

# THINK BIG

act small

Elyjana Roach

UF:







# **THINK BIG** act small

A 120 point thesis submitted in partial fulfillment of the requirements for  
the Masters of Architecture (Professional)  
Victoria University of Wellington, School of Architecture

2017



# **THINK BIG** act small

Elyjana Roach

A cross disciplinary exploration  
into re-orientating the city of  
Porirua towards its neglected  
harbour.







fig.0.2

*Dedicated to my family.*





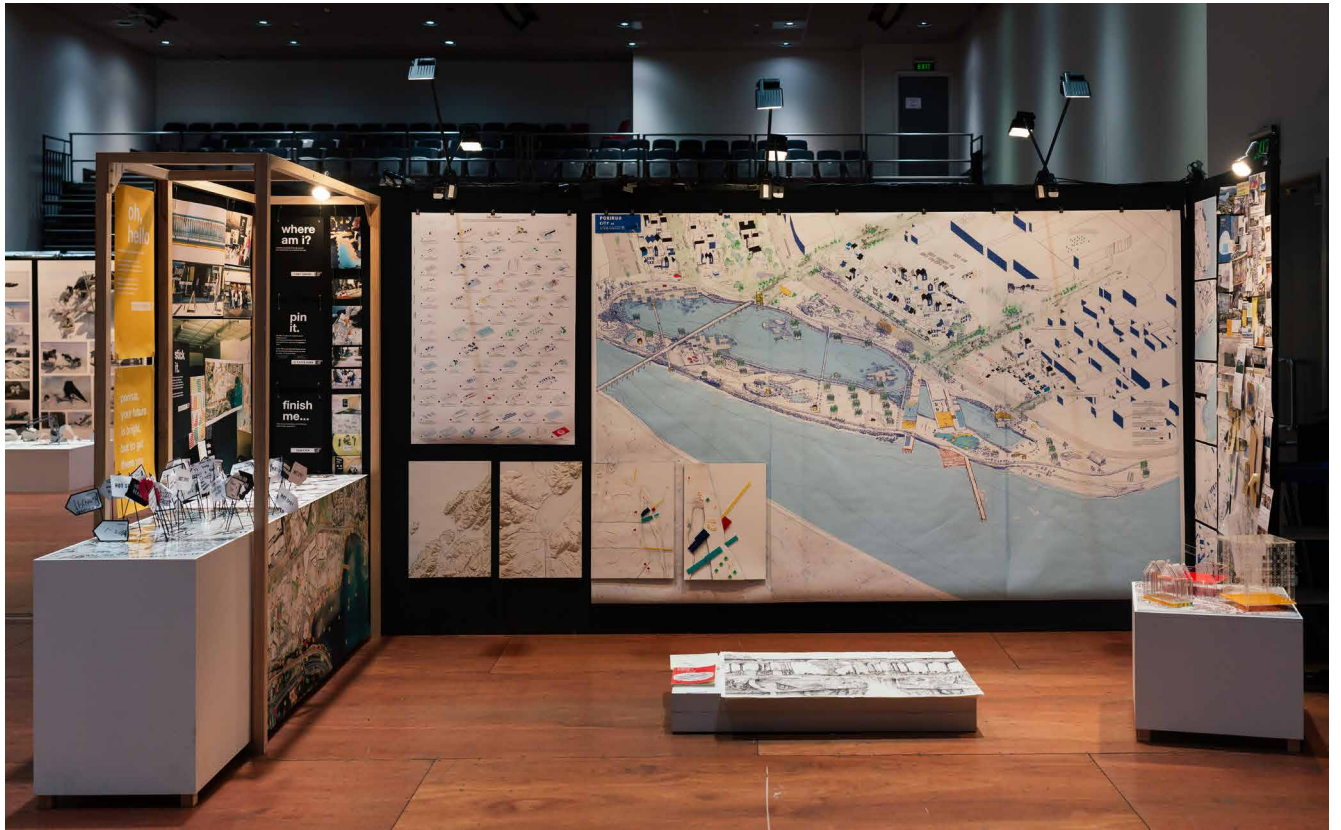


fig.0.3

*This project was awarded a Highly Commended award  
in the New Zealand Institute of Architects (NZIA) Central  
Innovation Student Design Awards for 2016.*

**thanks**

**Thank you, Kerstin Thompson, my supervisor. I am privileged and inspired to have your guidance and perspective on architecture.**

**Thanks, to my many professors, who have been supportive over the years, including Carles Martinez-Almoyna, my secondary supervisor, and Peter Connolly, my surrogate landscape supervisor for the year.**

**Thanks to everyone in studio. You are now my whanau.**

**Thank you, Te Ropu Awhina whanau, especially David Hakaraia. You've been a generous giver of support and time over the years.**

**Thank you, whanaungatanga - 'the boys' and girls, near and far. You've made life a fun situation whilst studying.**

**Thank you, Andrew Matautia, my go-to photographer. This work is a million times more effective with your photographs.**

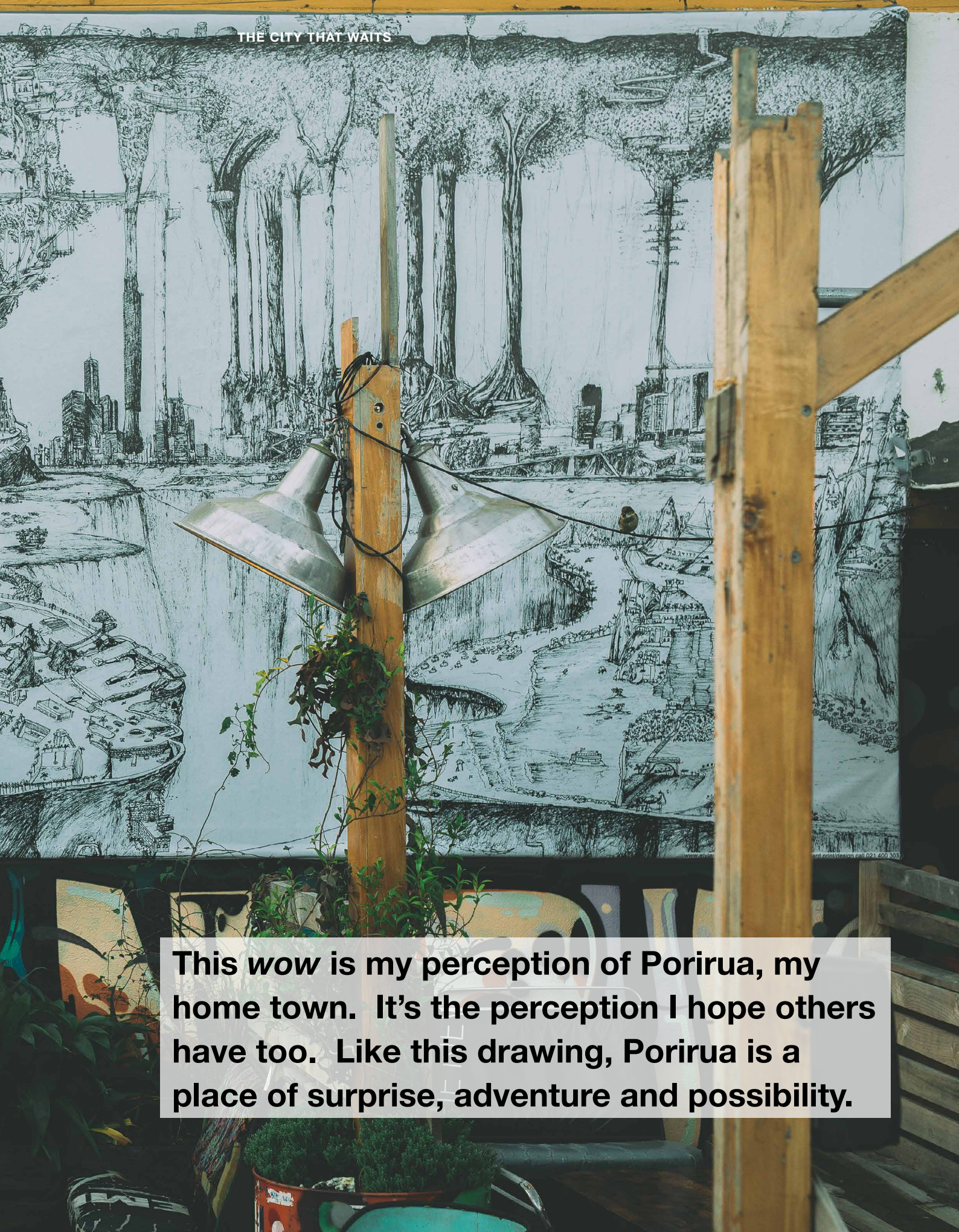
**Thank you, church family. Your encouragement is a constant joy. Thanks, brother and sister for making life better. Lastly, thanks, Mum and Dad. I am reaping the benefits of the faithfulness you have sown.**



**fig.0.4** 'The City that Waits,' an original drawing printed here on canvas as a billboard, 6m x 3m, Cuba St, Wellington

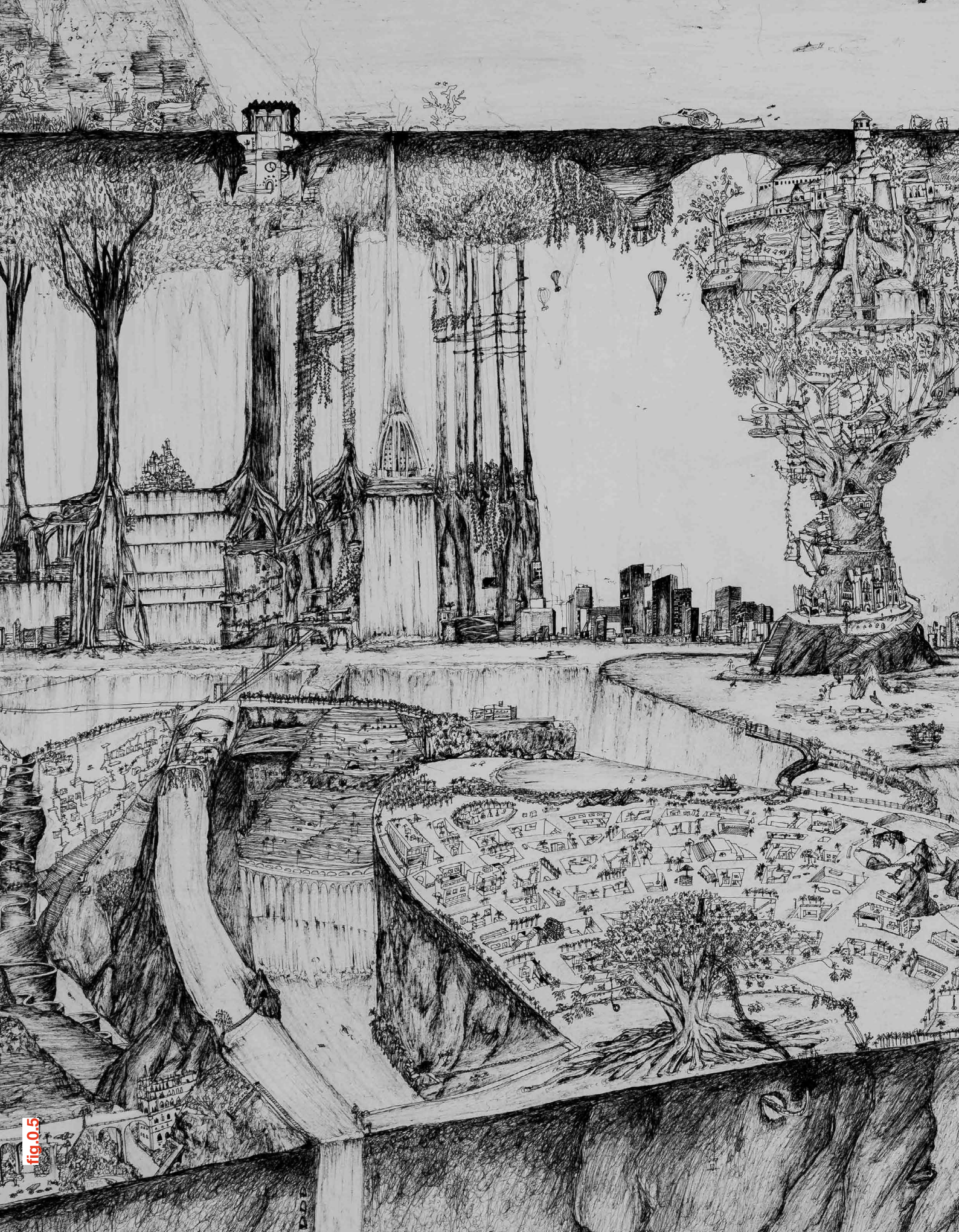
**This drawing was the starting point for my research. The attitude of my thesis is expressed in this drawing. This drawing has made some people say wow - literally. This is good. It's the exact reaction I am hoping for.**



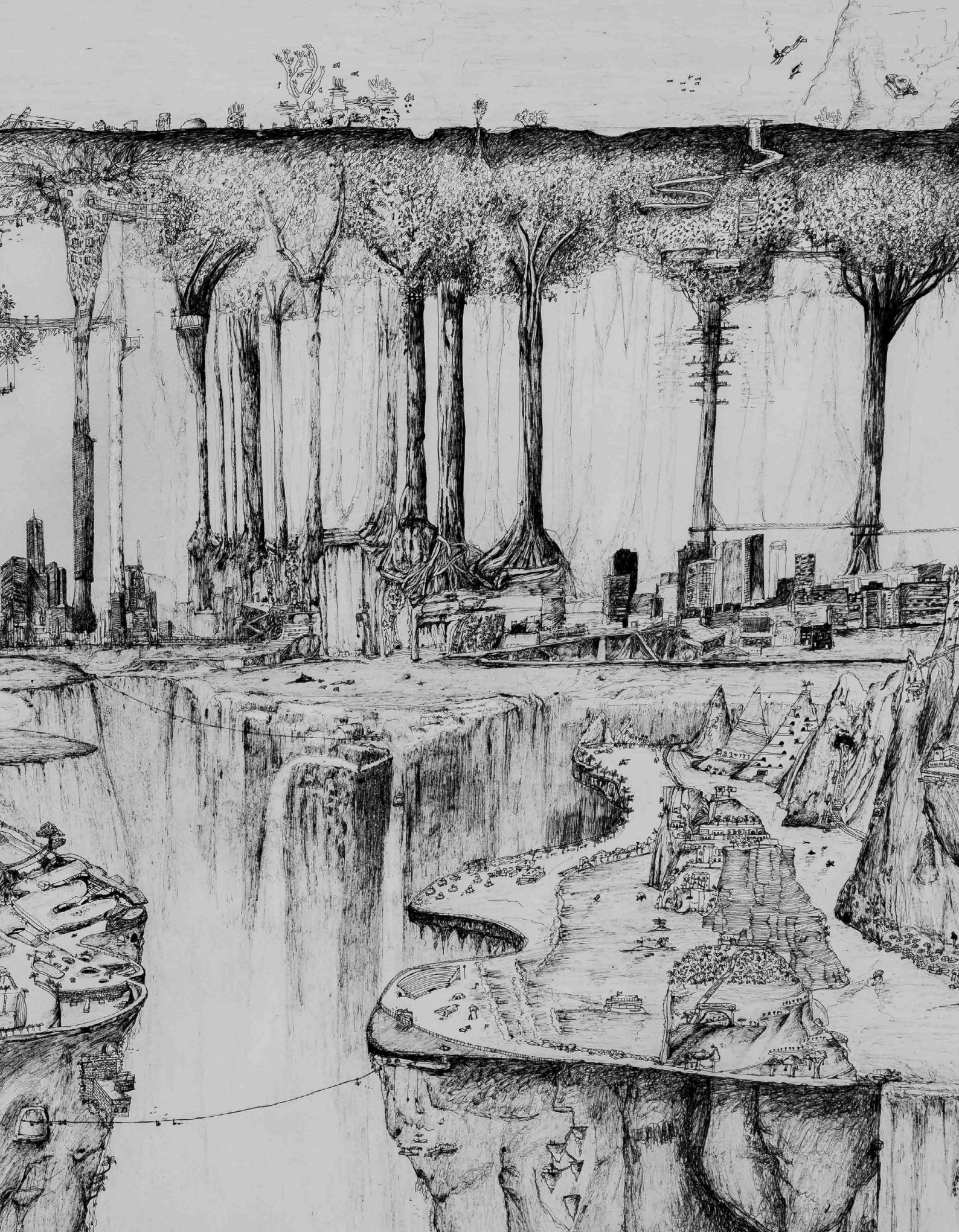


**This wow is my perception of Porirua, my home town. It's the perception I hope others have too. Like this drawing, Porirua is a place of surprise, adventure and possibility.**

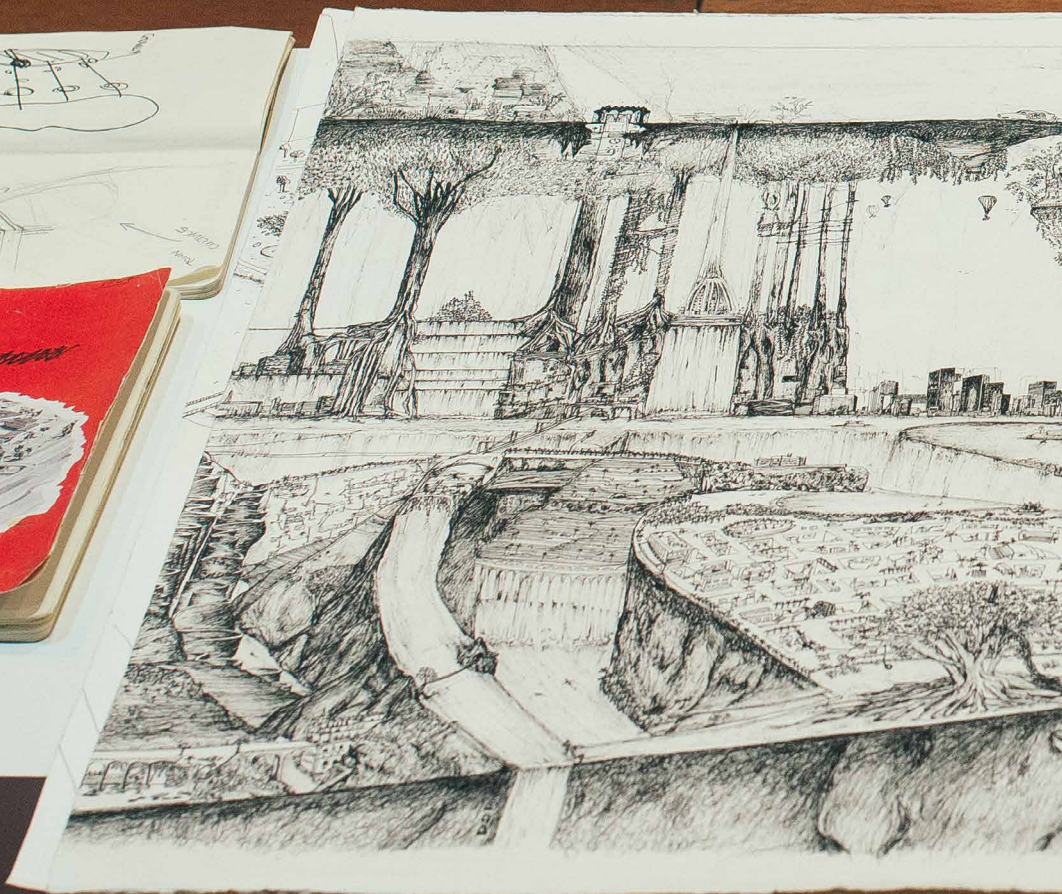
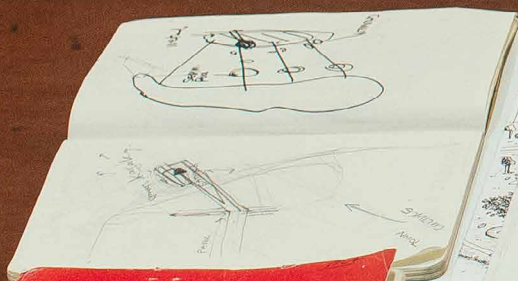
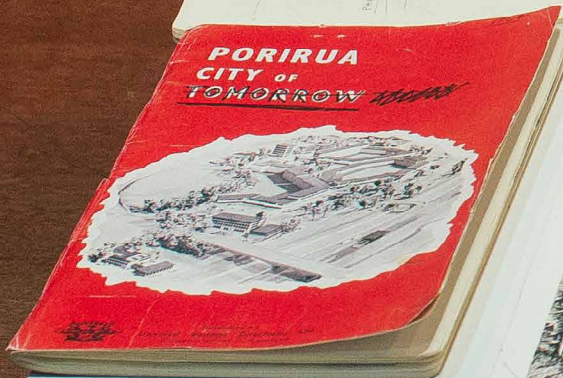
















**fig.0.6** 'The City that Waits' original drawing, Ink Pen on paper, 1000mm x 650mm



## ABSTRACT

*Porirua City is twenty minutes north of Wellington, New Zealand's capital. The city is fifty years young and is home to the youngest demographic in the country. The city is culturally diverse but lacks a clear architectural representation of this cultural diversity. The city has developed around a beautiful harbour but the waterfront is underutilised in the city's urban design.*

*THINK BIG, act small* proposes a design strategy that re-invents Porirua City's urban future by bringing people back to its neglected water-edge. The proposition explores how design as process and outcome can empower a community for the future of a city through spatial agency and social engagement. The thesis explores the designer's role in this process as landscape architect, architect, and social activist. A series of large, medium and small scale interventions are proposed. The Strategy is presented in three parts:

1. The Toolkit: a kit of architectural ideas designed to re-think the city's urban environment around its relationship to water. These ideas can be deployed over time.

**2. Two Temporary Projects:** two small interventions from The Toolkit are tested in Porirua. An art installation and a community pop-up space are used to initiate conversations around the future of the city with people of the city.

**3. The Big Move:** a series of design moves, both big and small, are proposed as a composite vision for the future of Porirua. The proposition includes outcomes from the community pop-up space. The Big Move proposes a constructed wetland park, a series of blue-green streets, public pools, and housing. The aim is to establish new ecosystems that ease flooding, improve water quality, provide catalyst areas for economic growth, and create new social spaces for the city. The design aims to draw the harbour into the city. Polynesian and Maori attitudes towards land and water are integrated in the design: *land is boundless and water is a bridge*. A park, *Te Awaura Park*, is proposed as a ‘soft’ edge to the city’s existing boundary. The narrative of the park expresses the neighbourhood characteristics unique to each suburb in Porirua. The park aims to create a true local space, a space celebrating the city’s people.

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# introduction

<b>Research Questions</b>	<b>2</b>
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<b>Research Structure</b>	<b>6</b>
<b>Annotated Thesis</b>	<b>8</b>

*The following section explains what the design research addresses and how the thesis is structured.*

## RESEARCH QUESTIONS

**01 How can you re-orient an urban environment towards its neglected waterfront through interdisciplinary design?**

**02 How can design as process and outcome empower a community for the future of a city?**

***Why two questions?*** Question 01 relates to a problem that is site specific, whereas Question 02 relates to a broader discussion of autonomy within the architectural profession. Question 01 is a means for investigating how Question 02 can be explored.

## RESEARCH OBJECTIVES

***01 Orient the city  
towards its harbour.***

***02 Use spatial agency  
and social engagement  
to represent cultural  
diversity.***





**fig.0.7** A mind map of the thesis process, organising the drawings in chronological order.





WAIST  
HIGH

PRETTY KIND OF  
BAMBOO THIS  
IS THE WAY

SWIMMING

NO GOING  
BACK  
(UNLESS I GO  
BACK)

PORIRUA  
CITY OF  
TONGAREWA



How can water, through  
interdisciplinary design,  
transform our cities?  
**DRAFT**  
ecologically, socially, culturally and  
economically  
**NEEDS DEVELOPMENT**





## RESEARCH STRUCTURE AND STRUCTURE DIAGRAM

chapter 1  
p13

**THE PROBLEM** is discussed in chapter one, **THE PLACE**. 'The Place' gives an overview of the site, Porirua City. It describes (1) cultural, (2) social, (3) economic, and (4) environmental issues. These four dimensions are used as a framework for defining the aims of sustainable urban development throughout the thesis.

chapter 2  
p69

**THE STRATEGY** is the design outcome of the thesis investigation. 'The Strategy' has three parts: 'The Toolkit,' 'Two Temporary Projects,' and 'The Big Move.' The three parts are then used as chapter headings, explaining the design development and reflection on the process.

chapter 3  
p157

**THE TOOLKIT** is a kit of architectural design ideas that can be deployed incrementally to progress sustainable urban development. A spectrum is used to organise the ideas along a temporal scale. This gives choice to various stakeholders in the city - the architect takes a step back from his or her traditional hand of control.

chapter 4  
p173

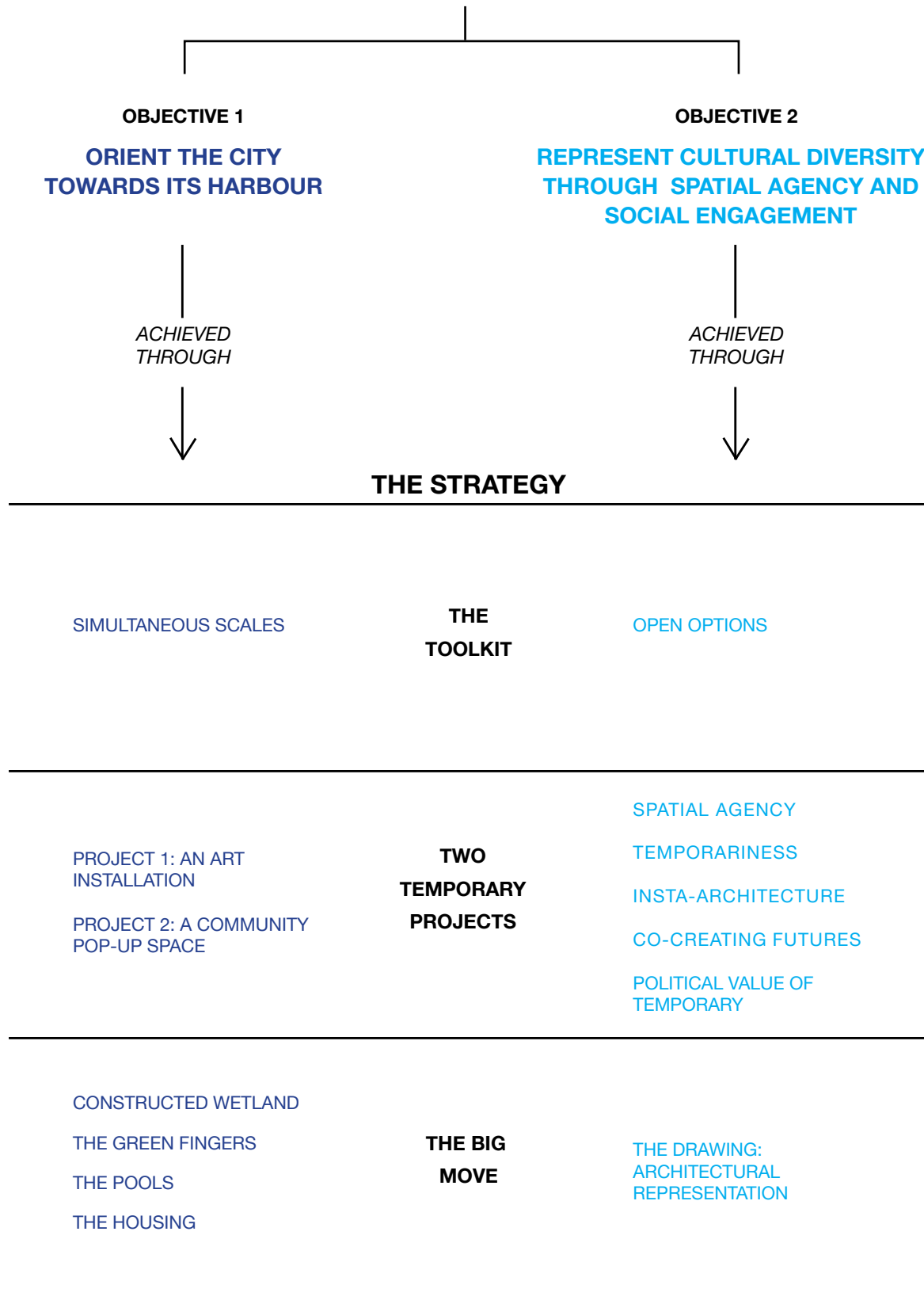
**TWO TEMPORARY PROJECTS** were tested to see how small scale, short-term interventions can benefit long-term strategies towards re-orientating the city towards the water. The two interventions are examples of how transient projects are redefining architecture.

chapter 5  
p217

**THE BIG MOVE** is a vision of the future of Porirua City. It proposes a series of design moves, both big and small, as the catalysts for sustainable urban development. 'The Big Move' proposes a 'Constructed Wetland,' 'The Green Fingers,' 'The Pools,' and 'The Housing.' It is presented as one large composite drawing to communicate a sense of imagination and possibility.

# THE PROBLEM

PORIRUA CITY HAS DEVELOPED AROUND A BEAUTIFUL HARBOUR BUT THE WATERFRONT IS UNDERUTILISED IN THE CITY'S URBAN DESIGN. THE CITY IS CULTURALLY DIVERSE BUT LACKS A CLEAR ARCHITECTURAL REPRESENTATION OF THIS CULTURAL DIVERSITY.



# AN ANNOTATED THESIS

## AN OUTLINE

**This is an ‘annotated thesis.’ An annotated thesis describes a design lead approach to research. The symbols on the opposite page are located throughout the document to guide the reader through the research. Drawings, diagrams, photographs and other images are given emphasis, with supporting explanation where required.**

**The thesis is in three parts: there is a beginning, a middle and an end.**

[Beginning]

**The beginning of the thesis outlines two research questions, describes the site, and presents the final design proposition: ‘The Drawing’ supported by what is referred to as, ‘The Strategy.’**

[Middle]

**The body of the research is described through ‘The Strategy’s’ three parts: ‘The Toolkit,’ ‘Two Temporary Projects’ and ‘The Big Move.’ The chapters describe relevant aspects of the design. Influential case studies are used to explore the design. Reflections, made throughout the process, give insight into the design.**

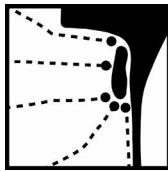
[End]

**A design exegesis unfolds by asking ‘So what?’ This is followed by a research question summary where a short and long answer is given in response to each of the research questions.**



## THE SYMBOLS A GUIDE

The following four symbols are used throughout the thesis. They call attention to the type of content being presented: the core strategy, references to relevant literature, references to case studies, and iterations in the design.



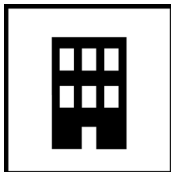
The Strategy

**The strategy icon identifies the core elements of the thesis: The Toolkit, Two Temporary Projects, and The Big Move.**



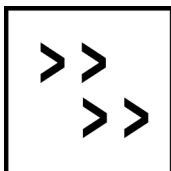
'Who said?'

**The speech bubble calls out relevant literature. Literature is reviewed to develop aspects of The Strategy, and to position the research within wider architectural issues.**



'What's done?'

**The building icon calls out relevant case studies. Case studies are considered throughout the thesis to illustrate the various influences on the research and design.**



'En route'

**The forward traction symbols identify iterations of the design through the design process. Iterations of the design are explored to find the most suitable design strategy. The process is described where appropriate to give insight into the development of certain aspects of The Strategy.**

fig.0.8

Porirua City  
Flooding

August  
1964



fig.0.9

A local father  
and son fishing  
in the Porirua  
Harbour,  
Takapuwahia

August  
2016



# chapter one

## the place

<b>Porirua: Who, What, Where?</b>	<b>14</b>
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Environmental Health	<b>60</b>
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*This section explains relevant aspects of Porirua City as ‘the site.’  
This section describes (1) cultural, (2) social, (3) economic, and  
(4) environmental issues. These four dimensions are used as a framework  
for defining sustainable urban development throughout the thesis.*

***Porirua is located 21 km north of Wellington City. It is home to around 54,000 people. Of this, approximately forty percent are under the age of twenty-four. This is the highest***

***youth population  
in the country. It  
is New Zealand's  
'youngest' city.  
Statistics New  
Zealand continue  
to project the  
population  
of Porirua to  
increase 0.6 per  
cent per annum.***

fig.1.2 Porirua Children eager to get a view of the Prince of Wales during his visit in 1981





***Porirua, a ‘City  
of Villages,’  
was judged  
as one of  
the world’s  
most livable  
communities  
at the  
International  
Livable  
Communities  
Awards  
Chicago 2010.***

fig.1.3 Early Porirua Recreation Centre, now known as Te Rauparaha Arena Recreation Centre. The Arena sees visitors from across the country for various sports, cultural events and expos.

***Ethnically, Porirua is a vibrant and diverse place. It has the second highest proportion of Pacific and Maori peoples in NZ.***

***Higher proportions of the population are Maori (21%) and Pacific (27%) than the average across New Zealand (15% and 7% respectively).***

***Lower proportions of the Porirua population are European (57%) and Asian (5%) than the average across New Zealand (77% and 10% respectively).***

fig.1.1.3 A local Maori boy holds an illustration of the view of the Harbour.

***The city has developed around two estuaries, the Porirua Harbour and the Pauatahanui Inlet. The name Porirua comes from the Maori word Parirua, translating to “twin flowings of the tide.” It is the stormwater catchment for an extended population of 84,000 residents, ranging from Pukerua Bay to Newlands.***

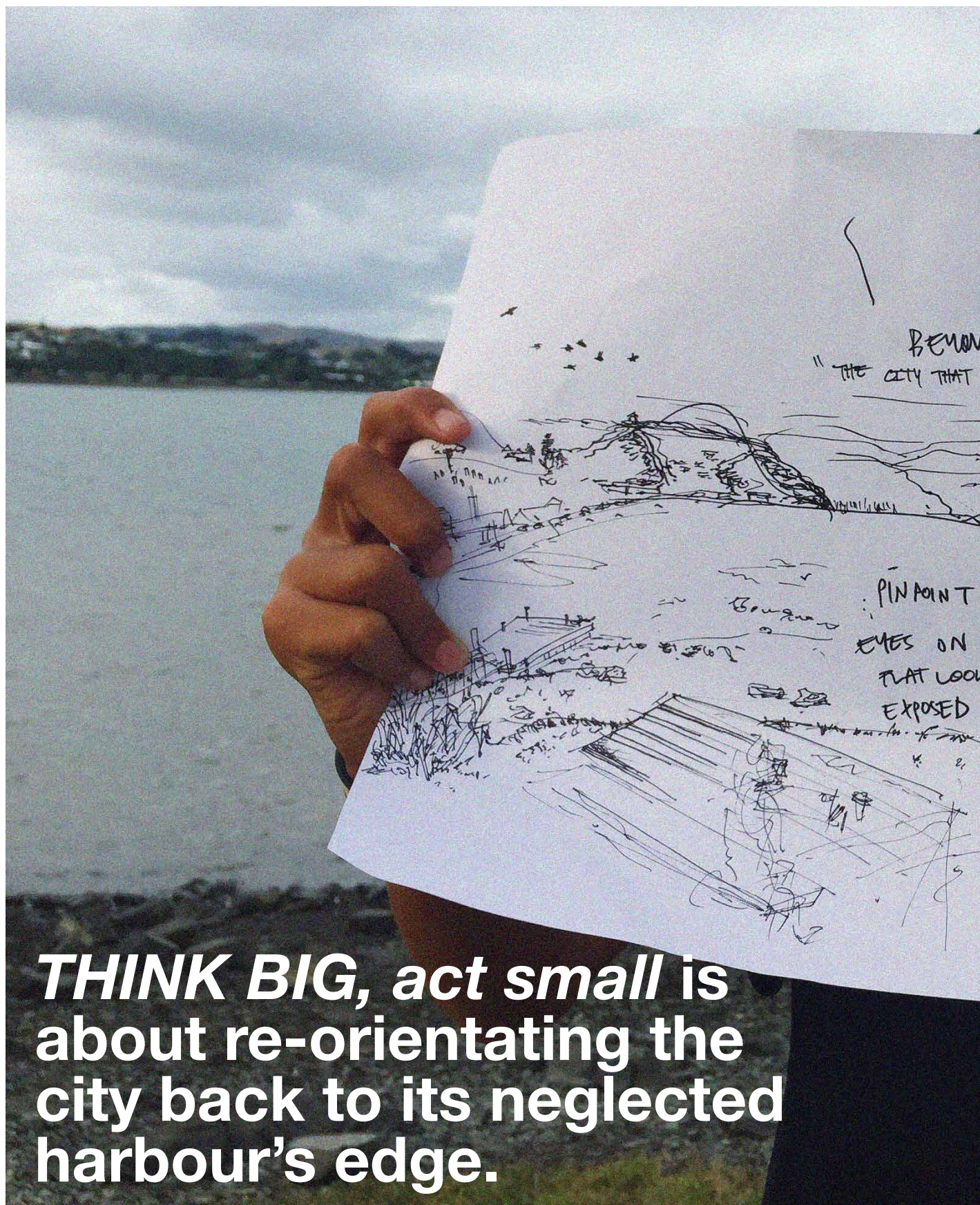


fig.1.5 Aerial map of Porirua 1942

***In the 1960s a new town centre was developed and built on reclaimed land. The opportunity to make use of the harbour in the city planning was ignored as highways and the backs of big box retail were built along the water's edge. The result***

fig.1.6 Aerial map of Porirua 1962      page 14-23 information retrieved from Porirua City Council website.





***THINK BIG, act small*** is about re-orientating the city back to its neglected harbour's edge.

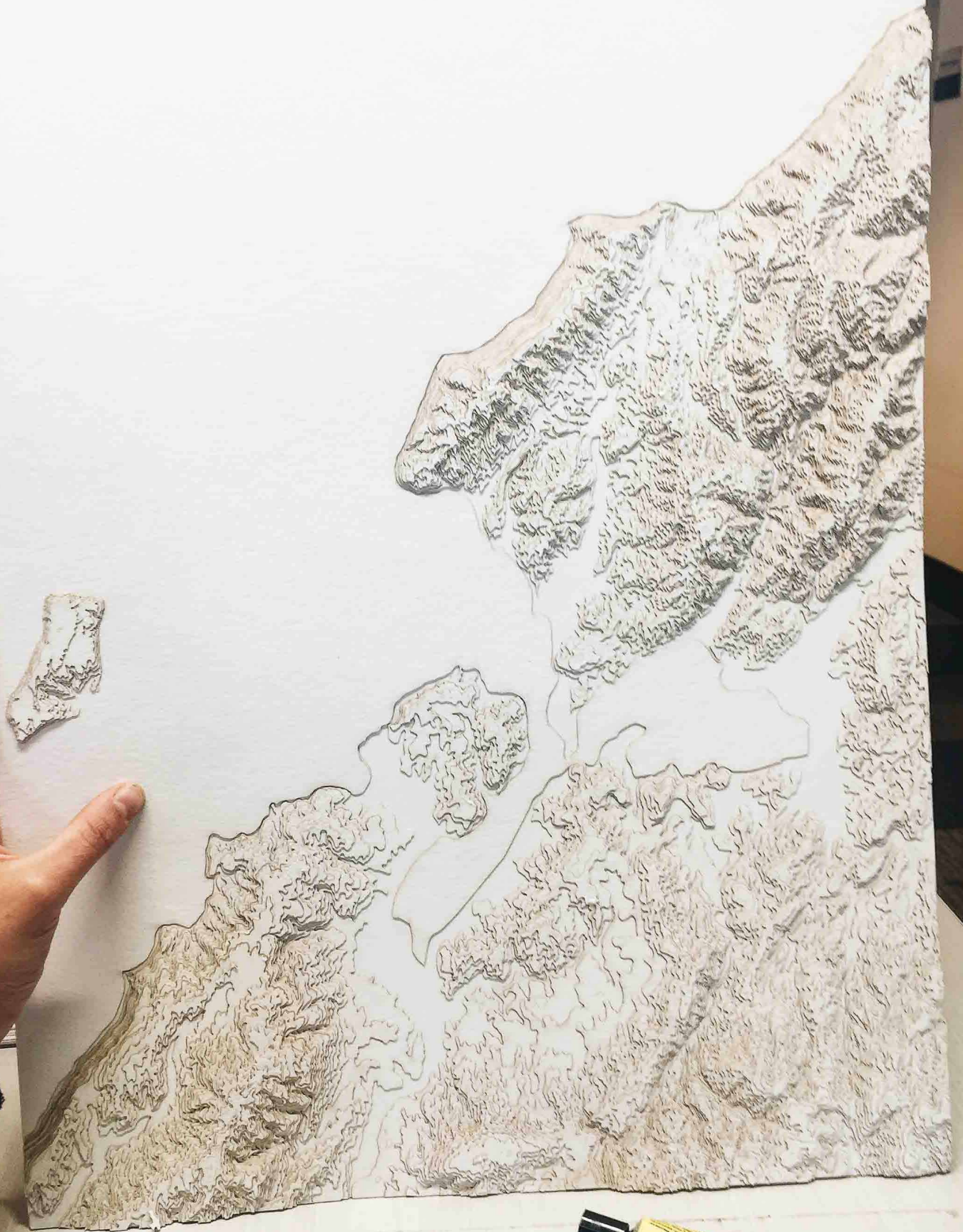




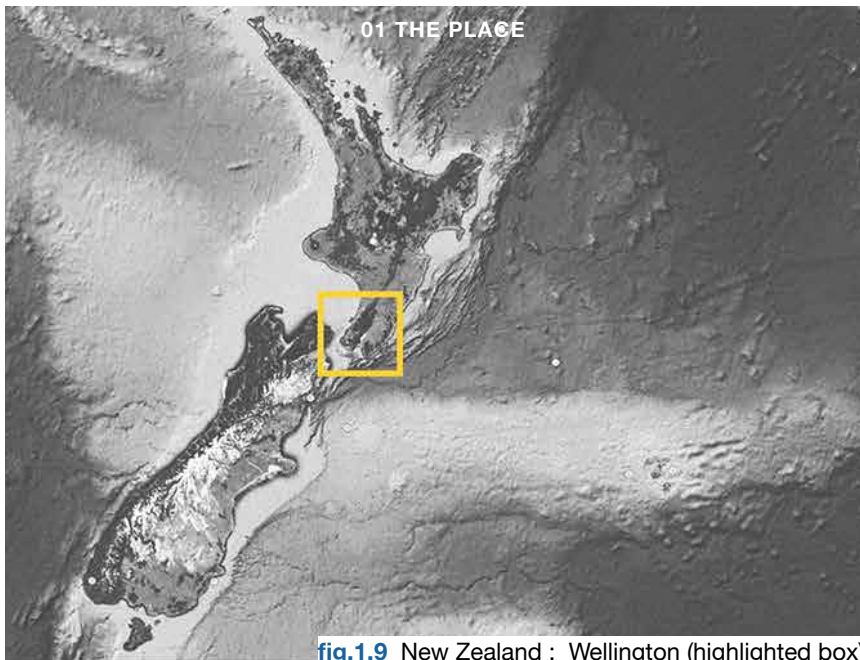
fig.1.7 An illustrated view of the harbour



fig.1.8 Te Awarua o Porirua Region, cardboard model highlighting the landscape structure of the hills.



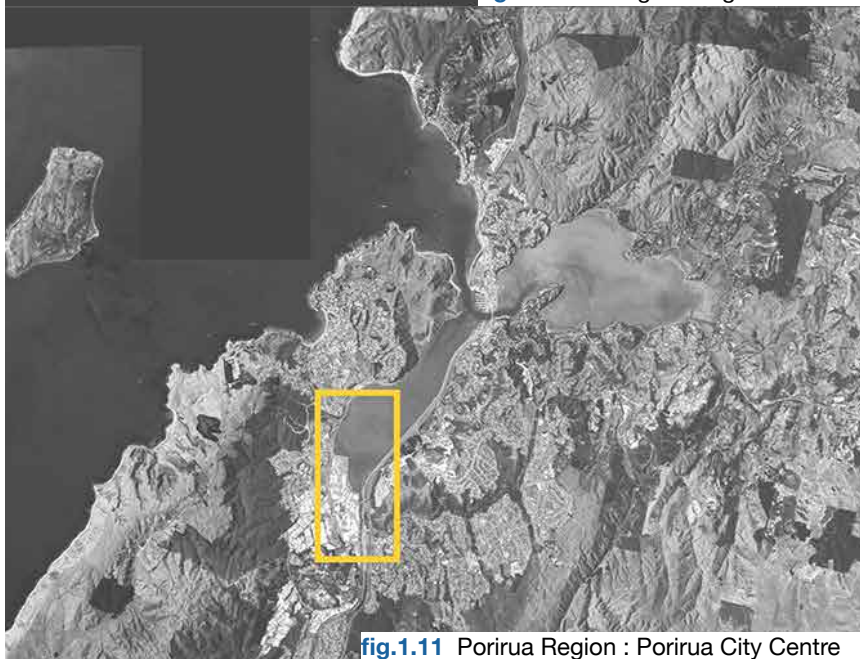




**fig.1.9** New Zealand : Wellington (highlighted box)



**fig.1.10** Wellington Region : Porirua



**fig.1.11** Porirua Region : Porirua City Centre



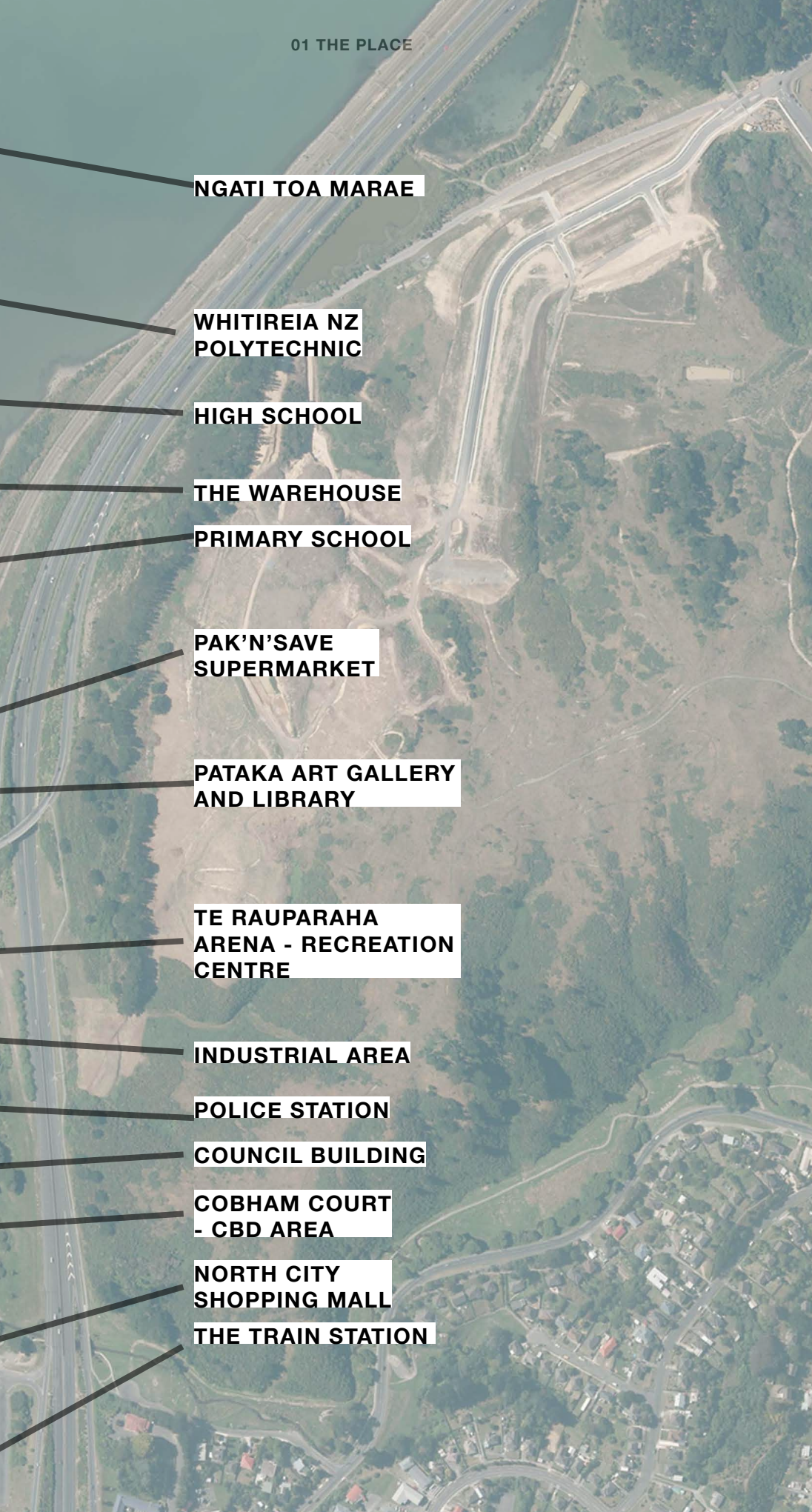
**fig.1.12** Porirua City Centre : Harbour edge - "the site"



**THE TOWN CENTRE**







NGATI TOA MARAE

WHITIREIA NZ  
POLYTECHNIC

HIGH SCHOOL

THE WAREHOUSE

PRIMARY SCHOOL

PAK'N'SAVE  
SUPERMARKET

PATAKA ART GALLERY  
AND LIBRARY

TE RAUPARAHA  
ARENA - RECREATION  
CENTRE

INDUSTRIAL AREA

POLICE STATION

COUNCIL BUILDING

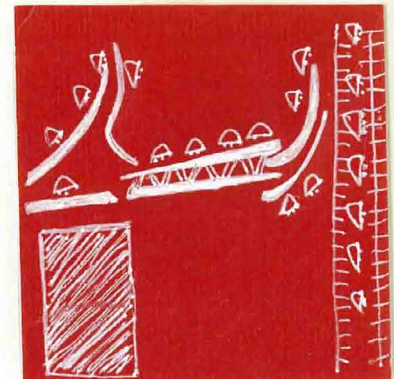
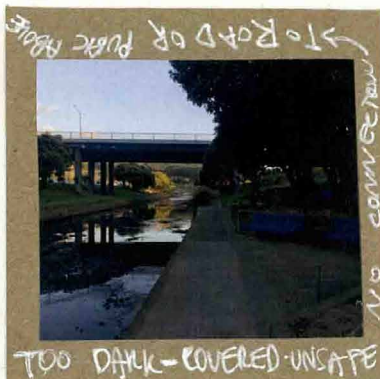
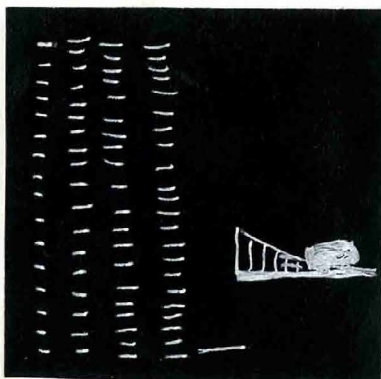
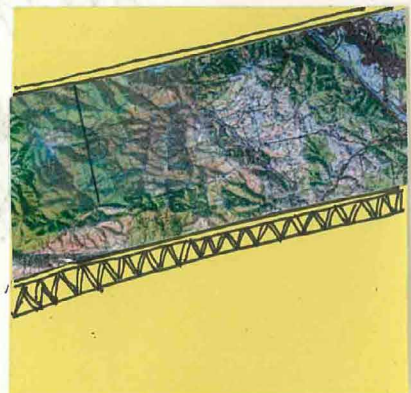
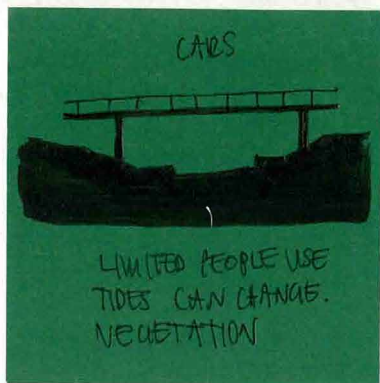
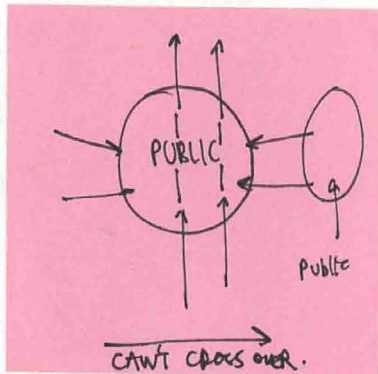
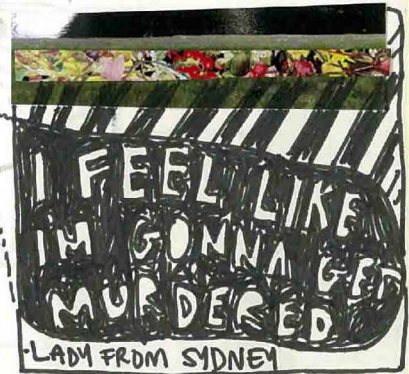
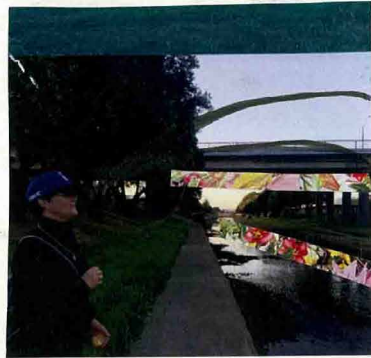
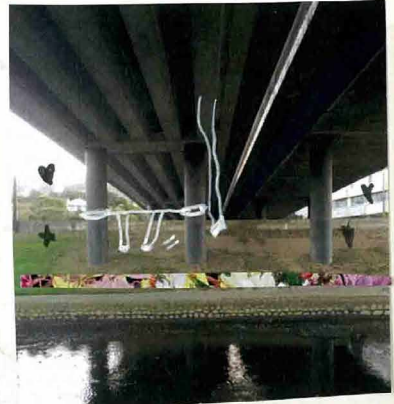
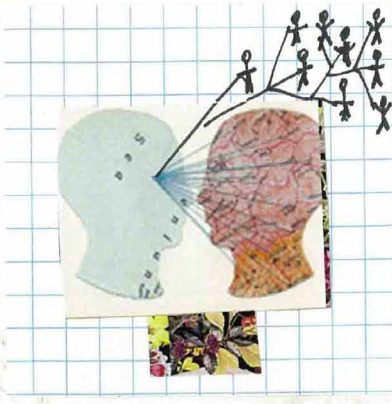
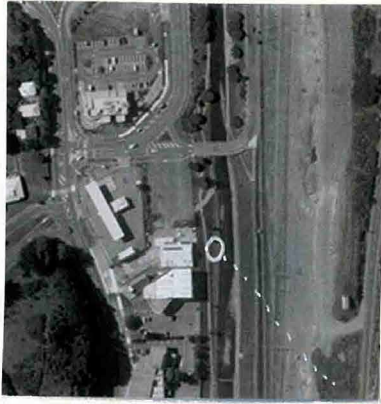
COBHAM COURT  
- CBD AREA

