was presented: the proposed School of Marine Biology in the city of Dunedin.
Bibliography

Figures and references which was used to compile this research.
List of Figures

All figures which are not attributed are the Author's own.


Fig. i.ii. Meggiolaro, Tiana. The Fondation Louis Vuitton. FLV Museu Em Paris by Frank Gehry. ClickInteriors, 2014. Web. 05/02/2017. <http://www.clickinteriores.com.br>

Fig. 1.01 Getafix. The Selfridges Department Store. Birmingham Churches and Selfridges. Commons.wikimedia. 2005. Web. 06/02/2017. <https://commons.wikimedia.org>

Fig. 1.02 Smith, Susan J. Milwaukee Art Museum. Going to Chicago to See the Calatrava in Milwaukee. DesignDestinations. 2012. Web. 05/02/2017. <http://www.designdestinations.org>.

Fig. 1.03. All Architectural Designs, Valencia, City of Arts and Sciences. AllArchitectureDesign’s. 2015. Web. 06/02/2017. <http://allarchitecturedesigns.com>.


Fig. 1.08. The Skyscraper Centre. Tallest Buildings in the World. Vanity Height - CTBUH Tall Buildings in Numbers. The Skyscraper Centre. Web. 05/02/2017. <http://ctbuh.org>.


Fig. 1.15. Author’s own image.


Fig. 1.20 Charleson, Andrew. *Novartis Building. Structure as Architecture*. Arlington: Routledge. 2015. P.g. 35. Print.


Fig. 1.23 Charleson, Andrew. *0-14 Tower. Structure as Architecture*. Arlington: Routledge. 2015. P.g. 51. Print.


Fig. 1.26 Charleson, Andrew. *Vancouver Convention Centre. Structure as Architecture*. Arlington: Routledge. 2015. P.g. 189. Print.


An Icon of Least Resistance


Fig. 2.03  Morshed, Tanweer. The Jewish Museum. Commons.wikimedia, 2013. Web. 09/02/2017. <https://commons.wikimedia.org>

Fig. 2.04  Commons.wikimedia. The Guggenheim Museum. Commons.wikimedia, 2015. Web. 09/02/2017. <https://commons.wikimedia.org>


Fig. 2.06  Ito, Joi. The Burj Al Arab. Commons.wikimedia, 2007. Web. 09/02/2017. <https://commons.wikimedia.org>


Fig. 3.02  Daderot. Fallingwater. Commons.wikimedia, 2013. Web. 09/02/2017. <https://commons.wikimedia.org>


Fig. 3.05  Sean, Monro. Hotel Fouquet Barrière. Edouard François : Hotel Fouquet Barrière. Majestic Plume. 2013. Web. 05/02/2017. <http://majesticplume.blogspot.co.nz>


Fig. 3.07  Joris. Anfiteatro Lucca. Commons.wikimedia, 2006. Web. 09/02/2017. <https://commons.wikimedia.org>

Fig. 3.08  Purcell, Victoria. Old Royal Naval College Discover the Hidden Details of the ORNC. London Resident Magazine. 2015. Web. 09/02/2017. <http://www.theresident.co.uk>.


Fig. 3.10  Mirror. The Best Football Stadiums That Were Never Built. Mirror. 2015. Web. 11/20/2017. <http://www.mirror.co.uk>.


Fig. 3.13  Garkavenko, Alex.  *Architectural Illustration Styles That Prove Drawing Isn’t Dead.* Architizer. 2016. Web. 13/02/2017. <https://www.architizer.com>


Fig. 3.18  Commons.wikimedia.  *St Paul’s Cathedral and Town Hall.* Commons.wikimedia, 2011. Web. 09/02/2017. <https://commons.wikimedia.org>.


Fig. 3.20  Author’s own image.


List of References


Bibliography


Kostopoulou, Stella. “On the Revitalized Waterfront: Creative Milieu for Creative Tourism”. Sustainability. 05/2013. 4578-4593. 27/03/2016. PDF.