NORTH CITY  
SHOPPING MALL

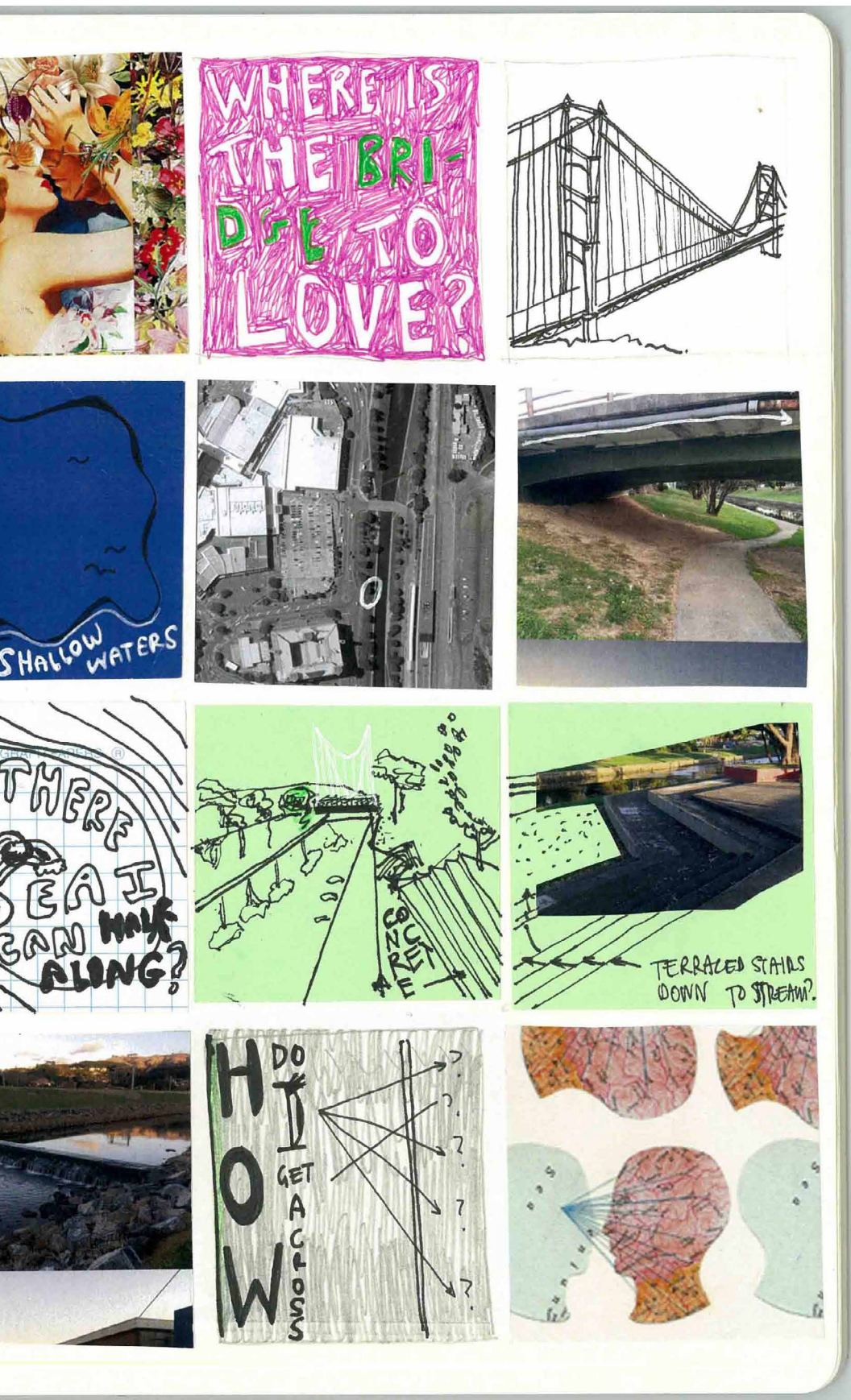
THE TRAIN STATION

**fig.1.13**  
Porirua City Centre  
Aerial view 2013.









**fig.1.14** Site analysis through the Porirua Stream, noting how empty and redundant it feels.

May  
2016



fig.1.15

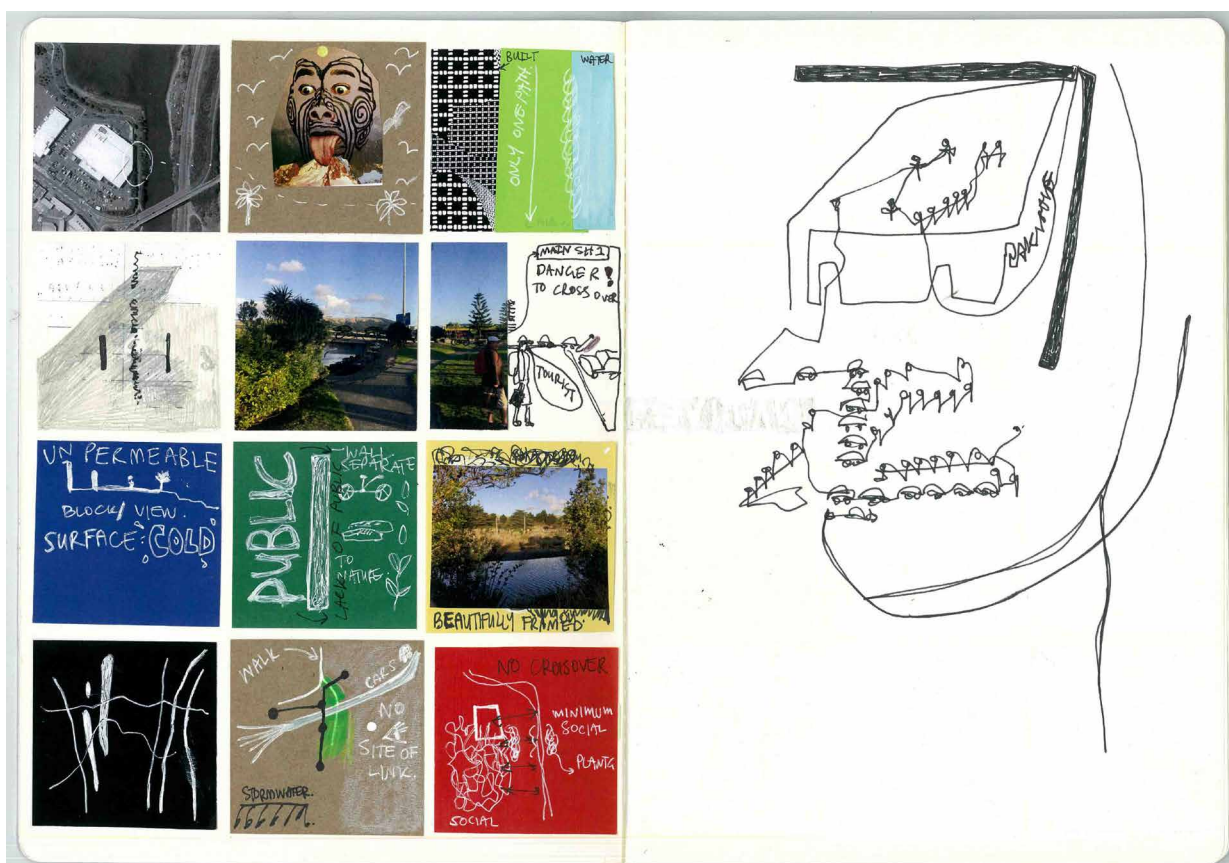


fig.1.16

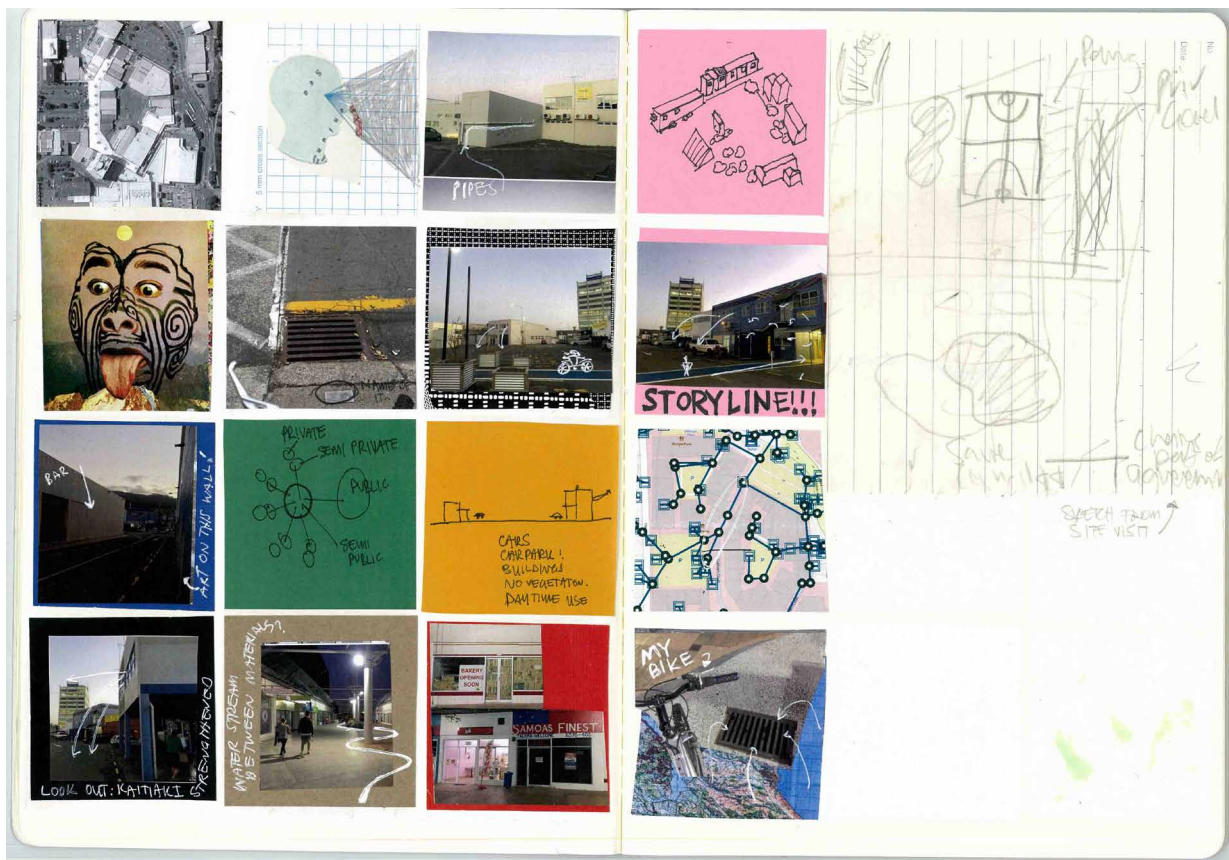






fig.1.17



fig.1.18

**fig.1.15**

Site analysis at the mouth of the stream to harbour, identifying disconnected links into the city.

**fig.1.16**

Site analysis of the current CBD, Cobham Court, showing no pedestrian links to the harbour.

**fig.1.17**

Site analysis of the stream and public space connecting to CBD, identifying potential to develop facing the stream.

**fig.1.18**

Site analysis of street block Norrie St, giving an example of car-centric focus in the city.

fig.1.19 Porirua CBD by Ministry of Works 1964

## The past & present

### fig.1.19

Front cover of a booklet issued in 1964 to all Porirua householders (3,522 printed) showing a view of the original Ministry of Works model for the CBD of Porirua. The content included messages from the Mayor, the Council, local businesses, clubs, schools, churches and one advertisement from Tip Top Bread guaranteeing delivery at your gate early every morning.

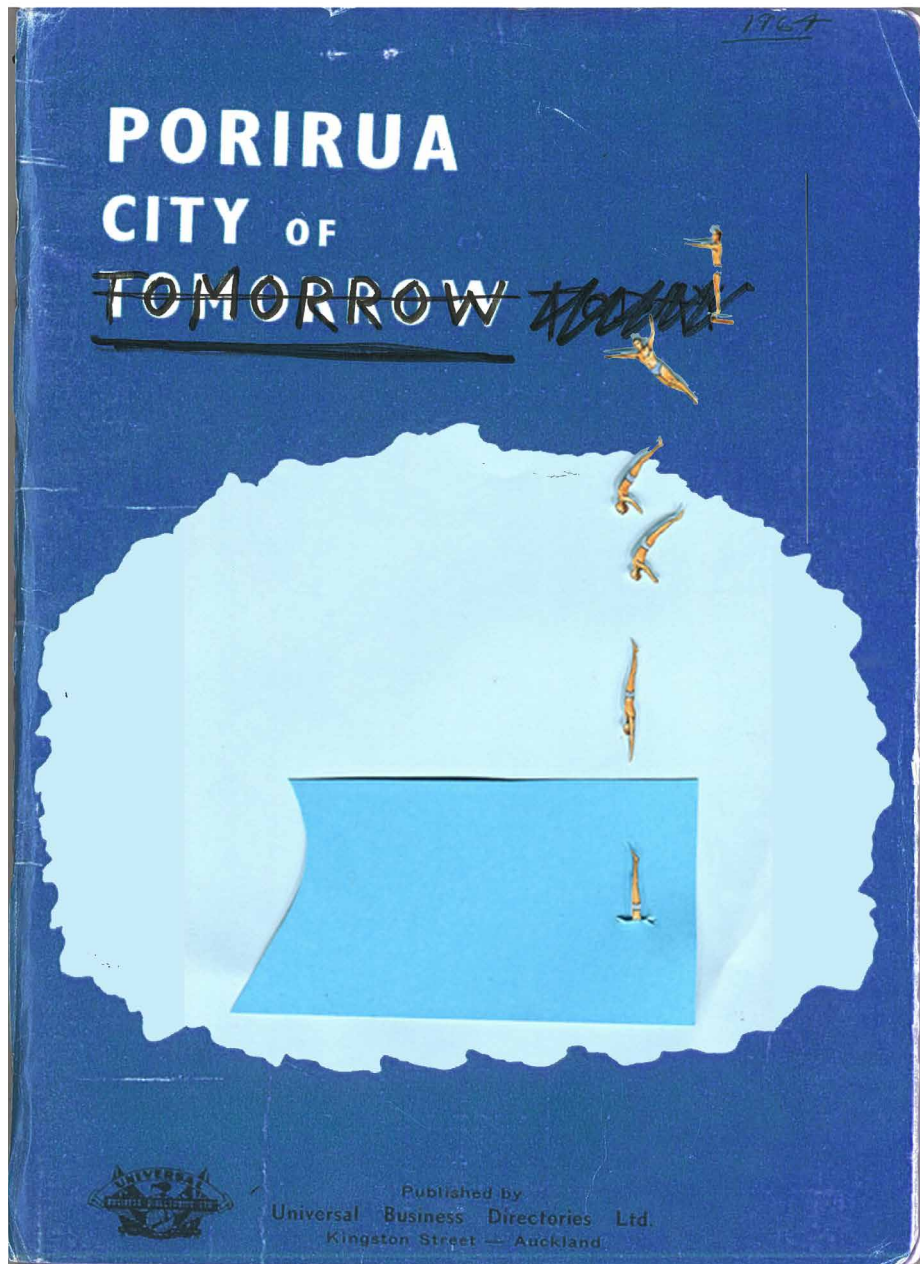


fig.1.20 The way forward in Porirua through the water 2016

## The future

### fig.1.20

A 2016 reinvention of the book cover. This design communicates the thesis position that 'Porirua, City of Tomorrow' will be - discovered by turning to the water.



## URBAN SUSTAINABILITY AIMS

### THE FOUR LAYERS

‘Exploring sustainability in a holistic perspective, where environmental, cultural, economic, and social concerns intersect.’<sup>1</sup>

**More than half the world’s population live in cities.<sup>2</sup> This proportion is expected to increase from 54 per cent to 66 per cent by 2050. Urban sustainability is necessary to consider. Over the past half-decade or so, it has become increasingly apparent that cities themselves are leading the way in developing urban sustainability.<sup>3</sup>**

**Sustainable development is the intersection between the environment, society and economy.<sup>4</sup> The United Nations ‘Sustainable Development Goals’ are to achieve ‘economic growth, social inclusion and environmental protection.’<sup>5</sup>**

**This thesis, *THINK BIG, act small*, considers the protection and enhancement of an urban water-body in New Zealand. The New Zealand National Institute of Water and Atmospheric Research (NIWA) provides a fitting framework for the research. NIWA considers the environmental, social, economic *and cultural* aspects of sustainable urban development.<sup>6</sup>**

**These aspects have been selected as the four key layers of urban development in Porirua: each having individual and collective spatial consequences on the thesis design.**

***THINK BIG, act small* attempts to re-orientate each of the four aspects in Porirua towards the harbour in order to strategically re-orientate the whole urban environment.**

<sup>1</sup> Common Ground. “Urban Sustainability – Inspiration and Solution.” *Twelfth International Conference on Environmental, Cultural, Economic & Social Sustainability*, Portland, USA, January 21-23, 2016 : Portland State University, Common Ground Publishing, 2016, pp. 6.

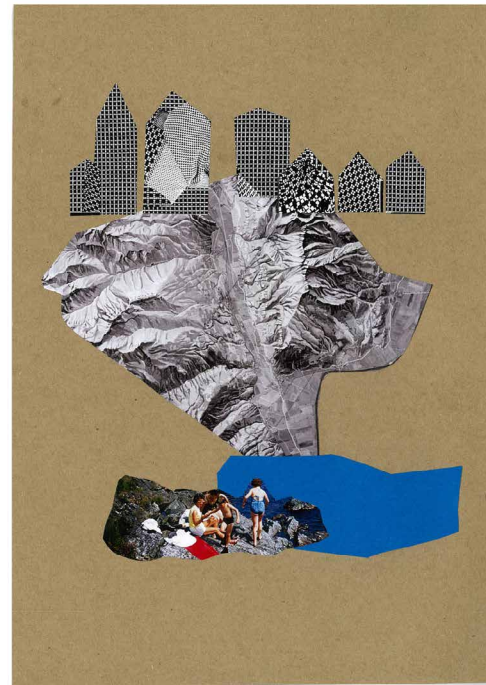
<sup>2</sup> United Nations. “World population projected to reach 9.7 billion by 2050.” *United Nations Department of Economic and Social Affairs*, 29 July 2015, New York, <http://www.un.org/en/development/desa/news/population/2015-report.html>.

<sup>3</sup> Common Ground

<sup>4</sup> Giddings, Bob, et al. “Environment, economy and society: fitting them together into sustainable development.” *Sustainable Development*, vol. 10, no. 4, Nov 2002, pp. 187–196.



CULTURAL



SOCIAL

5 United Nations. "The Sustainable Development Agenda." *United Nations Sustainable Development Goals*. Retrieved 29 July 2016, <http://www.un.org/sustainable-development/development-agenda/>.

6 The New Zealand National Institute of Water and Atmospheric Research (NIWA). "Freshwater and Estuaries: Urban impacts on the environmental, social, economic and cultural values of water bodies." NIWA.



ECONOMIC



ENVIRONMENTAL

fig.1.21 Urban sustainability collages.

## CULTURAL ATTITUDES

### SOMETHING IN THE WATER

‘Culture is a key element in the concept of sustainable development as it frames people’s relationships and attitudes towards the built and the natural environment.’<sup>7</sup>

What is the cultural attitude of Porirua City towards the harbour?

#### Issues:

- **People perceive the harbour to be dirty. This has developed from a history of car tyres and rubbish being dumped in the harbour which made the harbour unattractive at low tide.**
- **Ngati Toa Marae has a disenfranchised relationship to the water. The reclamation of the city centre in the 1950s created a separation between the local iwi and the water. Historically the pa had the water ‘at its doorstep.’<sup>8</sup> It was the food basket for tangata whenua for many years but has since been neglected, polluted, and underutilised.**
- **The Māori notion of kaitiakitanga (guardianship and conservation for the environment and culture) has been lost.**

<sup>7</sup> Opoku, Alex. “The Role of Culture in a Sustainable Built Environment.” Sustainable Operations Management, Chapter: 3, Publisher: Springer International Publishing, Editors: Andrea Chiarini, pp.37-52.

<sup>8</sup> Keith, Michael. *They Came on the Tides: A short history of Porirua and its people*. Porirua City Council, 1900.

*iwi*: tribe  
*pā*: Māori village or settlement  
*tangatawhenua*: “people of the land”, the indigenous peoples of New Zealand  
*marae*: meeting ground, the focal point of Māori communities.

fig.1.22 Historic images of harbour and Ngati Toa marae



fig. 1.24 Image archive of Porirua's rich history stored in the Porirua library.

Role of water in the Cultural history of Porirua

**fig.1.25**

The history of Porirua and its people in 1990 was recorded by Porirua City Council - highlighting the embedded cultural importance of water to the city.

**fig.1.26**

Tyres and cones from the harbour during a community clean up, 2015.

fig.1.23 Bountiful catch from the Raukawa Moana 1920

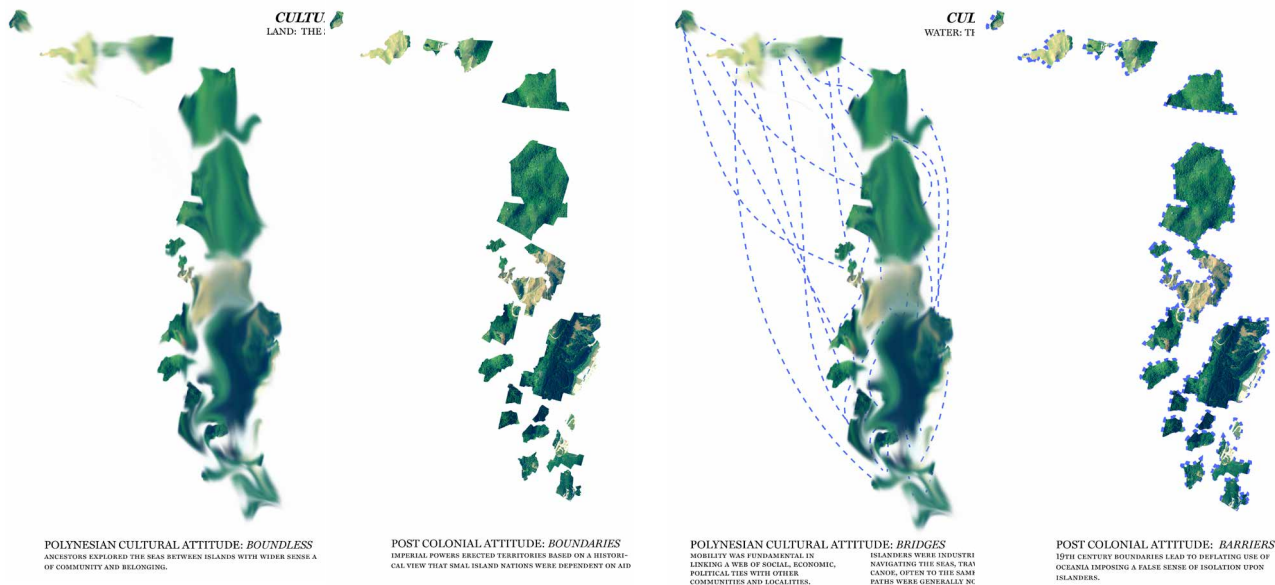




fig. 1.21 'Culture' collage

### Cultural Aims:

- Develop pride and awareness that the harbour is a special part of the city and to shift the attitude of the city's people towards one of pride and appreciation.
- Integrate Polynesian and Maori attitudes towards land and water back into the planning of the city: *land is boundless and water is a bridge*. This seeks to respect the unique demographic of the city by acknowledging the important narratives that Moana (Pacific Ocean) has in each of these cultures.



(Above from left to right)

fig.1.27 Polynesian Cultural Attitude towards land: *Boundless*

fig.1.28 Post Colonial Attitude towards land: *Boundaries*

fig.1.29 Polynesian Cultural Attitude towards water: *Bridges*

fig.1.30 Post Colonial Attitude towards water: *Barriers*

### A Common Conviction

A phrase that is repeatedly spoken in the city is '*Porirua, The City of Opportunity.*' Through many discussions, it has become clear that people from within, and also outside, the community share this conviction. People recognise the potential of the place and its people. The issue is, many cannot articulate what that city might look or feel like. Porirua Council's 'City Centre Revitalisation Project' has begun to recognise the city's potential through changes in the CBD. However this thesis suggests that greater opportunity is to be found by orienting the city towards the water.

*Importance of The Pacific Ocean in Porirua's Cultural Identity*

**Porirua has New Zealand's second largest population of Pacific Island and Maori peoples. New Zealanders normally refer to 'Maori and Pacific peoples' as if they are independent from each other (one being New Zealand's indigenous peoples and the other being an immigrant culture). This thesis, however, uses the terms 'Polynesian' and 'Pacific' to include both Maori and Pacific people.**

**For many peoples of Pacific heritage, who have either grown up in their homeland or in diasporic communities in New Zealand, Australia or in the United States, connections to one another are maintained through ancestral links to the Moana.**

**Over 2000 years ago, many Polynesian ancestors navigated The Moana, the Pacific Ocean. The late Epeli Hau'ofa, an eminent Pacific scholar, suggested that [our regional identity is 'anchored in our common inheritance of a very considerable portion of Earth's largest body of water, The Pacific Ocean.'](#)<sup>9</sup>**

<sup>9</sup> Hau'ofa, Epeli. "The Ocean In Us." *The Contemporary Pacific*, vol. 10, no. 2, 1998, pp. 392-410.

**fig.1.32** An opening quote by Teresia Teaiwa for *The Ocean In Us* essay by Epeli Hau'ofa.

Hau'ofa makes it clear that homogeneity for the Pacific region is neither possible or desirable.<sup>10</sup> He argues that this regional identity through the ocean is, however, important to develop as it is 'something that should serve to enrich our other selves.' It brings a sense of belonging to a Pacific region.

This identity, of 'belonging to the ocean,' confronted Polynesians all across the world with the release of Disney's first Pacific Princess Movie, *Moana*. The animated film is the first to explicitly bring Polynesian identity to the forefront of Western society and popular culture. For many Polynesians, the film exposed a mix of emotions deeply rooted within this 'other-self.'

**10** Hau'ofa, 393

fig.1.33 Disney Movie *Moana*, released Nov 2016

***Moana* tells the story of a spirited teenager, named Moana, who discovers the heritage of her ancestors as voyagers of the sea. She sails out on a daring mission to fulfill their unfinished quest. It is no surprise that academics, politicians and bloggers have raised justifiable concerns about the Disneyfication of culture, how revered ancestor Māui has been portrayed, and how Pacific Peoples are represented in the global community. However, the storyline strongly echoes Hau'ofa's call proclaimed well over twenty years ago - *We Are The Ocean*.<sup>11</sup>**

***THINK BIG, act small* seeks to embody this call. The call for Porirua to re-orientate to the water is not so that the city will find homogeneity as another waterfront city (like Barcelona, Seattle, Venice, to name a few), but rather to unify a sense of belonging - a way to enrich our 'other self.'**

**fig.1.34** Aerial view of Whitireia New Zealand at the northern end of the harbour's edge.

**11** Hau'ofa, Epeli. *We Are The Ocean: Selected Works*. Honolulu: University of Hawai'i Press, 2008.





**fig.1.35** Panoramic photo of Porirua City from Titahi Bay to Wellington, 1940

**fig.1.36** Panoramic photo of Porirua City from Titahi Bay to Ranui Heights, 2008

## SOCIAL SPACES

### WHAT WORKS, WHAT DOESN'T?

'It is equally urgent to strengthen the social function of city space as a meeting place that contributes toward the aims of social sustainability and an open and democratic society.'<sup>12</sup>

Where is the main public space of Porirua and what is it like?

**Cobham Court (refer to fig.1.13) is the main public space in Porirua and is the focus for the Porirua City Council's investments through the City Centre Revitalisation Project - \$21 million will be invested in this project over the next ten years.<sup>13</sup>**

fig.1.37 Improved Cobham Court

<sup>12</sup> Gehl, Jan. *Cities for People*. Island Press, 2010.

<sup>13</sup> PCC. "Porirua City Centre Revitalisation." Retrieved 18 April 2016, <http://www.pcc.govt.nz/Business/City-Centre-Revitalisation>.

**Significant public space improvements include the cafe kiosk, toilets, and new public spaces. In addition, the social use of the space is far more active consisting of more events for the community and visitors. This development has been essential to creating a lively place for Porirua. This thesis intends to connect similar current improvements to the harbour.**



**fig.1.38** View of the harbour looking back to the city. The space is utilised by seagulls more than it is by humans.

**The aim for the water's edge is to create a lively, socially active space. It sees the edge as a place for people to meet and greet each other, a place to exchange information about the city and**

fig.1.39 Improved Cobham Court public space

**society, a place where important events are staged, where town meetings and processions, feasts and festivals are held. The thesis envisions Porirua's water edge similar to the way Jan Gehl sees a good city - 'A good city is like a good party - people stay longer than really necessary, because they are enjoying themselves.'**<sup>14</sup>

**14** Gehl



**fig.1.40** 1960  
Original Ministry  
of Works plans  
for the proposed  
layout of Porirua  
Town Centre. The  
CBD of today has  
remained fairly true  
to the form shown  
above.

Highlighted box  
showing existng  
Cobham Court  
area.

**fig.1.41** 1965  
Aerial view of  
reclaimed land  
being constructed.  
At the time, it was  
the largest ever  
planned city in the  
country.

The buildings  
constructed in this  
image is where  
the Cobham Court  
area is.

**fig.1.42 Above**  
Evolution of  
landscape and  
physical works of  
the city.



**fig.1.43 Below**  
Evolution of  
city planning,  
undertaken by  
Ministry of Works.

**fig. 1.44**

Man eating lunch with seagulls on harbour's edge looking up to the development on Aotea Hill.



**fig. 1.45 Opposite**

Analysis of the water's edge. This exercise revealed distinct characteristic 'moments' around the harbour that have been translated in Te Awarua Park.

01 THE PLACE

POTENTIAL CHRISTMAS TREES!!!

NO FORMAL CROSSOVER FROM WHITK

POTENTIAL TREES INTEGRATE WATER

CONSTRAINTS MINIGOLF TURNS TO FENCE TO HARBOR

POTENT. OPEN TO OVER WATER

CAR PARKS

SOME FEELS WOULD BE PRIVATE AS HUMAN

SIT-HIDE UNDER ROCKS

EXPOSED

RECREATION SPORTS

BENG WATCHED

OR IN POWER TO WATCH

WAKA / AMA / REGIONALS

STAGE ON GRASS

BIKES THROUGHOUT

NOTE

TIDAL CHANGES.

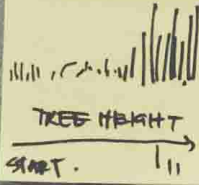
IM VS 9AM

3PM

FEELS PRIVATE SUNK IN GROUND

SPURRED FROM HERE

MAKE 'HOMEY'



HARBOR IN DIALOGUE WITH PLANTS TRYING TO SPEAK

HIDE & GO SEEK

SEWER

CAR PARK

9AM MON 8 MARCH

SPURRED FROM HERE

MAKE 'HOMEY'



## ECONOMIC DEVELOPMENT

### WHAT KIND

‘Cities have the capability of providing something for everybody, only because, and only when, they are created by everybody.’<sup>15</sup>

What types of buildings are around Porirua harbour?

**Big-box retail (such as The Warehouse, furniture warehouses, Pak’n’Save supermarket), mini golf, Whitireia New Zealand Tertiary Institute are located around the harbour. None of these types of development explicitly encourage an interaction with the water but rather ‘turn their back’ on the harbour, separating people from the water’s edge by large concrete walls.**

<sup>15</sup> Jacobs, Jane. The Death and Life of Great American Cities. Random House, New York, 1961.

fig.1.46 Supermarket faces away from the harbour

#### Issues:

- **No housing in city centre.**
- **Zoned urban planning means the CBD is left empty once the shops are closed and people go home from work.**
- **Many stores in the CBD are closed down and left empty.**
- **Buildings next to the harbour have stunning amenity to the landscape but remain empty because of expensive rent.**



fig.1.47 Local Business shop relocated out from CBD

#### The Economic Aim:

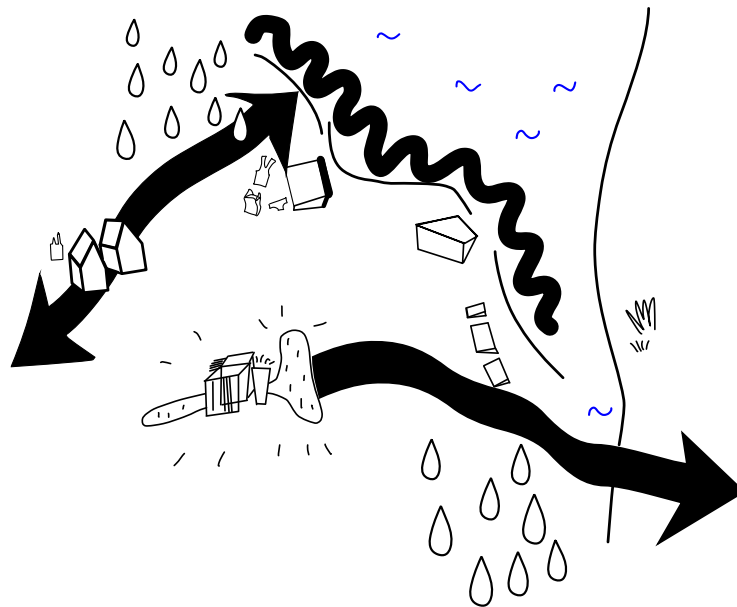
- Encourage mixed-use development in the city by providing opportunity for residential accommodation in the city. This accommodation should be well integrated around the harbour linking with the existing amenity, to significantly improve the public realm. The housing should provide varied types of dwellings to accommodate Porirua's diverse family types, whilst also attracting new ones.



fig.1.48 Prime location next to harbour seen in the reflection







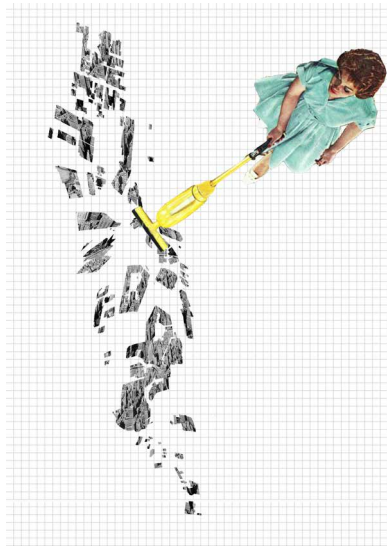
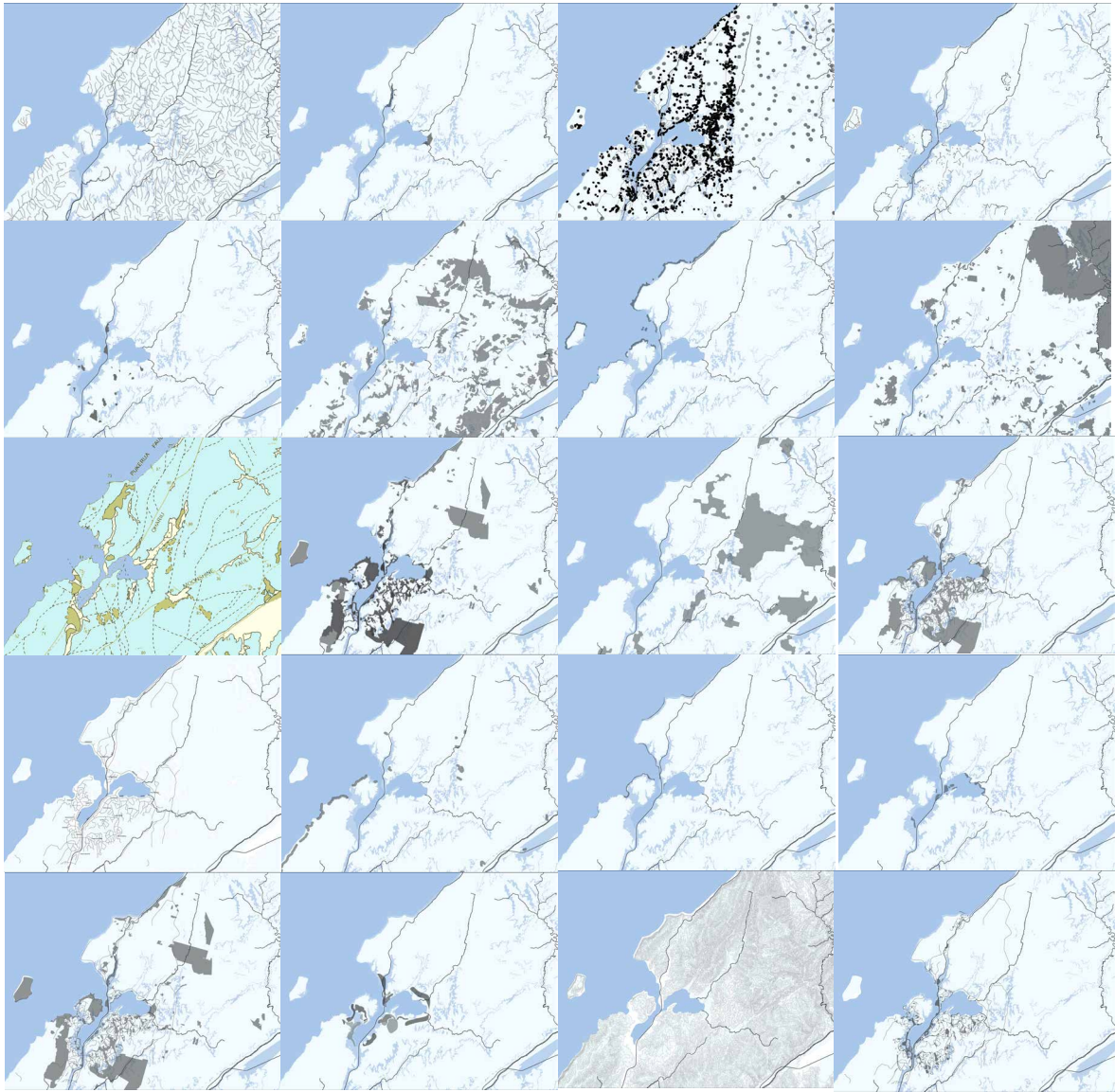
**fig.1.50 Left**  
Abstract illustration attempting to communicate linking mixed-use development to the harbour, the current CBD to the stream, and different functions along the harbour.



fig.1.21 'Economic' collage

fig.1.49 Looking at Porirua from the harbour

fig. 1.51 Site analysis testing Ian McHarg methods of layering: where green spaces, suburbs, links with transport systems, are not usually taken into the planning and zoning of the city at an urban scale, which would help the strategy of how to grow the city via economic development.



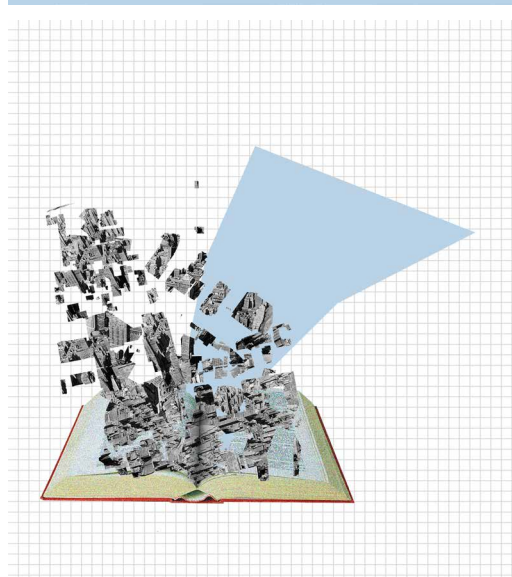
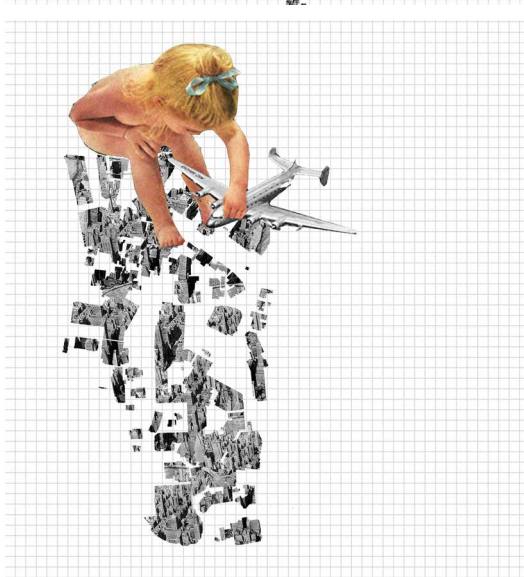
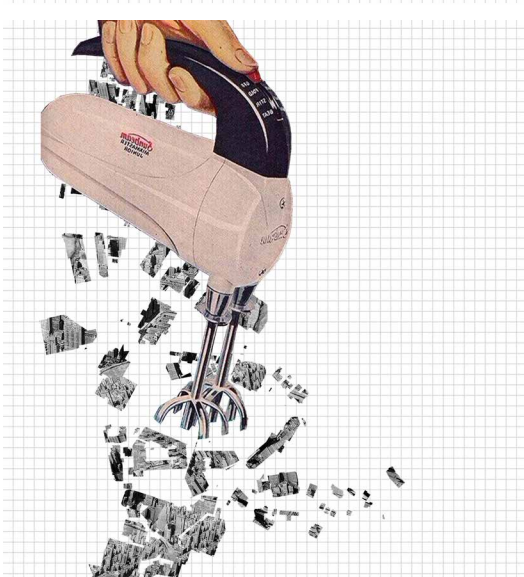
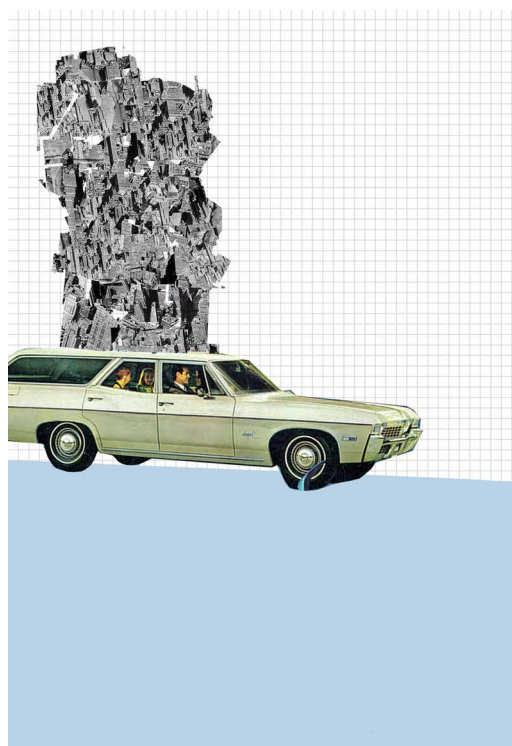
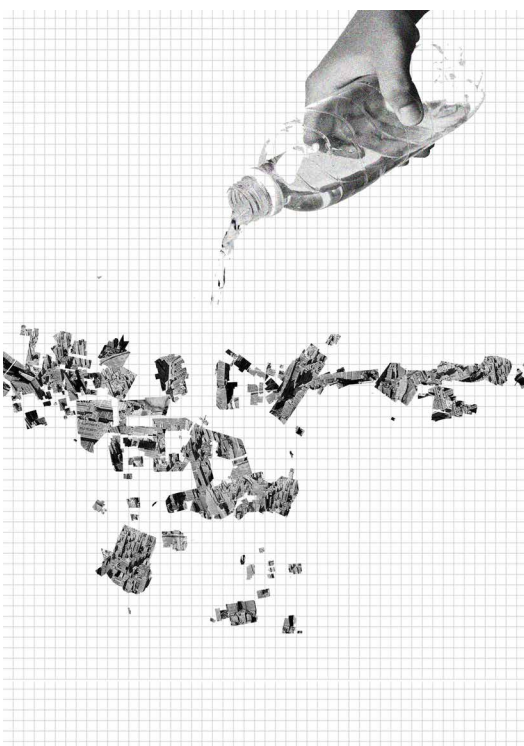
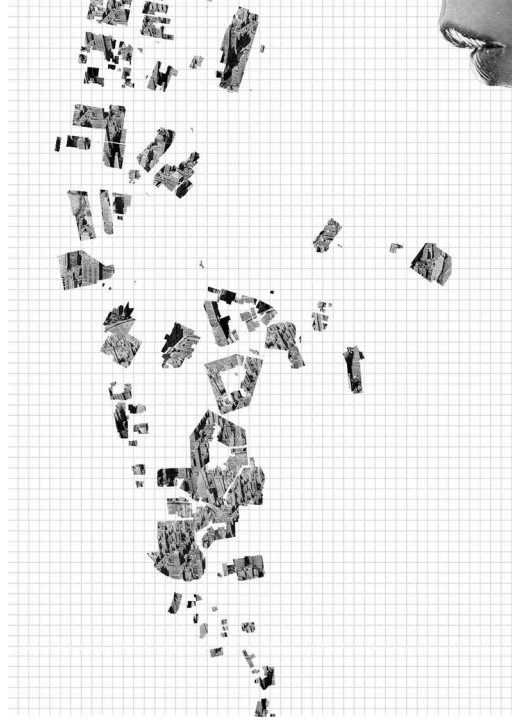
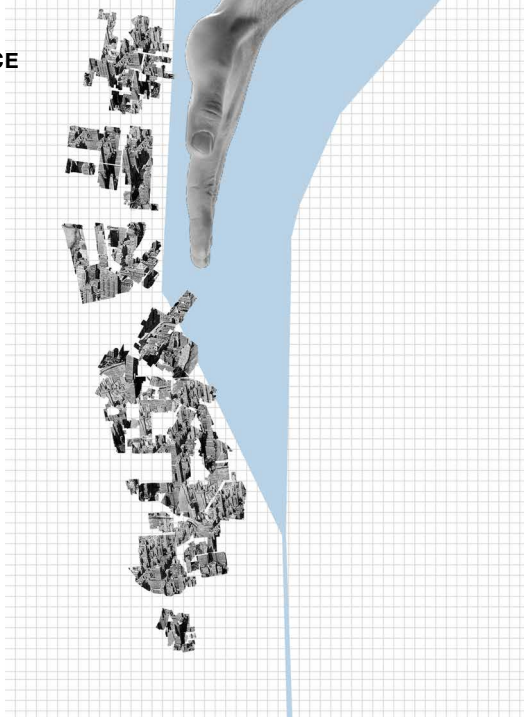
## Reconfiguring the Footprints

**fig.1.52 Opposite**

This exercise of collaging the building footprints with various activities was to think of different ways that the building footprints could be reconfigured on site, since the building footprints are all spread out.



01 THE PLACE





## ENVIRONMENTAL HEALTH

### WATER QUALITY, QUANTITY, AND SPEED

‘Sustainable development is the pathway to the future we want for all. It offers a framework to generate economic growth, achieve social justice, exercise environmental stewardship and strengthen governance.’<sup>16</sup>

What are the environmental features of the Porirua harbour?

**The Porirua harbour serves as the catchment for 84,000 people - a population extending beyond the city itself. It is the largest estuary in the lower north island. It is used by people for waka ama, kayaking, rowing, and wind sailing, but not for swimming because it is polluted.**

#### **Issues:**

- **The main threat to the quality of the water is the build up of sediments and pollution. The construction of the town centre has contributed to this. State Highway 1 has a negative effect on the harbour as pollutants from vehicles run off the road into the harbour after a big storm.**

<sup>16</sup> Ki-Moon, Ban. “Secretary-General’s remarks at a G20 working dinner on “Sustainable Development for All.” United Nations Secretary- General, September 2013, <https://www.un.org/sg/en/content/sg/statement/2013-09-05/secretary-generals-remarks-g20-working-dinner-sustainable>.

fig. 1.53 The mouth of the stream to the harbour showing the railway track right next to the harbour.



- **The city has regular floods - a one in one hundred year flood event has occurred at least once a year for the past few years. Parts of the city centre and other areas around the city are repeatedly flooding.**

fig.2.55 Cobham Court flooding May 2015.

#### fig.1.56

Water flows from the hills surrounding the city to the flat plain of reclaimed land.

This forest scene was believed to be first painted when the forest would have been undisturbed for thousands of years. This image illustrates the lush context in the hills that surround the harbour.

fig.1.56 A forest scene near Porirua by George Frank Angas 1822 -1866.



**fig.1.57**  
Porirua stream  
flooded 2015

**Environmental Aims:**

- Improve the stormwater infrastructure in a way that also provides relief from residential and urban flooding.
- Improve the quality of estuary water by improving the quality of stormwater entering the estuary.
- Enhance the water as an important cultural and social element of the city environment.



fig.1.21 'Environment' collage



## THE FLOODS

fig.1.58 Tutu Place

fig.1.59 Porirua School

fig.1.60 Titahi Bay Rd

fig.1.61 Skatepark

fig.1.62 Cobham Court







fig.1.63

fig.1.57 Porirua Stream swell, flowing into the harbour

fig.1.64 Porirua train station underground walkway

fig.1.65 Cars stuck in Kenepuru Drive



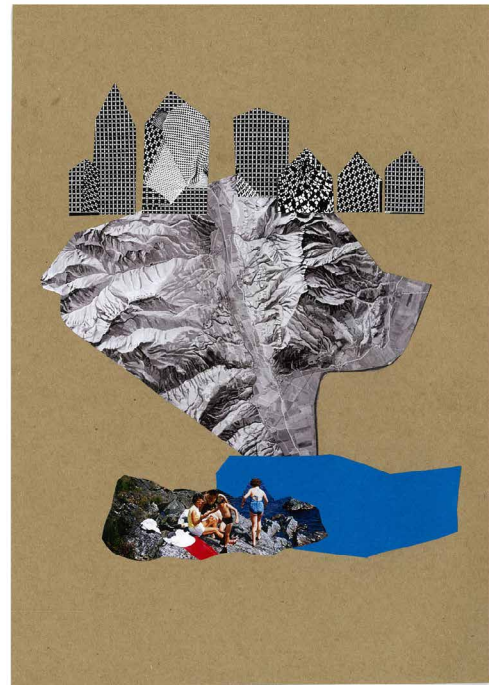
## A RECAP THE AIMS:

*The previous site analysis led to the adoption of the following sustainable urban development aims for this thesis:*



### CULTURAL

**Encourage an awareness of the harbour and reinstate a cultural connection to the harbour.**



### SOCIAL

**Create a lively, socially active space around the water's edge that is 'like a good party.'**



## ECONOMIC

**Provide mixed-use development around the water encouraging new opportunities for economic growth.**



## ENVIRONMENTAL

**Create a more resilient landscape in the city for flooding and improve the health of the harbour.**

fig.1.21 Urban sustainable collages







# chapter two

## the strategy

<b>The Toolkit</b>	<b>73</b>
<b>Two Temporary Projects</b>	<b>115</b>
<b>The Big Move</b>	<b>137</b>

*The following section shows images of the final design proposition. The Strategy's three components, The Toolkit, Two Temporary Projects, and The Big Move, are the result of extensive design development. This section shows The Strategy as the 'final' design outcome. The chapters following go on to describe the research that led to The Strategy's components.*

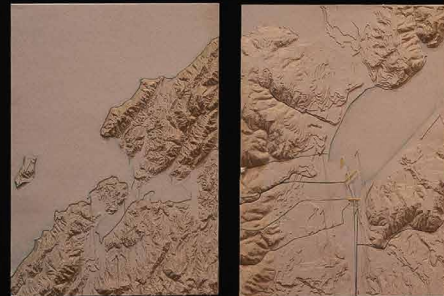
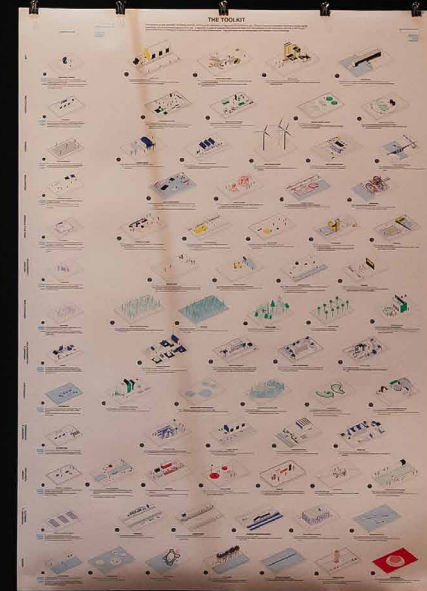
## Two Temporary Projects

## The Toolkit



**fig.0.3** *THINK BIG, act small*  
presentation panel  
at the NZIA Central  
Innovation Student  
Design Awards

December  
2016





## The Big Move







# The Toolkit

a kit of architectural design ideas

# ***The Toolkit***

***is a kit of architectural design ideas that can be deployed incrementally to progress sustainable urban development. It is an idea generator. Thirteen themes link to cultural, social, economic, and environmental aims. A spectrum is used to organize the ideas along spatial and temporal scales. Where possible, the ideas explore various ways of connecting with water.***

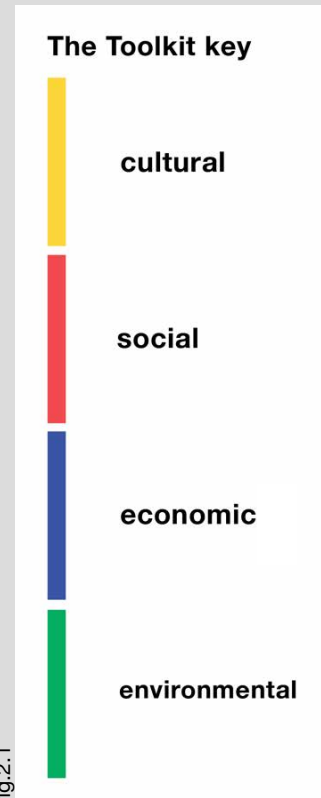
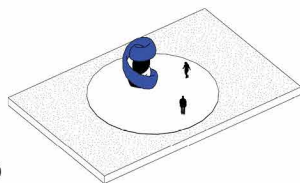


fig.2.1





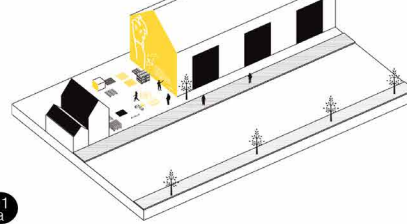


01

**SCULPTURAL FIGURES**

**EXISTING** Maori carved sculptures around the city; one on the harbour, four in Cobham Court. Pataka Art Gallery is widely used by the locals and visitors

**DESIRE** To retain these forms and offer new types of art experiences where collaborators and peers develop creative practices and engage the public

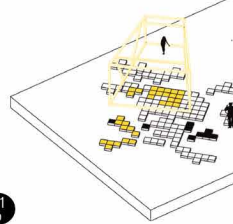


01 a

**STREET ART**

**TOOL** Visual art in public locations

**AIM** To increase the unique appeal of the city and allow an opportunity for artists in the city to contribute to the cityscape

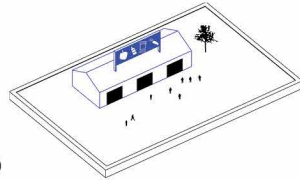


01 b

**URBAN INSTALLATION**

**TOOL** A 3D experience for users through the installation of objects and/or manipulations

**AIM** To increase economic value in civic spaces and foster dialogue with locals

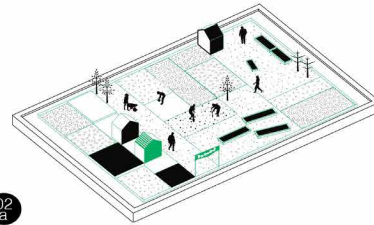


02

**PACKAGED**

**EXISTING** Food sources can be found in supermarkets, or market places, which are all imported or grown outside of the city.

**DESIRE** To provide systems of urban sustainable agriculture for inhabitants in the city and employment opportunities.

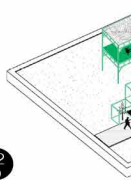


02 a

**COMMUNITY GARDEN**

**TOOL** Shared gardens in the city

**AIM** To increase a sense of ownership and kaitiakitanga, cultivate local agricultural production, allow an effective 'eyes on the street' attitude reducing crime

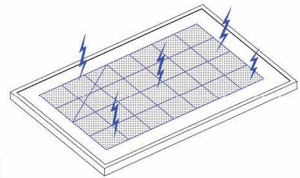


02 b

**VERTICAL GARDENS**

**TOOL** Vertical gardens on building facades

**AIM** To maximize space and improve micro-climate for the city

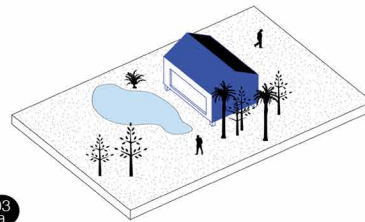


03

**NON-RENEWABLE**

**EXISTING ELEMENT** New Zealand's energy is currently 60% non-renewable

**DESIRE** To adopt methods that make Porirua an energy efficient city, and increase renewable energy in the country

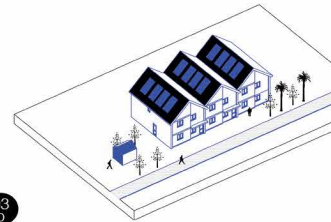


03 a

**PASSIVE DESIGN**

**TOOL** Passive solar gain through intelligent design

**AIM** To appropriately respond to the site providing amenity for the occupants

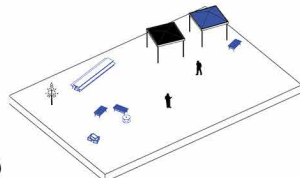


03 b

**SOLAR POWER SYSTEM**

**TOOL** Solar panels

**AIM** To produce energy reliability and independence, long-term efficiency, and to utilize high spaces

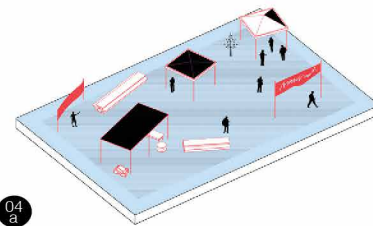


04

**SATURDAY'S EVENTS**

**EXISTING** Saturday food market, indoor swimming pool, mini golf, art gallery, skate-park

**DESIRE** Retain these but introduce stronger aqua activities for citizens to feel proud of and to attract the wider community



04 a

**CIRCULATING EVENTS**

**TOOL** Light structures with scaffolding allowing various cultural events weekly/monthly; markets on the water, food truck events, outdoor movies

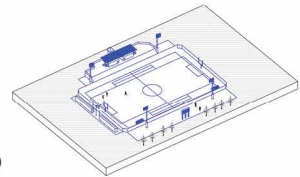
**AIM** To activate different areas in the city and promote local business

04 b

**VARIOUS WATER ACTIVITIES**

**TOOL** Various water features

**AIM** Create a sense of place

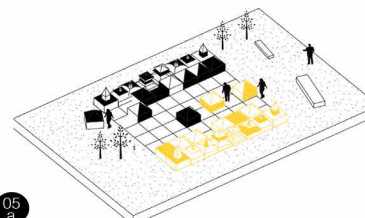


05

**"THE ARENA"**

**EXISTING** A large main indoor sports facility that the city refers to as "The Arena". An artificial turf; Small playgrounds, one on the harbour, one city centre

**DESIRE** To make fitness tools accessible, place importance on the quality of spaces for kids to play, make the water a key feature

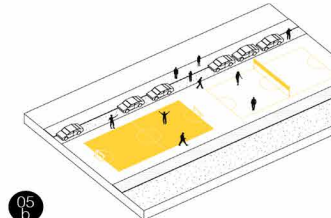


05 a

**GROUND UP GAMES**

**TOOL** Lawn chess, street scrabble, table tennis, real life monopoly around the city

**AIM** To get adults playing in the streets and initiate conversations between policy makers and locals about improving public space

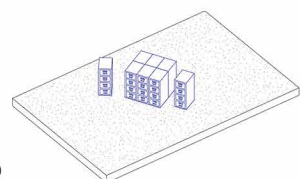


05 b

**FLOOR PAINTING**

**TOOL** Painting of playing courts on public highway or space between buildings

**AIM** For inhabitants to enjoy new equipment almost every day and weekends with an almost

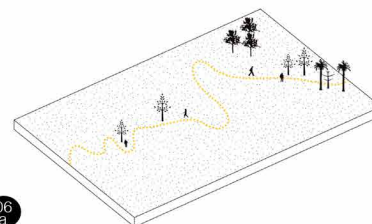


06

**PACKED UP**

**EXISTING** Archives from the old Museum are kept in cabinets in the public library. History is mainly in books and on-line

**DESIRE** To create a spatial experience for public to engage with in an educational way



06 a

**HISTORY TRAIL**

**TOOL** Walking and cycling trail around the city

**AIM** To educate people about significant history or things that hold current importance, such as the existing edge of city before reclamation, and even a trail to the Whittaker's Chocolate Factory

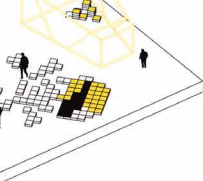
06 b

**POP-UP EDUCATION**

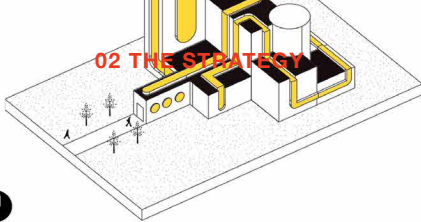
**TOOL** Pop-up education

**AIM** To educate people about significant history or things that hold current importance





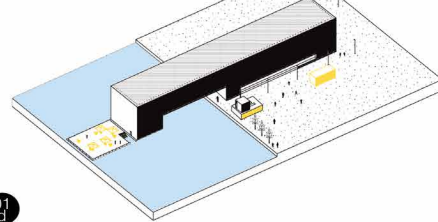
RELATION  
form of clever sculptures, crafty add-  
on streets while creating visual appeal and a  
spaces and encourage a creative



01  
c

#### ART GALLERY

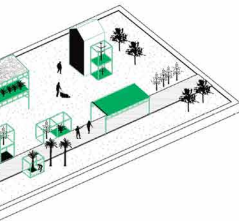
**TOOL** A gallery where the water is itself an exhibition  
**AIM** To invent a different experience of the traditional art gallery using water as the manipulating factor



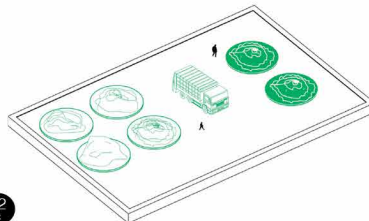
01  
d

#### ART SCHOOL

**TOOL** School of art, design, and performance majoring in Polynesian cultures  
**AIM** To renew knowledge of traditional culture and further encourage contemporary appropriations



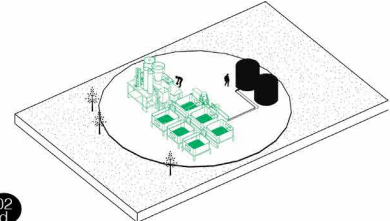
VERTICAL STRUCTURES  
and recycled green houses  
on streets while creating visual appeal and a  
the surrounding buildings



02  
c

#### ORGANIC WASTE SYSTEM

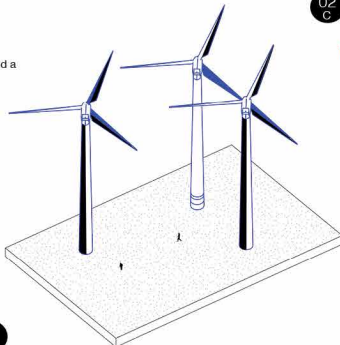
**TOOL** Recycling ecological systems  
**AIM** To ensure a cycle of sustainable waste management, allowing use for community gardens



02  
d

#### AQUAPONICS SYSTEM

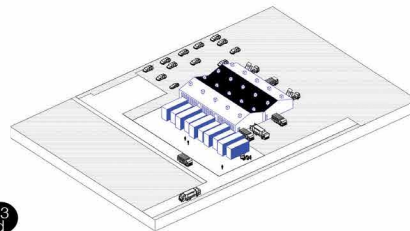
**TOOL** Combined aquaculture and hydroponics system  
**AIM** To increase sustainable food production, foster community, and provide job opportunities



03  
c

#### WIND POWER SYSTEM

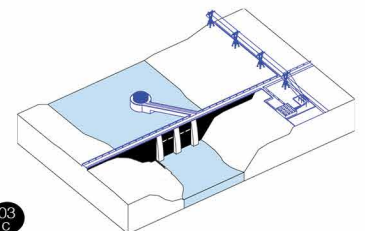
**TOOL** Wind turbines placed on the hills  
**AIM** To have an energy productive city and attract walking activity in the hills



03  
d

#### WASTE POWER SYSTEM

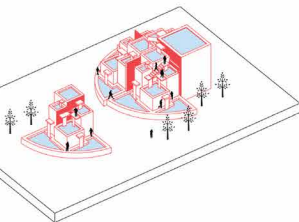
**TOOL** Waste-to-energy or energy-from-waste generation  
**AIM** To make a productive city and verify sustainability



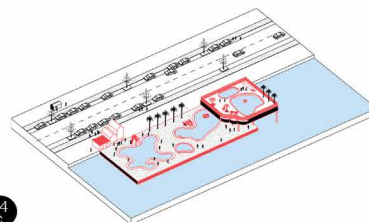
03  
e

#### HYDRO POWER SYSTEM

**TOOL** Hydroelectricity in the hill spaces  
**AIM** To make the city productive and make use of the larger catchment rainfall



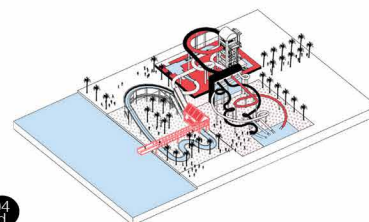
paths to follow around park through water fountains, mini  
alls, ponds, bird-baths, etc.  
a 'garden' of ways for public to interact with water



04  
c

#### HARBOUR BATHS

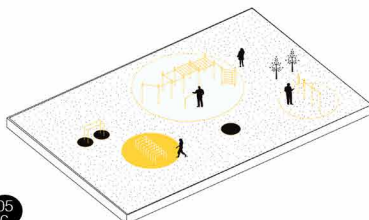
**TOOL** Recreational bathing facilities, winter and summer  
**AIM** To create a leisure and aquatic culture in the heart of the city that citizens of the city can enjoy



04  
d

#### WATER PARK

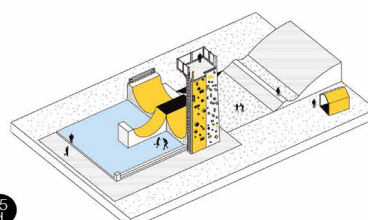
**TOOL** Amusement water themed park  
**AIM** To attract users from the wider community bringing economic benefits and to increase cultural identity of water



05  
c

#### POP UP GYM

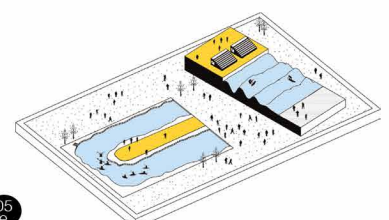
**TOOL** Sport microstructures, set up directly or long term  
**AIM** To connect the various social spaces with either urban or natural environments



05  
d

#### PLAYSCAPES

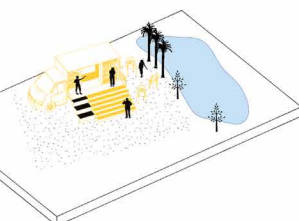
**TOOL** A playful landscape e.g. water swings, rock climbing walls, sidewalk trampolines  
**AIM** To entertain multi-generations through interacting with the environment and its features



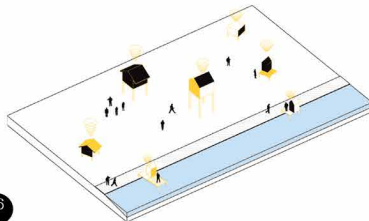
05  
e

#### WAVE BOX

**TOOL** Simulated wave facilities  
**AIM** To offer a new water sports installation for indoor surfing, white water rafting, and canoeing



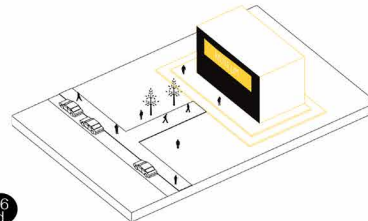
p structures to create a public reading space  
ucate users about the heritage in a contemporary way, and  
e public in a new public experience



06  
c

#### HOTSPOT DATES

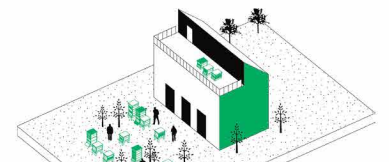
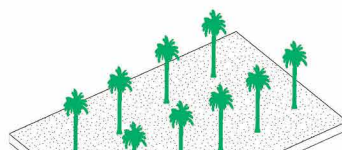
**TOOL** 'Pataka' story-boxes use wifi where people can connect their  
**AIM** smart phones to learn about facts  
To educate users about the heritage in a contemporary way, to generate new type of public space



06  
d

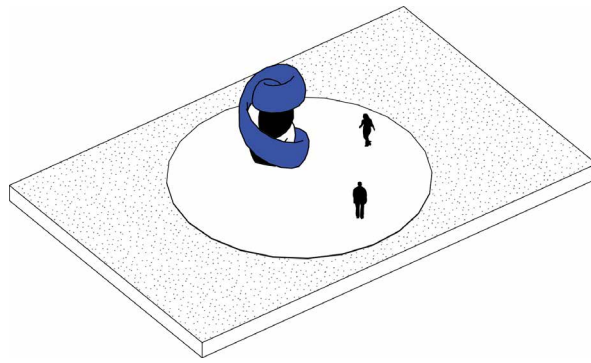
#### MUSEUM

**TOOL** A formalised archive about the history of Porirua  
**AIM** To restore history and emphasise the significance of place including early settlement of Maori and Europeans





## ART



01

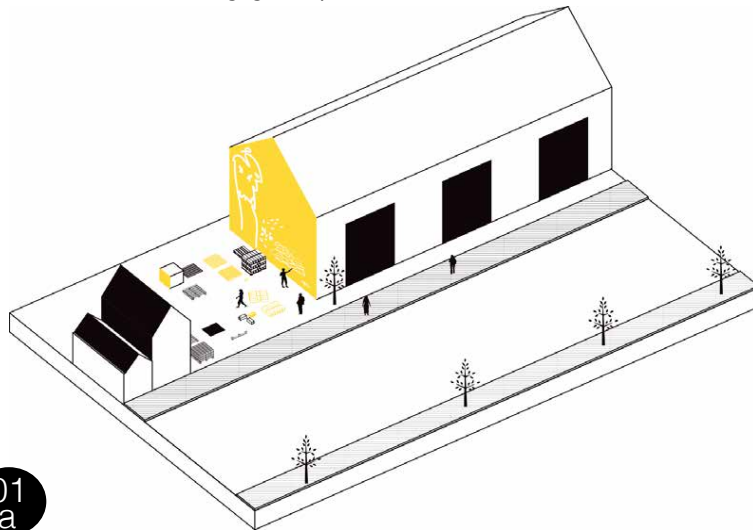
## SCULPTURAL FIGURES

**EXISTING ELEMENT** Maori carved sculptures around the city; one on the harbour, four in Cobham Court. Pataka Art Gallery is an exceptional gallery- widely used by visitors.

**DESIRE** To retain these forms and offer new types of art experiences where collaborators and peers develop creative practices and engage the public.



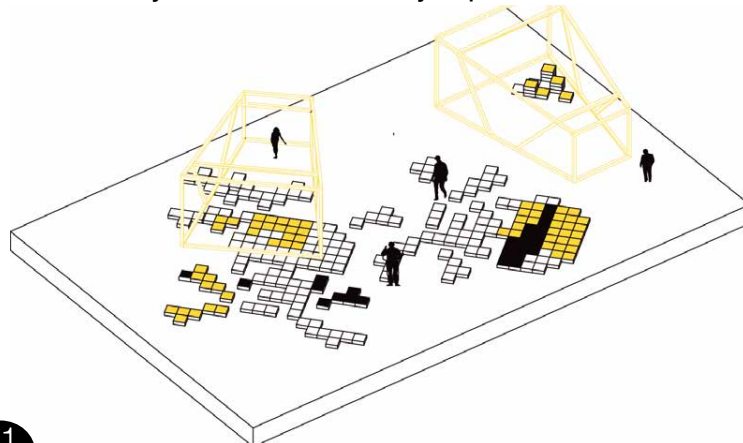
*These ideas are blow-ups from The Toolkit. The ideas remain organised along spatial and temporal scales.*

01  
a

## STREET ART

**TOOL** Visual art in public locations.

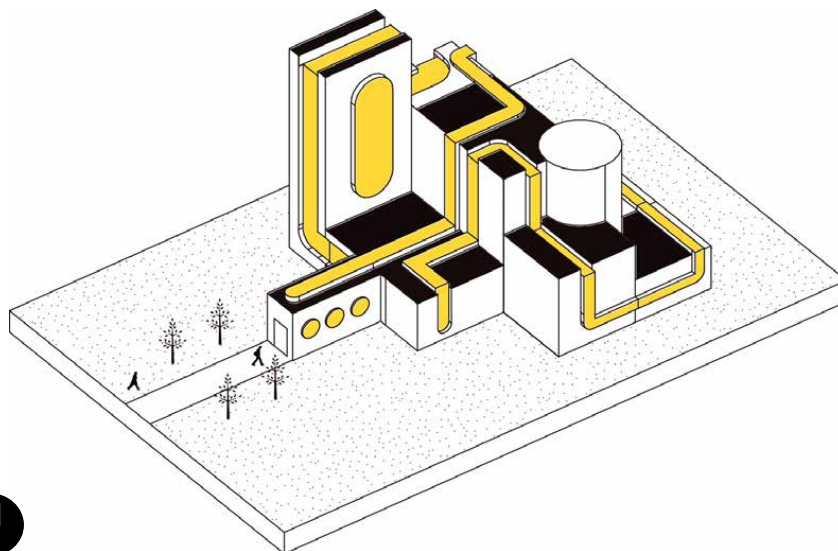
**AIM** To increase the unique appeal of the city and allow an opportunity for artists in the city to contribute to the cityscape.

01  
b

## URBAN INSTALLATION

**TOOL** A 3D experience for users through the form of clever sculptures, crafty additions and/or manipulations.

**AIM** To increase economic value in civic spaces and encourage a creative dialogue with locals.

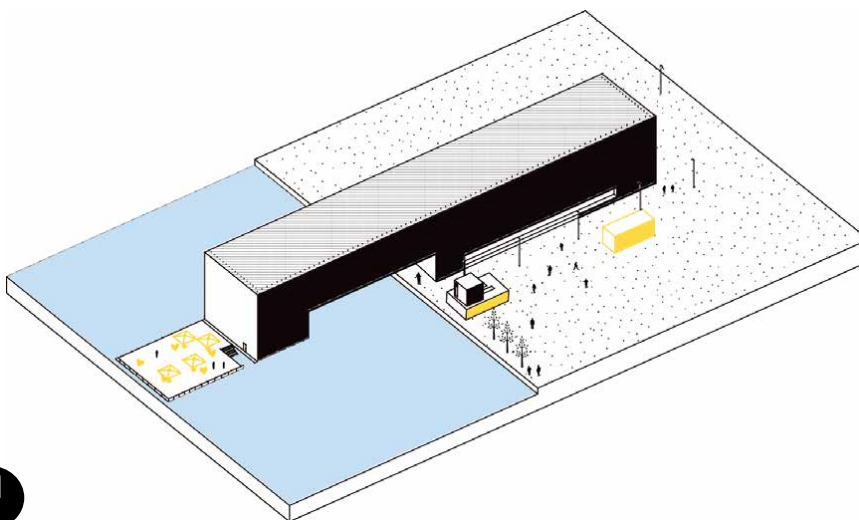


01  
c

### ART GALLERY

**TOOL** A gallery where the water is itself an exhibition.

**AIM** To invent a different experience of the traditional art gallery using water as a manipulating factor.



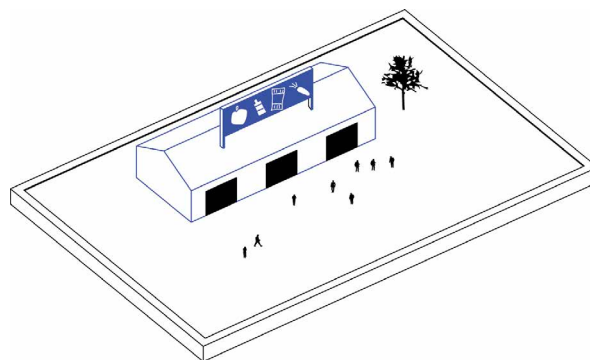
01  
d

### ART SCHOOL

**TOOL** School of art, design, and performance teaching in Polynesian cultures.

**AIM** To renew knowledge of traditional culture and further encourage contemporary appropriations - perhaps attracting people from outside the city / country.

## AGRICULTURE

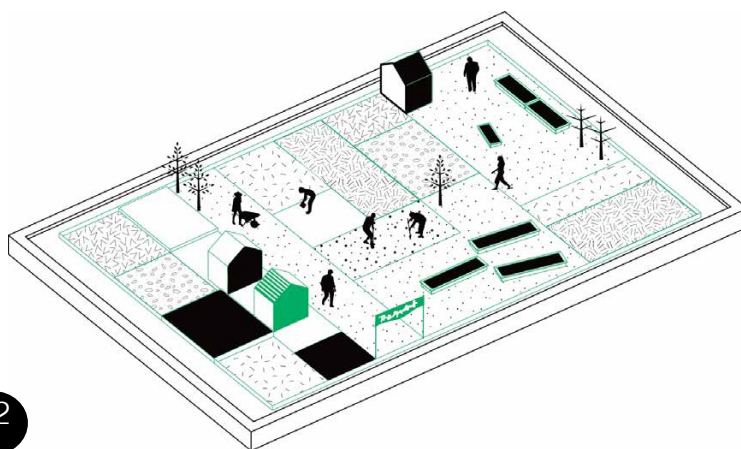
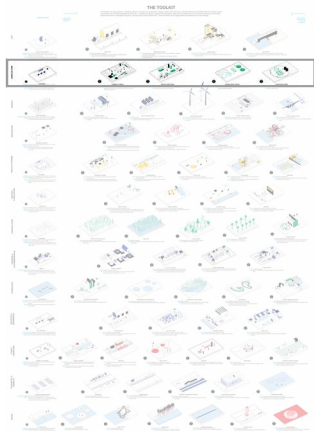


02

**PACKAGED**

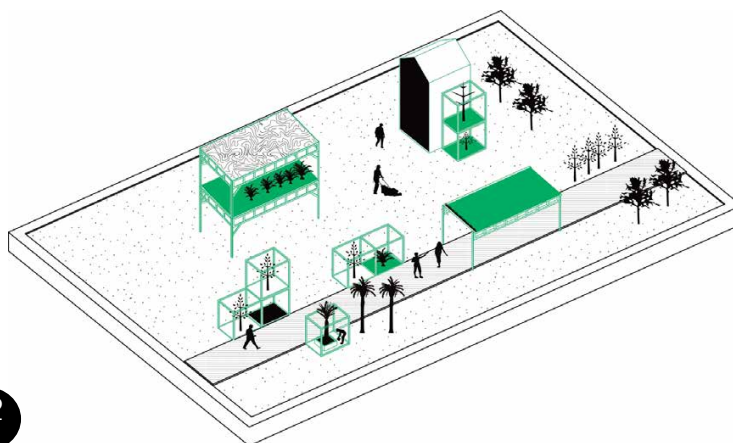
**EXISTING ELEMENT** Food sources can be found in supermarkets, or market places, which are all imported or grown outside of the city.

**DESIRE** To provide systems of urban sustainable agriculture for inhabitants in the city and employment opportunities.

02  
a**COMMUNITY GARDEN**

**TOOL** Shared gardens in the city.

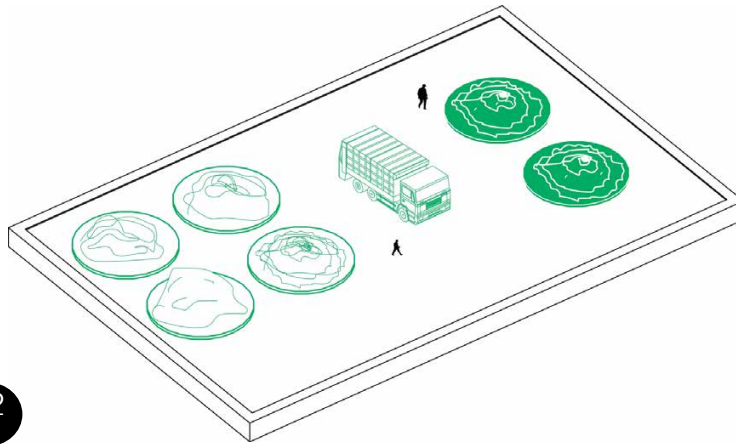
**AIM** To increase a sense of ownership and kaitiakitanga, cultivate local agricultural production, allow an effective 'eyes on the street' attitude reducing crime.

02  
b**VERTICAL STRUCTURES**

**TOOL** Vertical gardens and recycled green houses.

**AIM** To maximize space on streets while creating visual appeal and a micro-climate for the surrounding buildings.



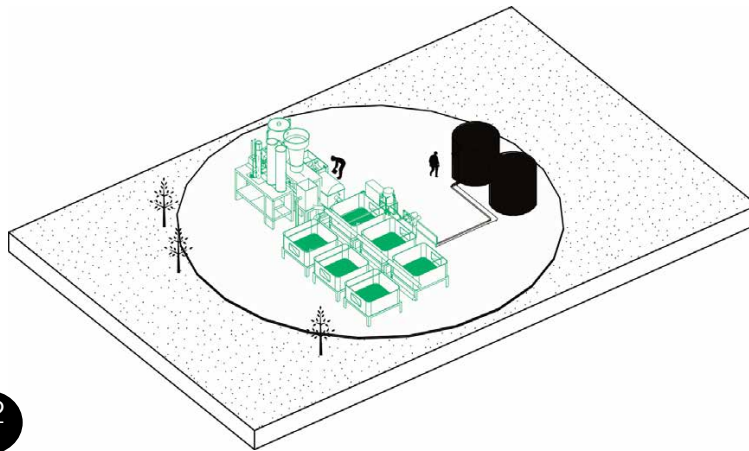


02  
c

### ORGANIC WASTE SYSTEM

**TOOL** Recycling ecological systems.

**AIM** To ensure a cycle of sustainable waste management, allowing use for community gardens.

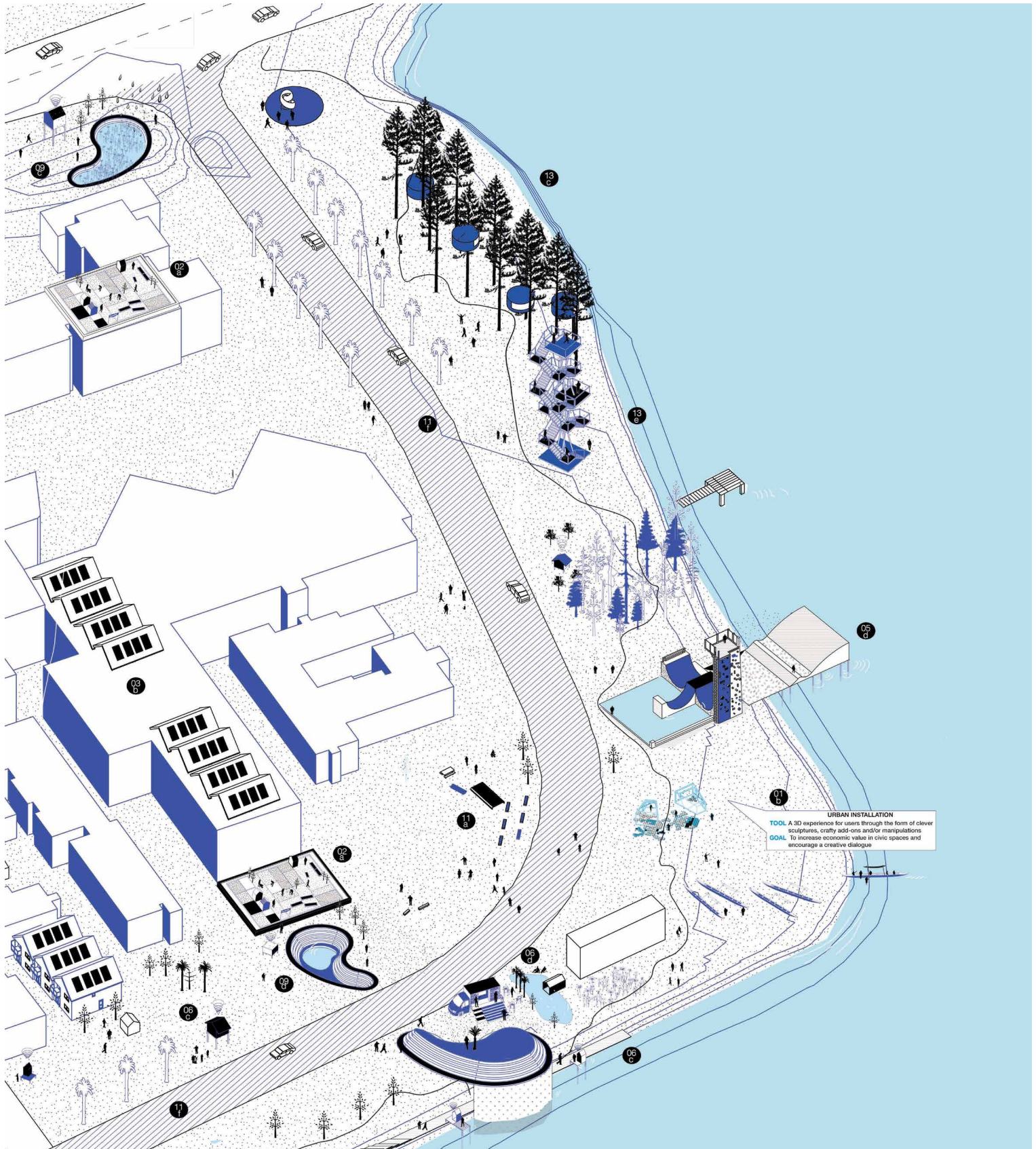


02  
d

### AQUAPONICS SYSTEM

**TOOL** Combined aquaculture and hydroponics system.

**AIM** To increase sustainable food production, foster community, and provide job opportunities.



*Appropriate ideas from The Toolkit are applied to the site to illustrate how The Toolkit might be used in relation to an urban context.*

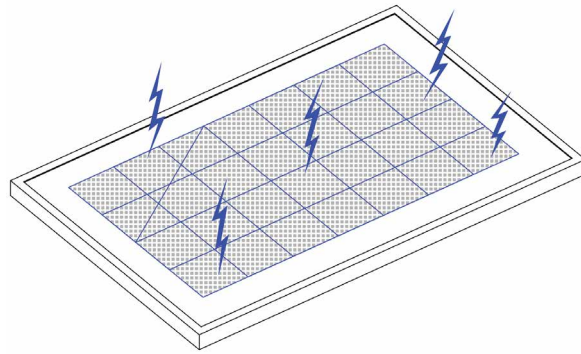


fig.2.4

**fig.2.3 Opposite & fig.2.4 Above** Toolkit applied to northern end of the site, with a positive image of how many things might be applied to the site, however through the presentation style, the roads are read as kerbs that only emphasize the edge.



## ENERGY

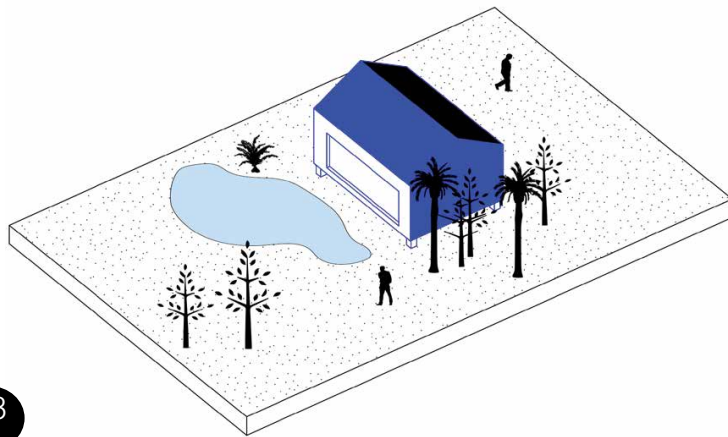


03

**RENEWABLE**

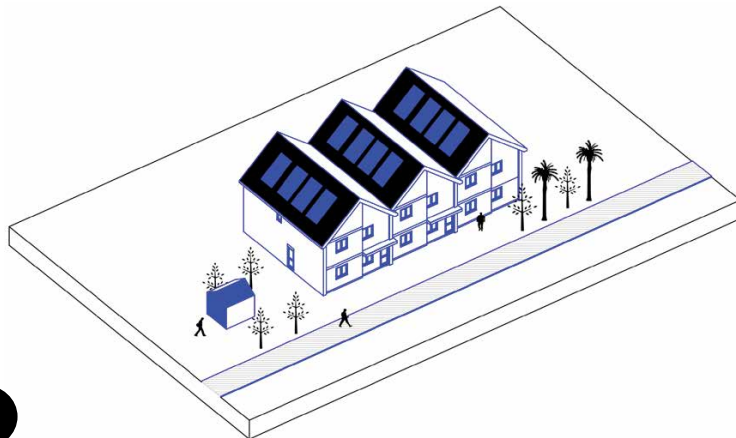
**EXISTING ELEMENT** New Zealand's energy is currently 60% non-renewable.

**DESIRE** To adopt methods that make Porirua an energy efficient city, and increase renewable energy in the country.

03  
a**PASSIVE DESIGN**

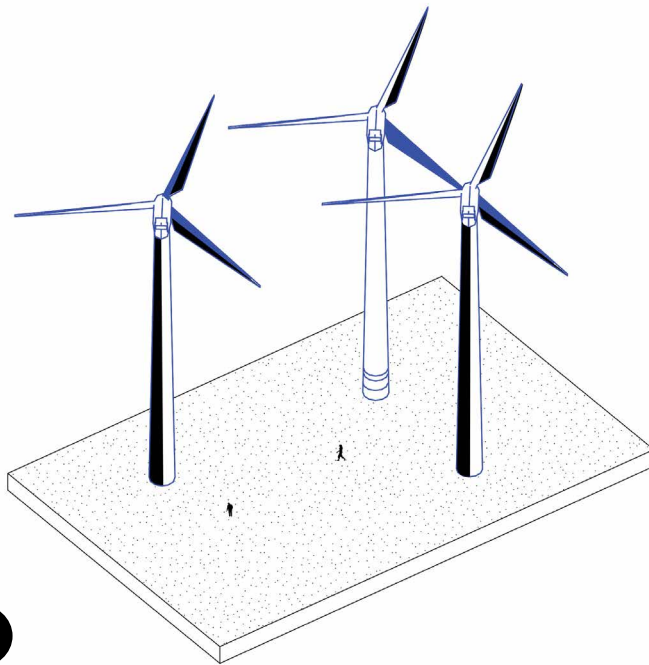
**TOOL** Passive solar gain through intelligent design.

**AIM** To appropriately respond to the site providing amenity for the occupants.

03  
b**SOLAR POWER SYSTEM**

**TOOL** Solar panels.

**AIM** To produce energy reliability and independence, long-term cost efficiency, and to utilize high spaces.

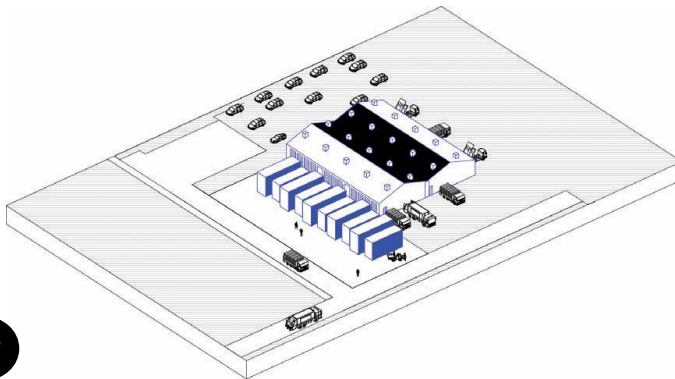


03  
c

### WIND POWER SYSTEM

**TOOL** Wind turbines placed on the hills.

**AIM** To have an energy productive city and an attraction for walking in the hills.

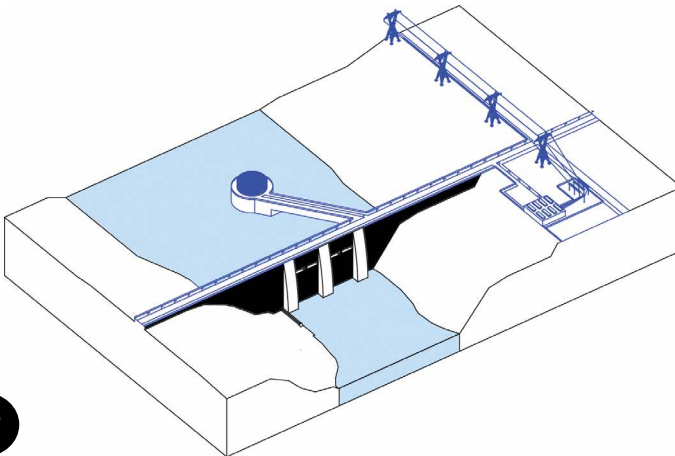


03  
d

### WASTE POWER SYSTEM

**TOOL** Waste-to-energy or energy-from-waste generation.

**AIM** To make a productive city and expand the possibilities in sustainability.



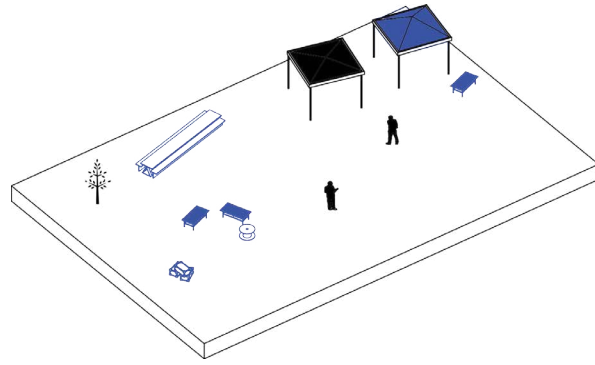
03  
e

### HYDRO POWER SYSTEM

**TOOL** Hydroelectricity in a strategic area.

**AIM** To make the city productive and make use of the larger rainfall catchment.

# RECREATION

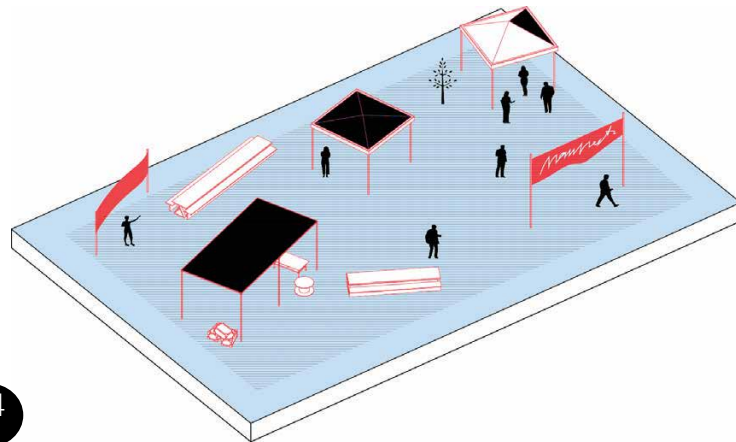


04

## VARIED EVENTS

**EXISTING ELEMENT** Monthly food markets, indoor swimming pool, mini golf, art gallery, skate-park, varying events in the CBD.

**DESIRE** Retain these but introduce stronger aqua activities for the community to enjoy, and to attract new visitors.

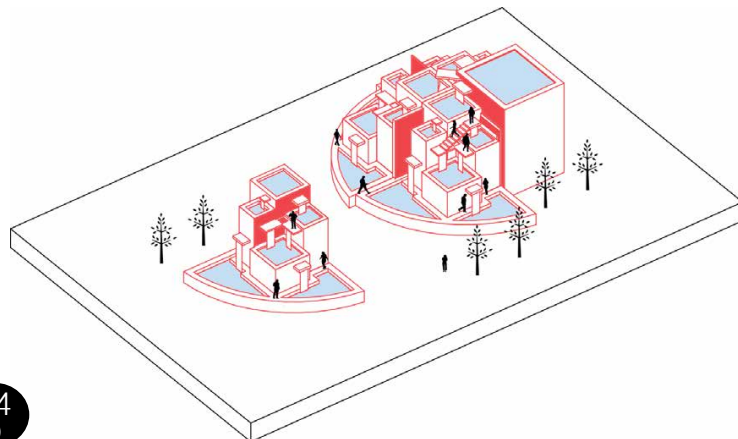


04  
a

## CIRCULATING EVENTS

**TOOL** Light structures with scaffolding allowing various cultural events weekly/monthly, markets on the water, food truck events by the water, outdoor movies by the water.

**AIM** To activate the harbour area, promote local business, and generate an economic interest in retail space.



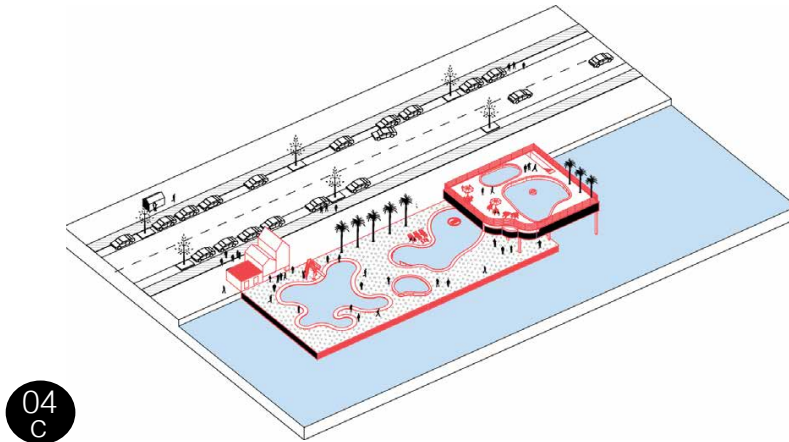
04  
b

## WATER GARDEN

**TOOL** Various paths to follow around the park through water fountains, mini waterfalls, ponds, bird-baths, and drinking fountains.

**AIM** Create a 'garden' of ways for the public to interact with the water.



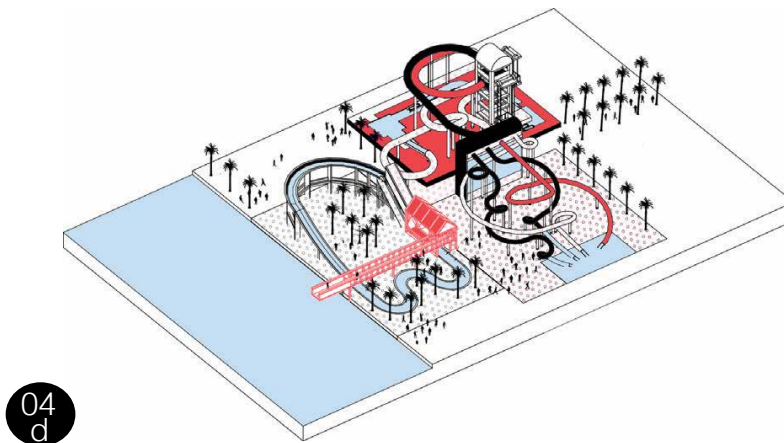


04  
c

#### HARBOUR BATHS

**TOOL** Recreational bathing facilities for winter and summer.

**AIM** To create a leisure and aquatic culture in the heart of the city that locals can enjoy.

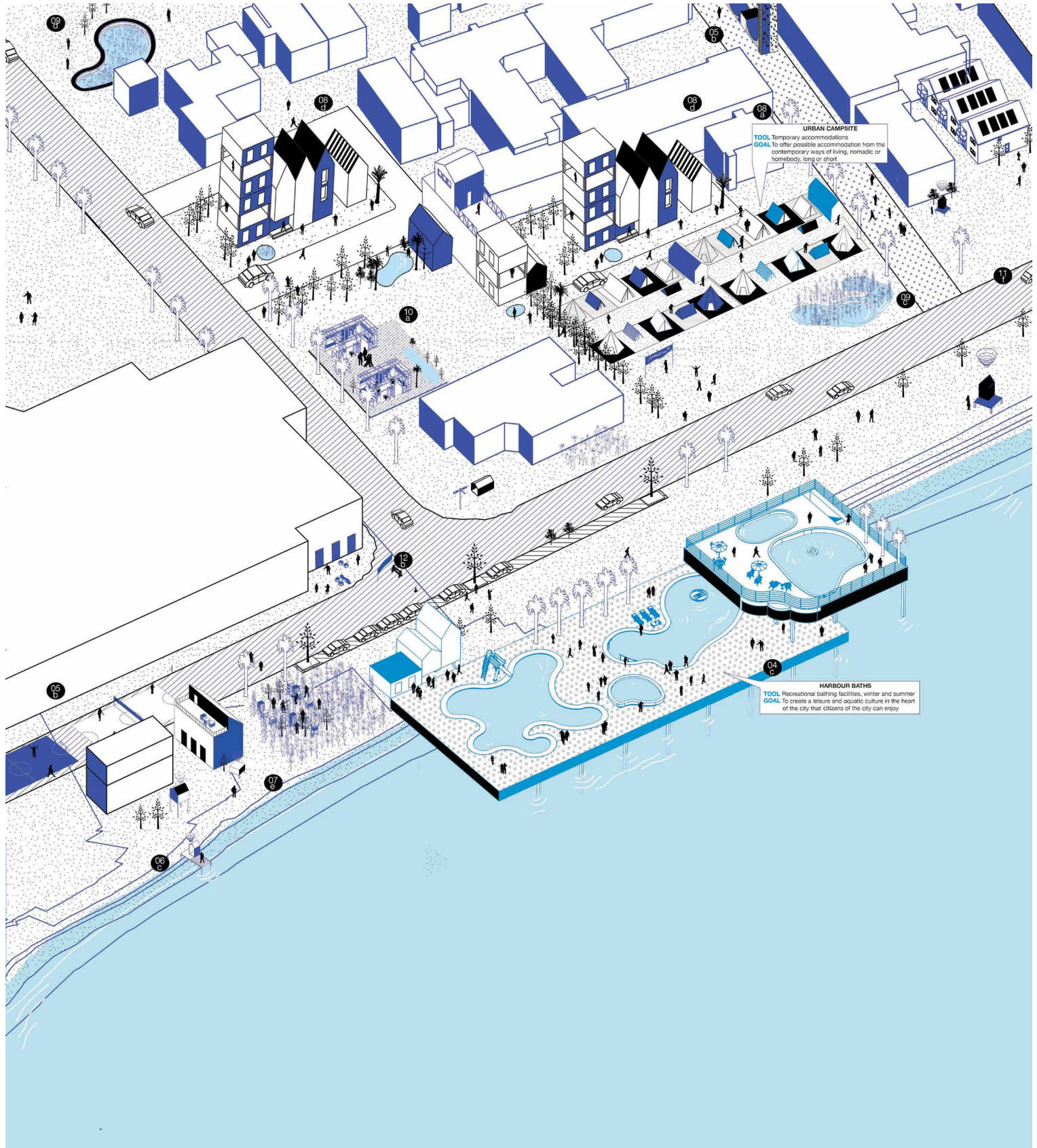


04  
d

#### WATER PARK

**TOOL** Amusement water themed park.

**AIM** To attract users from the wider community bringing economic benefits and to increase cultural identification with water.



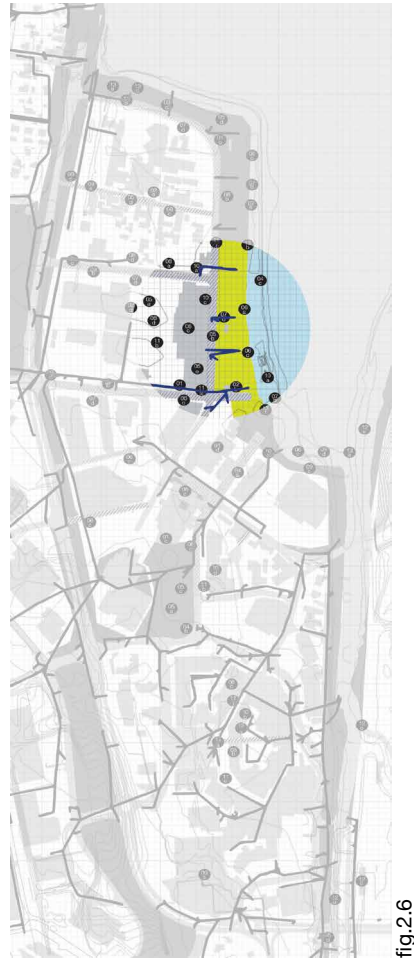
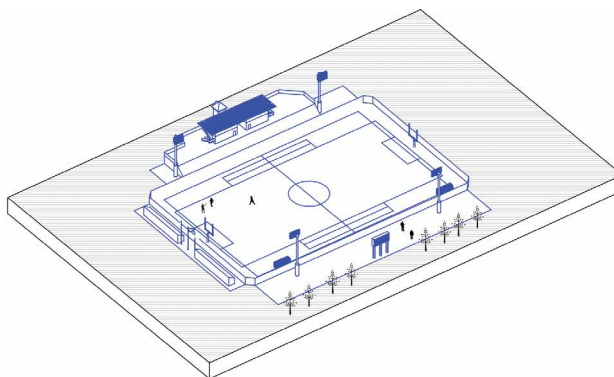


fig.2.6

**fig.2.5 Opposite & fig.2.6 Above**  
 Toolkit applied to end of Tutu Place. This application misses the opportunity to activate the harbour itself and not just its edge. Te Awarua Park in the 'Big Move' has developed ways to improve this by making the harbour itself an active space.



## HEALTH &amp; FITNESS

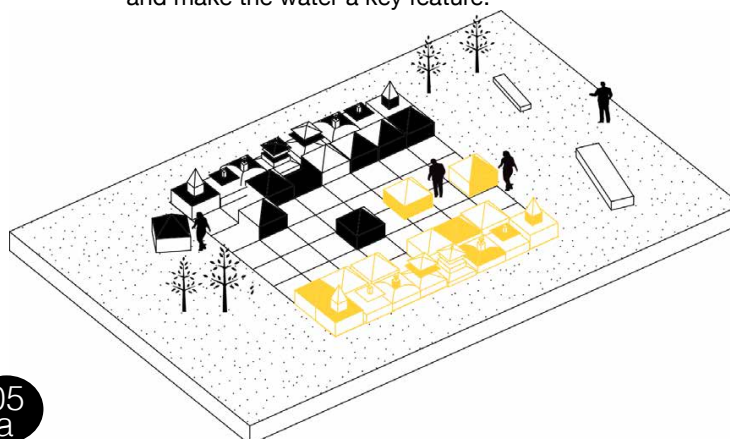


05

**"THE ARENA"**

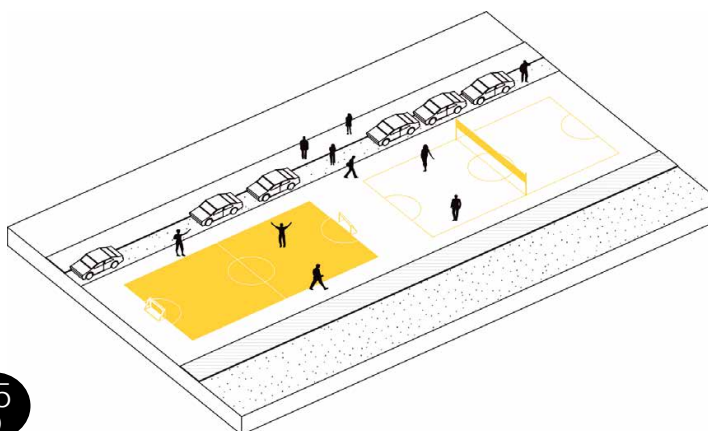
**EXISTING ELEMENT** Built elements in the city include a large main indoor sports facility referred to as "The Arena"; an artificial turf; small playgrounds (one on the harbour, one in the city centre).

**DESIRE** Make fitness tools accessible encouraging a healthier city, place importance on the quality of spaces for kids to play and make the water a key feature.

05  
a**GROUND UP GAMES**

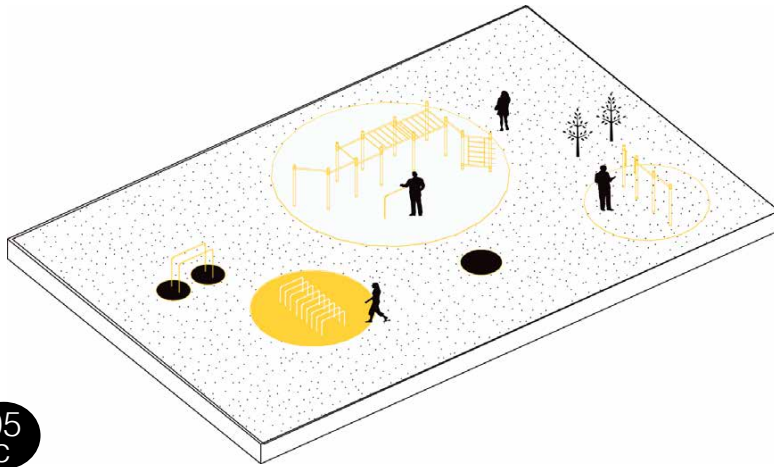
**TOOL** Lawn chess, street scrabble, table tennis, real life monopoly around the city.

**AIM** To get adults playing in the streets and initiating conversations between policy makers and locals about improving public space.

05  
b**FLOOR PAINTING**

**TOOL** Painting of playing courts on public roads or spaces in-between buildings.

**AIM** To provide residents with access to new equipment for recreational purposes.

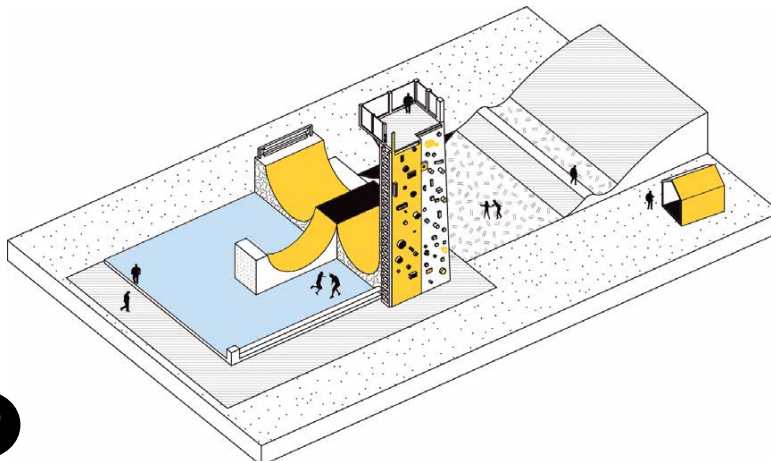


05  
c

### POP-UP GYM

**TOOL** Sport microstructures, set up directly or long term.

**AIM** To connect the various social spaces with either urban or natural environments.

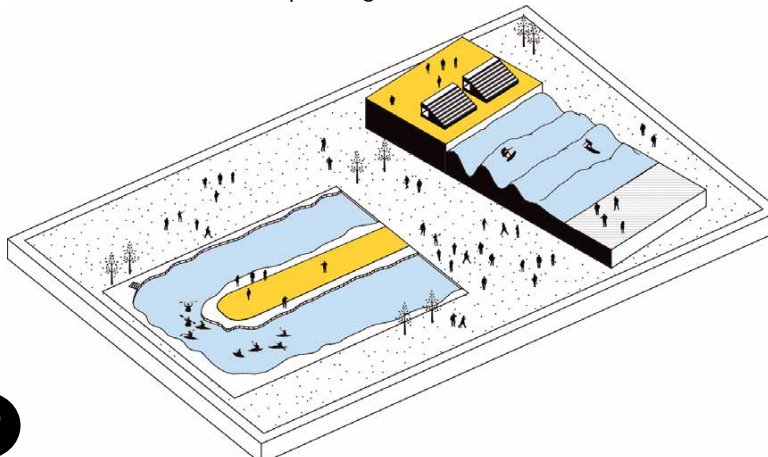


05  
d

### PLAYSCAPES

**TOOL** A playful landscape, eg. water swings, rock climbing walls, sidewalk trampolines.

**AIM** To entertain multi-generations through interacting with the environment and responding to the context.



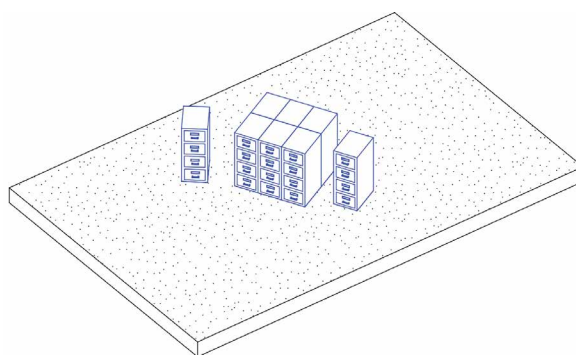
05  
e

### WAVE BOX

**TOOL** Simulated wave facilities.

**AIM** To offer a new water sports installation for indoor surfing, white water rafting and canoeing.

# HISTORY & EDUCATION

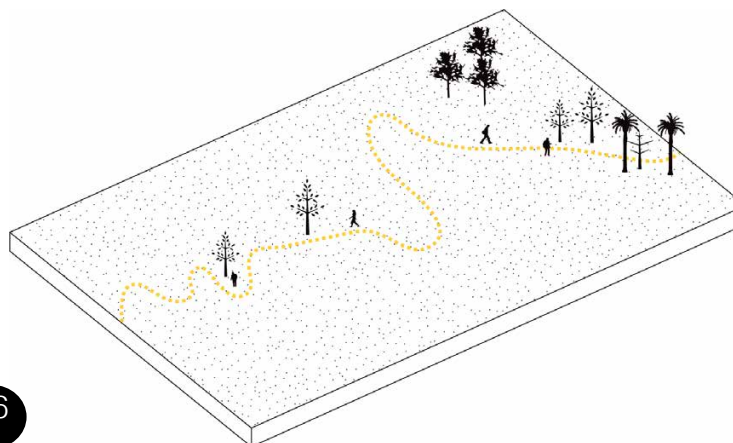
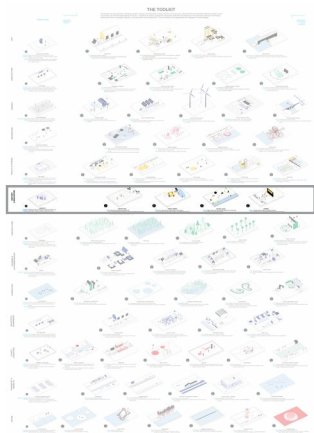


06

## PACKED UP

**EXISTING ELEMENT** Archives from the old Museum are kept in cabinets in the public library. History of the city itself is mainly in books and on-line.

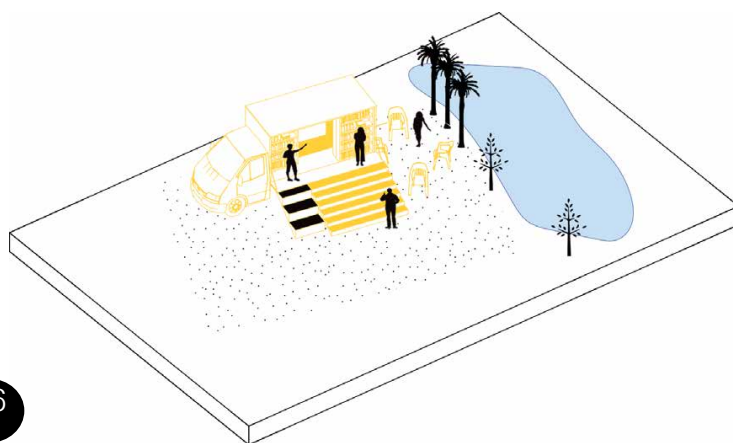
**DESIRE** To create a spatial experience for the public to engage in history in an educational way.

06  
a

## HISTORY TRAIL

**TOOL** Walking and cycling trail around the city.

**AIM** To educate people about significant history or things that hold current importance, such as the edge of the city before reclamation, or even a trail to the Whittaker's Chocolate Factory.

06  
b

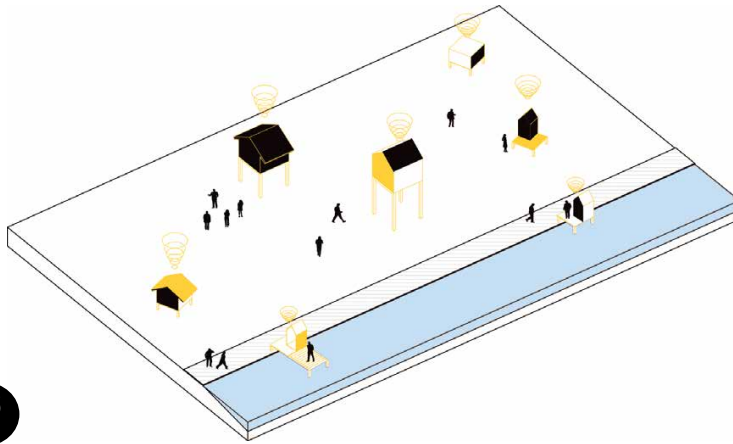
## MOBILE LIBRARY

**TOOL** Pop-up structures to create a public reading space.

**AIM** To engage people in a new public experience. To provide easy and immediate access to city history and issues.



06  
c

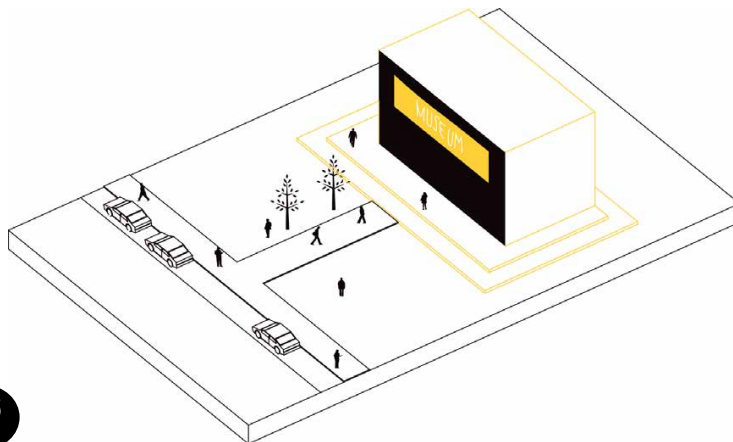


### HOTSPOT DATES

**TOOL** 'Pataka' story-boxes use wifi where people can connect their smart phones to learn facts about the city in that area.

**AIM** To educate users about history. Generate new types of interactions between public spaces and digital technology.

06  
d



### MUSEUM

**TOOL** A formalised archive about the history of Porirua.

**AIM** To restore history and emphasise the significance of place including early settlement of Maori and Europeans, Polynesians as voyagers, landscape of Porirua, the 'famous' people that have come from Porirua, like Peter Jackson, Michael Campbell, Jerry Collins, for example.

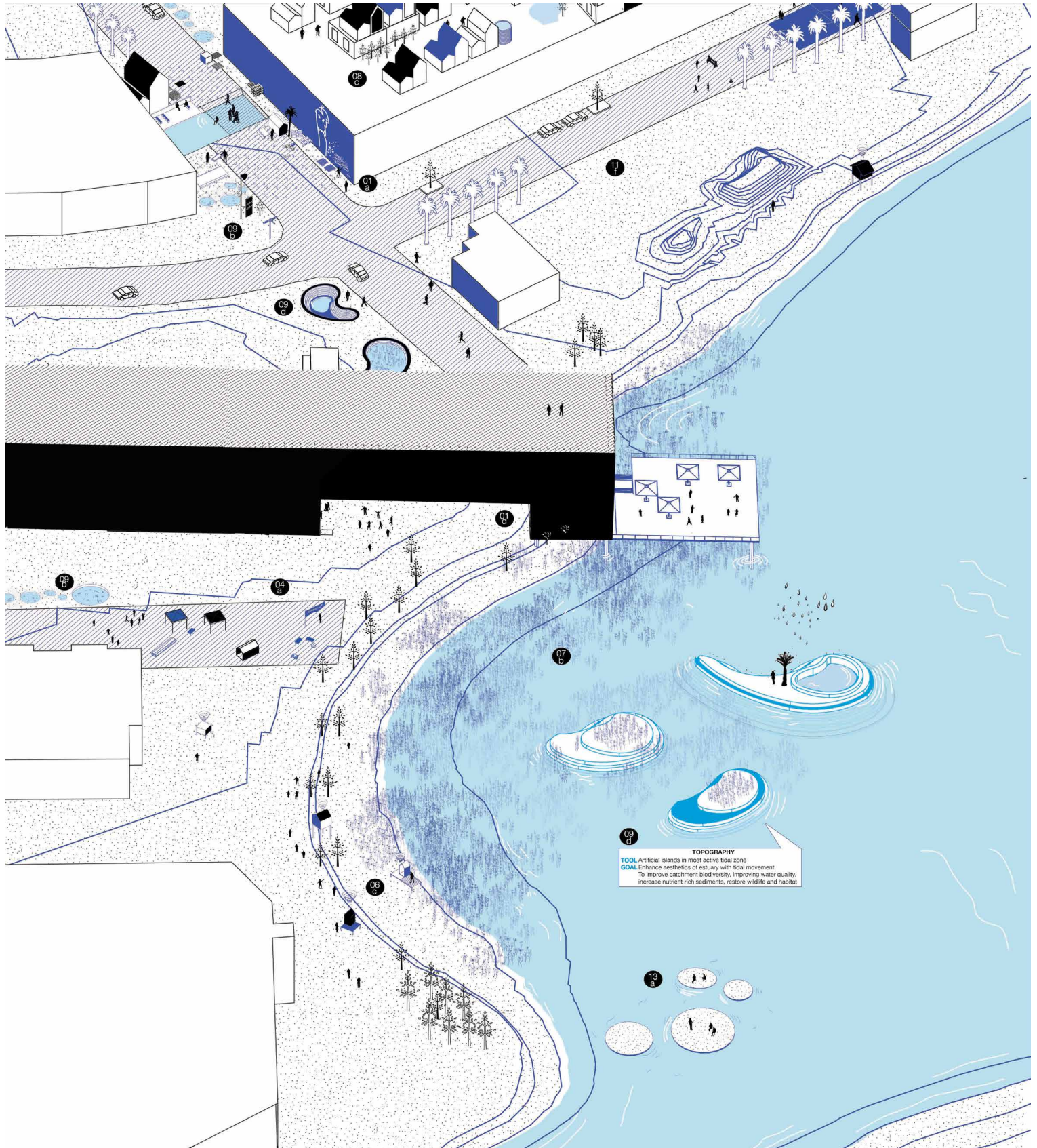


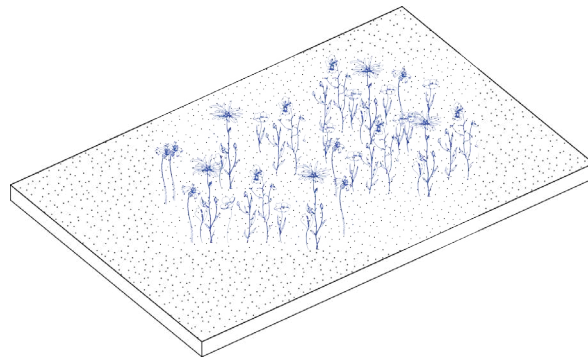


fig.2.8

**fig.2.7 Opposite & fig.2.8 Above**  
Toolkit applied to south end of  
harbour. These drawings were the  
start of developing how built form  
could integrate into the harbour.



## HORTICULTURE

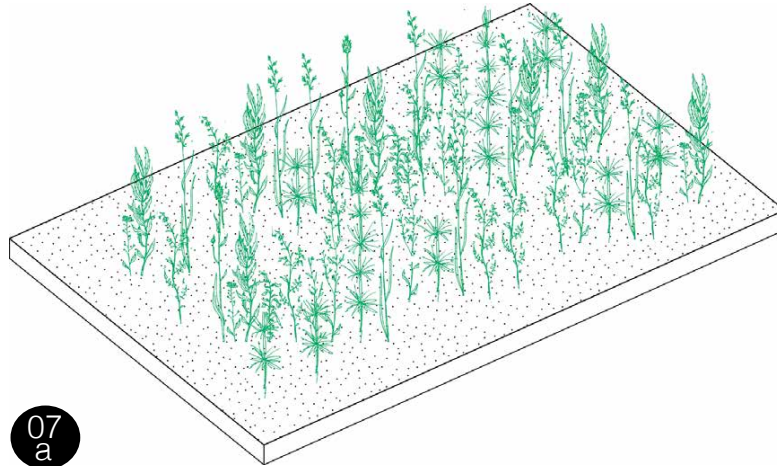


07

**DISPERSED**

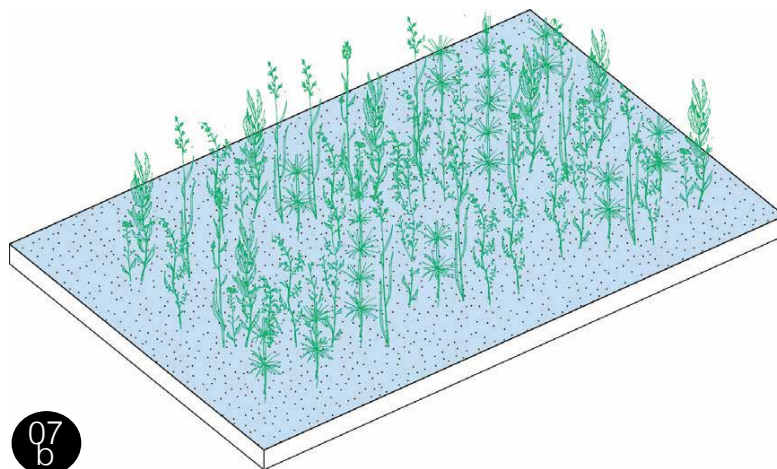
**EXISTING ELEMENT** Various plants around the harbour, trees around the city, flower beds on round-a-bouts.

**DESIRE** Increase the variety of vegetation in concentrated areas to add colour and vibrancy, attract wildlife, create an inviting public space, and restore indigenous ecology.

07  
a**MIXED VEGETATION FIELD**

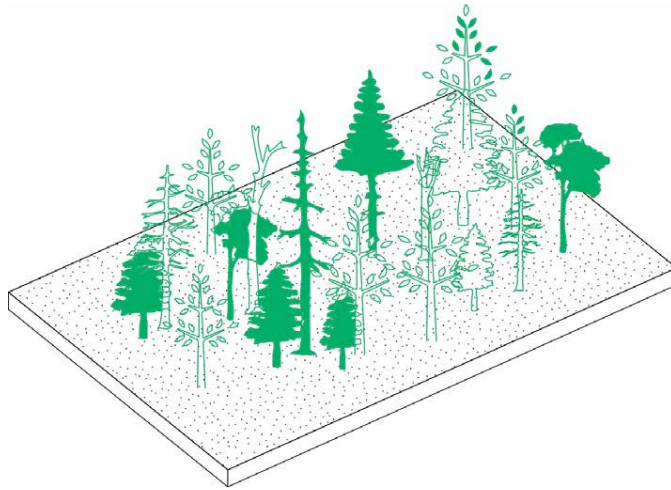
**TOOL** Perennials, pavilions of seasonal flowers.

**AIM** Add colour and vibrancy, attracting wildlife and create an inviting public space.

07  
b**WETLAND**

**TOOL** Specific vegetation used to treat stormwater.

**AIM** Restore the biotype, treat stormwater naturally, stabilize and improve water quality.

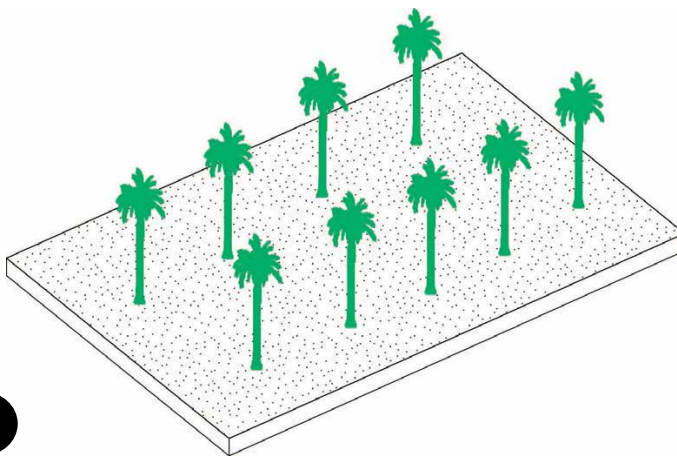


07  
c

#### YOUNG FOREST

**TOOL** Vegetation. Slow growth, additional species.

**AIM** To create rhythm and atmosphere.

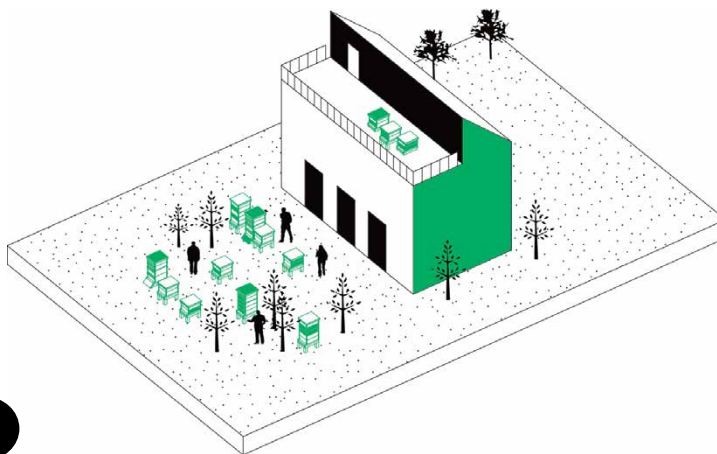


07  
d

#### NIKAU FOREST

**TOOL** New Zealand's only native palm.

**AIM** To create rhythm and atmosphere.



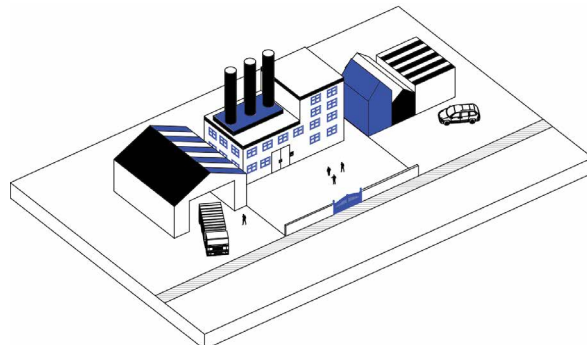
07  
e

#### HONEY FACTORY

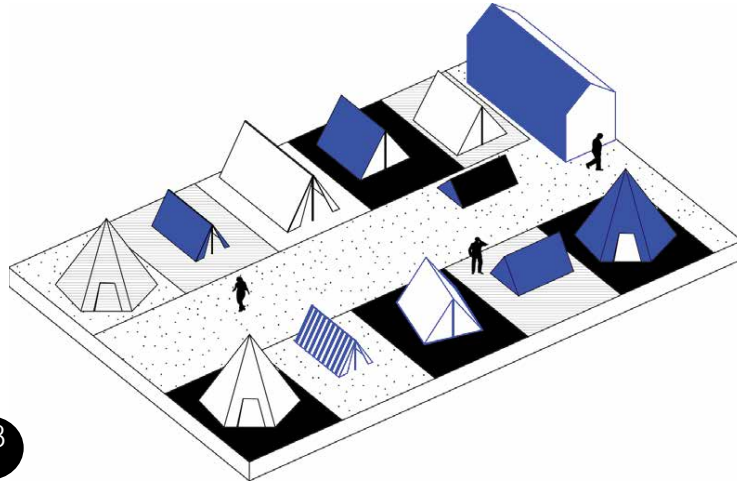
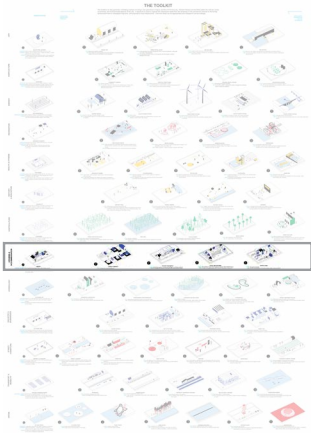
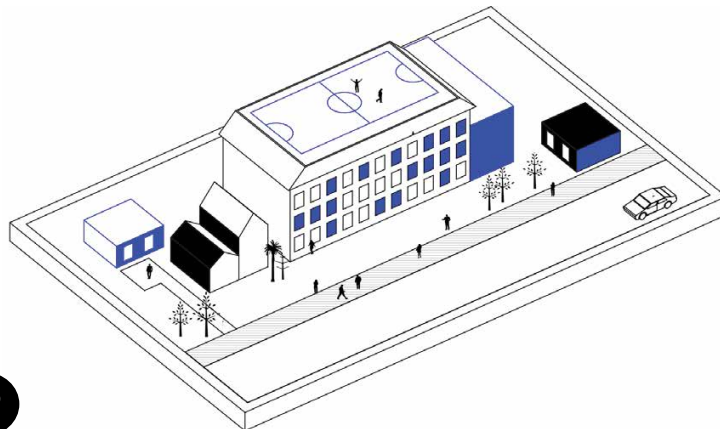
**TOOL** Micro architecture for keeping bees.

**AIM** To increase pollination of plants in the city, produce local honey to strengthen economy, promote jobs, increase the dwindling population of bees, opportunity for community engagement.

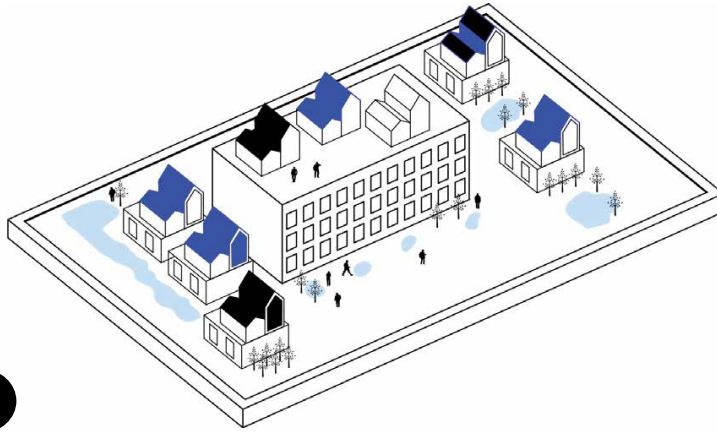
## HOUSING



08

**ABSENT****EXISTING ELEMENT** No residential dwelling in the city.**DESIRE** To provide a variety of dwelling types therefore variety of people living in the city, and provide a new example of living with water.08  
a**URBAN CAMPSITE****TOOL** Temporary accommodation.**AIM** To provide accommodation for long or short periods.08  
b**OCCUPY THE EMPTY****TOOL** Retrofitting empty commercial buildings for ultimate flexibility.**AIM** To increase the amount of housing, limit urban sprawl, infuse activity in the area, protect the future use of these spaces.



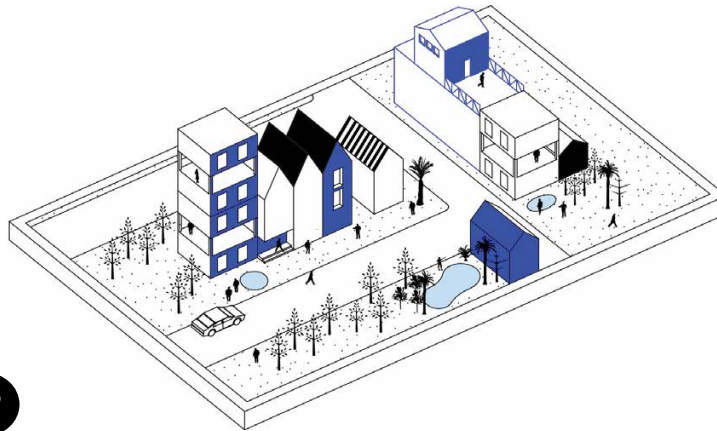


08  
c

#### HOTEL AND AIR B'N'B

**TOOL** Decentralised hotel and temporary housing in the industrial areas.

**AIM** To provide temporary accommodation for travelers and students, and utilise empty spaces for economic income.



08  
d

#### NEW DWELLINGS

**TOOL** New housing types.

**AIM** To offer new qualities of housing that are integrated with water sustainable urban design where possible.

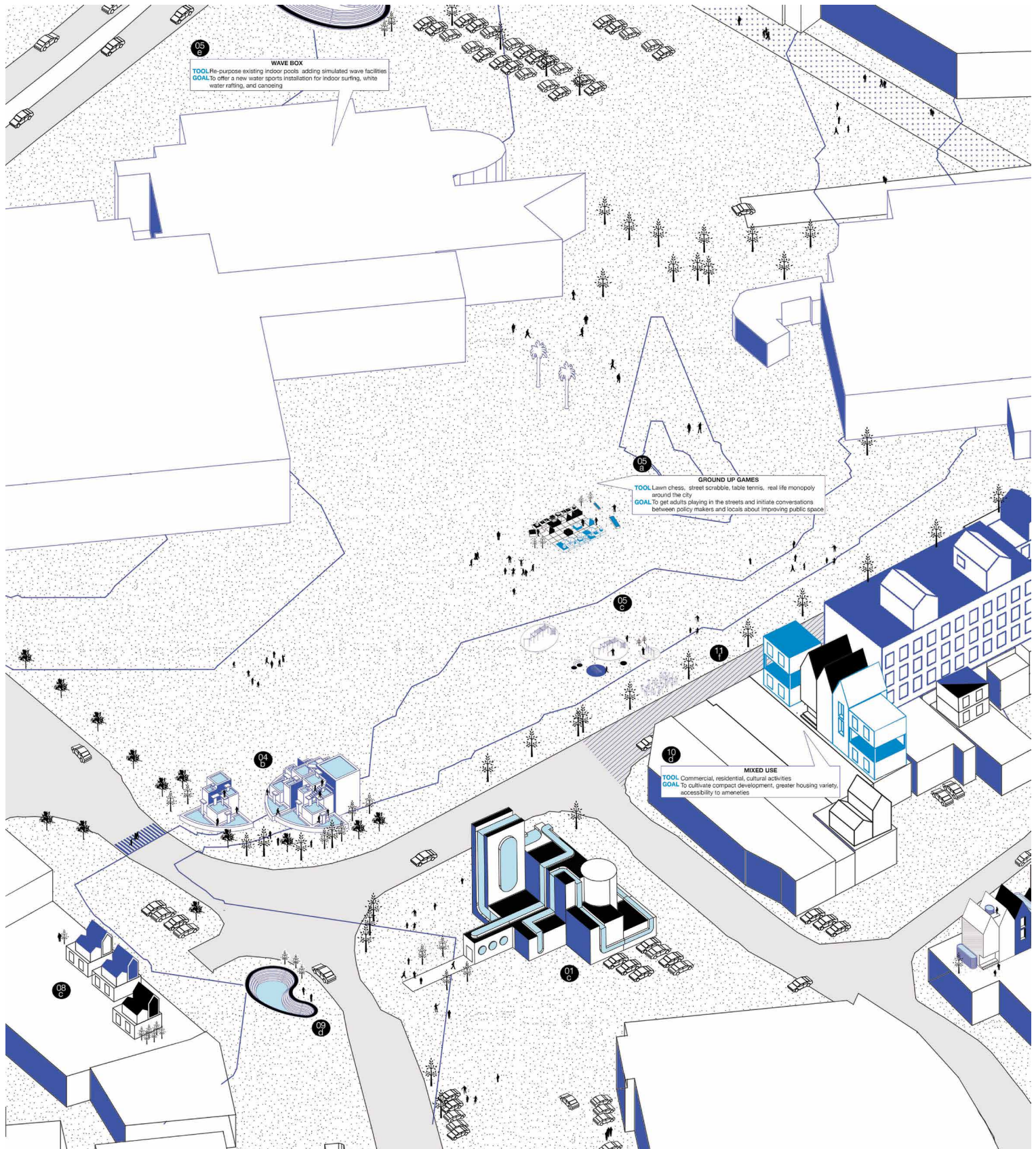


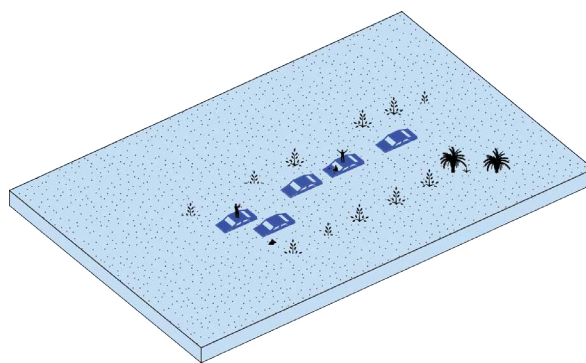
fig.2.9



**fig.2.9 Opposite & fig.2.10 Above**  
Toolkit applied to Te Rauparaha  
Arena to explore how The Toolkit  
could be applied to existing public  
space.



## HYDROLOGY

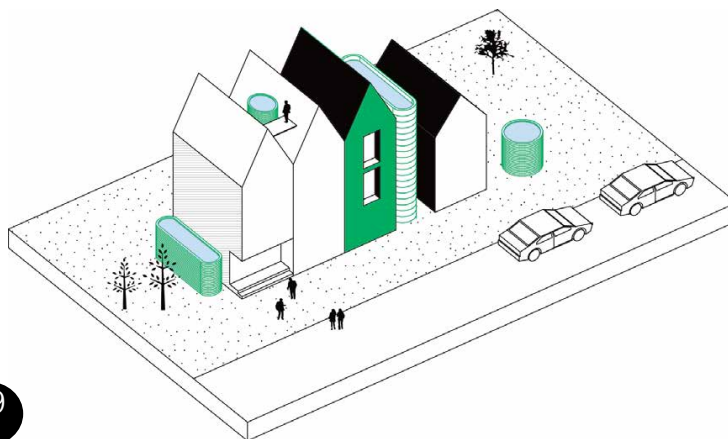


09

**AN OVERFLOW**

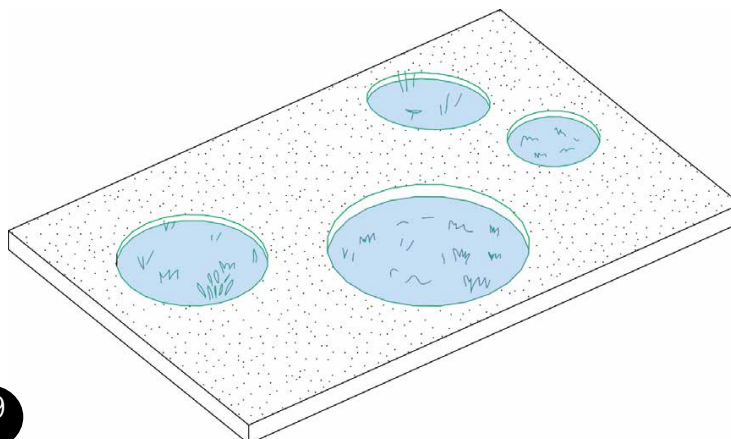
**EXISTING ELEMENT** About a 1-in-100 year flood event occurs each year. The city is situated around the lower North Island's largest estuary.

**DESIRE** To enhance the interaction with the water culturally and socially, and technically improve its quality.

09  
a**RAINWATER HARVESTING**

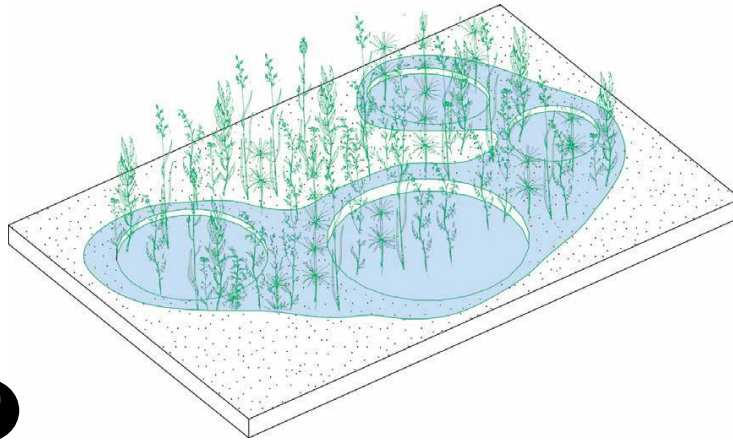
**TOOL** Collecting, storing, and using rainwater.

**AIM** To provide drinking water during floods or other emergencies.

09  
b**RAIN GARDENS AND BIOSWALES**

**TOOL** Depressions capturing runoff from roofs and roads.

**AIM** To slow and filter stormwater, treat pollution, and recharge groundwater.

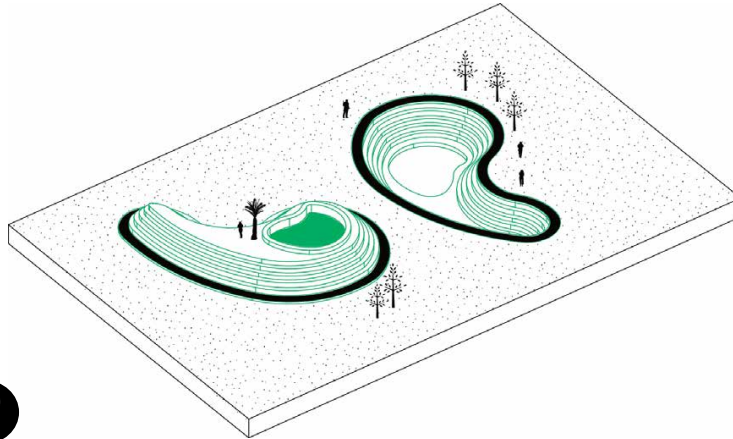


09  
c

### CONSTRUCTED WETLANDS

**TOOL** Artificial wetland.

**AIM** To slow and filter stormwater, treat pollution, and recharge groundwater, improve ecological cycle of water.

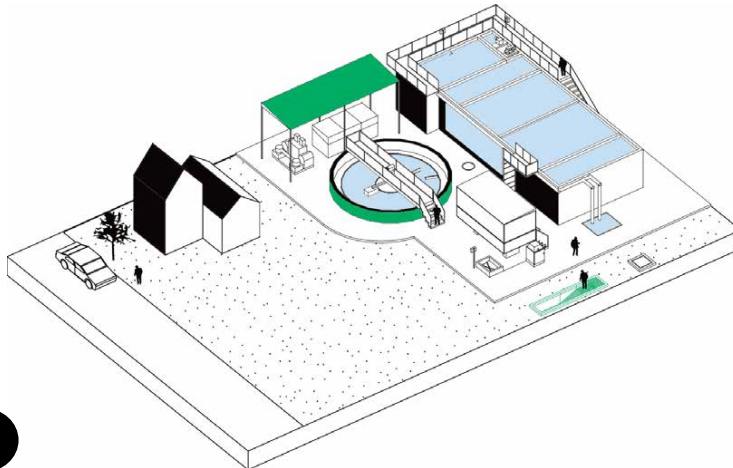


09  
d

### CHANGING TOPOGRAPHY

**TOOL** Detention ponds and upstream attenuation.

**AIM** Protect and enhance stream in natural state and improve catchment biodiversity, improve water quality, provide habitat for fish, filter pollutants.



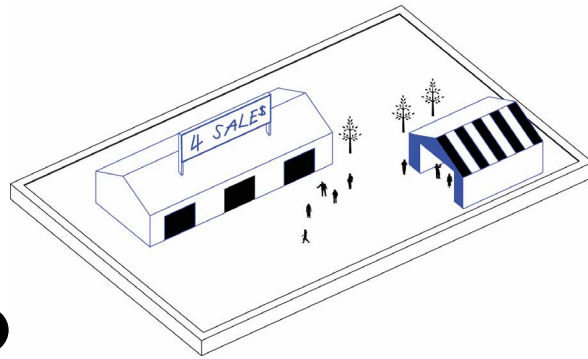
09  
e

### WATER TREATMENT PALACE

**TOOL** Wastewater treatment plant that is multi-functional as aquarium.

**AIM** Keep beaches clean and healthy for swimming and fishing, use as a fun educational facility for teaching sustainable water methods.

## INDUSTRY &amp; BUSINESS

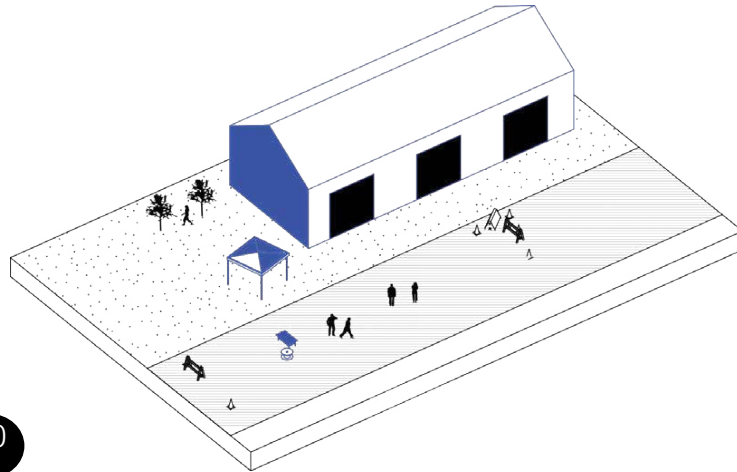


10

## UN-PRIME TIME

**EXISTING ELEMENT** The industrial factories are thriving, yet retail businesses remain volatile with a number of empty buildings in the CBD.

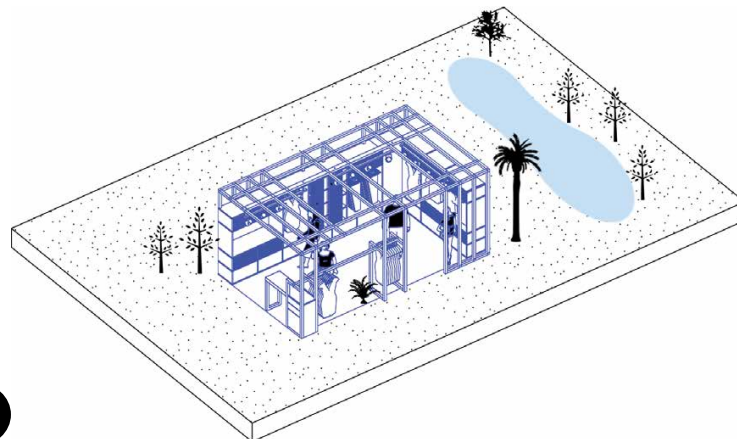
**DESIRE** To revive the economic district encouraging businesses to prosper.

10  
a

## VACANT ASSETS

**TOOL** Re-purposing vacant buildings.

**AIM** To activate underutilised spaces and encourage new forms of exchange and economic wellbeing.

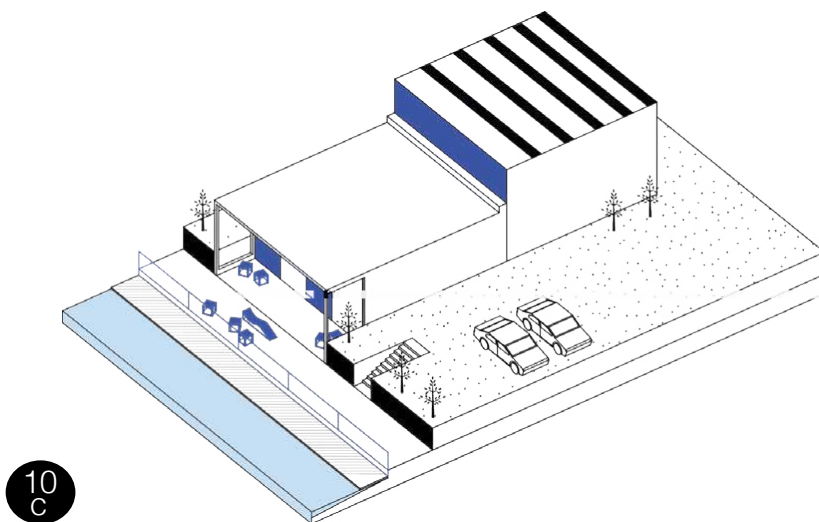
10  
b

## POP-UP STUDIO

**TOOL** Temporary pop-up construction with no fixed term contract.

**AIM** To relieve financial pressure for creative minds in providing a space for start-up businesses and artists to emerge.

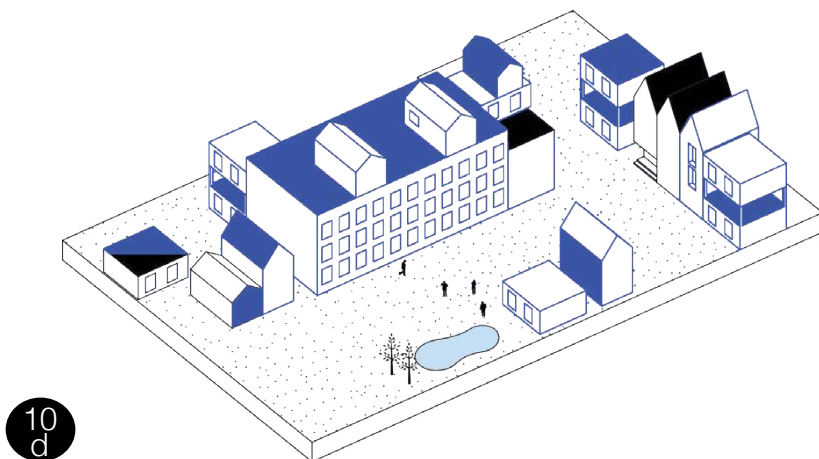




### ENERGIZED EDGES

**TOOL** Activated walls through windows, parklets, art, other facade design.

**AIM** To open up businesses to contribute to public space and increase a sense of safety.

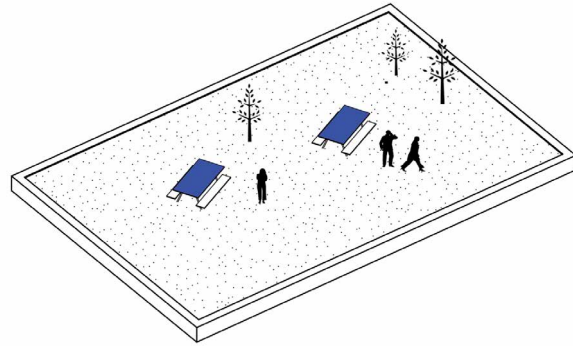


### MIXED-USE

**TOOL** Commercial, residential, cultural activities.

**AIM** To encourage compact development, greater housing variety, accessibility to amenities.

## STREET FURNITURE

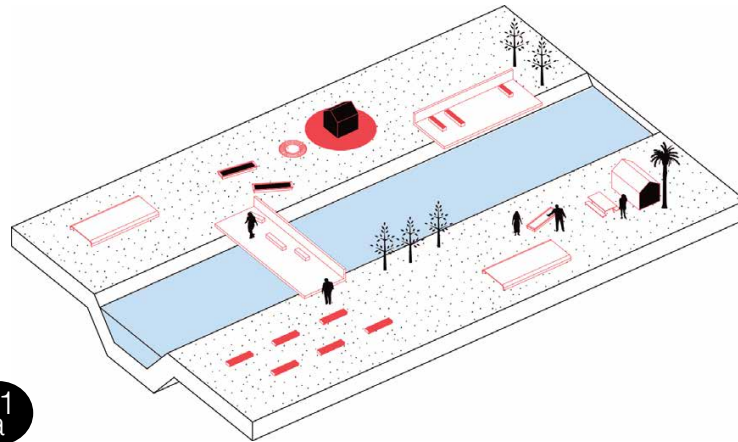


11

**MOMENTUM INITIATED**

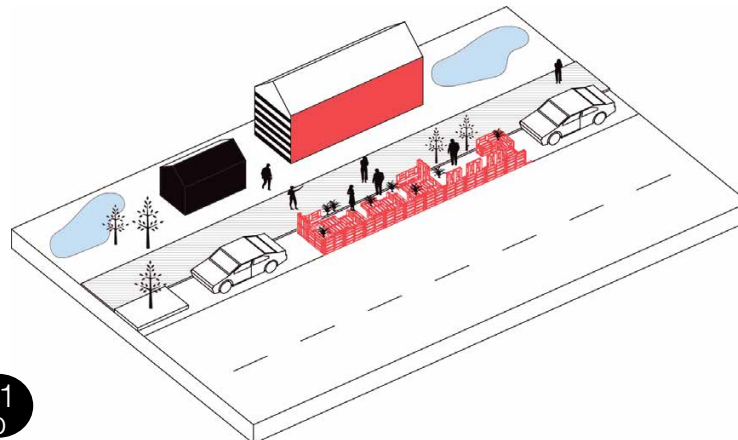
**EXISTING ELEMENT** The recent City Centre Revitalisation has created momentum in the city, including colourful street furniture.

**DESIRE** To further strengthen the identity of the city through a continuity of design, and connection to the harbour.

11  
a**PUBLIC LOUNGES**

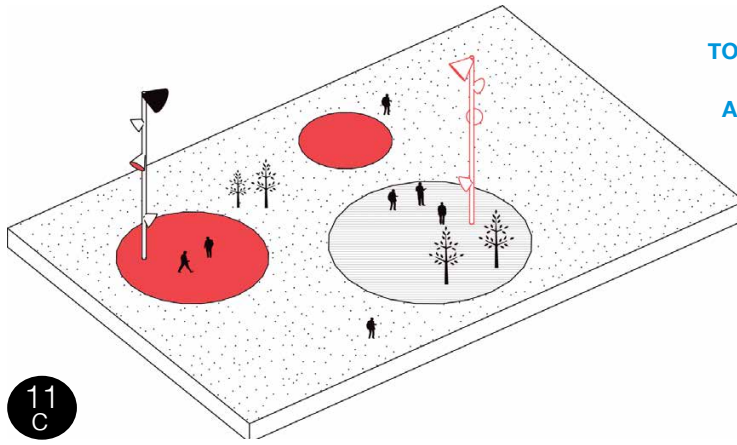
**TOOL** Micro-structures of water installations, urban facilities, public seating made comfortable, use an off-ground installation for public hammocks.

**AIM** To improve comfort of use, multiply the areas people can gather, and foster common space, movable or fixed.

11  
b**PARKLETS**

**TOOL** Re-purposed parking spaces and sidewalks to public seating platforms.

**AIM** To encourage partnership between the city, local businesses, residents, and neighbourhood.

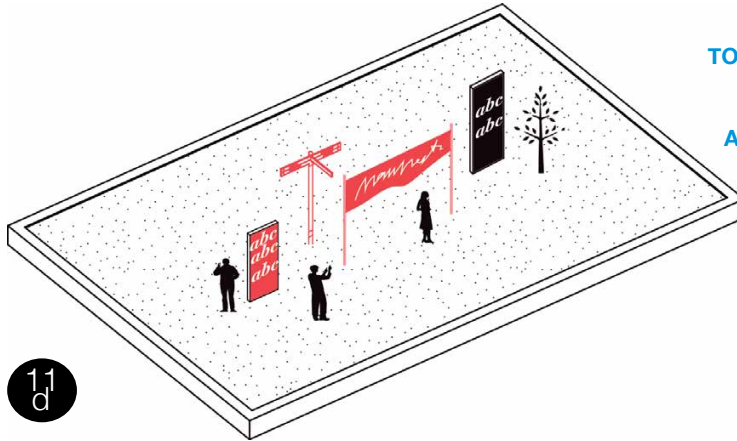


11  
c

### LIGHT ACTION

**TOOL** LED lighting, photo-voltaic power sources.

**AIM** To unify space, promote safety, generate different ways of producing energy.

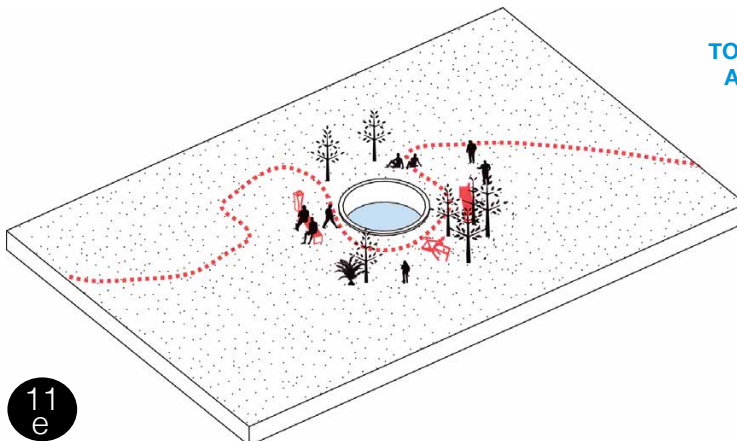


11  
d

### SIGNAGE

**TOOL** Re-design of signage using contemporary fonts and colours, and reduce the scale.

**AIM** Unify the city's identity connecting to its wider branding strategy, allow people to find their way through the city easily, and add visual interest.

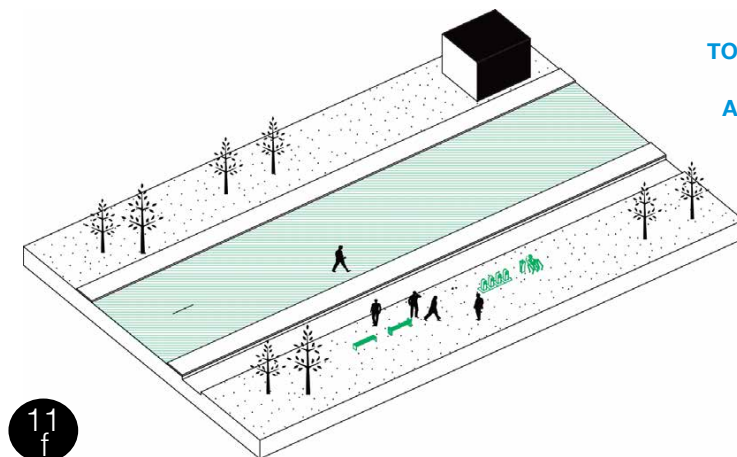


11  
e

### WATER WELL

**TOOL** Fresh water well.

**AIM** To introduce a historical structure of architecture in a contemporary way and gather people around an urban oasis.



11  
f

### CONCRETE CARPET CHANGE

**TOOL** Ground changes from sealed to more permeable surfaces.

**AIM** To allow reduction and filtering of stormwater runoff, unify various spaces in city through ground pavement design, opportunity for 'green carpet,' using grass to soften the landscape.



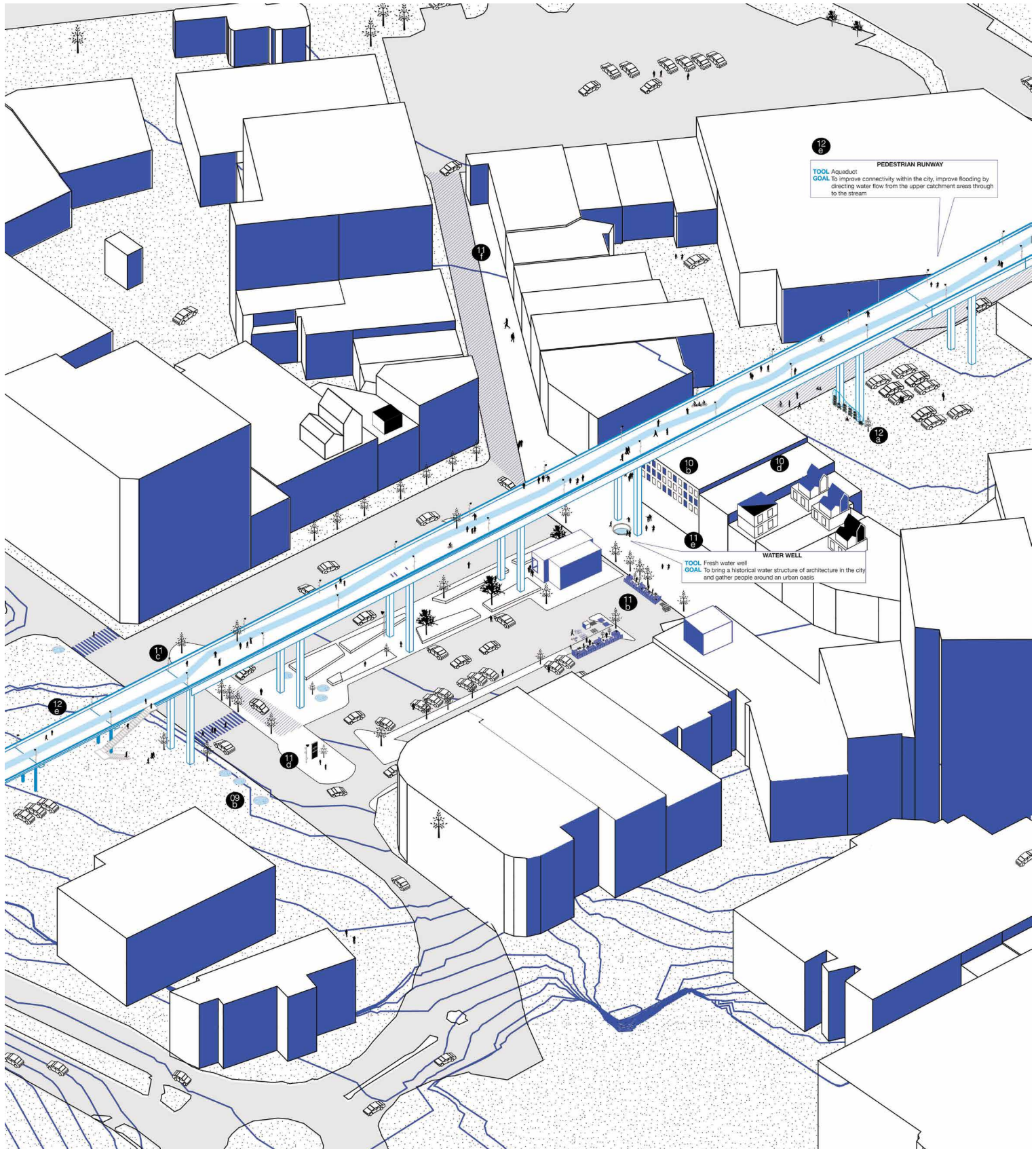


fig.2.11

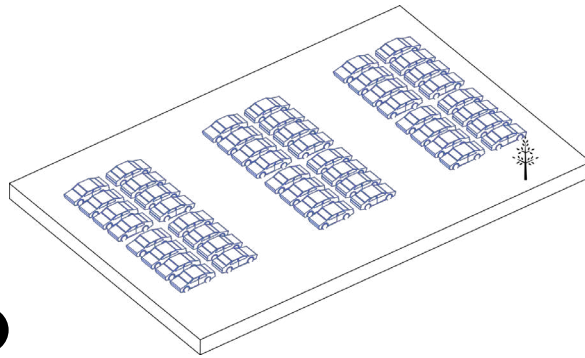


fig.2.12

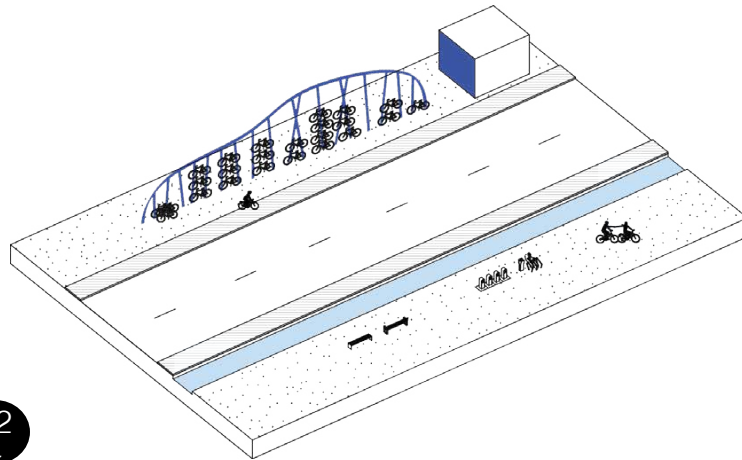
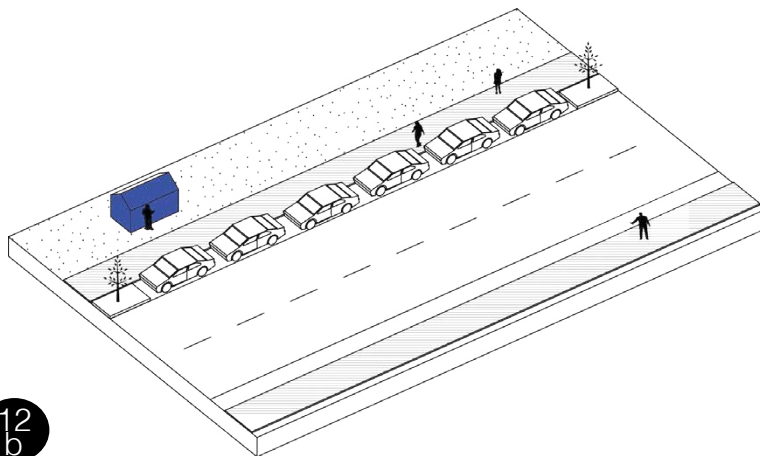
**fig.2.11** Opposite & **fig.2.12** Above  
Toolkit applied to Cobham Court  
to explore how The Toolkit can  
be applied to existing CBD space  
and link to the Porirua stream and  
harbour.

The elevated street applied from The Toolkit is questionable from an urban design point of view as it removes people from the ground and existing streets. Whatever is to be applied in this area should therefore enhance the existing built elements, not create new dominant ones.

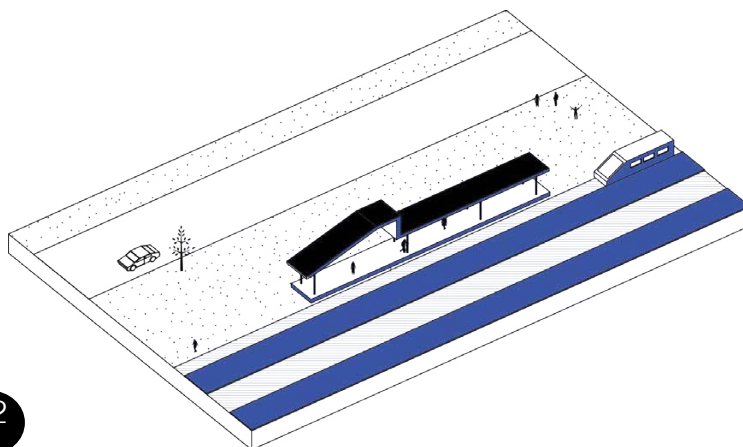
## TRANSPORT &amp; MOBILITY



12

**MORE GROUND, LESS FIGURE****EXISTING ELEMENT** Vast amounts of parking spaces in the city.**DESIRE** To identify car parks that can be used to accommodate future development. Provide infrastructure for cycling, and improve public transport links.12  
a**BIKEPARKS****TOOL** Interesting designed bike racks around the city.**AIM** To encourage cycling and charm the public to use them.12  
b**SHARED ROADS****TOOL** Cars and people share roads.**AIM** To give priority to pedestrians and cyclists, slow traffic, promote public spaces.



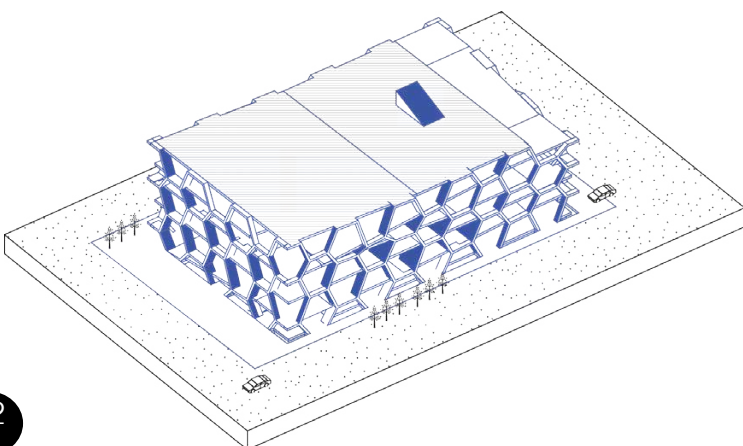


12  
c

### RENOVATE TRANSPORT STATIONS

**TOOL** Revitalised bus stops / train station.

**AIM** To reinforce their visibility, unify each network, and invite more use from public and invest in public space.

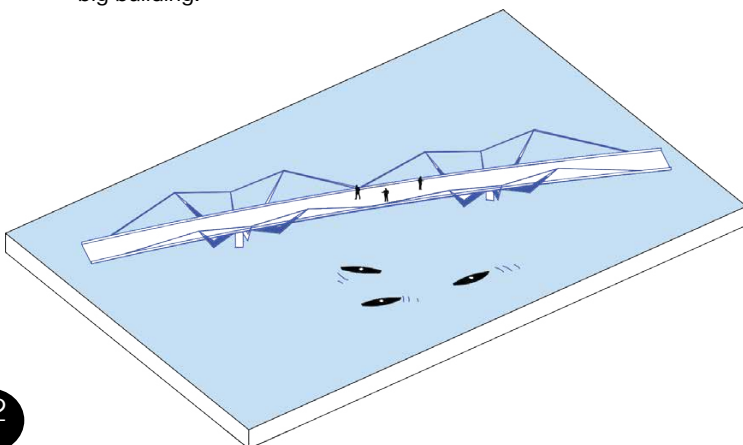


12  
d

### MULTISTOREY CARPARK

**TOOL** A carpark that becomes a park outside office hours.

**AIM** To accommodate an increase in the use of public transport to Wellington City, and be less singular in use and not just another big building.



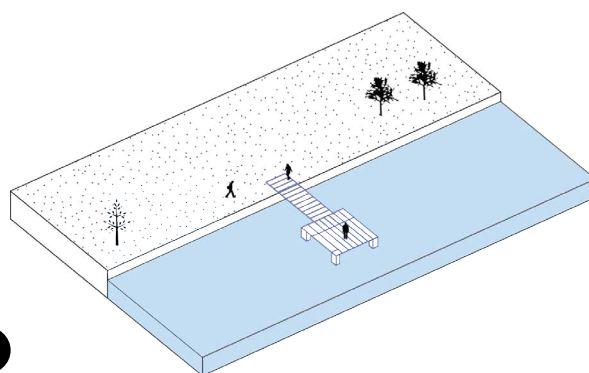
12  
e

### PEDESTRIAN BRIDGE

**TOOL** Connecting east and west sides of Porirua city.

**AIM** To improve connectivity and encourage walking and cycling from a wider community, offer an alternative way to engage with the harbour. To provide prominent visual sculpture to harbour edge.

## VISTAS

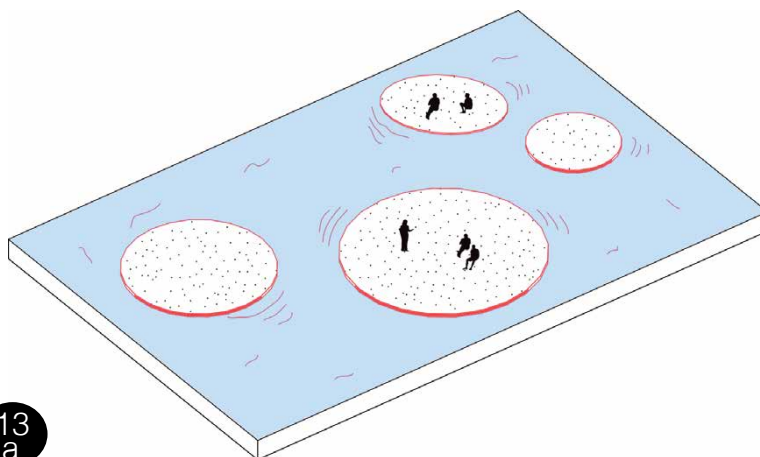


13

**ON AND ABOVE**

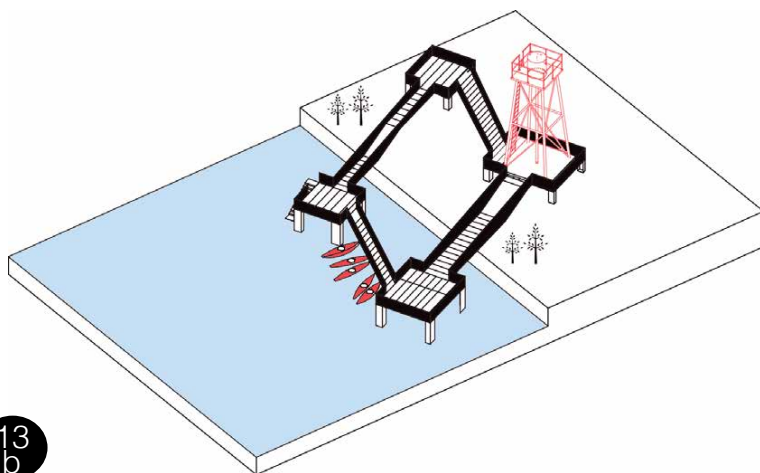
**EXISTING ELEMENT** A panoramic view from the water is offered at the harbour's north end. A bird's eye view of the city is offered from the height of the Colonial Knob track (468m above sea level) that is frequently used.

**DESIRE** To offer new heights and other ways of viewing the water in the city to emphasis its significance.

13  
a**FLOATING PADS**

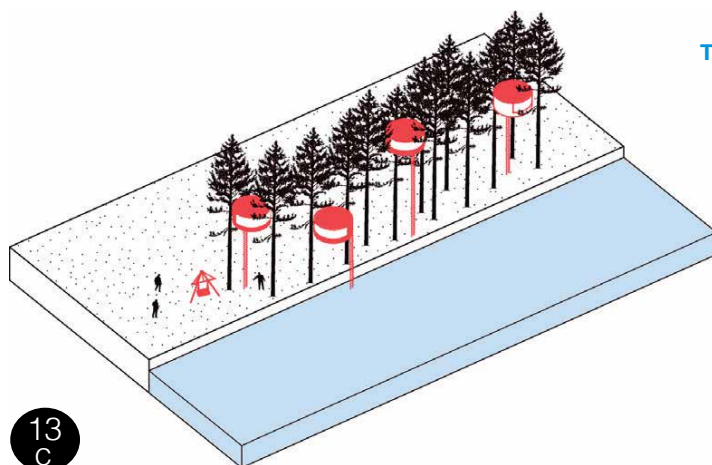
**TOOL** Pontoons that float on water.

**AIM** To give users a new experience of the water.

13  
b**TANK TOWER**

**TOOL** Lookouts onto the site that utilize/reuse transportable water tanks as installation.

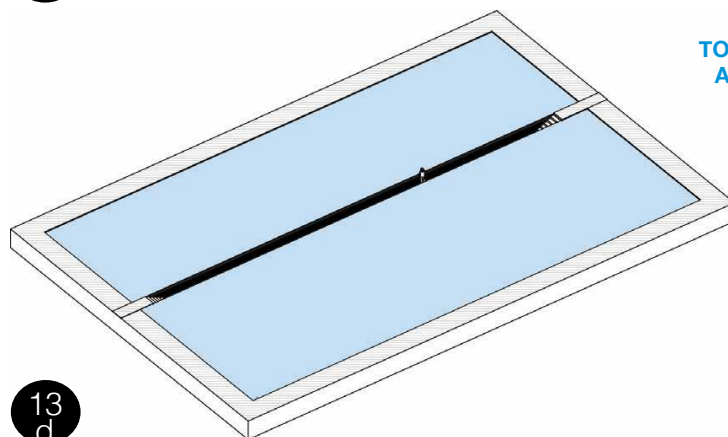
**AIM** To connect users to the context, offer other ways to collect water.



### TREE HOUSE

**TOOL** Lookouts into the water.

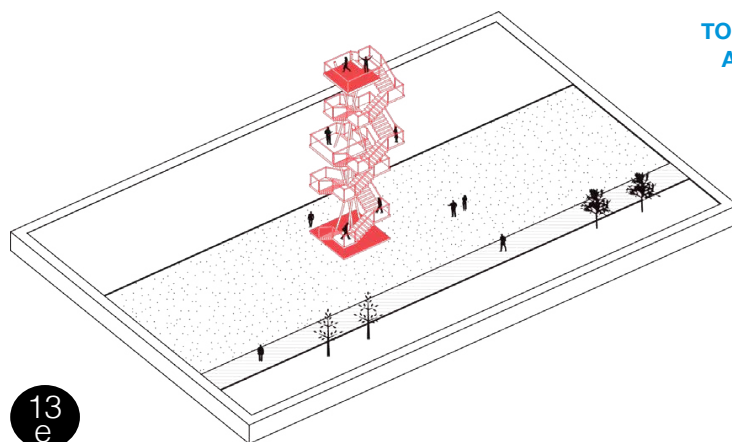
**AIM** To offer moments of solitude in the trees and allow moments of childhood familiarity of thrill and adventure.



### INVISIBLE WALKWAY

**TOOL** Sunken bridge through a body of water.

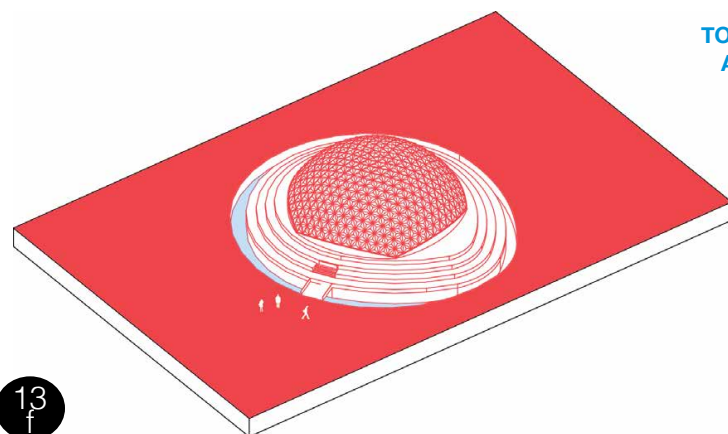
**AIM** To give users the experience of walking through water.



### VIEWING TOWER

**TOOL** Lookouts onto the site.

**AIM** To make users aware of the place, to generate new types of urban space, to value the landscape and a place to take visitors.



### OBSERVATORY

**TOOL** Observe terrestrial and celestial events.

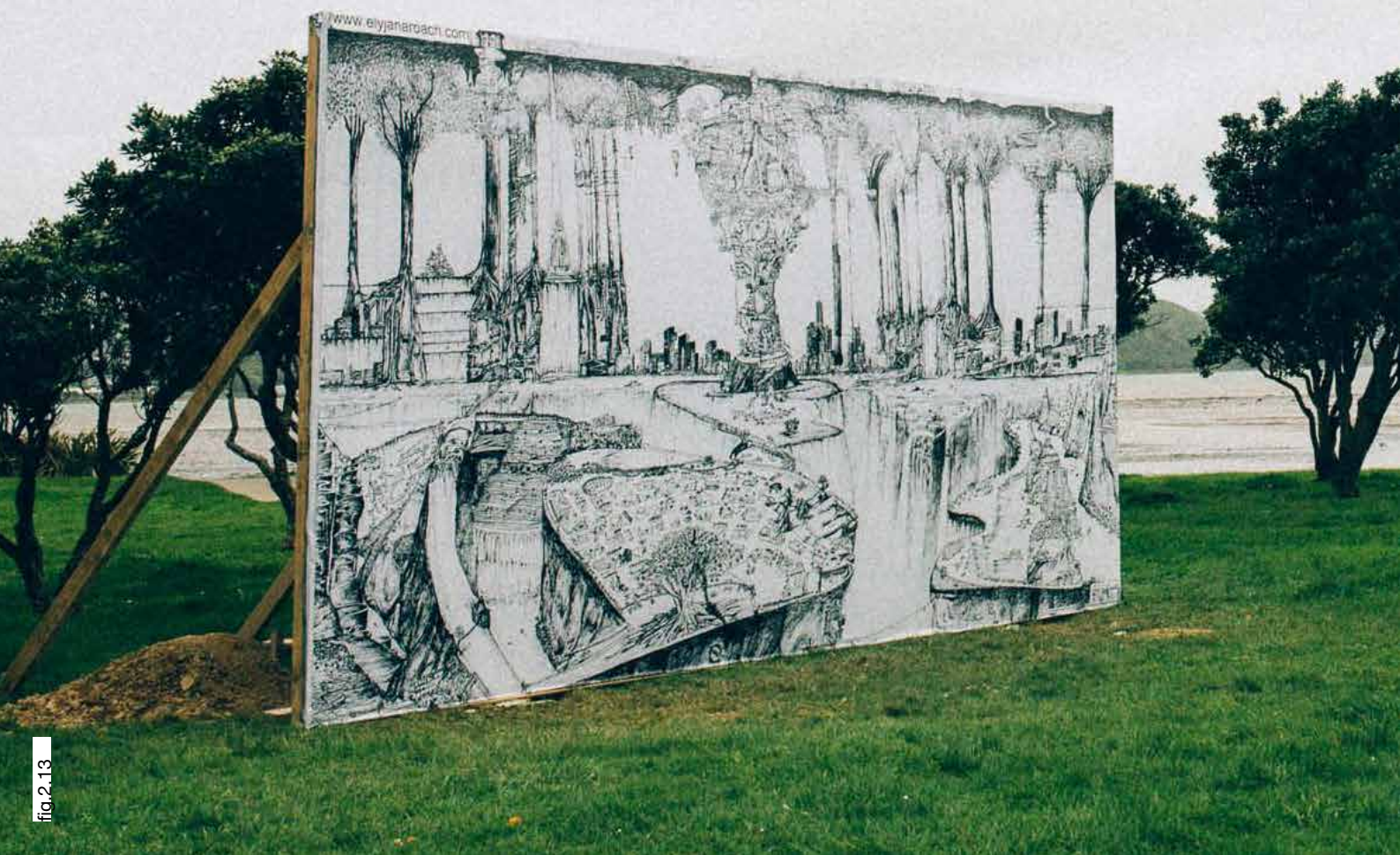
**AIM** To extend the experience people have with nature, foster Matariki events (Maori New Year, Māori name for the cluster of stars also known as the Pleiades), and to increase public night life.



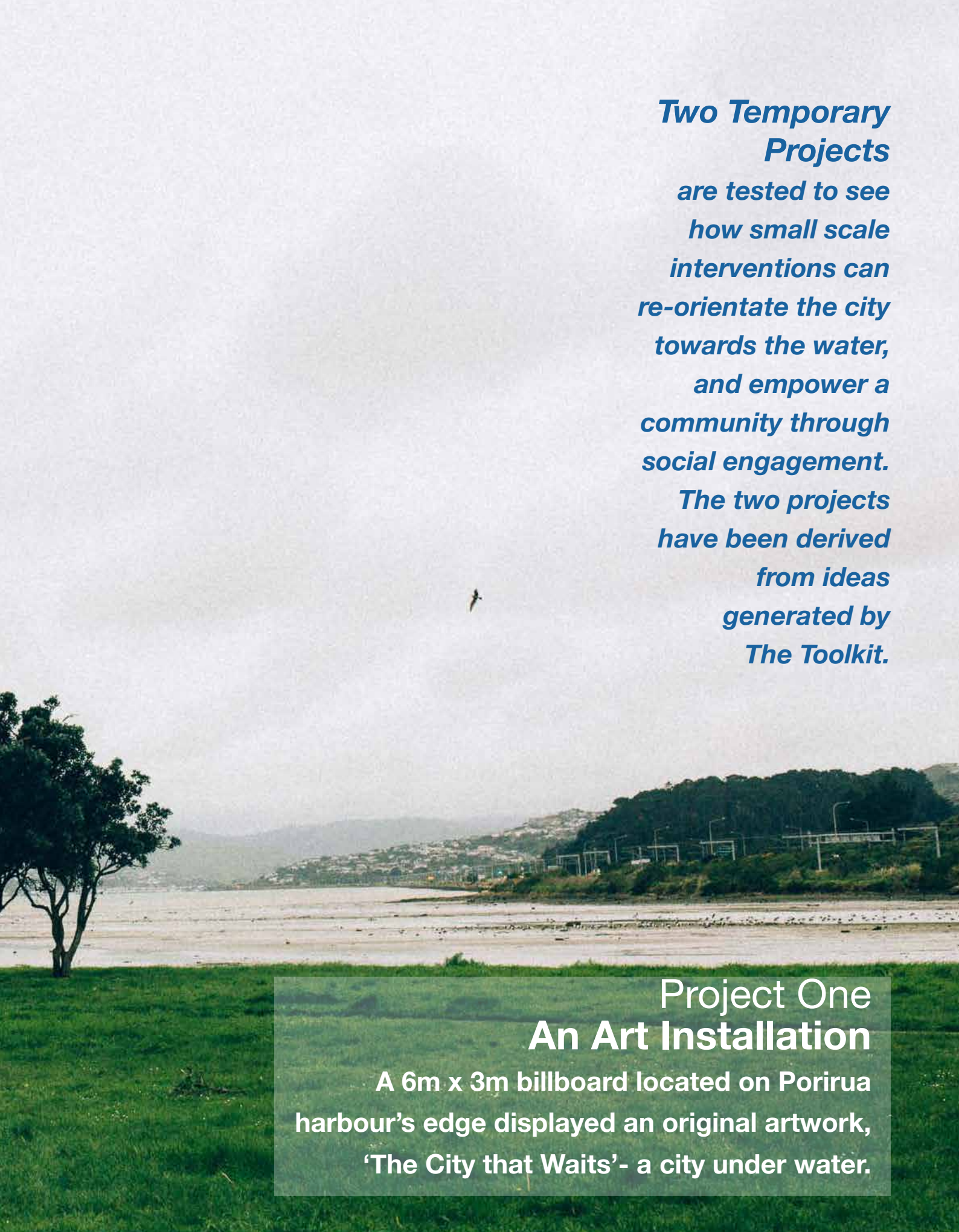


# Two Temporary Projects

small scale interventions in the city







***Two Temporary Projects***  
*are tested to see how small scale interventions can re-orientate the city towards the water, and empower a community through social engagement.*  
*The two projects have been derived from ideas generated by The Toolkit.*

## **Project One** **An Art Installation**

**A 6m x 3m billboard located on Porirua harbour's edge displayed an original artwork, 'The City that Waits' - a city under water.**





Hi Porirua.

How's it going?

My name is Elyjana. I'm a local from Ascot Park.

### **So, what is this and why is it here?**

I study architecture and my current project is about re-orientating the city of Porirua towards the water. One way this can happen is through temporary projects. I'm testing this out through an art installation.

The objective of having this art piece here is to draw people closer to our lovely harbour - and, to appreciate it! So, if you're reading this, thanks. You've just proved this to be true.

### **What's the drawing about?**

This drawing has made some people say "WOW" - literally. This is good. It's the exact reaction I am hoping for. This WOW is the perception I have about the city of Porirua. It's the response I hope you have too. Like this drawing, Porirua is a place of surprise, adventure and possibility.

#thecitythatbuilds









## Project Two

# A Community Pop-up Space

A pop-up space, 'The City that Builds,' located in the city's CBD, invited all people from Porirua to share their love and concerns about the city through a few key design interactives.







fig.2.16



fig.2.17



# oh, hello

Welcome to your pop-up space.

Here you can share your love (and concerns) for your city through some low-tech, hands-on design interactives.

What do you love about the city?

What are your favourite things?

Where are the hidden hot spots?

How can Porirua be better?

LET'S GET STARTED



# oh, hello

Welcome to your pop-up space.

Here you can share your love (and concerns) for your city through some low-tech, hands-on design interactives.

What do you love about the city?

What are your favourite things?

Where are the hidden hot spots?

How can Porirua be better?

LET'S GET STARTED









# stick it.

We think our harbour is underutilized. This makes us sad. But, we are happy you are here. You can help us think of what will make the harbour and other parts of the city more amazing.

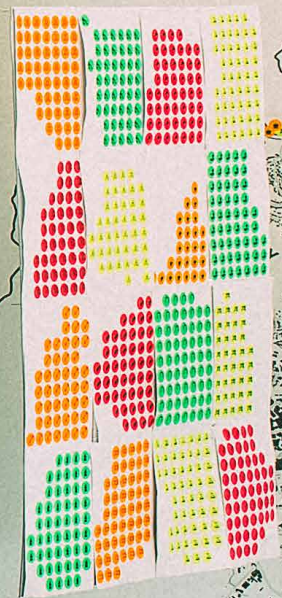
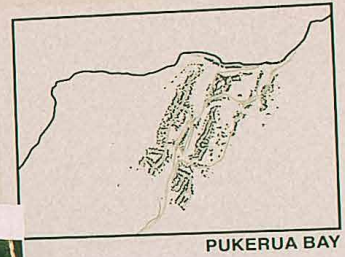
Grab a sticker and place where you think they should go around the city.

GO ON. STICK IT



WALKWAY	PICNIC AREA
SHARED GARDEN	WATER BLADE
KAYAKING	OUTDOOR COURTS
BIKE PATH	CAFÉ/RESTAURANT
PLAYSCAPE	POP UP STUB
SWIM	SEATS
HISTORY TRAIL	BRIDGE DOCK
RENT-A-JET-SKI	SHADE PAWLOON
LOOKOUT	SPA
HOUSING	TREE HOUSE
OPEN ART MALL	









	WALKWAY		PIECE AREA
	SHARED GARDEN		WATER GAMES
	BAR/BBQ		OUTDOOR COURTS
	GAME ROOM		CAFE/RESTAURANT
	PLAY AREA		POP-UP STMS
	BAR		SEATS
	ENTERTAINMENT		SHADE DOCK
	RENT-A-SET-UP		SHADE PAVILION
	LOOKING		SPA
	MOODING		TREE HOUSE
	OPEN-AIR MALL		







# pin it.

We think our city is an awesome place  
(thanks to you).

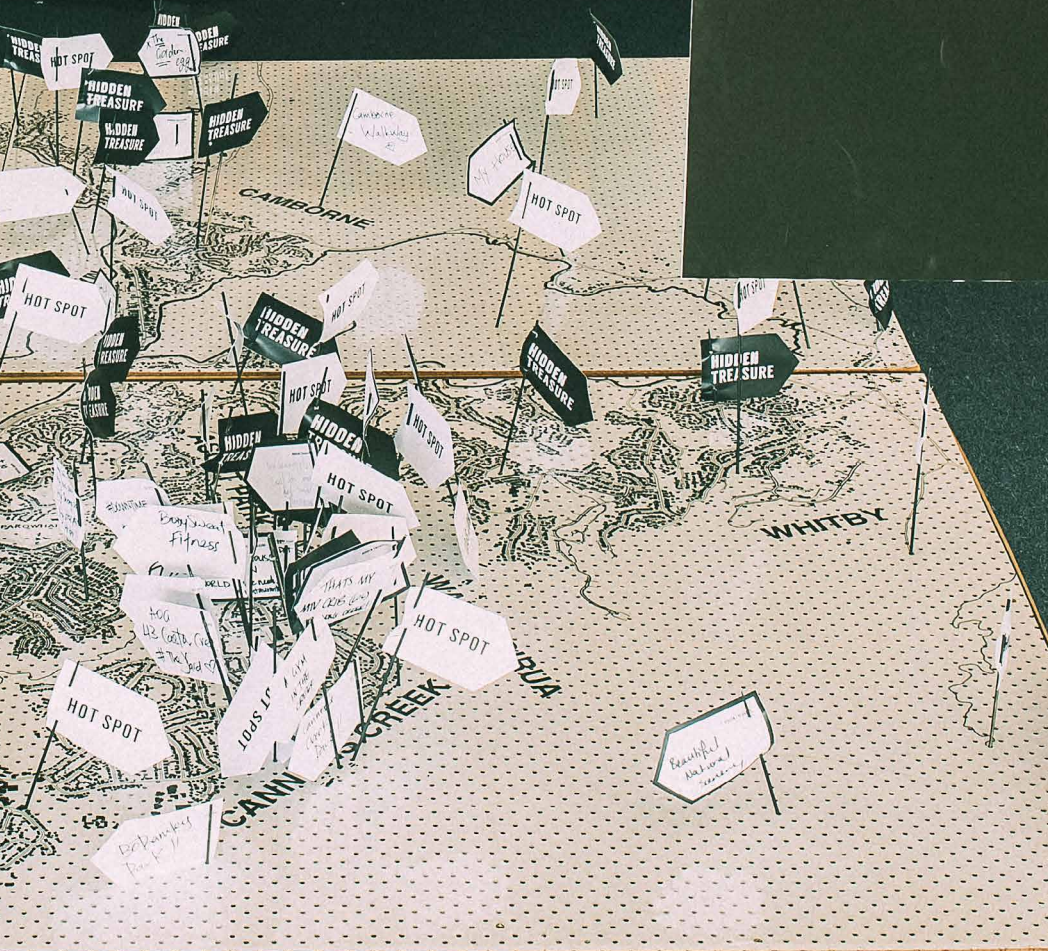
What do you think makes it awesome?  
Is it your sports team, a person, an  
alleyway, a tree?

Share with us and pin it on the map.

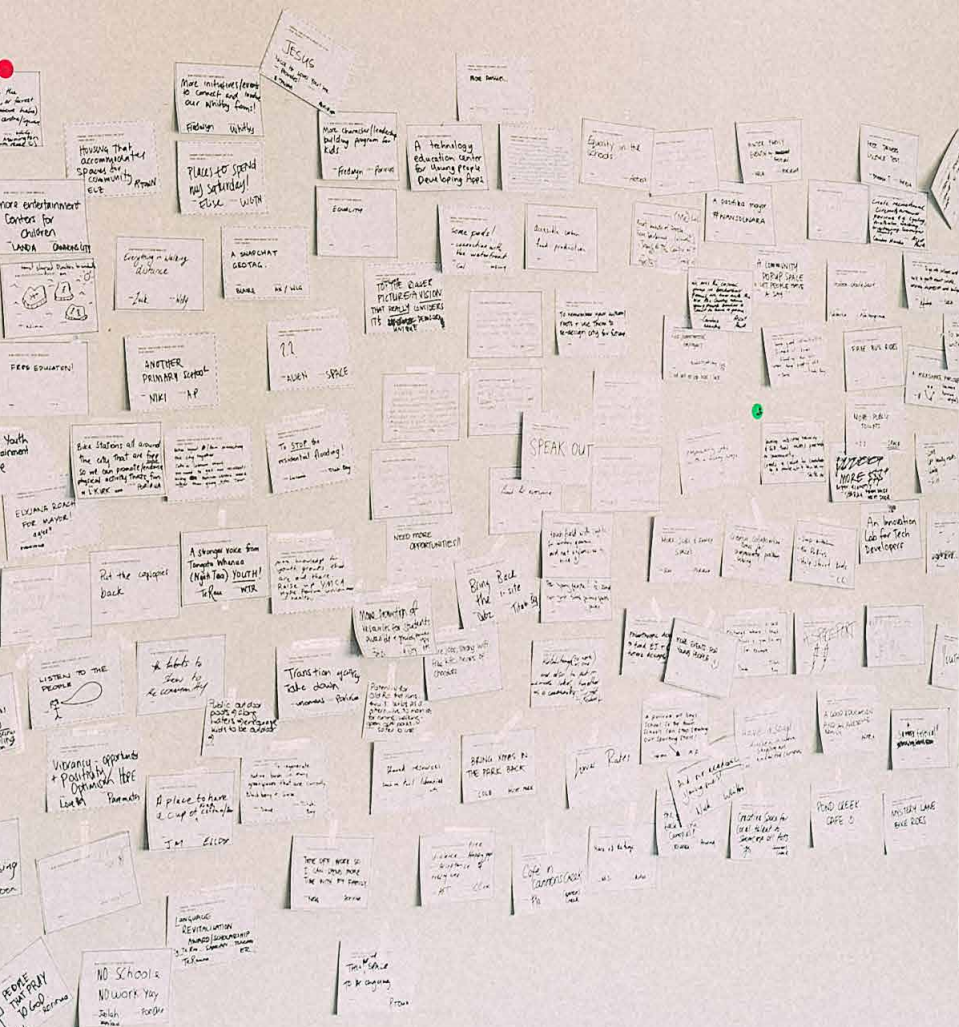
HOT SPOT  
a favourite thing

HIDDEN TREASURE  
a hidden thing

IT'S A PIN DOWN







# finish me...

What are your loving tips as to how Porirua could be more awesome?!



GRAB A PEN









IN MY PERFECT CITY THERE WOULD BE...

Bike Stations all around  
the city that are free  
so we can promote/endorse  
physical activity thats fun.  
NAME: N.L.KIRK I LIVE IN: PORIRUA

PORIRUA. YOUR FUTURE IS BRIGHT. BUT TO GET  
THERE YOU NEED...

Better layout #/flow connecting  
the city together.  
Cafe in Cobham court...  
We need to get our residents  
using the Porirua centre more  
rather than going into Town.  
NAME: I LIVE IN:

PORIRUA. YOUR FUTURE  
THERE YOU NEED...

To STO  
resident

NAME: Lorrain

IN MY PERFECT CITY THERE WOULD BE...

Put the canopies  
back  
NAME: I LIVE IN:

IN MY PERFECT CITY THERE WOULD BE...

A stronger voice from  
Tangata Whenua  
(Ngāti Toa) YOUTH!  
NAME: Te Rau I LIVE IN: W.T.R

PORIRUA. YOUR FUTURE IS  
THERE YOU NEED...

more know  
youth go  
are out  
Raise w  
Hype Por  
NAME: health

URE IS BRIGHT. BUT TO GET

N TO THE  
LE

I LIVE IN:

IN MY PERFECT CITY THERE WOULD BE...

# talents to  
show to  
the community  
NAME: I LIVE IN:

PORIRUA. YOUR FUTURE  
THERE YOU NEED...

Trans  
Take

NAME: unom

PORIRUA. YOUR FUTURE IS BRIGHT. BUT TO GET  
THERE YOU NEED...

Orancy - opportunity  
Positivity  
Optimism HOPE  
NAME: I LIVE IN:

Public outdoor  
pools => along  
waters => encourage  
kids to be outdoor  
HOT SPOT

PORIRUA. YOUR FUTURE IS BRIGHT. BUT TO GET  
THERE YOU NEED...

## 02 THE STRATEGY / TWO TEMPORARY PROJECTS

IS BRIGHT, BUT TO GET

OP the  
ial flooding!

I LIVE IN: Titahi Bay

IN MY PERFECT CITY THERE WOULD BE...

a leadership academy for a young  
people - a place where they will get  
the best mentors/trainers/coaches/teachers  
that would bring out their greatest potential  
that propels them into their greatest destiny  
- academy for sports, dance, music,  
drama, academia - anything that young  
people are passionate about  
NAME: Aunty G. :)

IN MY PERFECT CITY THERE WOULD BE... people  
smiling at each other  
out and about.  
talent being recognised,  
developed and celebrated

NAME: Noorun Fawaimo LIVE IN: Co

IN MY PERFECT CITY THERE WOULD BE...

STRONG PACIFIC FAMILIES'

EVENTS! eg: Parade from Waitangine  
- Concert from Fiji/Tararua  
- Seminars/sessions during  
week!  
- United people of Porirua

NAME:

Porirua

PORIRUA, YOUR FUTURE IS BRIGHT, BUT TO GET  
THERE YOU NEED...

NEED MORE  
OPPORTUNITIES!!

NAME:

I LIVE IN:

IN MY PERFECT CITY TH

Food for e

NAME:

BRIGHT, BUT TO GET

nowledge for  
cours that  
there.

P YMCA.

dua union

I LIVE IN:

IN MY PERFECT CITY THERE WOULD BE...

More promotion of  
resources for students  
available. e.g. hubs, power  
ups  
NAME: Jojo

I LIVE IN:

P. city etc.

PORIRUA, YOUR FUTURE IS BRIGHT, BUT TO GET  
THERE YOU NEED...

Bring Back  
the i-site  
NAME: Debz

I LIVE IN:

Titahi Bay

S BRIGHT, BUT TO GET

tion gallery  
down

ans I LIVE IN: Porirua

IN MY PERFECT CITY THERE WOULD BE...

ore jobs, strong wifi,  
free kfc, heaps of  
chocolate.

NAME:

I LIVE IN:

Potential for  
Old Rd that runs  
thru suburbs as a  
alternative to main rds  
for running, walking -  
open and parks -  
safer to use.

100% 100%





fig.2.23



fig.2.24



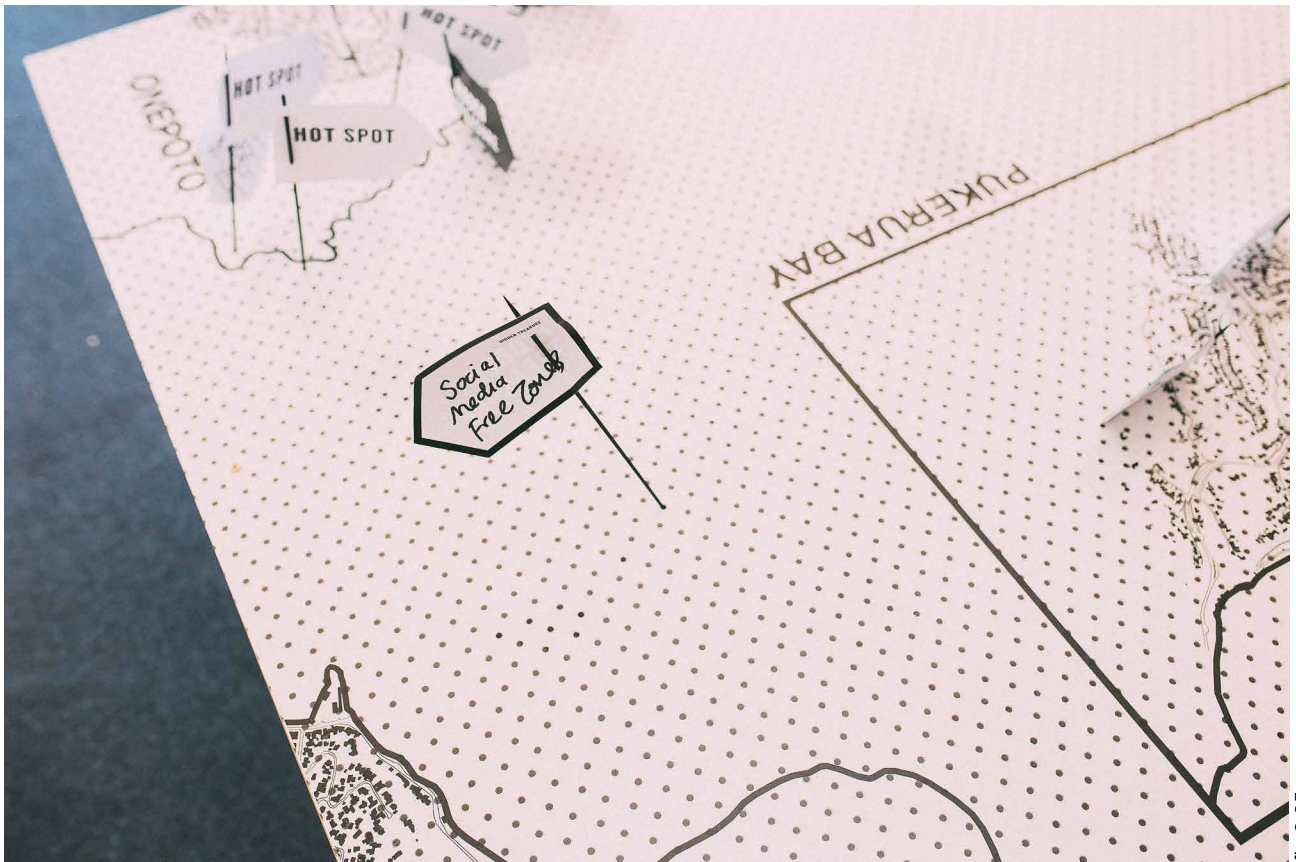


fig.2.25



fig.2.26



# The Big Move

a vision of the future



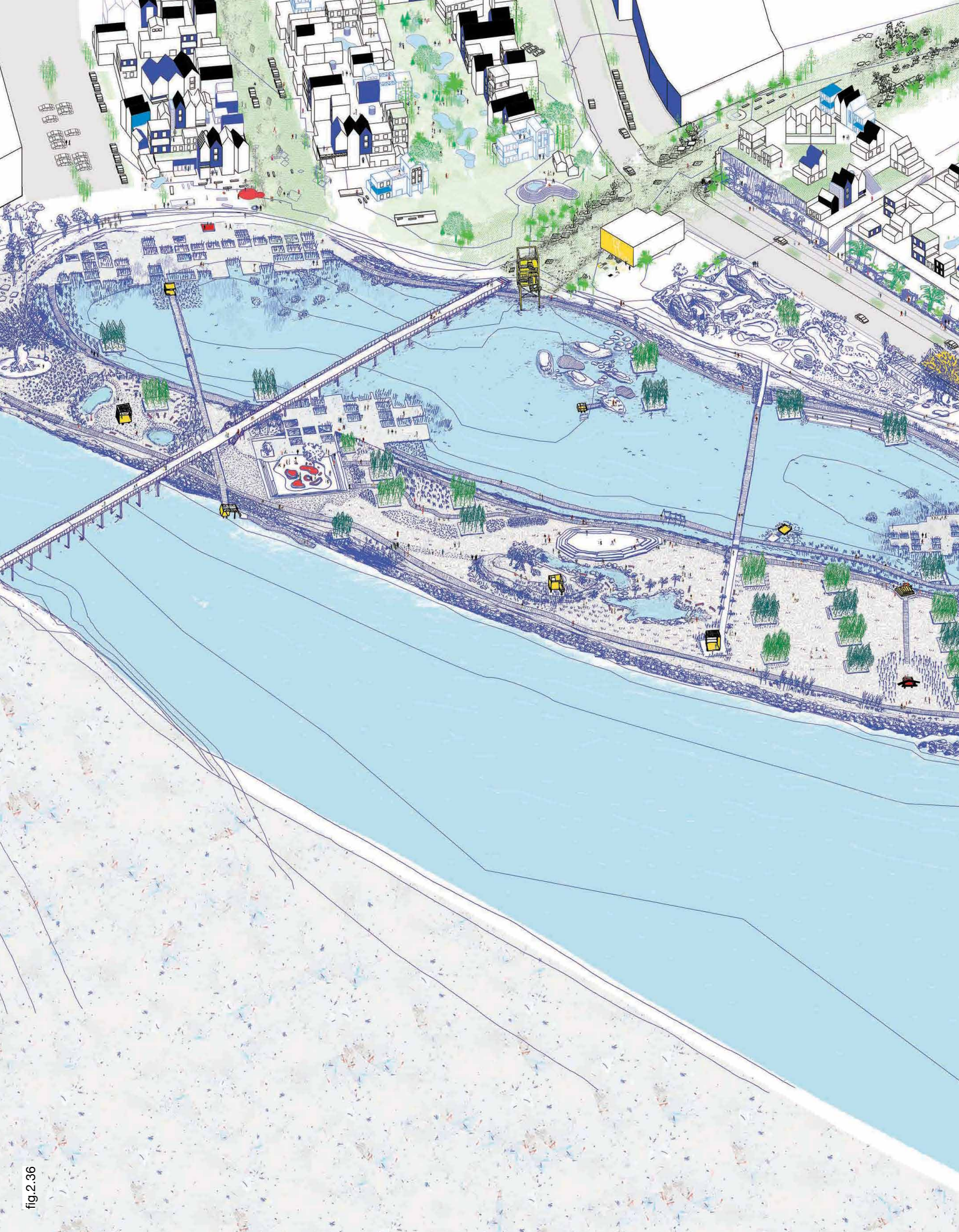
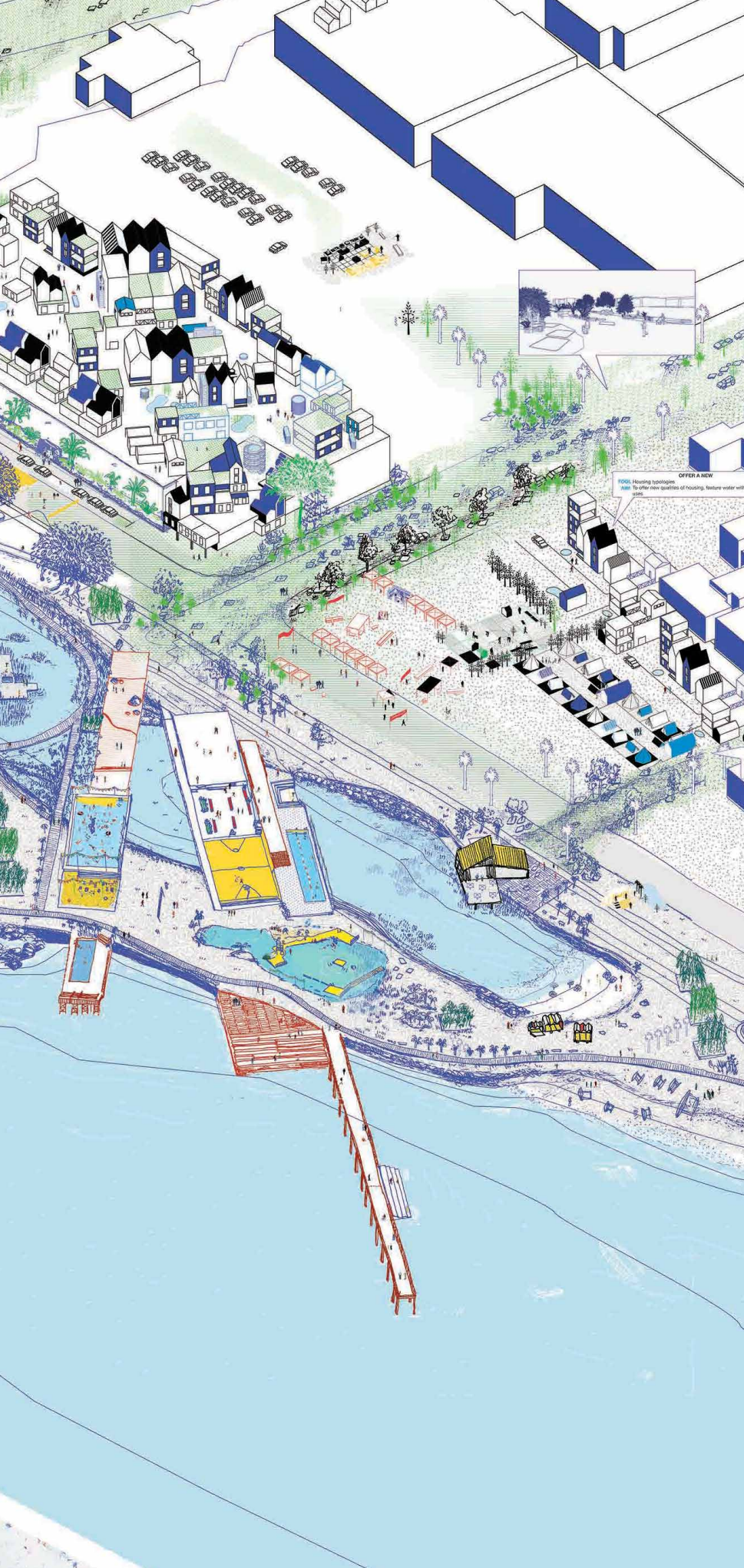


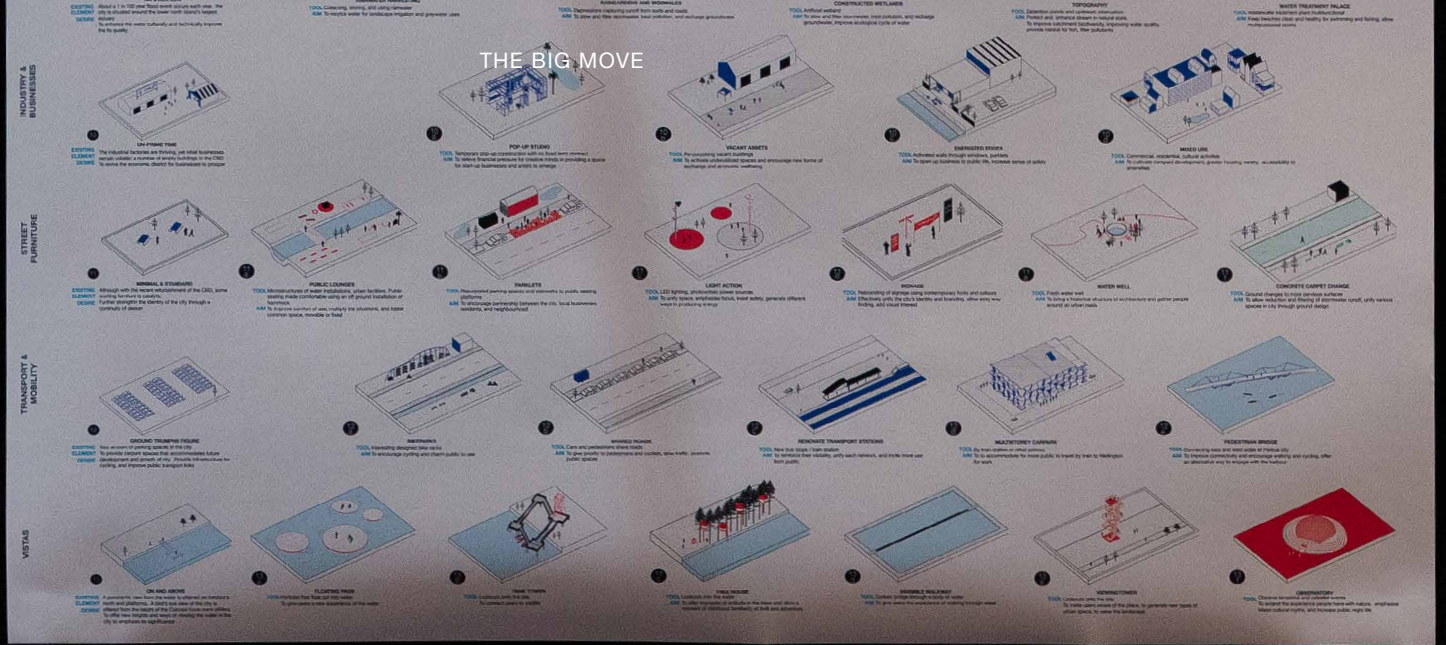
fig.2.36





**The Big Move**  
is an image of the future of  
Porirua City. It proposes a  
series of design moves, both  
big and small, as a catalyst  
for sustainable urban  
development. The Big Move  
takes into consideration  
certain conversations  
resulting from the  
Community Pop-up Space.  
The key design interventions  
operate across scales and  
disciplines (architecture,  
landscape architecture,  
urban design, and  
installation). Each  
intervention can be seen  
as separate and disparate  
moves, but are presented as  
one composite 'big' move.  
The Big Move proposes  
a Constructed Wetland,  
The Green Fingers (green  
streets), The Pools,  
and Housing.  
The Big Move is presented as  
one large composite drawing  
to engage the imagination  
and sense of naivety and  
playfulness for its audience.





The Constructed Wetland

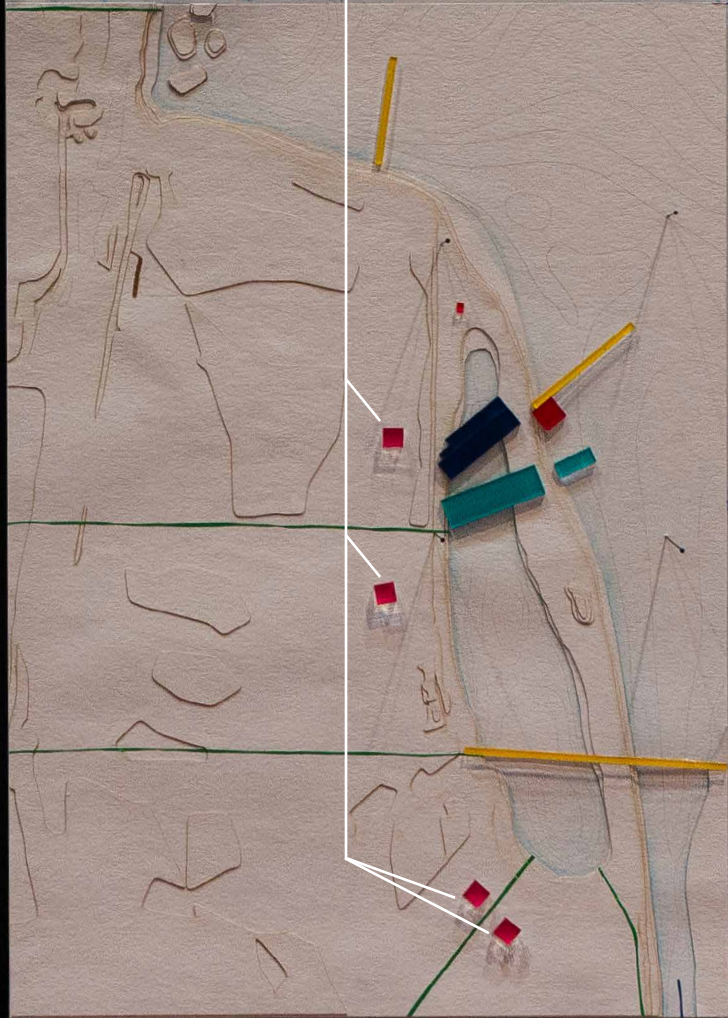
The Green Fingers

1:25000

1:5000

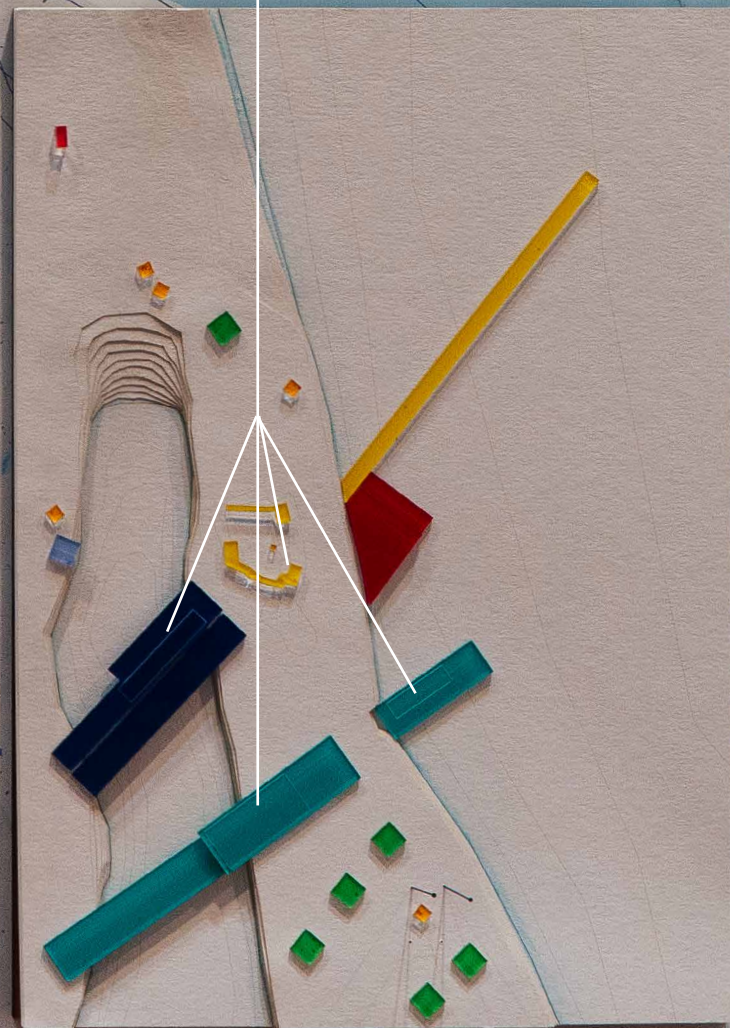


The Housing



1:1200

The Pools



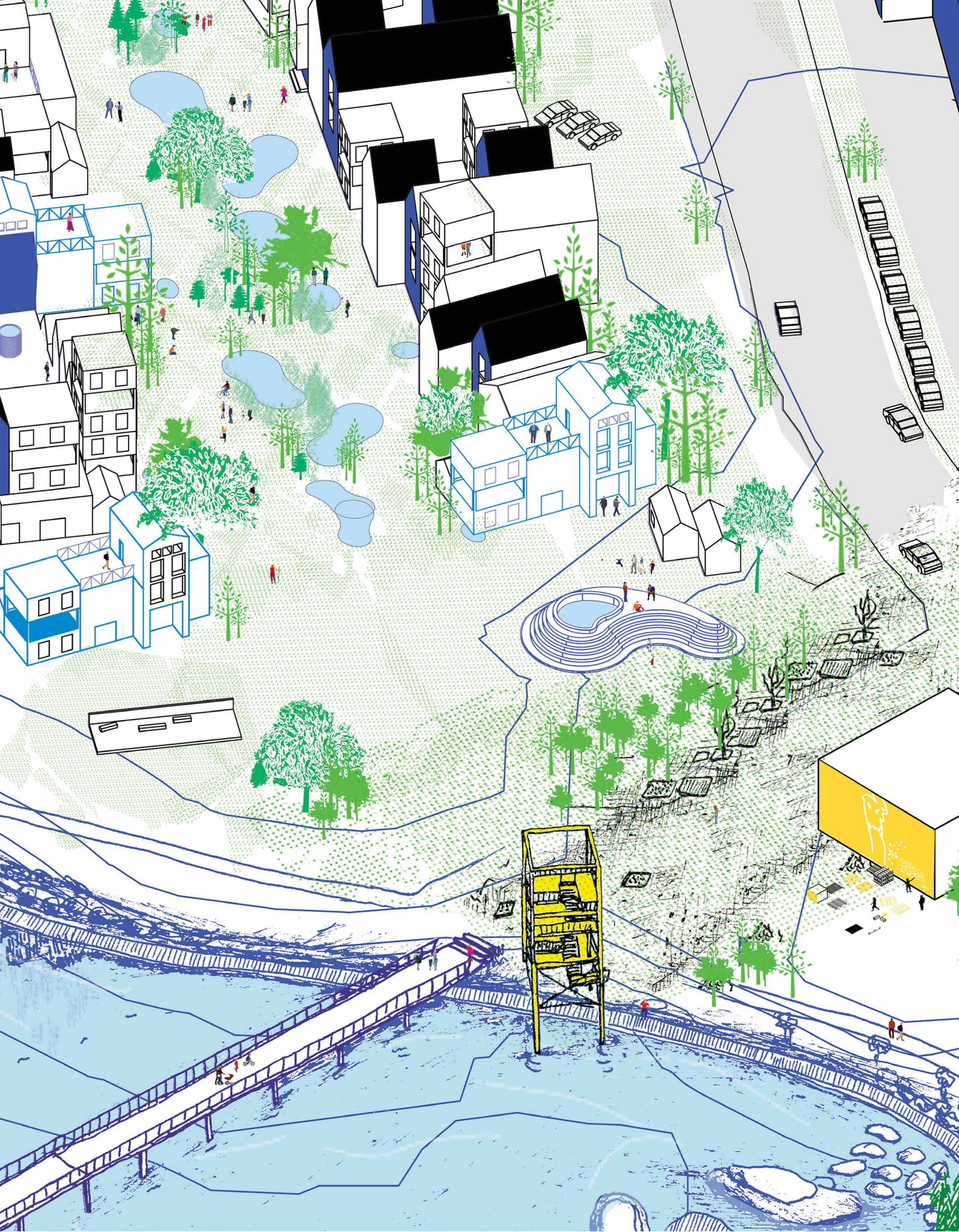
1:500



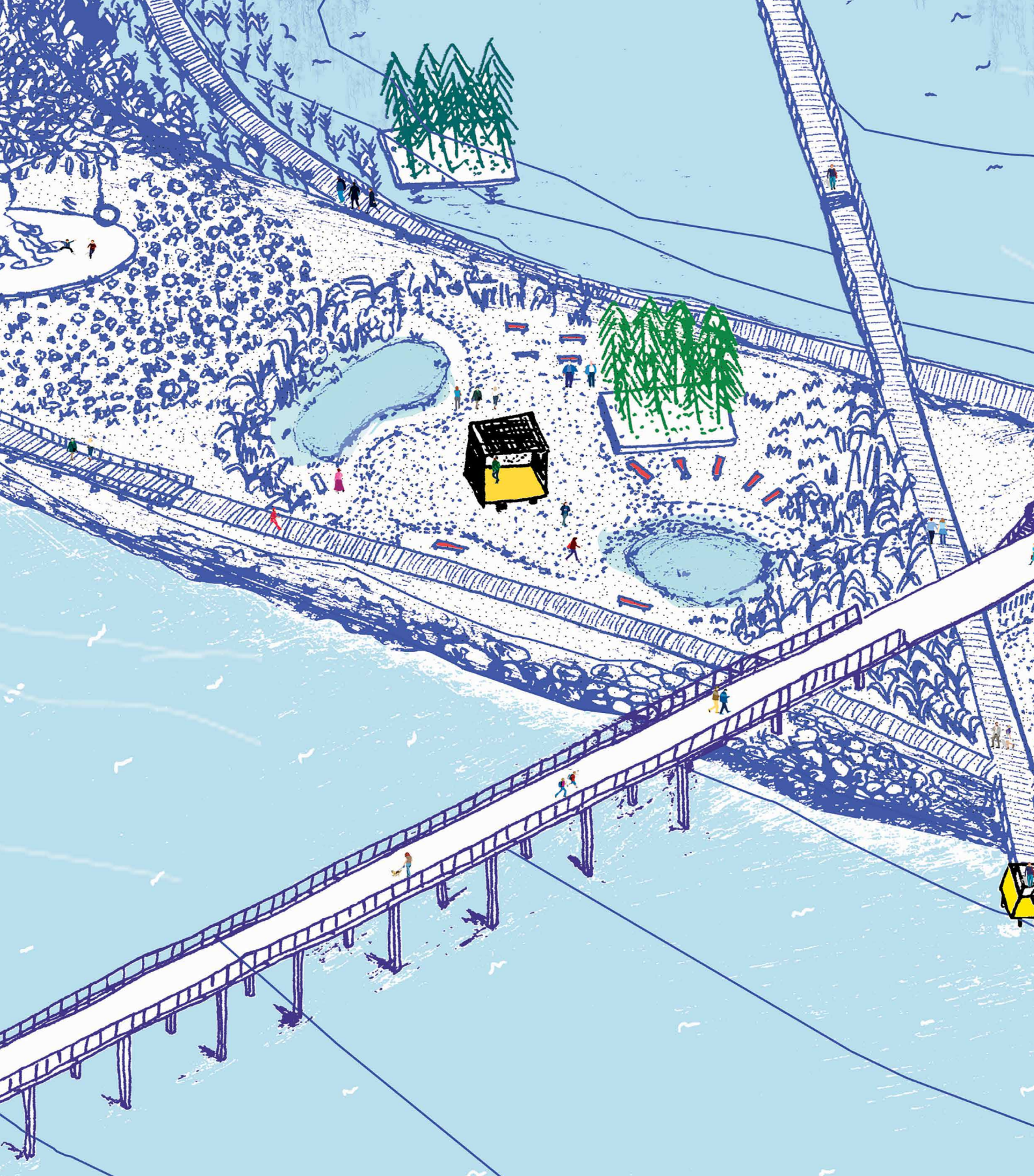


*Mixed-use development; cafes, workshop spaces, shops open out on ground floor with residential dwellings above looking over the park.*



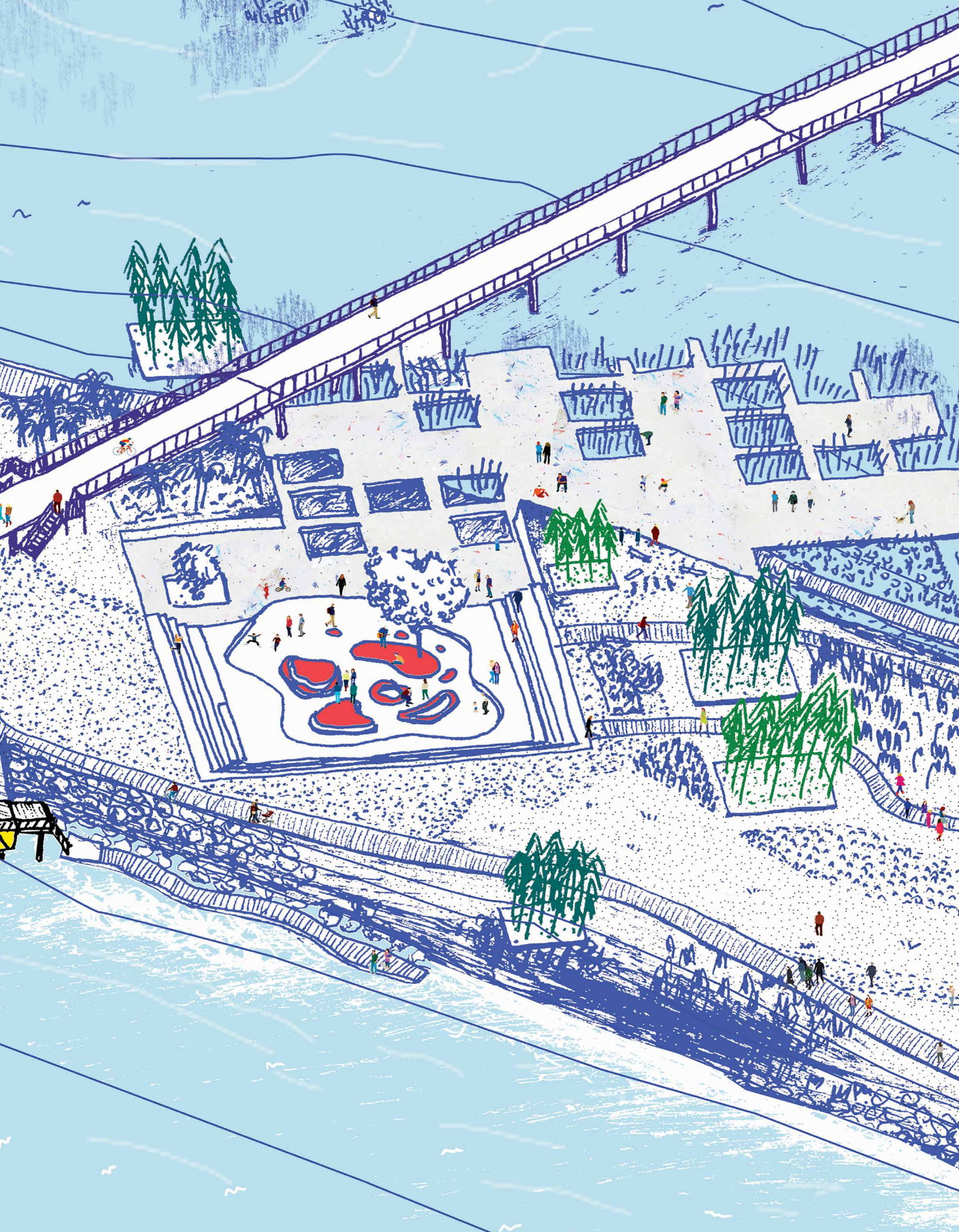




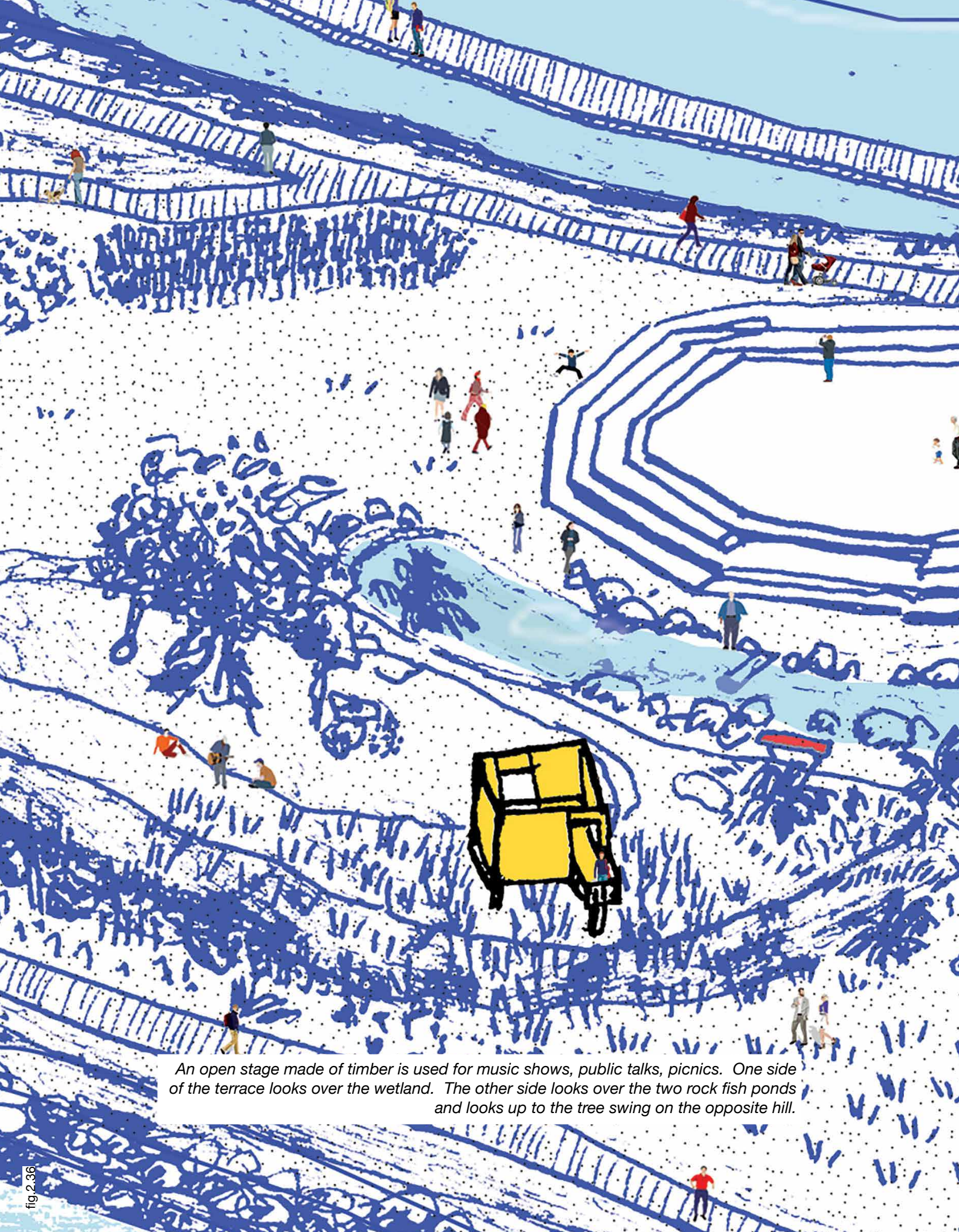


*The bridge connecting east and west sides of the harbour through Te Awarua Park is a popular thoroughfare for users such as runners, cyclists, and students walking to the city from high school.*







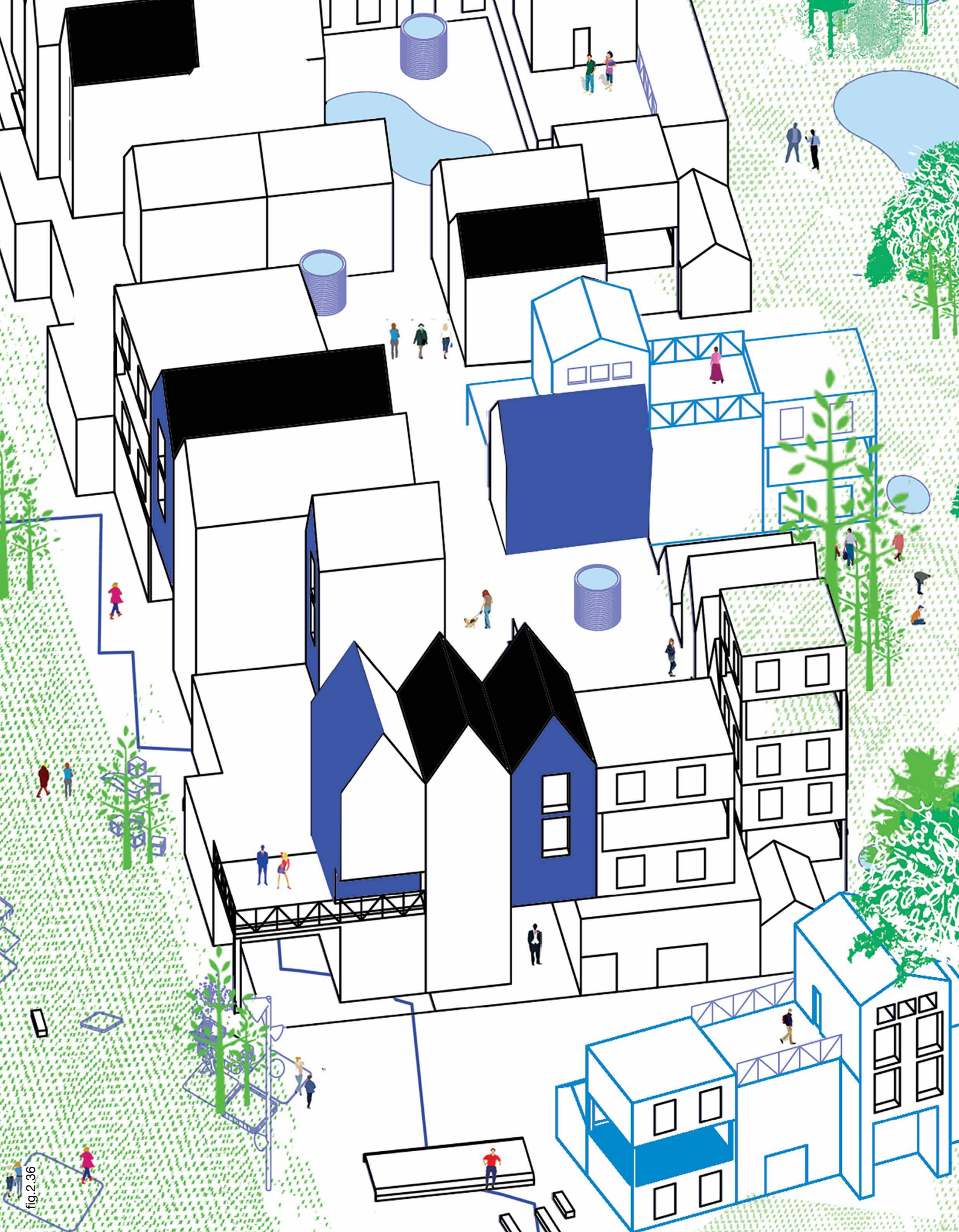


An open stage made of timber is used for music shows, public talks, picnics. One side of the terrace looks over the wetland. The other side looks over the two rock fish ponds and looks up to the tree swing on the opposite hill.

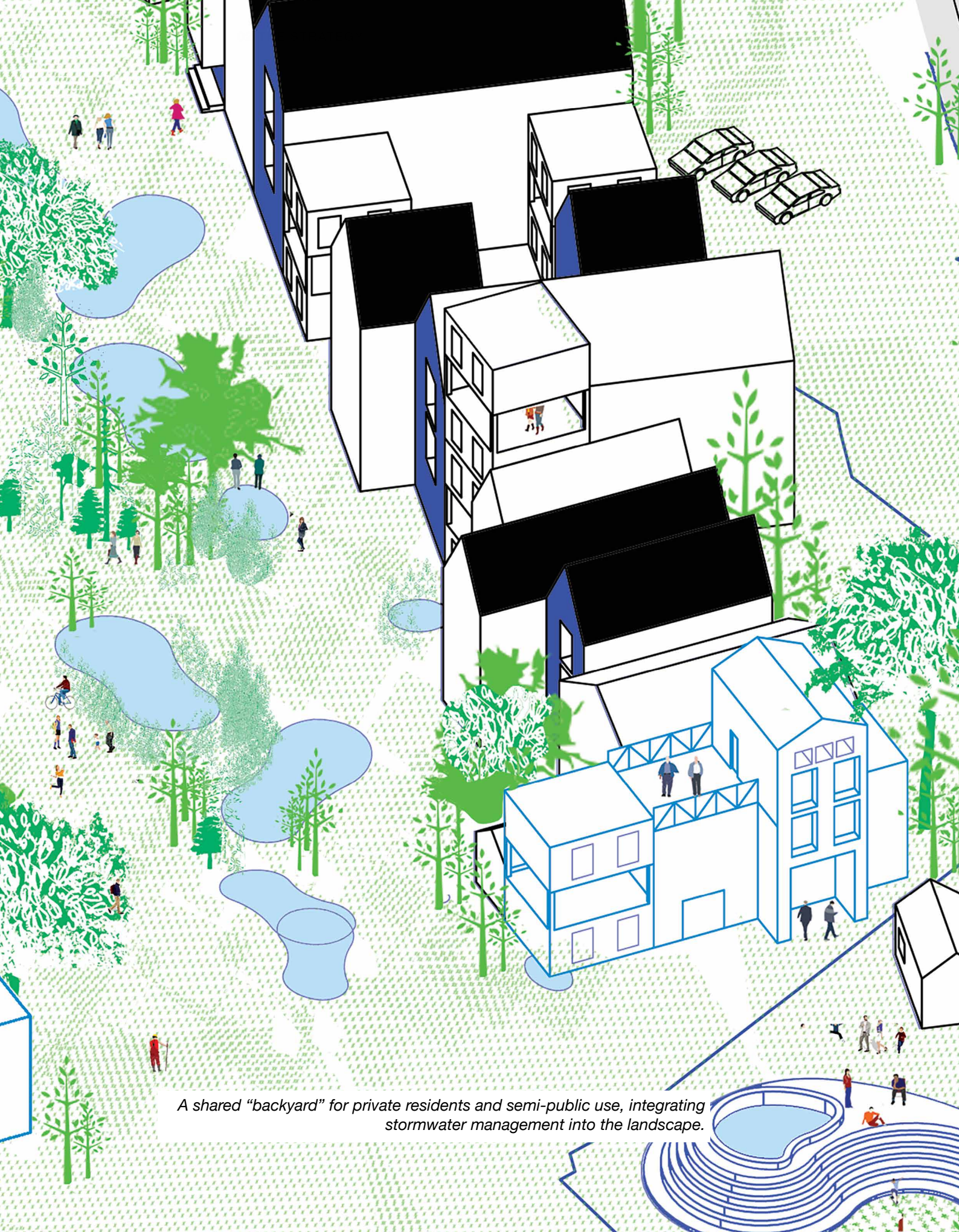










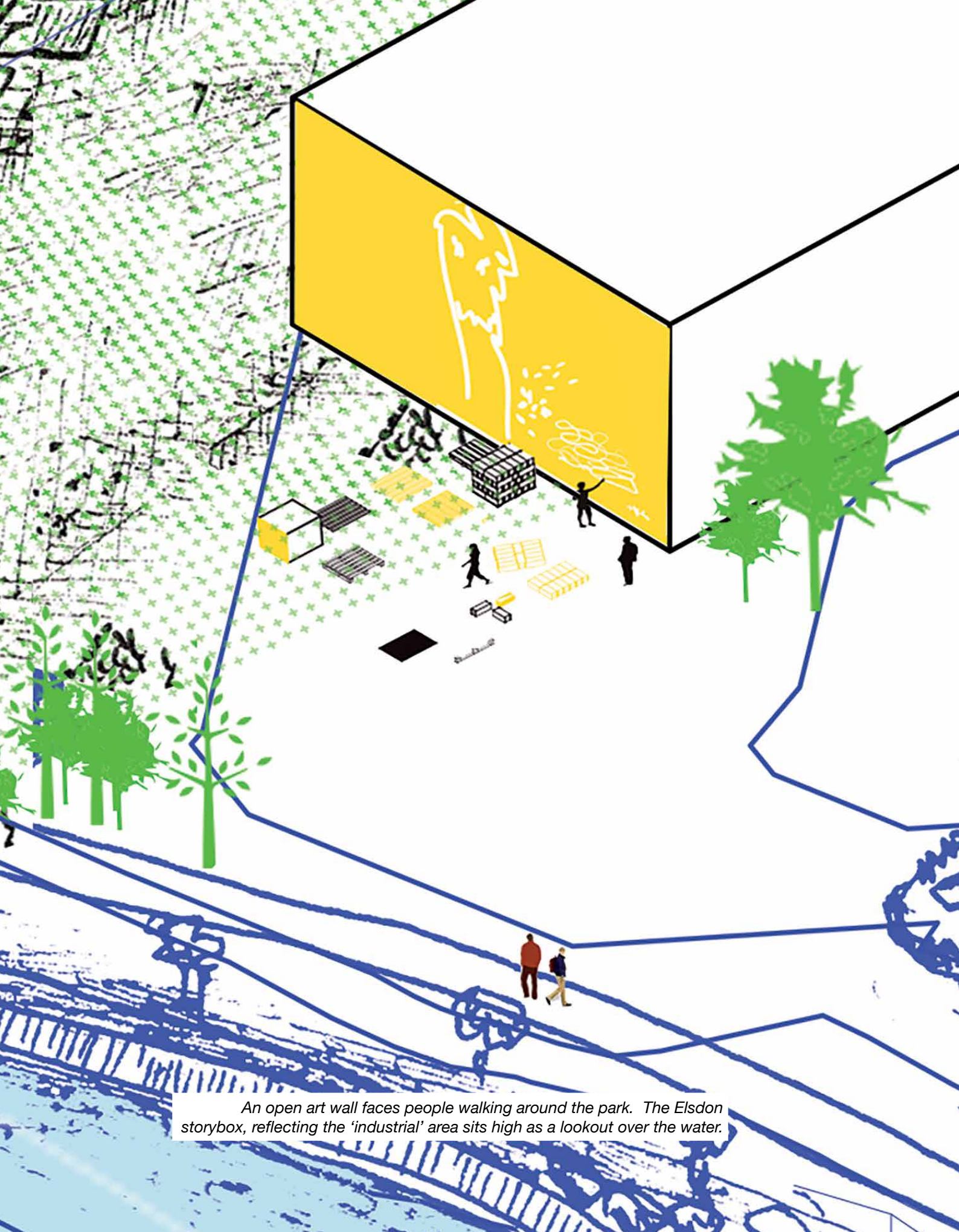


*A shared "backyard" for private residents and semi-public use, integrating stormwater management into the landscape.*



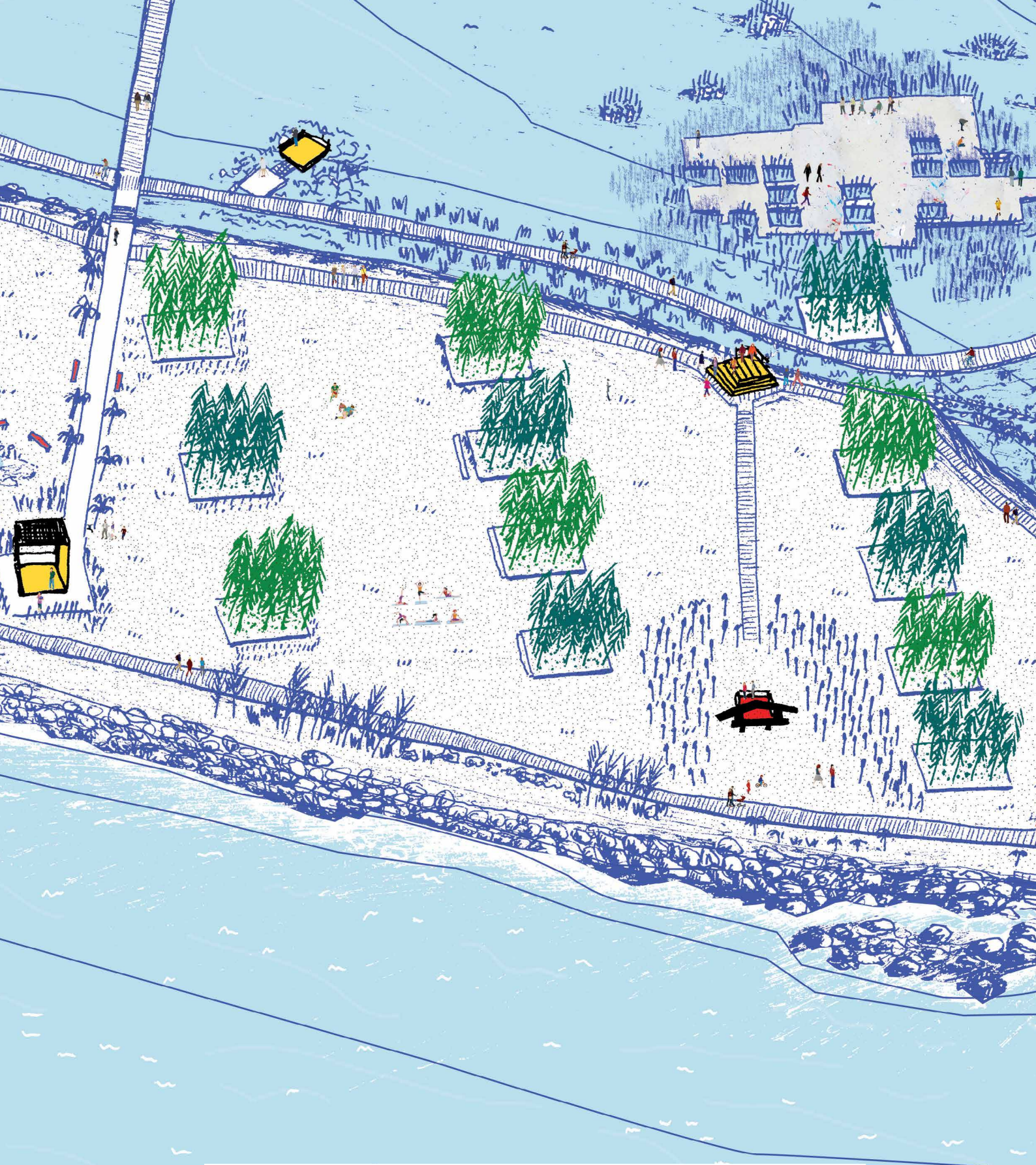






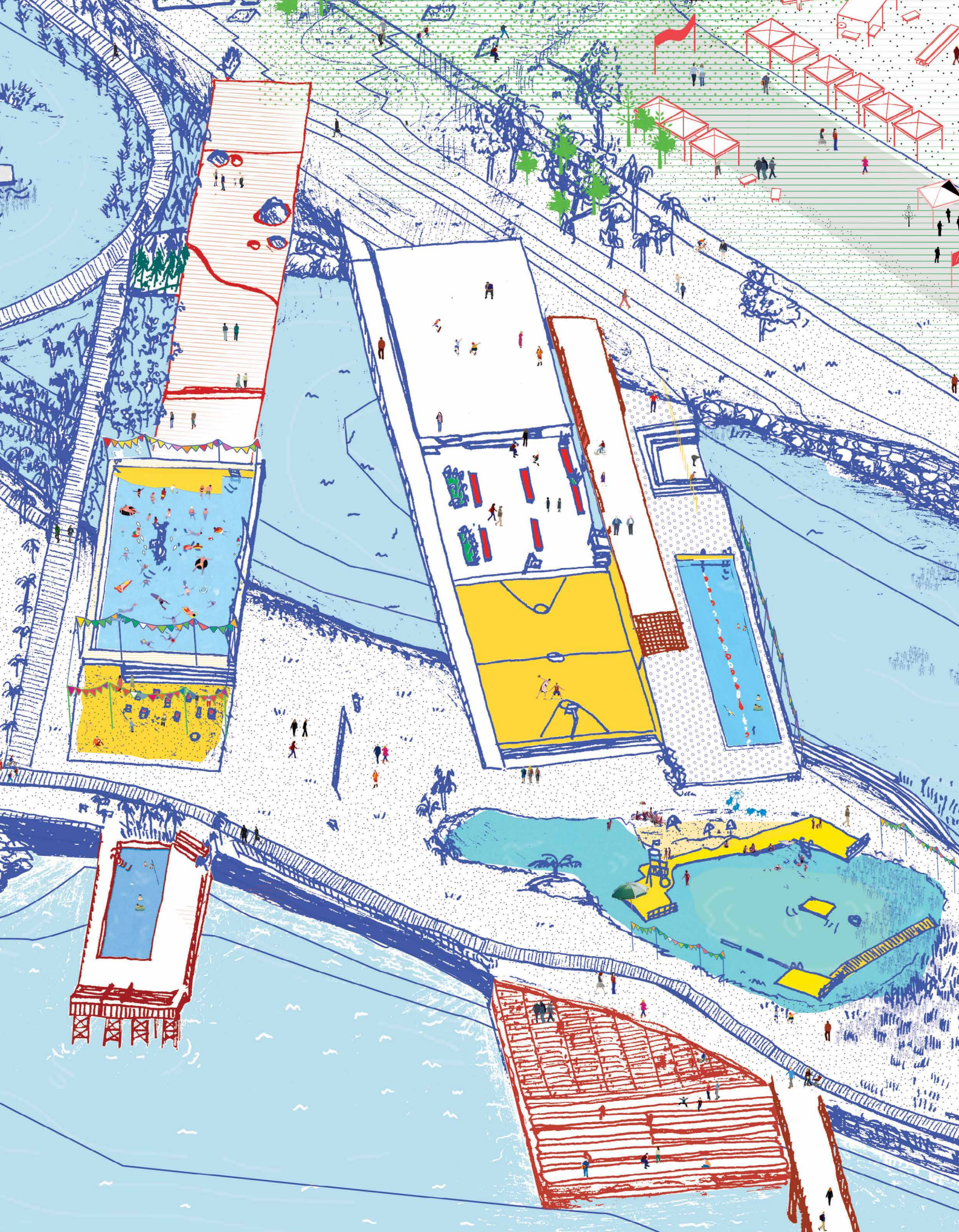
*An open art wall faces people walking around the park. The Elsdon storybox, reflecting the 'industrial' area sits high as a lookout over the water.*





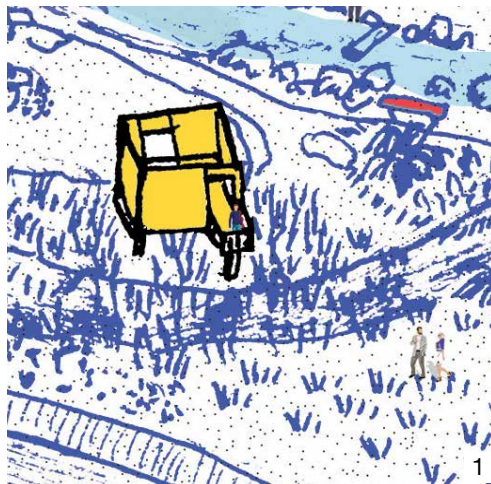
*The platforms act as bridges between the existing land, over the water, to new land.  
The Pools play an integral part in the sequencing between wetland treatment.*







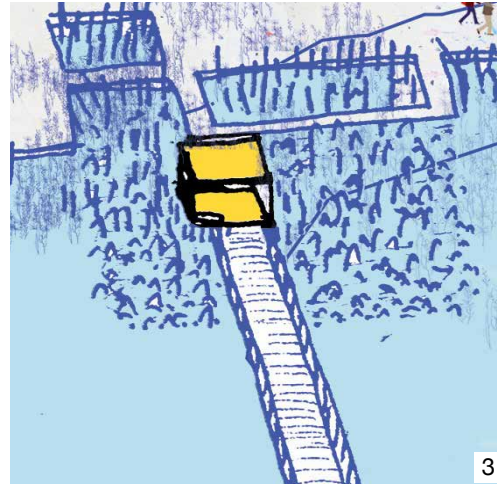
## THE BIG MOVE



1



2



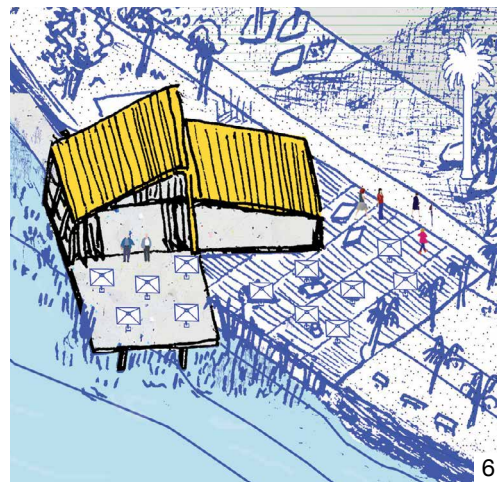
3



4



5



6



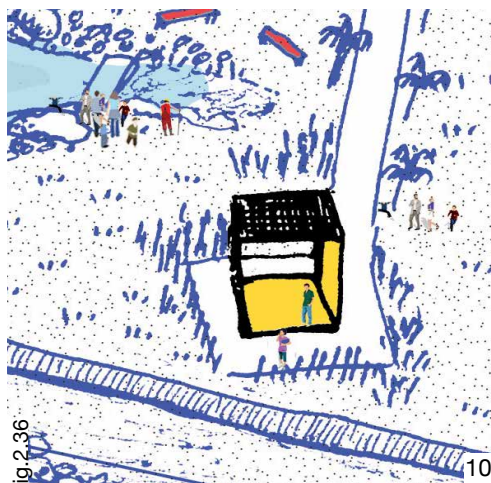
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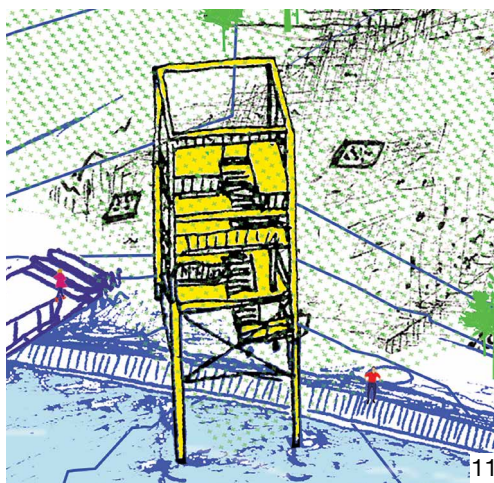
8



9



10



11

## Te Awarua Park Storyboxes

(left to right)

1. Camborne/Plimmerton
2. Ascot Park/Papakowhai
3. Paremata
4. Takapuwahia
5. Pauatahanui Inlet
6. Porirua City Centre
7. Pukerua Bay
8. Mana Island
9. Titahi Bay
10. Porirua East
11. Elsdon / Kenepuru



*The Storyboxes are pavilions representing the neighbourly characteristics of suburbs in Porirua*



fig.2.38 Takapuwhia and Titahi Bay storyboxes - acrylic model

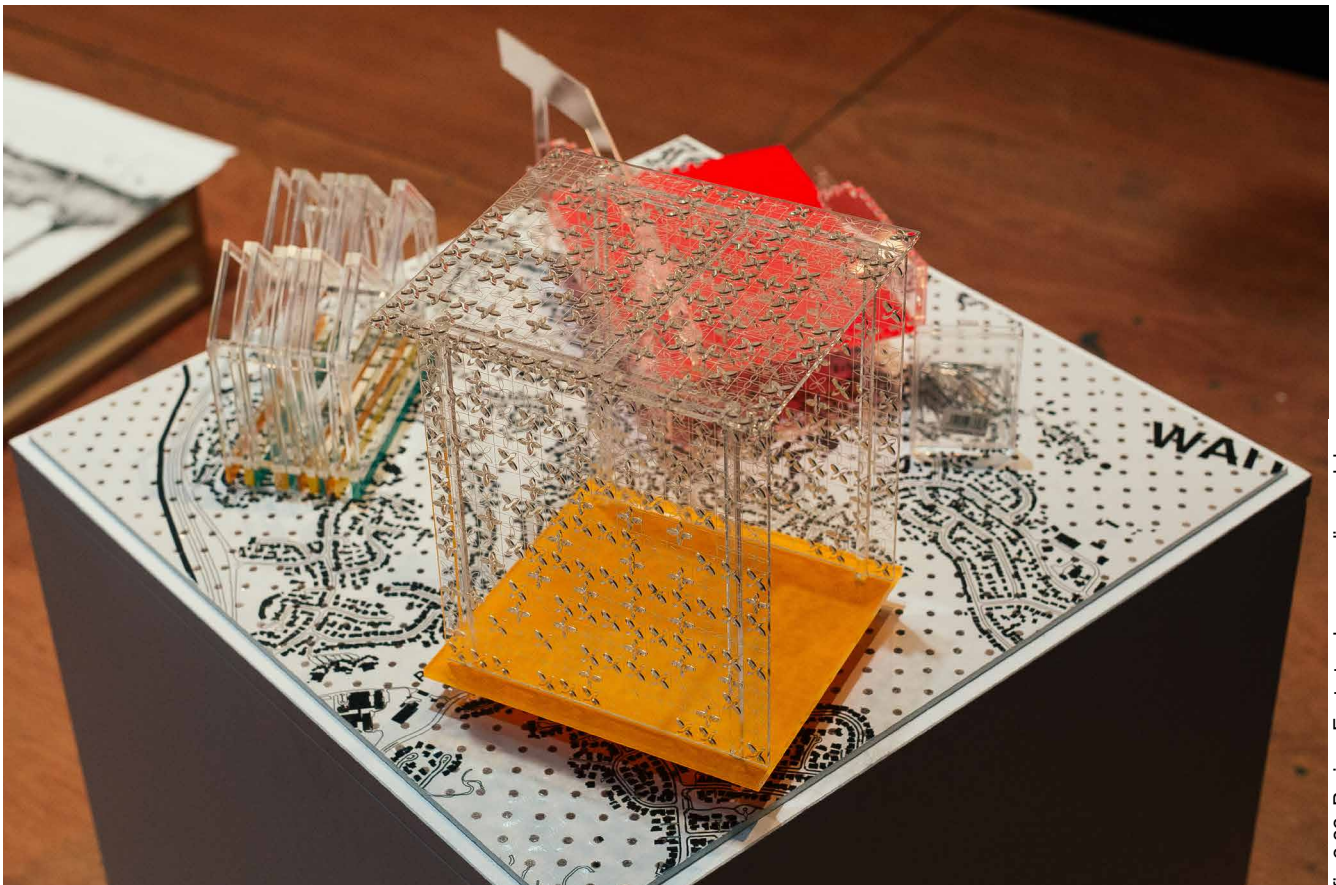


fig.2.39 Porirua East storybox - acrylic model





# chapter three

## the development of the toolkit

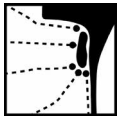
<b>Simultaneous Scales</b>	<b>158</b>
<b>Open Options</b>	<b>168</b>

*This section discusses the development and ideas of 'The Toolkit': fifty-five architectural design ideas that express the four sustainable urban development aims developed through the site analysis. This section considers the role of simultaneous scales, and the role of empowerment through choice that The Toolkit provides in the design process.*



# SIMULTANEOUS SCALES

## SPATIAL AND TEMPORAL



What is The Toolkit?

**The Toolkit is a kit of architectural design ideas that range simultaneously across spatial and temporary scales. Each ‘tool’ is a small, medium, or a large intervention and is understood within an ecosystem that contributes to spatial production.<sup>1</sup>**

How does ‘simultaneous scales’ relate to The Toolkit?

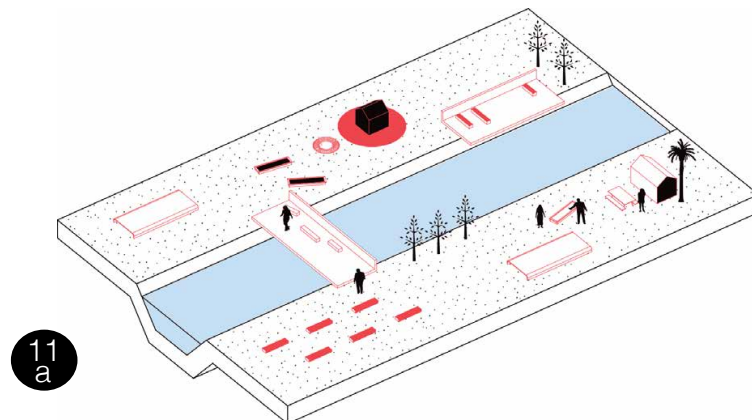
**‘Simultaneous scales’ provides a loose index for ideas to be understood as a composite. The Toolkit does not attempt to achieve perfection in how interventions are placed along the spatial scale.**

How should The Toolkit be used?

**Ideas from The Toolkit can be employed based on the city’s priorities, resources and plans. Each idea can be revised and/or modified accordingly. The Toolkit recognises that interventions would take place over generations as a suitable response to evolving context.**

<sup>1</sup> Atelier Bow-Wow.  
*The Architectures of  
Atelier Bow-Wow:  
Behaviorology.*  
Rizzoli, 2010.

fig.3.1 Social - Theme 11 Street  
Furniture - Tool 11a Public Lounges



### Why simultaneous scales?

Nigel Bertram, in *Furniture, structure, infrastructure: making and using the urban environment*, proposes that 'by thinking simultaneously at different scales' urban re-orientation can happen.<sup>2</sup> Bertram is a founding director of Melbourne practice NMB Architecture Studio and is a Practice Professor of Architecture in the Faculty of Art Design & Architecture, at Monash University. Bertram refers to the 'urban environment' as **a total sum of parts understood as a single, interrelated but non-organic system. This includes infrastructure, buildings, plants, constructed landscape, fittings, people, signs, things, and vehicles.**<sup>3</sup>

Seeing the urban environment as a 'sum of parts' is the guiding principle of The Toolkit. These sum of parts can be re-arranged, renovated, or made new. Bertram suggests that the design tool for this process is observation. Observation takes pre-existing elements seriously in order to reveal and reinvent if necessary. The Toolkit is an example of how observation has been used as a design tool. Observation in The Toolkit allows us to understand the existing factors of the city. The ideas that follow then re-orientate the arrangement of the city towards the harbour as a composite rather than in isolation.

'Simultaneous scales' means architecture and the urban environment can be understood in terms of relationship. 'Simultaneous scales' is a relationship between the effects of small moves on the larger (and vice versa), between the uncontrolled events versus the expected progression of design, and between the 'many small and ad hoc actions of individuals to wider systems of collective organization.'<sup>4</sup> The relationship of simultaneous scales constantly searches to combine elements of what might normally be arranged separately. 'Simultaneous scales' is a relationship that 'embraces the full messy reality of the present,' finding delight in the everyday.



fig.3.2

<sup>2</sup> Bertram, Nigel. *Furniture, Structure, Infrastructure: making and using the urban environment*. Surrey, England: Ashgate Publishing Limited, 2013, pp4.

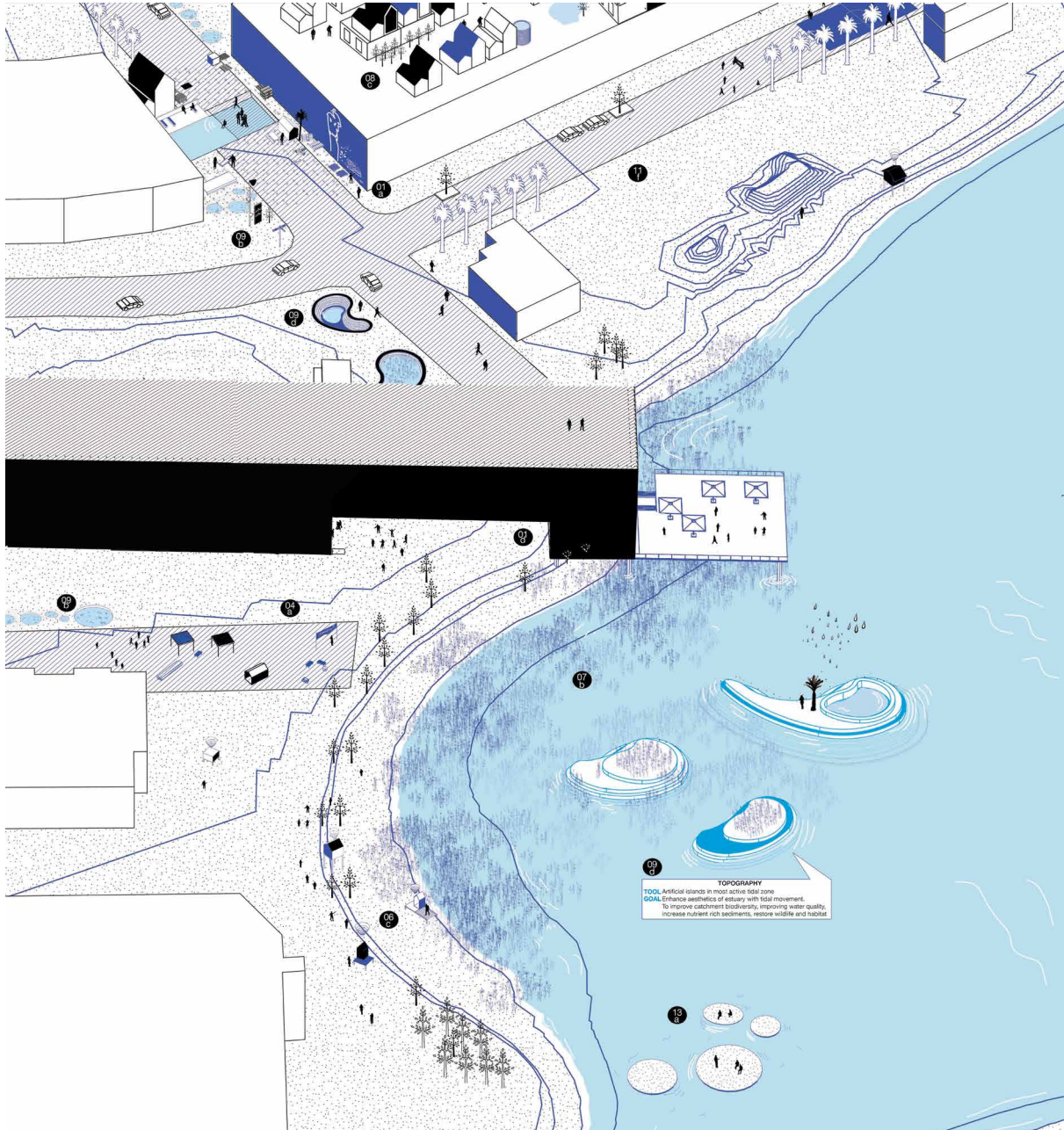
<sup>3</sup> Bertram, 1

<sup>4</sup> Bertram, 8



This relationship is most significant when considering the middle scale.<sup>5</sup> Bertram states the very large scale as the scale of infrastructure and shared urban systems; the very small scale is the scale of furniture and personalised microenvironments; and the middle scale is that of the 'object,' of architecture. It is the scale at which form is communicated and experienced.

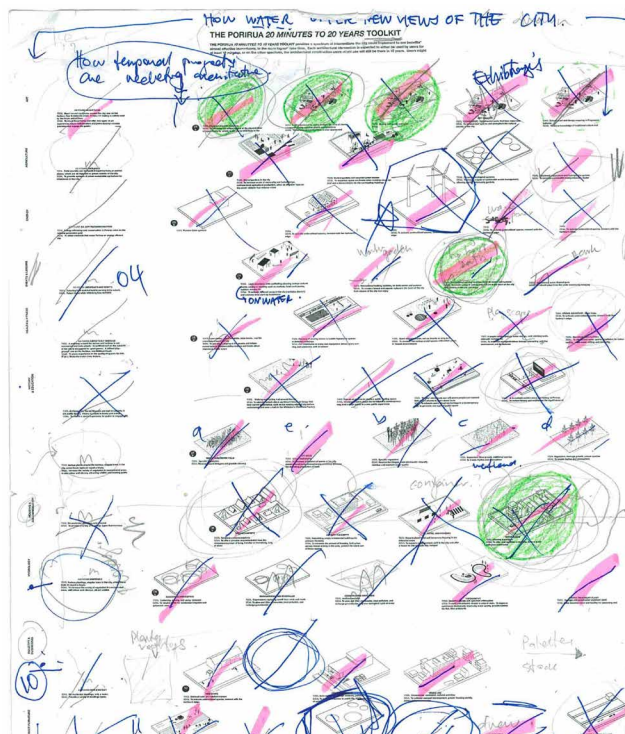
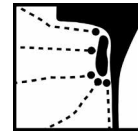
fig.2.5 The Toolkit applied to Tutu Place



The middle scale often ignores the large urban context and the small experiential opportunities. Although it might well be the architect's desire for the object to respond sensitively to both the large and the small, Bertram acknowledges this middle scale 'is also the scale of bureaucracy.' The architect's task of defining the middle scale of the object is challenged and compromised as it is set within the systems and regulations of the democratic / commercial city.

5 Bertram, 1

Whether small, middle, or large, the design interventions in The Toolkit intend to grow the city sustainably. Smaller scale interventions begin to challenge certain levels of bureaucracy as the ideas are at a 'more human scale.' The middle scale interventions develop from the smaller scale in order for it to remain responsive to this human touch. The Toolkit is limited at the 'large' end of the spectrum as these ideas are actually a mixture of architecture's 'object' and landscape architecture's big infrastructural changes. This does not dismiss the importance of either the middle or the larger, but rather emphasizes the level of entanglement and 'simultaneous-ness' within the scales of the urban environment.



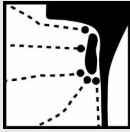
Consolidating the ideas

**fig.3.3**

Reflections during the process of developing The Toolkit included considering whether every idea had to have an element of water in the design or not; whether to discount the theme 'Hydrology' since the whole project was attempting to deal with various moments of hydrology at different scales; and also whether some ideas such as 7e Honey Factory were 'too cute' to be included.

Consolidating the order





## DIAGRAM FROM THE SITE ANALYSIS TO THE TOOLKIT IDEAS

urban sustainability aspects:



themes / parts of the urban  
environment:



*derived from site analysis*

*derived from site analysis*

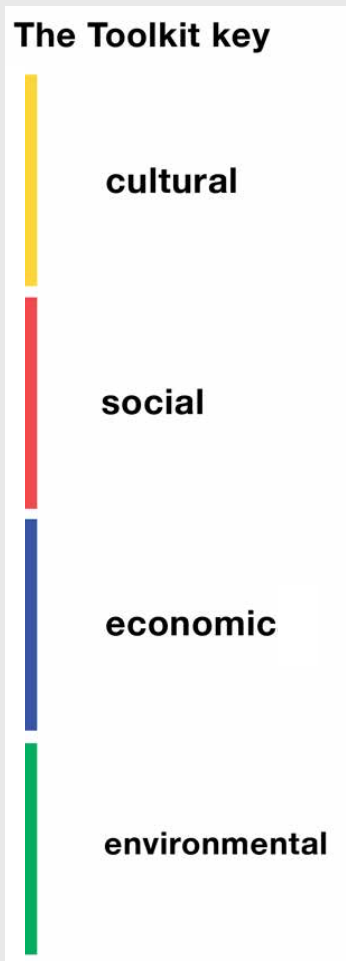


fig.2.1

- 01 ART
- 02 AGRICULTURE
- 03 ENERGY
- 04 RECREATION
- 05 HEALTH & FITNESS
- 06 HISTORY & EDUCATION
- 07 HORTICULTURE
- 08 HOUSING
- 09 HYDROLOGY
- 10 INDUSTRY & BUSINESS
- 11 STREET FURNITURE
- 12 TRANSPORT & MOBILITY
- 13 VISTAS

the observations:



*used as a design  
method (Bertram)*

the subsequent ideas:

*new ideas developed from the observations*

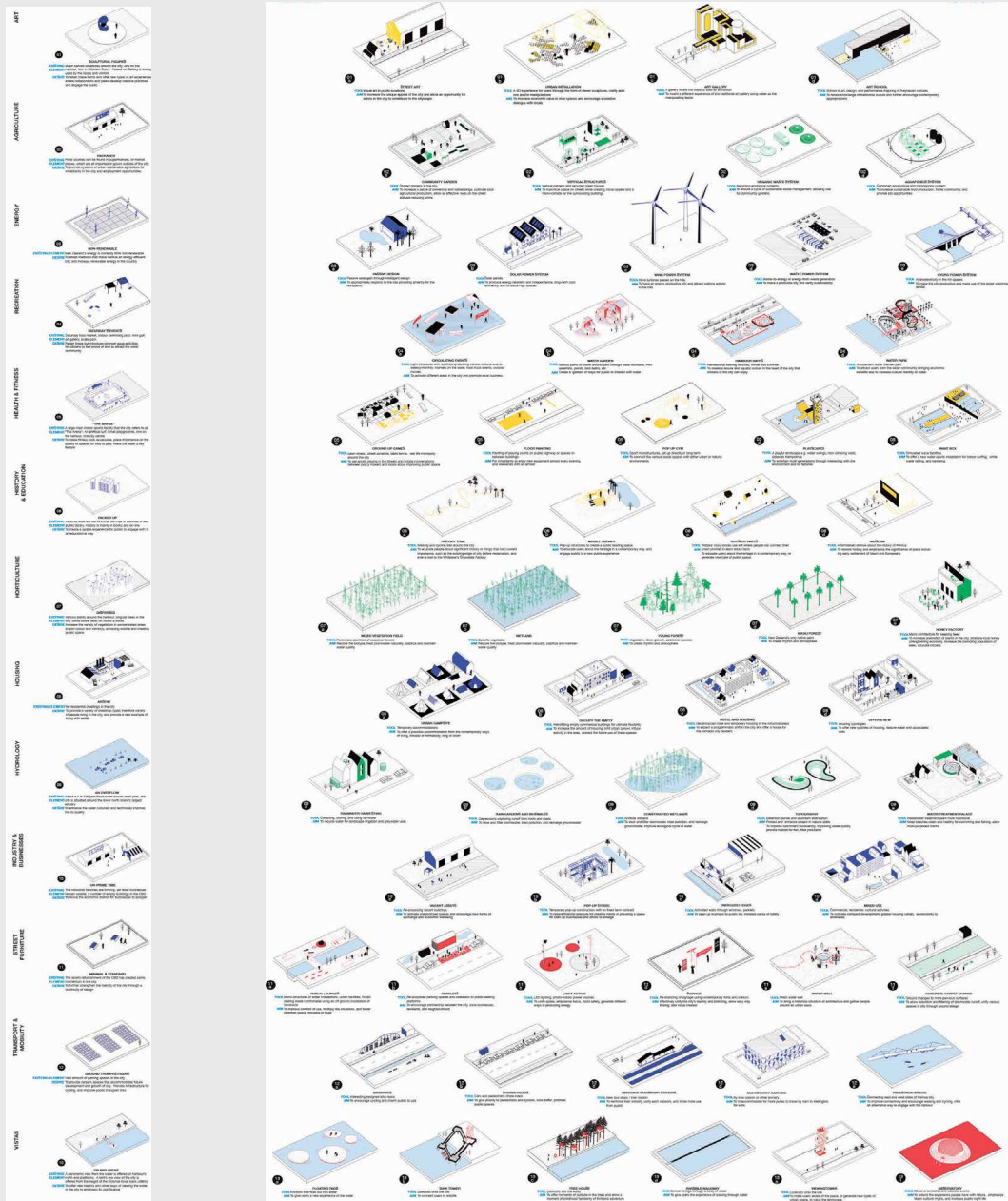


fig.2.2





What about the timescale?

**Atelier Bow-Wow** is a Tokyo-based architecture firm, founded in 1992 by Yoshiharu Tsukamoto and Momoyo Kajima. The firm is well known for its domestic and cultural architecture and its research exploring the urban conditions of micro, ad hoc architecture. **Atelier Bow-Wow** has a similar approach to scale as **Bertram**, yet they introduce the idea of timescale.

**Timescale** is used in **Bow-Wow's** observation of behaviours of 'human beings,' 'natural elements' and 'buildings.'<sup>6</sup> Their book, *Behaviorology*, describes this ecosystem of behaviors as 'an overlapping of different rhythms.'<sup>7</sup> This interplay between different behaviours at different scales, from furniture to architecture, to structures of civil engineering, to the landscape and urban planning, gives precedent for **The Toolkit** to be understood from a timescale perspective.

**Rem Koolhaas** describes the speed of the architectural profession as 'too slow for the revolutions that are taking place.'<sup>8</sup> **The Toolkit** provides a counter to this slow burning pace. It acknowledges the bureaucratic reality and offers other ways of developing interdisciplinary projects that are smaller and temporary in nature.

By organizing **The Toolkit** along a timescale, each idea can be enjoyed for its own rhythm. Like the spatial scales, there are limitations to the timescale: the arrangement of ideas may be scrutinized as 'inaccurate' but, again, **The Toolkit** provides a loose index for ideas to be understood as a composite. Additionally, **The Toolkit** coincides with other scales such as from the informal type of architecture to the formal; and from the short-term tactical planning to long-term strategical planning.

fig.3.4

<sup>6</sup> Bow-Wow, 15

<sup>7</sup> Bow-Wow, 12

<sup>8</sup> Budds, Dianna. "Rem Koolhaas, 'Architecture has a Serious Problem Today'." *Innovation by Design*. May 2016, <https://www.fastcodesign.com/3060135/innovation-by-design/rem-koolhaas-architecture-has-a-serious-problem-today>.

*temporary*  
*ephemeral*  
*informal*  
*short-term tactical*

*permanent*  
*established*  
*formal*  
*long-term strategical*





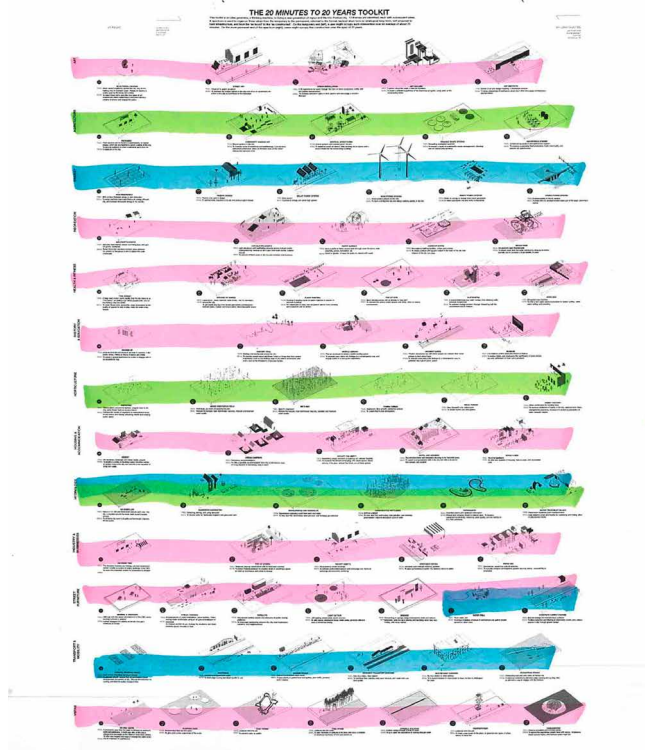
## En Route: Relating the ideas to urban sustainability

**fig.3.5**

The Toolkit was initially one colour, blue. This made it hard to define moments of hierarchy. It seemed as if the design of The Toolkit was superficial by not relating to any previous site analysis. Colour coding was introduced to link the ideas with the projects' understanding of the site.

Colour coding

an average of 20 minutes, whereas permanent constructions may be occupied over the span of 20 years. This thesis includes the assembly of an art installation testing the temporary, and the design of a multifunctional recreation facility, *The Harbour Baths*, suggesting the permanent.



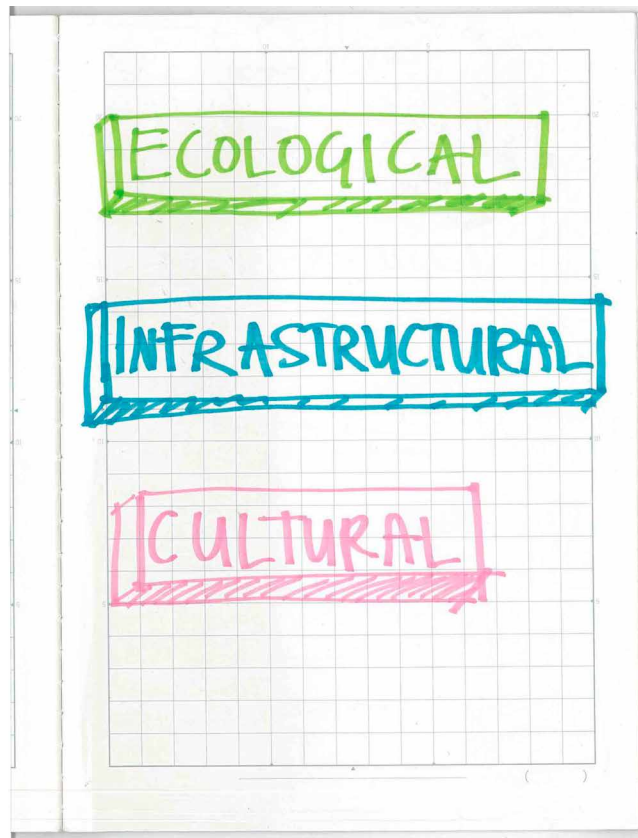
**fig.3.6**

To begin with, the project looked at three aspects: ecological, infrastructural, and cultural. But through more research the project discovered a more appropriate approach for urban sustainability—using the cultural, social, economic, and environment framework.

**fig.3.7 Opposite**

The process of colour coding each theme to its relevant perspective was problematic as all themes can easily be related to all four aspects. The final Toolkit acknowledges this, yet codes each idea to the most relevant aspect. Each idea is still understood to have consequential effects that are mutually inclusive.

The initial aspects



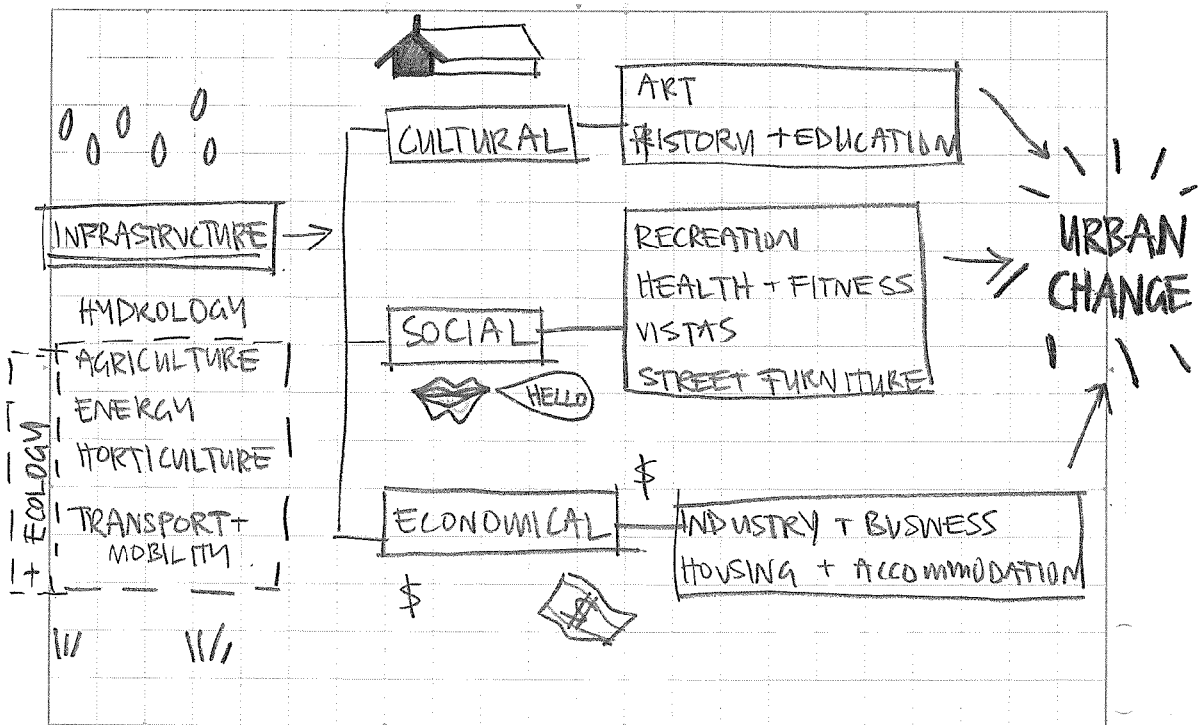
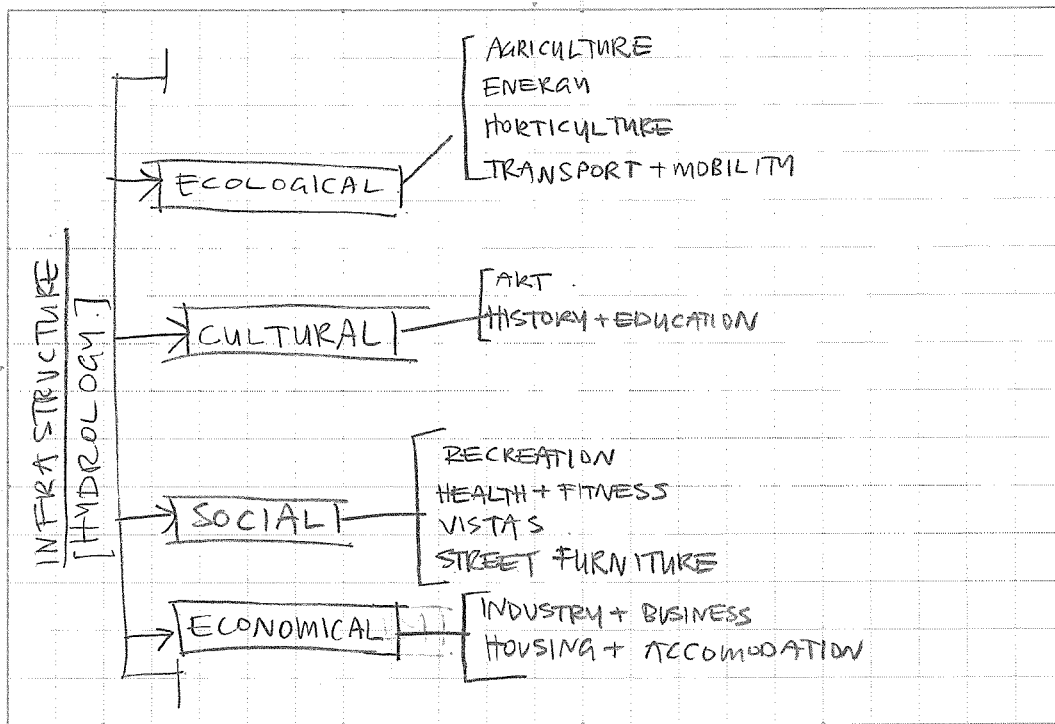
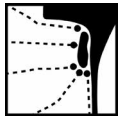


fig.2.46 Exploring what themes related to which urban sustainability aspects



## OPEN OPTIONS

### EMPOWERMENT THROUGH CHOICE



The Toolkit provides different choices to designers, the community and to local government. This ability to choose from a range of ideas empowers people.



What is empowerment and why is it important?

Empowerment can be understood by examining the concepts of power and control.<sup>9</sup> Empowerment is associated with personal control and is increasingly understood as a process of change.<sup>10</sup>

Whitmore defines empowerment as:

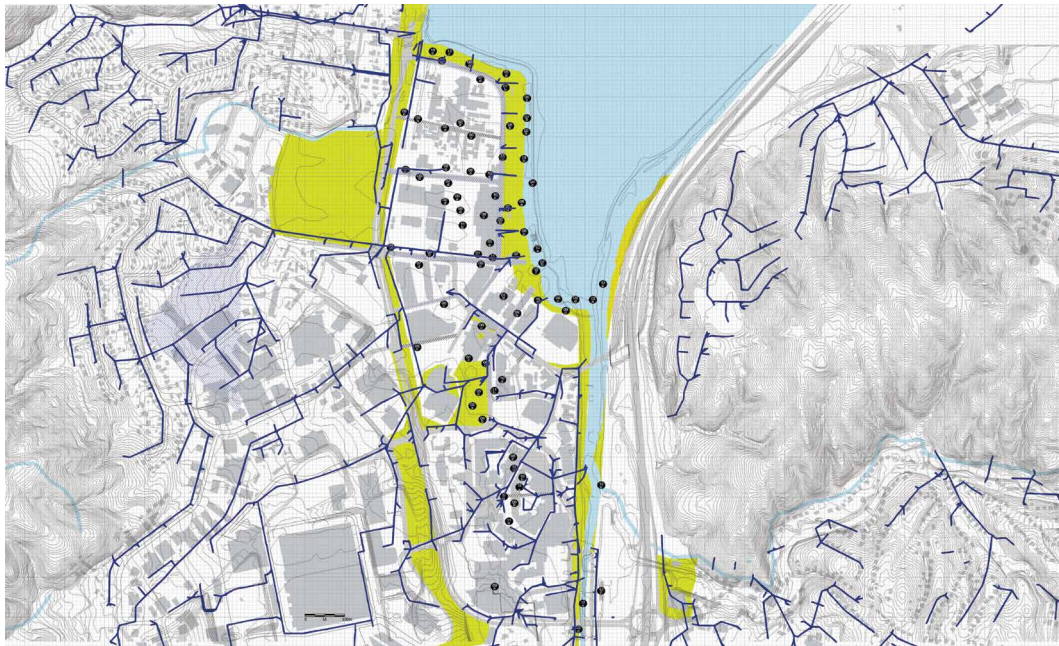
*an interactive process through which people experience personal and social change, enabling them to take action to achieve influence over the organizations and institutions which affect their lives and the communities in which they live.*<sup>11</sup>

**Empowerment is an important process of social-action: it promotes participation of people and communities towards a common goal - personally and collectively.**

<sup>9</sup> Lord, John, and Peggy Hutchison. "The Process of Empowerment: Implications for Theory and Practice." Canadian Journal of Community Mental Health vol. 12, no. 1, Spring 1993, pp. 5-22

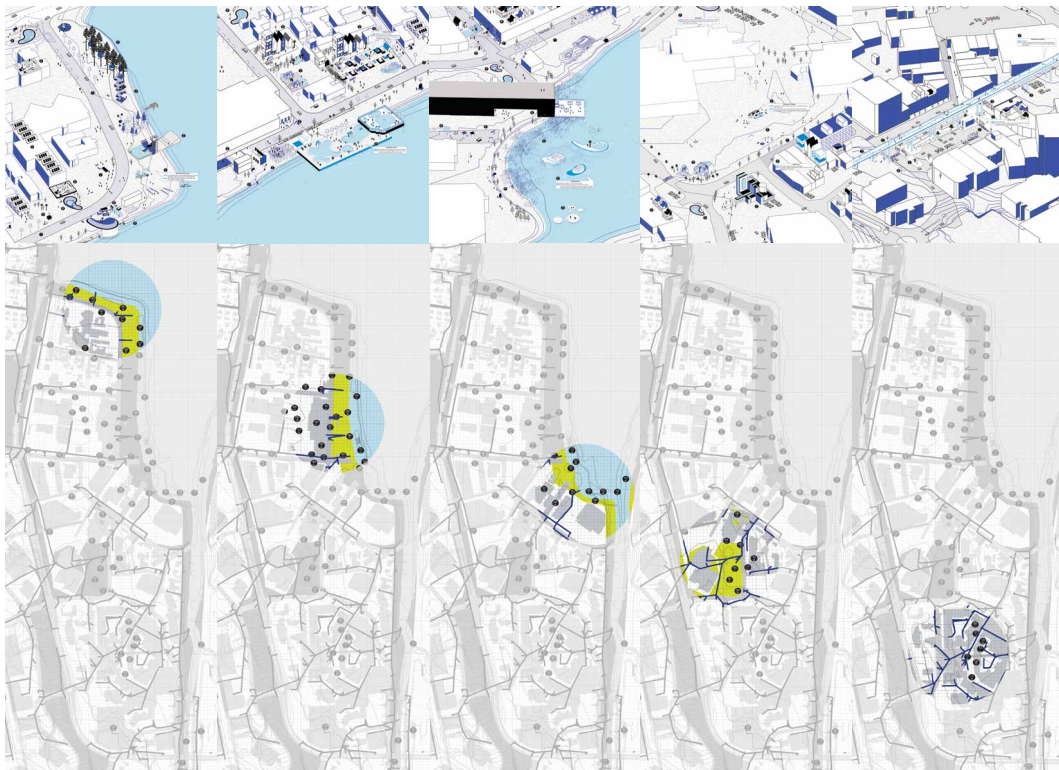
<sup>10</sup> Inesi, M. Ena et al. "Power and Choice." *Psychological Science*, vol. 22, no. 8, June 2011, pp. 1042-1048

<sup>11</sup> Lord, 3



Toolkit to Site

**fig.3.8**  
Map of Porirua  
The Toolkit  
ideas applied  
to the site.



Toolkit  
Applied

**fig.3.9**  
The highlighted  
areas are  
examples of  
how The Toolkit  
can be applied  
through choice.

The decisions  
as to which  
ideas applied  
were made  
by an expert  
designer, but  
could include  
other members  
of the public in  
the process.



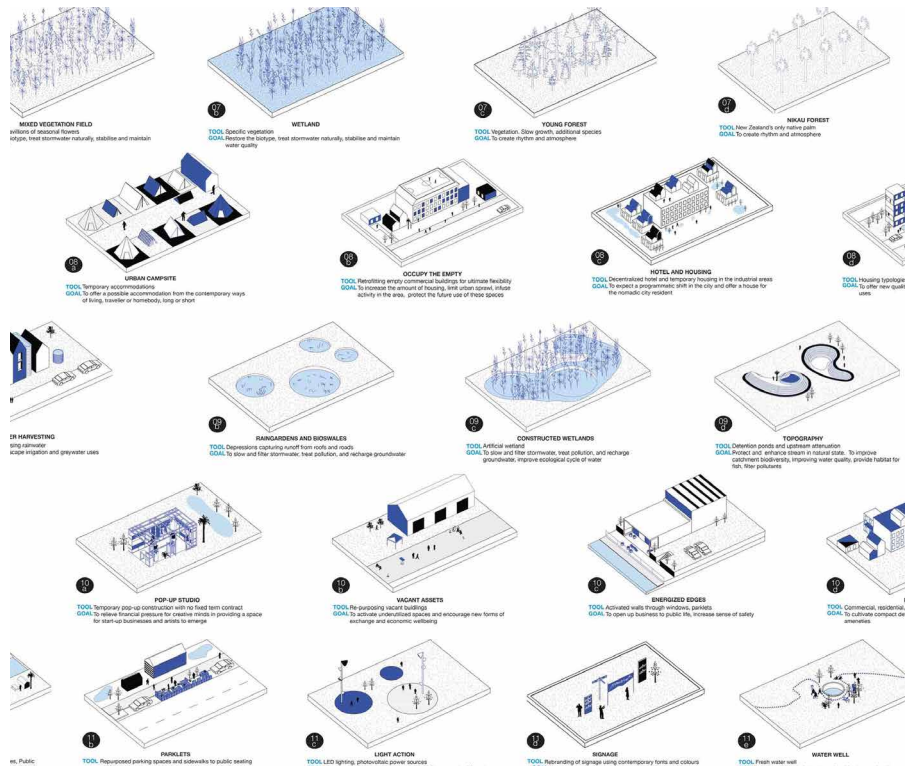


## Simplifying again

fig.3.10

In the process of attempting to 'simplify' The Toolkit, it became clear that The Toolkit needed to be considered as a system of ideas that embraced this 'messy reality.'

Initial Toolkit 'all blue' version

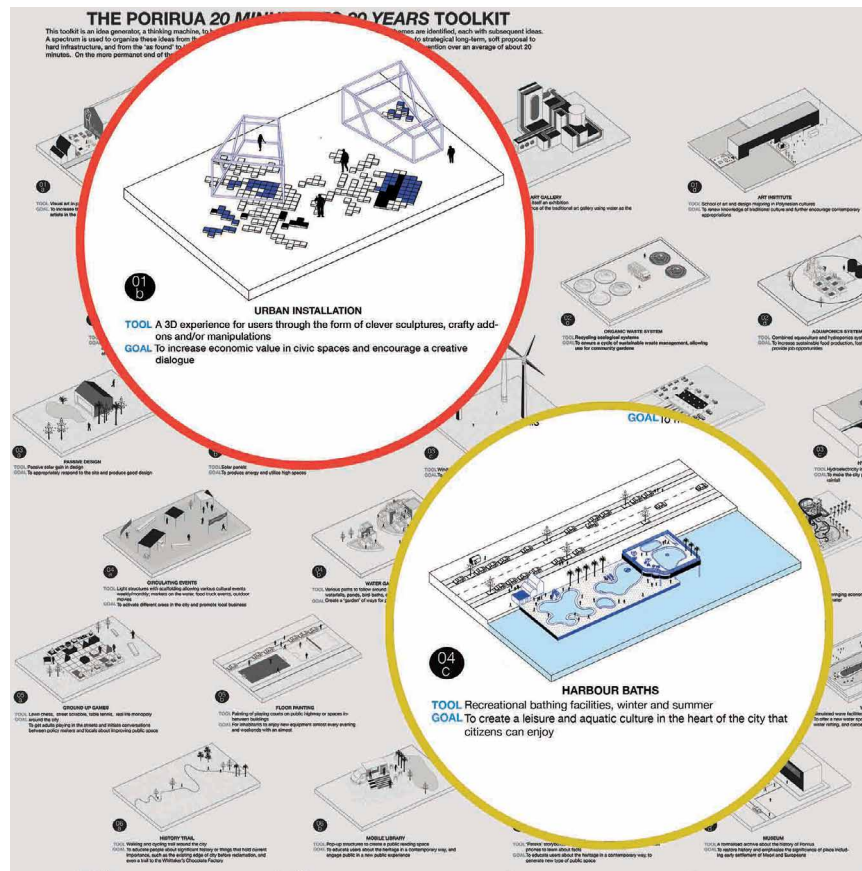


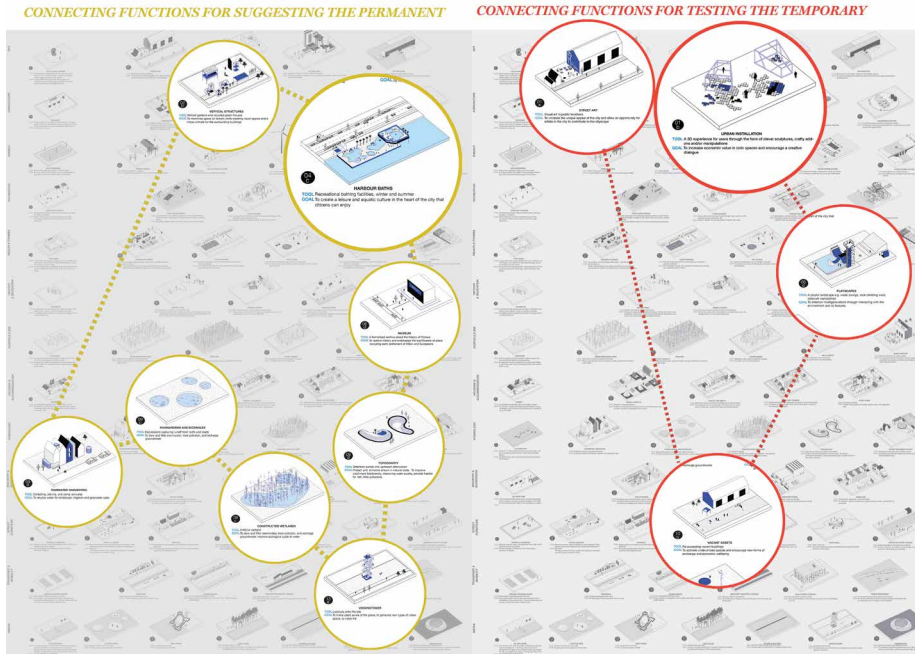
## Choosing the 'Tools' to develop

fig.3.11

The development of design attempted to focus the on two interventions from The Toolkit, one that tested an intervention from the temporary end of the scale, and an intervention from the permanent. These were 1b Urban Installation and 4c Harbour Baths, which later developed into the Art Installation and The Pools of the design.

1 Temporary and 1 Permanent function





Connecting ideas

**fig.3.12**  
These main two ideas, The Harbour Baths, and The Urban Installation, were then connected with other ideas to add layers of complexity.

Connecting with other ideas

### Opportunities and Limitations

**The Toolkit could be implemented in other cities wanting to progress sustainable urban development. One limitation with this is that these ideas are fairly general and mainly related to the idea of water. If developed in a different city, the implementer needs to understand that the ideas of The Toolkit should be foundational ideas that respond directly to context.**

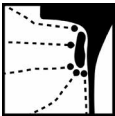




fig.4.1 Miniature set-up of The Community Pop-up at the NZIA Student Design Awards



## chapter four

# the development of the two temporary projects

<b>Spatial Agency</b>	<b>174</b>
<b>Temporariness</b>	<b>178</b>
<b>Project 1: An Art Installation</b>	<b>188</b>
Insta-architecture	<b>198</b>
<b>Project 2: A Community Pop-up Space</b>	<b>204</b>
Co-creating Futures	<b>210</b>
Political Value of Temporary	<b>212</b>

*This section discusses the development of the two small, temporary architectural interventions from The Toolkit that were tested in real life. The interventions tested were 1B, an art installation, and 10A, re-purposing a vacant building, which developed into the community pop-up space. This section discusses the role of spatial agency and social empowerment through temporary architecture. The section also discusses the role that social media plays in encouraging social engagement in the design process.*



## SPATIAL AGENCY 'OTHER WAYS OF DOING ARCHITECTURE'



What is Spatial Agency and why is it important?

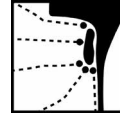
**Spatial agency is the practice of 'other ways of doing architecture.'**<sup>1</sup> It challenges the norms of the architectural profession by moving away from architecture's traditional focus on the look and making of buildings. Agency is important as it proposes a collaborative approach to the process of design. 'Agents' act with, and on behalf of, others. Agency does not dismiss the role that knowledge has within the profession but rather recognises other ways this knowledge can contribute to the 'doing' of architecture.

Nishat Awan, Tatjana Schneider and Jeremy Till are the initiators of the *Spatial Agency Project*.<sup>2</sup> This project involves a description and organisation of a collection of groups that practice 'alternative approaches to architectural production.' They do this through a questioning of means (how), location (where), and motivation (why). The Spatial Agency Project initially started out as a critique of the 'conservative tendencies of mainstream practice.' However it has developed in a way that now celebrates the brave and optimistic figures that use architectural intelligence in 'other ways.'

Till suggests that 'other ways of doing architecture' can happen by shifting away from the inculcated ideas of truth, beauty, and goodness - ideas initiated by Vitruvius and emphasized by the likes of Le Corbusier.<sup>3</sup> This is not to place value in chaos, but rather recognises the need to engage with the social and political associations within architectural practice. Agency is

the idea that champions the architect to move away from traditional modes of education and practice in favour of a more resourceful, hands-on way of building.<sup>4</sup>

This thesis explores ‘other ways of doing architecture’ through the use of temporary architecture. It investigates the temporary as a means for social and political engagement.



The Two Temporary Projects illustrate how empowering a community can happen through agency. It is not a spectacularly new paradigm to the architectural profession, but is an irreducible question.

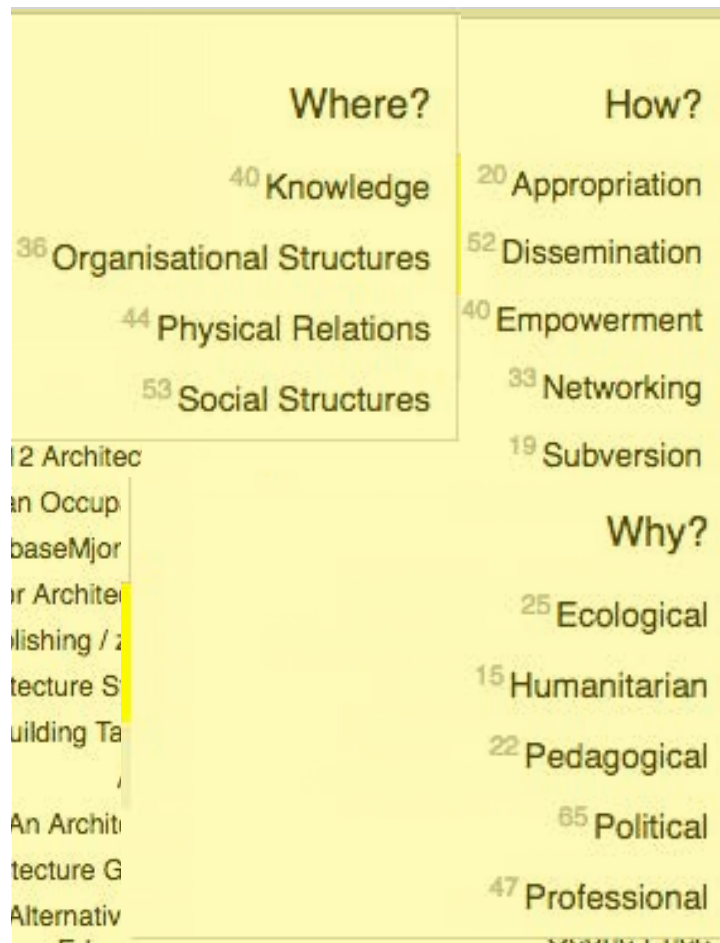


fig.4.3 Spatial Agency's Database is sortable into these broad thematic areas

<sup>1</sup> Awan, Nishat, Tatjana Schneider, and Jeremy Till. *Spatial Agency: Other ways of doing architecture*. New York: Routledge, 2011.

<sup>2</sup> Awan, Nishat, Tatjana Schneider, and Jeremy Till. "About." *Spatial Agency*, Retrieved 20 July 2016, <http://spatialagency.net/>.

<sup>3</sup> Till, Jeremy. "Architecture and Contingency." *Field: A free journal for architecture*, vol. 1, no. 1, September 2007, pp. 121.

<sup>4</sup> Scott Cohen, Preston. "The Agency Interview: Architecture as the Instrument." *Perspecta Journal 'Agency'*, vol. 45, 2012, pp 92.





## Case study: muf architecture/art

**muf architecture/art is a practice founded by three women in London in 1994. They describe themselves as ‘a collaborative practice of art and architecture committed to public realm projects.’<sup>5</sup> According to the Spatial Agency Project, muf’s work stems from a political motivation (why) to subvert roles of power (how) that are embedded within social structures (where).**

**fig. 4.4**

Golden Lane Estate Play Space is an example of muf’s work where the processes are led by the voices of those in each project. muf worked closely with pupils from the local Prior Western primary school in a collaborative exploration of how children play.

<sup>5</sup> muf architecture/art. “Profile.” *Muf*. Retrieved 25 May 2015, <http://www.muf.co.uk/profile>.

<sup>6</sup> Heilmeyer, Florian. “27 muf architecture/art Interview.” *Crystal Talk*. Retrieved 25 May 2016, <http://www.baunetz.de/talk/crystal/index>.

<sup>7</sup> Bidgood, Julia. “Any Day Now.” Notes: Creative Collaborations 3 or Mayhem? June 14 2000, <http://www.muf.co.uk/juliet-bidgood-notes>.

fig.4.4 Golden Lane Estate Play Space commissioned by the City of London.

**Architects Liza Fior and Juliet Bidgood, and artist Katherine Clarke, set up their practice ‘defiantly and explicitly’ against the traditional practice of architecture.<sup>6</sup> muf looks ‘beyond the building as a single, autonomous object,’ to where the portfolio is a mix of public spaces, strategies, master plans, exhibitions, interiors, and a few buildings. Processes are led by the voice of those involved in each project. By doing this, muf’s ambition is to maximize the potential of the public realm by allowing ‘speculative’ and ‘imaginary’ thinking.<sup>7</sup>**

But why do temporary projects?

A simple answer to the question, 'Why do temporary projects?' can be found in the words of EXYT founder: **'temporary projects focus on the human scale, rather than the big infrastructure of a building.'**<sup>8</sup> By engaging with the human scale the process and outcome of architecture can become socially empowering.



8 St Hill, 103

**fig. 4.5** Above Making Space in Dalston 2009 is a strategy that supports local creative businesses and community organisations in the regeneration of public space; celebrating the existing social, cultural and physical assets.



## TEMPORARINESS

### REDEFINING ARCHITECTURE THROUGH TRANSIENT PROJECTS



How are transient projects redefining architecture?

***This Is Temporary*, edited by Cate St Hill, an architecture and design writer, features interviews with thirteen young, emerging, socially-minded practices exploring alternative modes of practice through temporary architecture.<sup>9</sup> These practices illustrate that spatial agency is an intrinsic attitude of the practice rather than an extrinsic task of making a temporary project for the sake of it.**

**This thesis explored three of the Hill's key concepts with relevant case studies and critical essays. These concepts provide examples of how temporary projects can achieve a sense of social empowerment by engaging with public space.**

<sup>9</sup> Ed. Hill, Cate St.  
*This is Temporary: How  
transient projects are  
redefining architecture*,  
Newcastle: RIBA  
Publishing, 2016.

**The following three concepts were considered:**

1. "Public realm and engagement: facilitating possibilities and animating places"
2. "Playful storytellers: digging deeper and building narratives," and
3. "The art world and temporary architecture: the meeting of two disciplines."

**fig4.7** London based XYT practice transformed a derelict site awaiting development on Union Street into a temporary lido. The project enabled locals to be part of the conversation around the site's development and proposed how they might come together as a community.

fig.4.7 Temporary Lido, Southwark London 2008

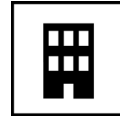


1. Public realm and engagement: facilitating possibilities and animating places.

**Temporary architecture is on the rise in urban public spaces. Hill writes that temporary architecture can also be something ‘far subtler,’ as opposed to the commercial ‘pop-ups’ and pretty pavilions that are short-lived.<sup>10</sup> Instead of building one physical structure, smaller incremental changes can be made through public realm projects, urban studies and area strategies. Participants and stakeholders work together with ‘deeper social ambitions for our shared public spaces.’ The process and outcome of this engagement brings life to neglected, redundant streets and squares that are in need of revitalisation.**

<sup>10</sup> St Hill, 37

**‘A temporary restaurant’ was created on Ridley Road Market London in 2011. It was a collaboration between London-based practices, The Decorators (an interdisciplinary group involving a landscape architect, interior designer, architect, and psychologist),<sup>11</sup> and Atelier ChanChan (a practice operating in the realms between art and architecture).**



**11** Hill, 53

fig.4.9 Ridley's Restaurant Steps

**The public realm intervention combined food and architecture, featuring a food-for-food exchange system. Located next to the street market, Ridley's worked within the market's existing organisations to negotiate the exchange between social and economic currencies.<sup>12</sup> Roles within the traditional boundaries of the restaurant: ‘designer,’ ‘producer’ and ‘consumer’ were collapsed to where ‘everyone was a maker.’**

**Ridley's demonstrated that architecture is more than a commodity. Through borrowing procedures from informal and spontaneous exchange systems, architecture can be socially engaging and influential.**

**12** The Decorators. “Ridley Temporary Restaurant.” Ridley Road Market, Hackney, September 2011





2. Playful storytellers: digging deeper and building narratives.

**Projects that are temporary in nature let their creators' imaginations run wild. In permanent projects, such thoughts and narratives might seem excessive. However, temporary structures, and additional art, allow serious issues to be talked about in 'a more genuine, accessible, fun way.'**<sup>13</sup>

**Practices such as Studio Weave and Abberant Architecture, both in London, demonstrate the role of the architect as a storyteller, historian, anthropologist and communicator.**<sup>14</sup>

<sup>13</sup> St Hill, 78

<sup>14</sup> St Hill, 71



**'The Tiny Traveling Theatre' by Abberant Architecture, is a mobile theatre that could fit an audience of up to six people.**

fig.4.10 Tiny Traveling Theatre 2012

**This project is one example of how playful and interactive storytelling can reconnect people in the street to create 'shared, intimate experiences.'**

fig.4.12 The Roaming Market in London

**fig.4.12 Left**  
Aberrant  
Architecture's *The Roaming Market* in London's Waterloo provides a multi-functional market stall and a stage on the roof for performances.

**fig.4.11 Above**  
The drawing is used as a method of creating a sense of excitement and playfulness.

fig.4.11 The Small Coal Man's Tiny Traveling Theatre by  
Aberrant Architecture





3. The art world and temporary architecture: the meeting of two disciplines.

**Temporary architecture, by its very nature, can be hard to pin down to a specific discipline. It can be architecture, public realm and urban design, but it can also be art, installation or exhibition. The definition of roles can be further diluted, often for the better, by collaborations between architects, artists, photographers and writers.<sup>15</sup> Developers, art groups, and local governments are becoming more open to the value of a more fluid design process.**

**Though the meeting of art and architecture is not a foreign concept,<sup>16</sup> it is still important to consider. Art and architecture encourages the public to open their eyes to the potential of the built and un-built of the city.**

**The architect that may also be an artist, is often thought to produce some of the most speculative and thoughtful architecture.<sup>17</sup> Jorge Pedro writes about the collaboration between art and architecture. He argues that the reason you bring artists in is ‘so that you actually propose a different type of space in the architecture...if you don’t have access to that then there’s no point.’<sup>18</sup> muf also emphasises this point as they strategically join art and architecture to allow for the “what ifs” in society.<sup>19</sup>**

<sup>15</sup> St Hill, 177

<sup>16</sup> Jodidio, Philip.  
*Architecture: Art.*  
Munich; London:  
Prestel, 2005, p8.

<sup>17</sup> Hill, Jonathan.  
*The Illegal Architect.*  
London: Black Dog  
Publishing, 1998, p23.

<sup>18</sup> Bjone, Christian.  
*Art and Architecture:  
Strategies in  
Collaboration.* Boston,  
MA; Basel: Birkhäuser,  
2009, p177.

<sup>19</sup> Bidgood

**The following two projects are examples of collaborations of art and architecture. The first is between artists and architects, while the second is a designer that takes on the role of an architect.**

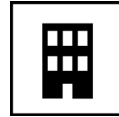


fig.4.13 Black Maria 2014

**‘A pop-up wooden auditorium’ sat in the atrium of the art and design school at Central Saint Martins University of the Arts in London for four weeks in 2013. British artist Richard Wentworth invited the Zurich-based practice GRUPPE to collaborate on the project. Although GRUPPE makes it clear it ‘does architecture’ by saying ‘we don’t do art projects, we don’t do performance,’<sup>20</sup> their work attempts to open up new possibilities. It tries to find other paths to deal with notions of ambiguity and incompleteness in spaces that are often institutional or authoritarian.**

<sup>20</sup> St Hill, 179

fig.4.14 Black Maria 2014

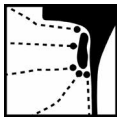




21 St Hill, 180

The second example of the meeting of art and architecture is a temporary cafe and performance space built next to Greenwich's DLR station in south-east London to coincide with the opening of the 2012 Olympics. Morag Myerscough, London-based artist and designer, uses her background in graphics and inspiration from the architecture world to create pop-up exhibitions, installations, wayfinding projects and pavilions - whilst frequently collaborating with other creatives. The idea for The Movement Cafe was 'to get people thinking about this area being a destination place - to connect with the local community which had just walked past this site for many years.'<sup>21</sup>

fig.4.15 The Movement cafe 2012.



22 Shonfield, Katherine. *This is what we do: A MUF Manual*. London: Ellipsis, 2001, p77.

23 Stathatos, John. *Art & The City*. London: Academy Group Ltd, 1996, p76.

The temporary projects applied in *THINK BIG, act small* are examples of this kind of temporary architecture, aiming to make people think of the harbour as a destination space. They aim to influence public space. muf describe public space as the 'space of a lived experience of democracy.'<sup>22</sup> Through the endeavor of redefining public space, democracy is also redefined, changing the city and therefore changing urbanity. John Stathatos says that this 'dream of urbanity' has the potential to be realized in the relationship between art and architecture.<sup>23</sup>

fig.4.16 The Movement Cafe by Morag Myersough and Luke Morgan



## PROJECT ONE

### AN ART INSTALLATION

*The following section takes the ideas of art and architecture, the 1A 'Urban Installation' idea from The Toolkit, and expresses this in a local art installation that was used as a part of the design process. The art installation was titled 'The City that Waits.' This section also considers the role of social media in the design process.*



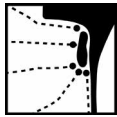
fig. 4.17

<b>Title</b>	<b>The City that Waits</b>
<b>Type</b>	<b>Art in public space</b>
<b>Type of use</b>	<b>Cultural</b>
<b>Location</b>	<b>South end of Porirua Harbour</b>
<b>Time</b>	<b>Six weeks</b>
<b>Users</b>	<b>All passers-by</b>
<b>Role of city</b>	<b>Varied</b>
<b>Status</b>	<b>Legal</b>
<b>Goals</b>	<b>To make the water's edge a destination through art as a contemporary cultural programme; To encourage a more positive attitude towards the future of Porirua City by recognising potential through the water.</b>



fig.4.18 The City that Waits in the harbour





### What was the project?

**A basic freestanding timber billboard structure stood 3.5 metres high by 6 metres wide. A canvas print of *The City that Waits* drawing stretched the distance of the structure. The installation stood between the south end of the harbour and a carpark that lead to the city centre.**

fig.4.19 People walking their dog as the installation is built



### Who are the everyday users of the space?

**Over a period of a time, people occupying the space were observed. This included automobile drivers who parked their cars to read the paper and enjoy the harbour from a distance; students of Whitireia Polytech that walked the footpath daily; employees from Pak'n'Save Supermarket who stood around during their smoko-break; a mother and child that had a picnic on the grass; an old man who sat on the edge of the bank throwing bread out to the seagulls; cyclists who took a recreational route home from work; and couples that walked their dogs.**

fig.4.20 Users around the harbour





fig. 4.21 Image showing scale of the artwork



How did it re-orient the city towards the harbour?

**The art installation attempted to re-orientate the city towards the harbour by making the site a destination spot.**

**Here, the installation utilised the grass as a stage on which to exhibit a large piece of art. The installation was large so it was unavoidable. It appeared obtrusive and confronting, yet somehow intriguing.**

fig.2.13 Located with the harbour adjacent



**This art installation proposed a new way of using art in the city. It moved away from the traditional Maori art sculptures and local art murals that decorate empty walls. Instead of telling a story of history or of the present, the installation endeavored to tell a story of the future. The content of the artwork itself depicts a marvelous underwater city that waits to be revealed. Visitors were invited to enjoy and discover the imaginary amphibious world.**

Hi Porirua.

How's it going?

My name is Elyjana. I'm a local from Ascot Park.

### **So, what is this and why is it here?**

I study architecture and my current project is about re-orientating the city of Porirua towards the water. One way this can happen is through temporary projects. I'm testing this out through an art installation.

The objective of having this art piece here is to draw people closer to our lovely harbour - and, to appreciate it! So, if you're reading this, thanks. You've just proved this to be true.

### **What's the drawing about?**

This drawing has made some people say "WOW" - literally. This is good. It's the exact reaction I am hoping for. This WOW is the perception I have about the city of Porirua. It's the response I hope you have too. Like this drawing, Porirua is a place of surprise, adventure and possibility.

#thecitythatbuilds

fig.4.22 The City that Waits Description

### **Opportunities and Limitations**

**The installation opened up the opportunity for other temporary or more permanent works to be done around the harbour, although the levels of bureaucracy in the city might be a limitation to future installations.**



How did the public engage?

**While installing the artwork, pedestrians initiated conversation by asking questions such as “What is this” and “Do you work for the Council?” Once the canvas had been completely hung, a nearby motorist willingly unfolded her life-story, while a tipsy old man expressed his enthusiasm for the piece - “Hey, this is really cool!” It was even used as shade from the sun for someone to sit and have a picnic (fig.4.23). These interactions are examples**

fig.4.23 Lady sitting under shade of installation



**of how small interventions can foster social engagement that might not have happened otherwise.**

**A list of ‘things to find’ on the back of the billboard was to link the installation with the pop-up space (fig.4.24). The experience of ‘finding Spongebob’s house’ (fig.4.25) was a draw-card for parents with children. Viewers photographed the installation and shared their images on Facebook and Instagram to show they had found it, or simply to ‘show their support.’**

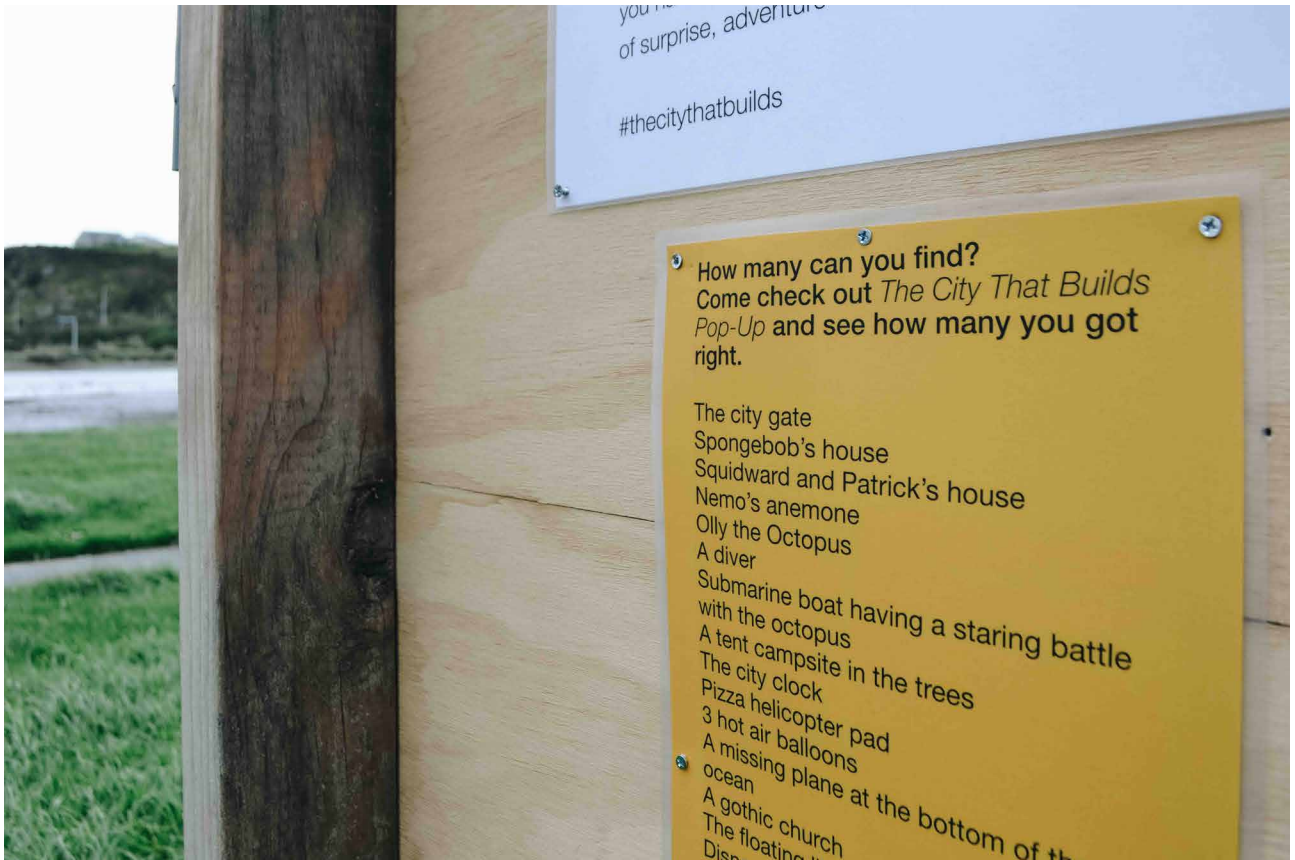


fig.4.24 'How many can you find?' list

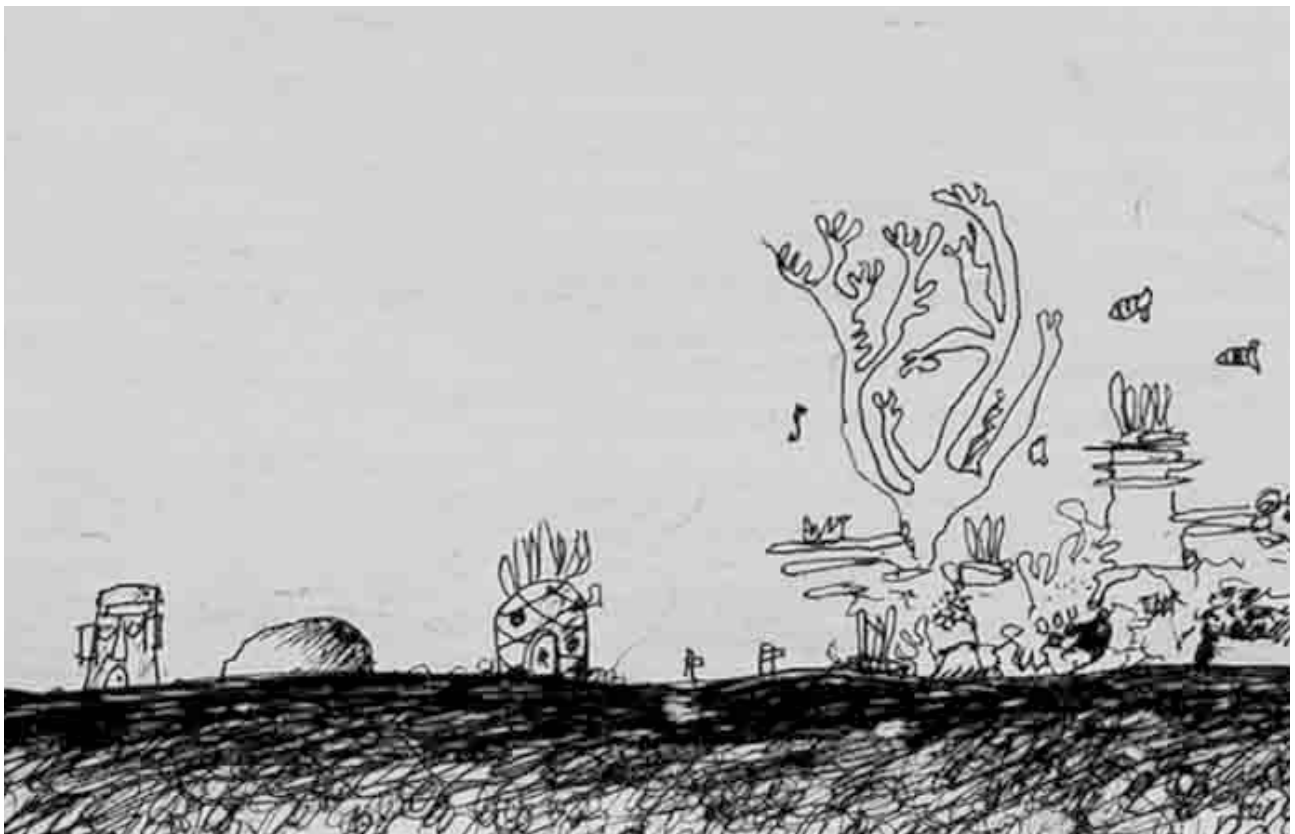


fig.4.25 Spongebob's house



<sup>24</sup> Fallon, Virginia. "The city that builds: student wants Porirua to turn towards the water." *The Dominion Post*, October 2016, <http://www.stuff.co.nz/dominion-post/culture/85018952/The-city-that-builds-student-wants-Porirua-to-turn-towards-the-water>

The public also engaged through social media - multiplying the installation's digital presence. A local newspaper article on the project was shared on Facebook (through The Porirua City Council page and Tangata Pasifika page - a TV programme on the latest New Zealand Pacific News). The article attempted to describe the efforts of the 'architecture student that wants Porirua to stop ignoring the harbour it is built next to.'<sup>24</sup>

## THE DOMINION POST

News Comment Business Capital Life Culture Sport Local Papers Promotions Print

**BREAKING NEWS**

Cindy Taylor jailed for 13 years for allowing neglected elderly mother

### The city that builds: student wants Porirua to turn towards the water

VIRGINIA FALLON

Last updated 11:27, October 14 2016



SUPPLIED

Elyjana Roach beside the artwork she's created to lure people to the Porirua waterfront.

fig.4.26 Local Newspaper article

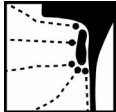






# INSTA-ARCHITECTURE

## THE ROLE OF SOCIAL MEDIA IN ARCHITECTURE



**Social media played an important role in the thesis' temporary projects: it encouraged social engagement.**

**Social media is public space. It is a culture of connectivity.<sup>25</sup> Social media provides the architect an opportunity for mass communication. Architects have the opportunity to use social media to gather data, opinions and criticisms through the design process (this would be particularly useful for the design of civic buildings). The temporary projects in *THINK BIG, act small*, however, used social media to simply tell a story - a story for people to connect to, and a story where imagination can spark.<sup>26</sup> The benefit of social media in architecture is that it uniquely provides an 'other' way of connecting people with their buildings before they are even built.**

**Social media allows people to feel they are part of the journey - from start to finish of design, from drawing to building, from storytelling to story-lived. Social media can tell a story of architecture that influences people to feel empowered and involved in the process.**

<sup>25</sup> Van Dijck, José. *The Culture of Connectivity: A Critical History of Social Media*. London: Oxford University Press, 2013.

<sup>26</sup> Rutledge, Pamela. "The Psychological Power of Storytelling." *Psychology Today*. Jan 2011, <https://www.psychologytoday.com/blog/positively-media/201101/the-psychological-power-storytelling>.



Elyjah Roach



Hey Porirua. How's it going. I'm working on a project atm that is about re-orientating the city towards the water. One way this can happen is through temporary projects, &, in my case I'm testing this out through an art installation. The objective of having this art piece here is to draw people closer to, and appreciate, our lovely harbour! SO if you're thinking about having a picnic, going for a walk, or have some spare time to chill, come chill by the water and see if u can find spongebobs house in my drawing. Keep a lookout for another temp project in the city real soon! #thecitythatbuilds



Like Comment Share

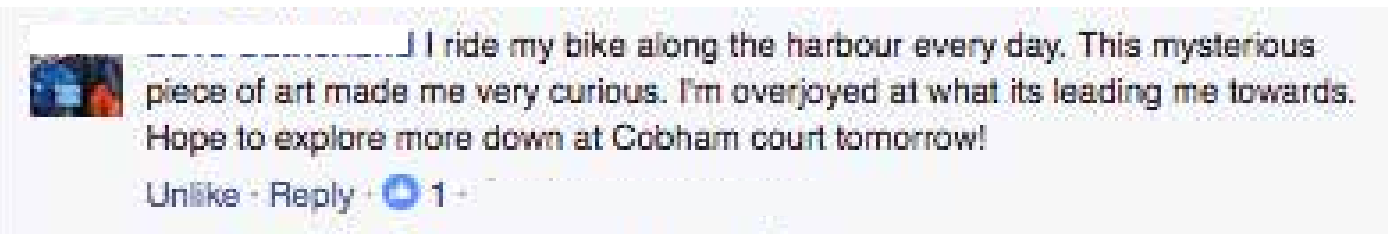
and 407 others



fig. 4.29



fig. 4.30



**fig. 4.29 and 4.30**

Comments made on this post as examples of the social engagement in the design.

**fig. 4.31 Opposite**

Local article shared on Tangata Pasifika Facebook page shows an example of how the project allows the public to engage and share their thoughts and feedback.



Tagata Pasifika

"It's the youngest city in New Zealand with the second highest population of Pacific Island people but there's nothing to show that..." (Architecture student) Elyjana Roach.

#PacificNews

Source: The Dominion Post



### 'An unwanted backyard'

An architecture student wants Porirua to stop ignoring the harbour it is built next to.

STUFF.CO.NZ



Like



Comment



Share



You, Samiya, Elyjana, Tony, Reginald and 236 others

Top Comments

55 shares

6 Comments



Write a comment...



You are amazing lavender xxx



Unlike · Reply · 1



The council are the leaders they control the money...they may not have a vision that includes the obvious diversity staring at them when the walk and drive on the streets of Porirua.

A great article and an inspiring challenge from this young lady!!!

Unlike · Reply · 4



So exciting and interesting to see how this story of Porirua develops... especially with the diverse Polynesian Cultures there...how kool Elyjana Roach\*

Unlike · Reply · 6

fig.4 .31 Tangata Pasifika Facebook post



This art installation was also an example of how temporary projects and social media can expand the architect's role from the 'design activist' or spatial agent to 'social activist' and 'community leader.'

The conversation moved beyond architecture and the thesis objectives itself when the artwork was graffitied.

This event was used to challenge and subvert social constructs. The conversation did not condone the rebellious spirit behind graffiti; but rather challenged the typical social and cultural attitudes towards 'troublesome youth' that Porirua is familiar with.

fig.4.32 Facebook post on the graffiti





fig.4.33 Using social media as a tool for activism



PROJECT TWO

COMMUNITY POP-UP SPACE

*This section takes the ideas of art and architecture, and, the 10A ‘Vacant Assets’ idea from The Toolkit, and expresses these ideas in a local pop-up space that was used as a part of the design process. The pop-up space was called ‘The City that Builds.’*

*This section also considers the role of co-creation in the design process and the political value of the temporary to the project.*

<b>Title</b>	<b>The City that Builds</b>
<b>Type</b>	<b>Temporary use of a vacant building</b>
<b>Type of use</b>	<b>Community consultation</b>
<b>Location</b>	<b>17a Hartham Place, Cobham Court</b>
<b>Time</b>	<b>Four sessions of a few hours each</b>
<b>Initiator</b>	<b>Elyjana Roach</b>
<b>Temporary users</b>	<b>General public, members of Council, church groups</b>
<b>Role of city</b>	<b>Varied</b>
<b>Status</b>	<b>Legal</b>
<b>Goals</b>	<b>To invite people to contribute to the future of Porirua City. To begin and continue a conversation about what place and culture means for locals. To empower a community by opening up possibilities for the future.</b>

fig.4.34

fig.4.35



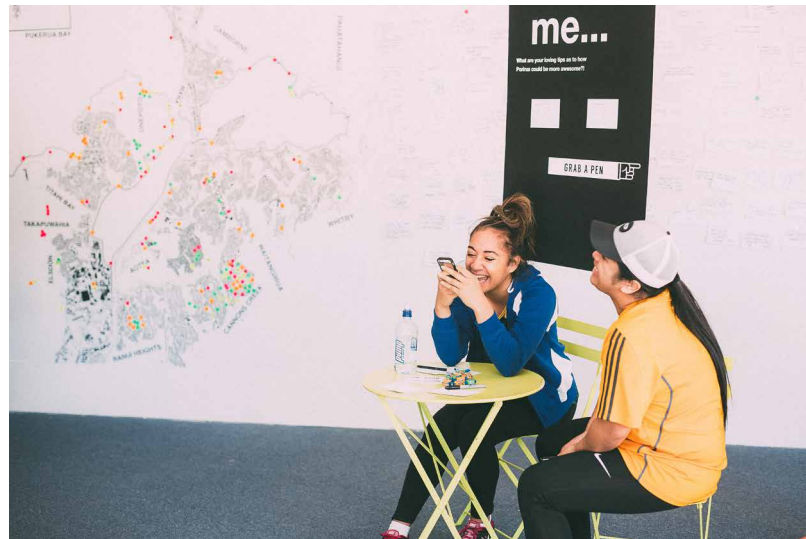
fig.4.36 Porirua City building footprints and roads



What was the pop-up space?

**‘The City that Builds Pop-up Space’ was a community participation workshop. The space held a series of four playful hands-on design interactives. These interactives were designed as the exercises for participation. Participation in the space was voluntary and informal. The Pop-up was conducted in four sessions held over two weeks. An estimated one hundred people participated in the workshop. An empty building in the current CBD of Porirua was re-appropriated as the pop-up space. The Council liaised with the property owner for permission for the temporary use of the space.**

fig.4.37 Locals by “Finish Me”



Who were the users of the space?

**The official opening of ‘The City that Builds’ invited members of the Council, leaders of the community, and family and friends.**

**Locals came through by word of mouth, social media, and local newspaper. People from the community of Porirua, including members of the wider Wellington Region, came to the pop-up: fellow Master of Architecture students, church youth groups, general public passing by, family members, council members, and friends interested in the arts.**



fig.4.38 Children colour in zoomed print-outs of The City that Waits drawing.

### Opportunities and Limitations

**The outcomes from the pop-up provided various ideas that could be developed in the city. For example, the ‘Stick It’ interactive presented mixed-use activities around the harbour such as housing and swimming; and the outcomes from the ‘Finish Me’ wall had themes focused on youth and community. The outcomes directly related to the cultural, social, economic, and environmental aims of the thesis.**

**The success of the pop-up presented a challenge: how can these valuable planning inputs, provided by the community, be considered by the Council in its planning? How would the Council reflect these priorities?**



SPACES ...  
I LIVE IN: PORIRUA

zones for  
community problem  
PROJECT TWO COMMUNITY POP UP  
Solving  
NAME:  
I LIVE IN:

- No Pokies  
- Help street kids  
NAME:  
I LIVE IN: C.C

IN MY PERFECT CITY THERE WOULD BE...  
MORE EVENTS FOR  
YOUNG PEOPLE  
NAME:  
I LIVE IN:

IN MY PERFECT CITY THERE WOULD BE... a skill  
exchange where I teach  
Physics + you fix my  
, for example.  
NAME: Dave I LIVE IN: Titahi Bay

PORIRUA. YOUR FUTURE IS BRIGHT. BUT TO GET  
THERE YOU NEED...  
A SPACE-PO  
NAME:  
I LIVE IN:

TY THERE WOULD BE...  
ua all boys  
So the town  
can stop stealing  
rting stars!  
NAME: A.P

IN MY PERFECT CITY THERE WOULD BE...  
And our academic  
young ones!  
NAME: Nuh I LIVE IN: Whilby

PORIRUA. YOUR FUTURE IS BRIGHT. BUT TO GET  
THERE YOU NEED...  
The Canopies!!  
NAME: Jessannah I LIVE IN: Ponm

PORIRUA. YOUR FUTURE IS BRIGHT. BUT TO GET  
THERE YOU NEED...  
Have a soup  
Kitchen in centre  
Shopping are  
under the canopies  
NAME: J.M. I LIVE IN:

PORIRUA. YOUR FUTURE IS BRIGHT. BUT TO GET  
THERE YOU NEED...  
A GOOD E  
AND AN AV  
FAMILY  
NAME:

PORIRUA. YOUR FUTURE IS BRIGHT. BUT TO GET  
THERE YOU NEED...  
Creative Space for  
local talent to  
showcase all Arts  
NAME: Jb I LIVE IN: Cannons Creek

PORIRUA. YOUR FUTURE IS BRIGHT. BUT TO GET  
THERE YOU NEED...  
POND CRE  
CAFE  
NAME:

Developers  
NAME: I LIVE IN: TWO TEMPORARY PROJECTS

NAME: Ramus I LIVE IN: E.

IN MY PERFECT CITY  
Unity School  
(H)

NAME:

IN MY PERFECT CITY THERE WOULD BE...  
HULK so that he can destroy  
the city and everyone on it



NAME:

Your Boy

I LIVE IN:

Party

PORIRUA. YOUR FUTURE IS BRIGHT. BUT TO GET  
THERE YOU NEED...

Youth Centre

NAME:

I LIVE IN:

HT. BUT TO GET

EDUCATION  
WESOME

I LIVE IN:

AOTEA

IN MY PERFECT CITY THERE WOULD BE...

A  
Summer festival!!  
~~Summer festival!!~~

NAME:

I LIVE IN:

IN MY PERFECT CITY THERE WOULD BE...

A CELEBRATION OF CR  
THE ACTUAL PEOPLE  
LIVE HERE IE GET LOCAL  
INVOLVED MORE WITH  
MAKING, THAT ALLOWS  
MAKERS TO KNOW WHAT  
WANT IMPLEMENTED.  
ET. BOACH.

NAME: NAUAKOACH.

I LIVE IN: POR

PORIRUA. YOUR FUTURE IS BRIGHT. BUT TO GET  
THERE YOU NEED...

MYSTERY LANE  
BIKE RIDES



## CO-CREATING FUTURES

### COLLABORATION AND PARTICIPATION



Why was the pop-up a priority in the design process?

***Recoded City: Co-creating Urban Futures* provides forty three stories on pioneering practitioners and projects around the world that consider participatory placemaking.<sup>27</sup> The book presents a number of important and relevant questions concerning priorities for a community. One question, relevant to the thesis, is, ‘How can you make valuable change, representing the aspirations of those living there, actually happen on the ground?’<sup>28</sup>**

**It is by combining bottom-up and top-down methods of urban regeneration that such value and empowerment can happen. It was important to carry out this project because projects like this **have the potential to evolve over time with strong social links**. This is the thesis’ desired process for development in Porirua - not the formulaic schemes and specific goals created from superficial market research.**

fig.4.40

<sup>27</sup> Bullivant, Lucy and Thomas Ermacora. *Recoded City: Co-creating Urban Futures*. Routledge, Dec 2015.

<sup>28</sup> Bullivant, 15

fig.4.41 “Where am I?” interactive - laser cut puzzle of Porirua City centre.





fig.4.42 Men discussing the 'Finish me' interactive

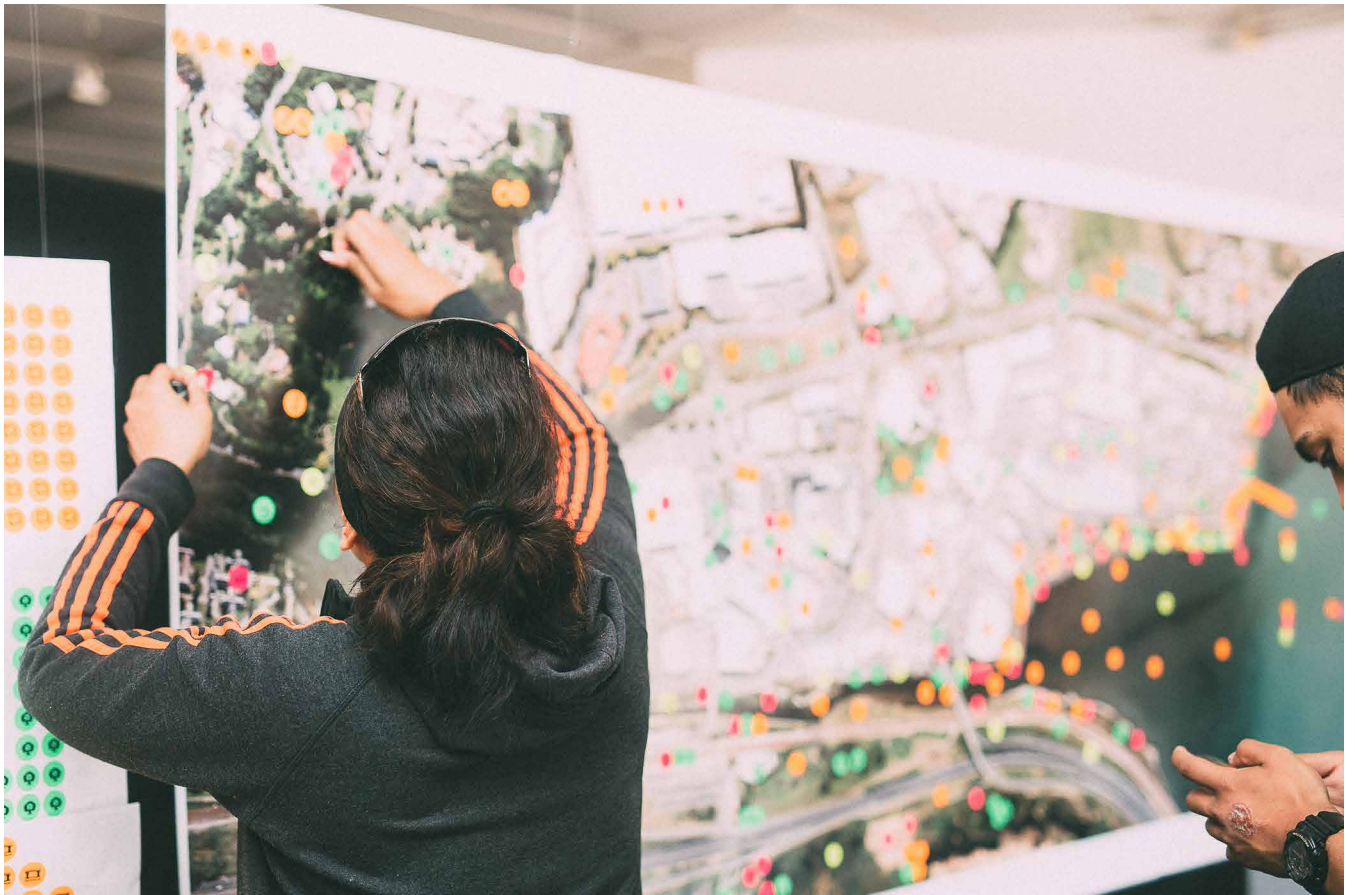


fig.4.43 Locals sticking on activities simplified from The Toolkit for the 'Stick it' interactive



## THE POLITICAL VALUE OF THE TEMPORARY



What is the political value of temporary architecture?

**Temporary and mobile structures have long been associated with activism and the manifestation of new social orders: think of the unbuilt and small designs by Archigram - their 'Instant Cities' and inflatable structures disrupted the status quo.<sup>29</sup> They were used for social and political activities that suggested alternative ways of living.**

**fig.4.44** Archigram's Plug-in City

Today's temporary or pop-up architecture is more associated with 'commercial opportunism,' pop-up shops being the most obvious example. Mies van der Rohe's Barcelona Pavilion is perhaps the most famous pop-up of all time being made for a commercial expo. Though the temporary certainly has the ability to produce economic value, it also has value to challenge certain concepts through its power of being ephemeral - an invaluable hype generator.

<sup>29</sup> St Hill, 66

Shumi Bose suggests that young architects would be wise to use small scale achievements as strategic opportunities to engage with the 'bigger picture' - by which he means 'political forces.'

**fig.4.45** Twenty-one activities to 'stick' around the city

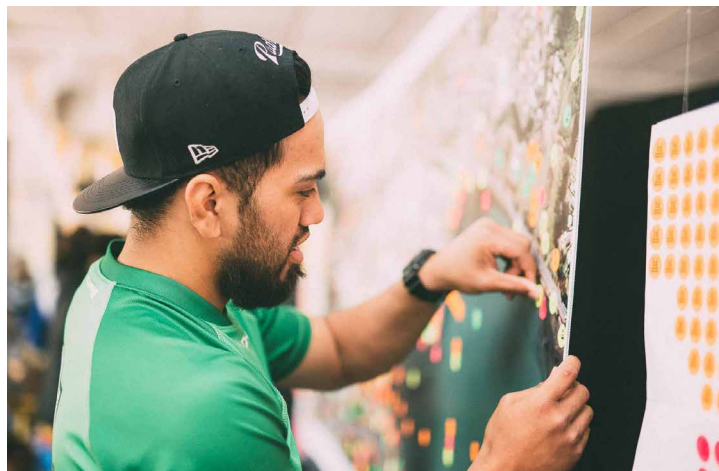
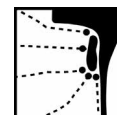




fig.4.46 'Pin It' interactive

Perhaps both temporary projects are the beginning of something that will disrupt the status quo in Porirua? The intention of both projects was to suggest an alternative city that is oriented towards the harbour.



The 'Growth and Strategies' business unit of the Porirua Council expressed interest in learning of the outcomes from 'The City that Builds.' The Council asked for further input from this thesis.



PROJECT TWO / A COMMUNITY POP UP

NAME: P.A

I LIVE IN: Hale City

PORIRUA. YOUR FUTURE IS BRIGHT, BUT TO GET THERE YOU NEED...

i-site

NAME:

I LIVE IN:

PORIRUA. YOUR FUTURE IS BRIGHT, BUT TO GET THERE YOU NEED...

To go into colleges and youth about suicide, depression and bullying

I LIVE IN: 5024.

PORIRUA. YOUR FUTURE IS BRIGHT, BUT TO GET THERE YOU NEED...

EIJANA



ROACH!

NAME: Ben.

I LIVE IN: The now.

PORIRUA. YOUR FUTURE IS BRIGHT, BUT TO GET THERE YOU NEED...

To be all together / united as a family

NAME:

I LIVE IN:

IN MY PERFECT CITY THERE WOULD BE...

Alot of EVI

NAME: Jamar Fatah

KSHAKE PARLOUR  
(micnacs Porirua style).

I LIVE IN:

PORIRUA. YOUR FUTURE IS BRIGHT, BUT TO GET THERE YOU NEED...

more youth based spaces!! We are your future Ptown! INVEST IN US!!!

NAME: Helayna

I LIVE IN: Ascot Park ☺

BY - P.A.M.  
More Gluten and dairy free food sold in food providers, restaurants & take aways

PORIRUA. YOUR FUTURE IS BRIGHT, BUT TO GET THERE YOU NEED...

-LOVE  
lift hourly rates (jobs)  
Unity

F.H.

I LIVE IN: Carners City

IN MY PERFECT CITY THERE WOULD BE...

a stronger educational system that promotes the importance of voting etc. (make a difference) at a secondary level

NAME:

I LIVE IN:

PORIRUA. YOUR FUTURE IS BRIGHT, BUT TO GET THERE YOU NEED...

214

WETLANI

IN MY PERFECT CITY THERE WOULD BE...

FREE

DECENT & AFFORDABLE  
CONFERENCE CENTRES.  
CAFES ON THE SHORELINE  
AROUND WHITIREIA, THE  
BAY

NAME: Caroline Marcho I LIVE IN: Ascot Park

BRING THE C  
BACK FOR SH  
OUR PEOPLE.


NAME: Kiti

PORIRUA. YOUR FUTURE IS BRIGHT. BUT TO GET  
THERE YOU NEED...

UNITE 2 IGNITE!  
THE FAITH  
#We Are A Family. xxx

NAME: I LIVE IN:

PORIRUA. YOUR FUTURE IS BRIGHT. BUT TO GET  
THERE YOU NEED...

1 LOVE   
ANOTHER  
#YOU MATTER. x

NAME: I LIVE IN:

PORIRUA. YOUR FUTURE IS BRIGHT. BUT TO GET  
THERE YOU NEED...

COMMUNITY  
KNOWS  
TALKING

NAME: Cinno

THERE WOULD BE...

OF MONEY  
EVERYWHERE

NAME: KB I LIVE IN: KB

PORIRUA. YOUR FUTURE IS BRIGHT. BUT TO GET  
THERE YOU NEED...

BETTER RESTAURANTS;  
OPEN PORIRUA AT  
NIGHT - STOP GOING IN TO  
NICK WHITBY WELLY

NAME: I LIVE IN:

IN MY PERFECT CITY THERE WOULD BE...

A OSFA  
TO EDUCATION

NAME: Mikiana

PORIRUA. YOUR FUTURE IS BRIGHT. BUT TO GET  
THERE YOU NEED...

TO COME TO  
PASIFIKA POWER  
UP! wednesdays  
5:30 - 7:30 @  
NAME: I LIVE IN: WHITIREIA Polytech

IN MY PERFECT CITY THERE WOULD BE...

BETTER  
EATERYES!

NAME: Jessana I LIVE IN: porirua

fig.4.47 'Finish Me' wall





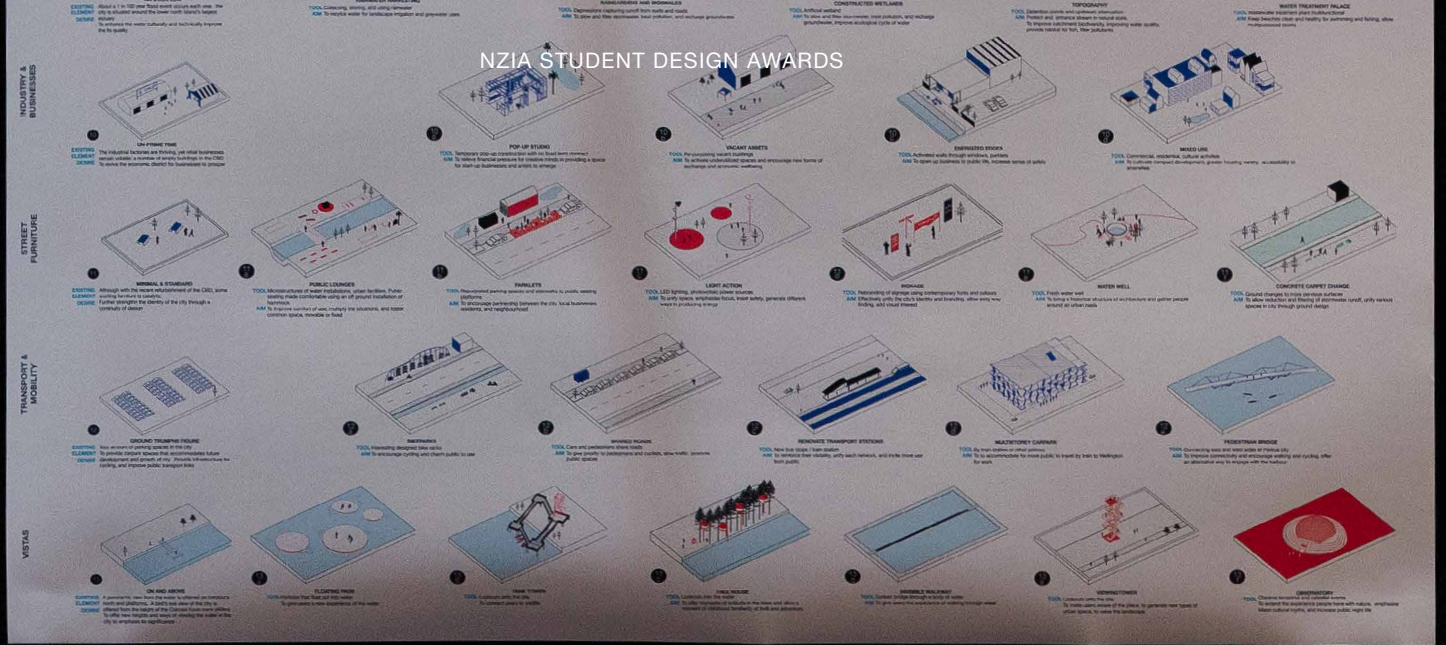
# chapter five

## the development of the big move

<b>The Constructed Wetland &amp; Green Fingers:</b>	<b>222</b>
Designed Ecologies	<b>236</b>
<b>The Pools</b>	<b>252</b>
<b>The Housing</b>	<b>278</b>
<b>The Drawing:</b>	<b>304</b>
Architectural Representation	

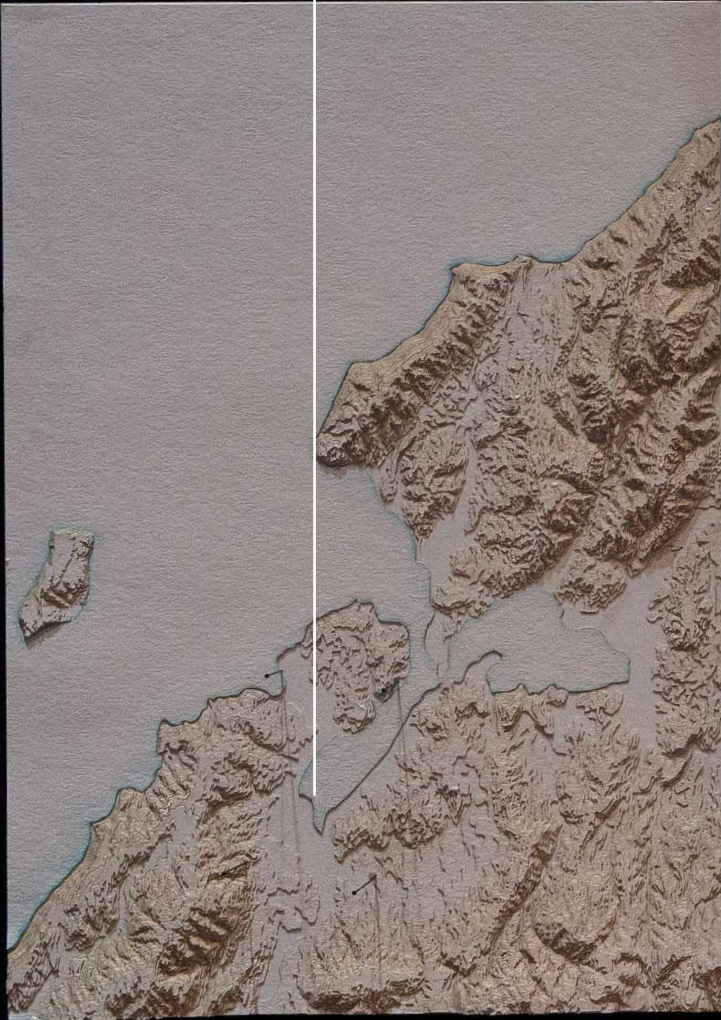
*This section discusses the development of the key design decisions that orient the city towards the harbour: describing the process and design development of the constructed wetland, green streets, housing, and the pools. It also takes ideas developed in 'The City that Builds' pop-up as part of this process. This section discusses the importance of architectural representation in the design process through 'The Drawing.'*



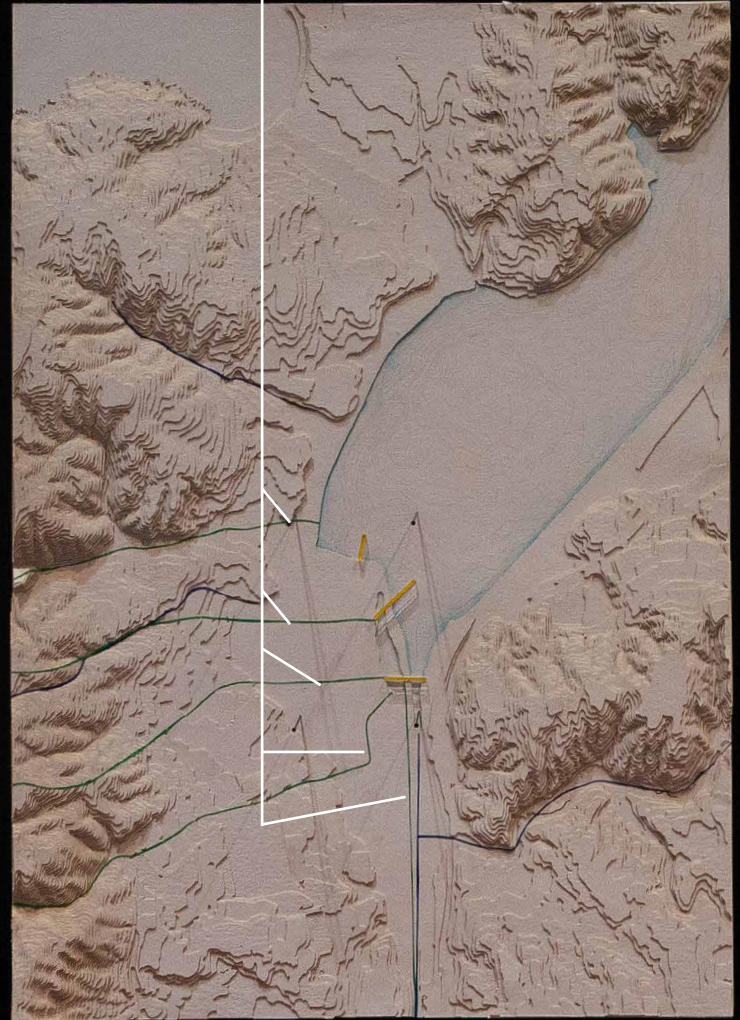


**The Constructed Wetland**

**The Green Fingers**



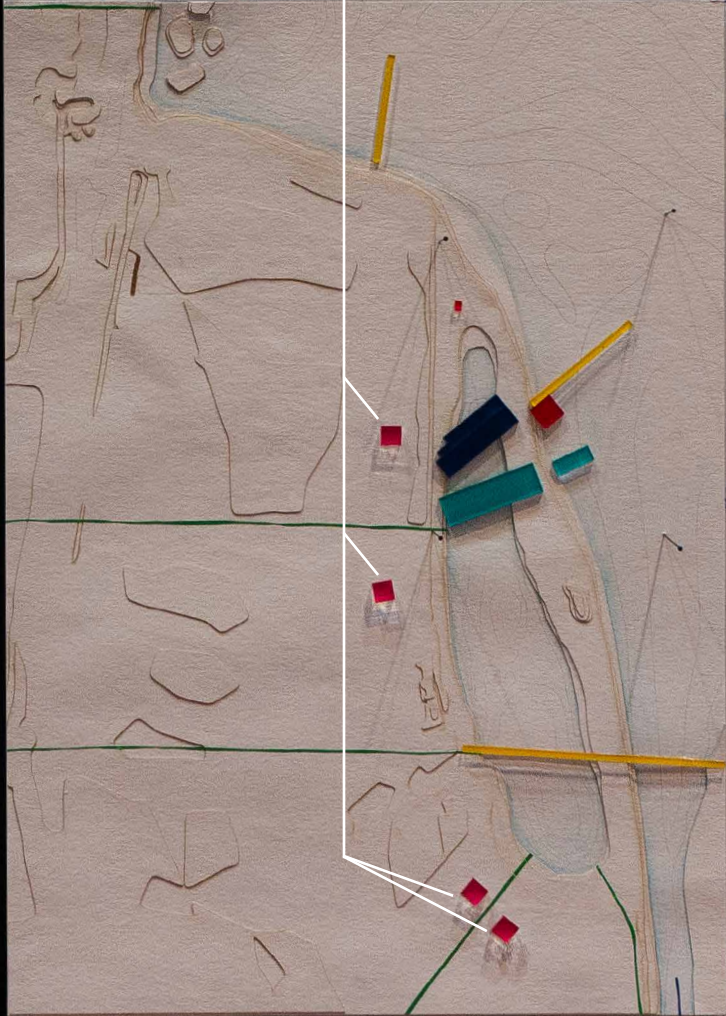
1:25000



1:5000

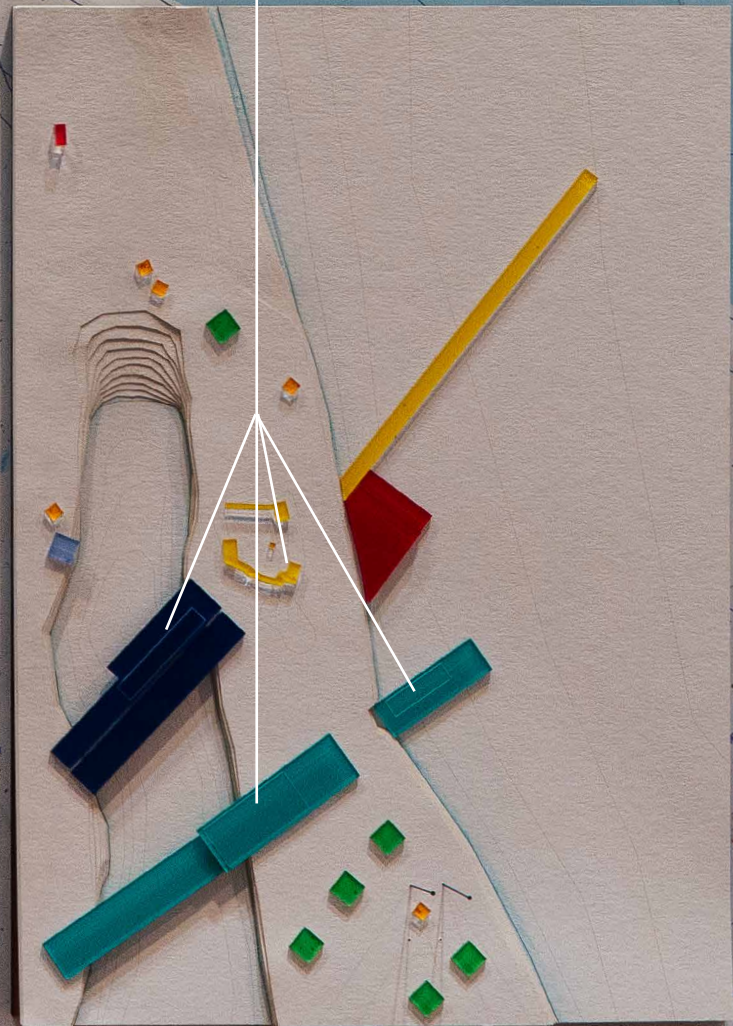


The Housing



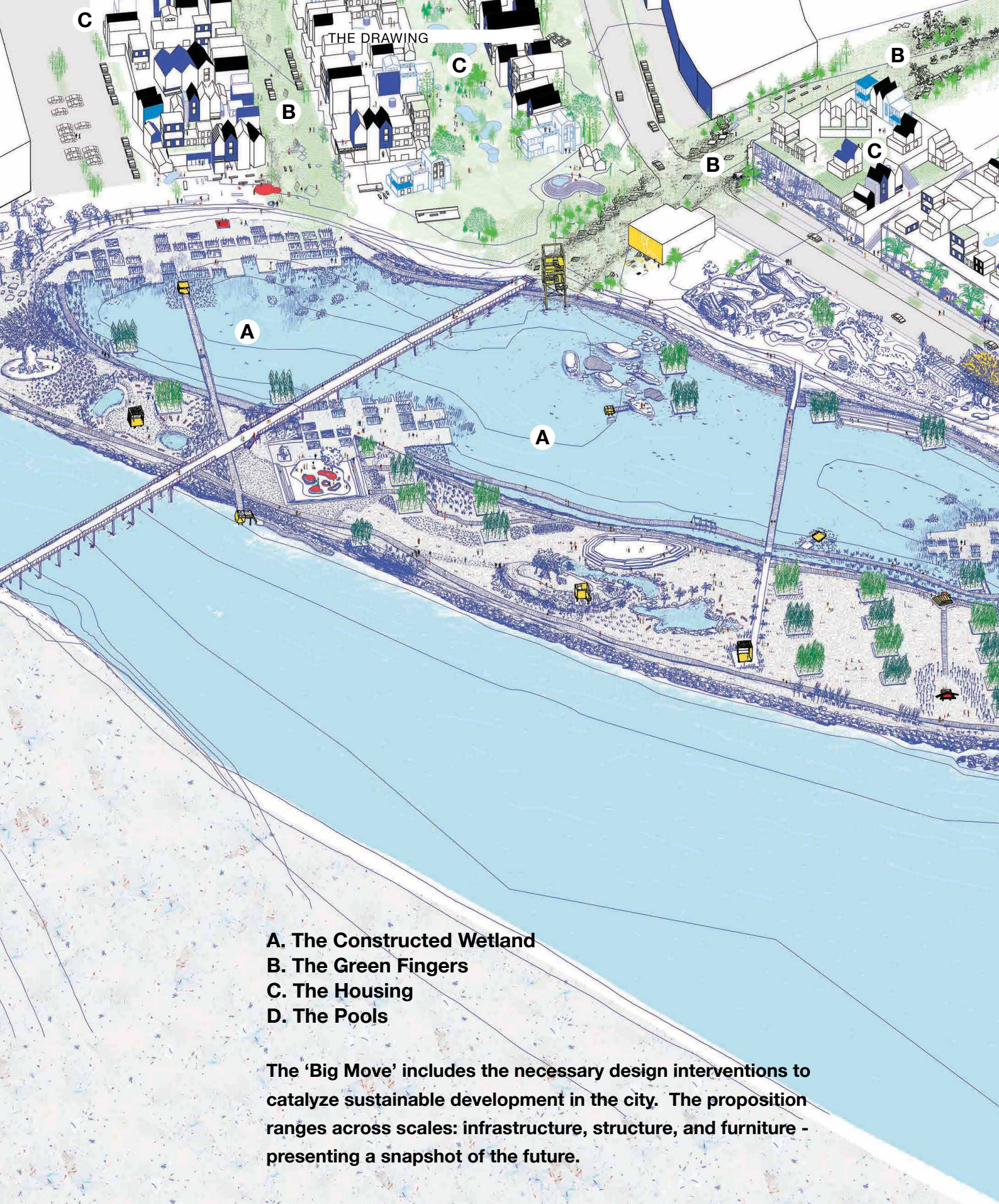
1:1200

The Pools



1:500

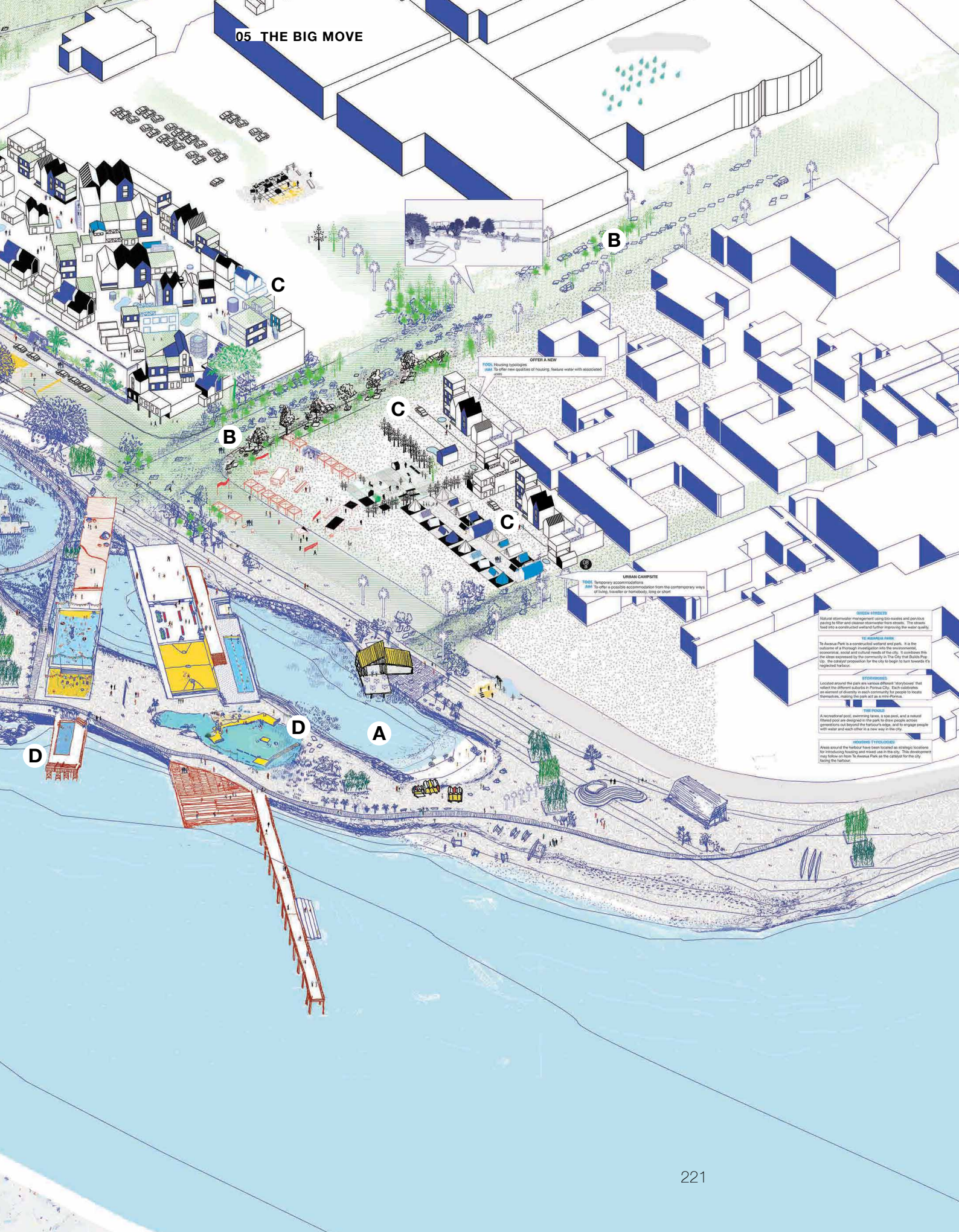




- A. The Constructed Wetland**
- B. The Green Fingers**
- C. The Housing**
- D. The Pools**

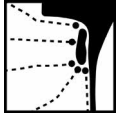
The 'Big Move' includes the necessary design interventions to catalyze sustainable development in the city. The proposition ranges across scales: infrastructure, structure, and furniture - presenting a snapshot of the future.







# THE CONSTRUCTED WETLAND & GREEN FINGERS TE AWARUA PARK



## A. The Constructed Wetland

The proposed wetland is designed as a public park, *Te Awarua Park*, and is the final parts of a whole blue-green system. The Big Move aims to regenerate the harbour's edge, establish new ecosystems to ease flooding, and create new social spaces in the process. The park combines ideas expressed by the community during the Community Pop-Up Space - such as the pools and housing around the harbour.

The constructed wetland is designed to perform within a highly modified hydrolic system and provides water treatment through a complex mix of physical, chemical and biogeochemical processes.<sup>1</sup>

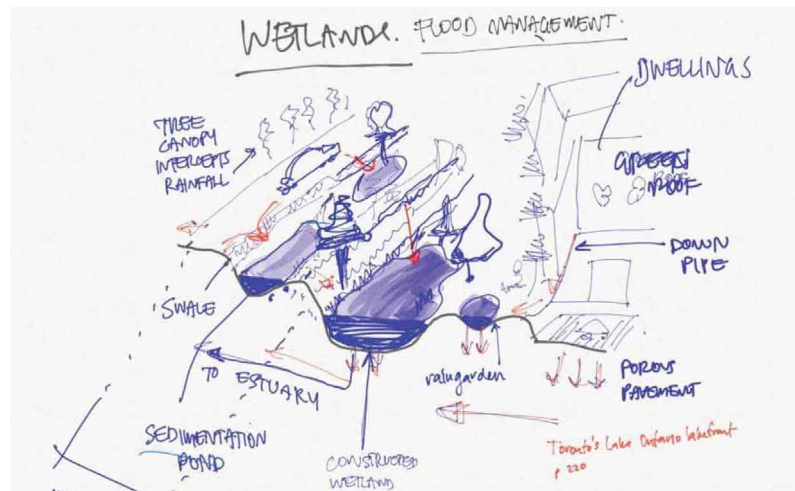
<sup>1</sup> Wellington City Council. Water Sensitive Urban Design: A Guide for WSUD Stormwater Management in Wellington. Wellington City Council, <http://wellington.govt.nz/~media/services/environment-and-waste/environment/files/wsud-guide.pdf>.

### Wetlands provide the following benefits:

- help to moderate stormwater volumes
- improve water quality in harbour
- are easily integrated with regional flood mitigation
- provide landscape features designed as naturalistic as desired
- provide habitat for diverse wildlife population and plant community
- can enhance and provide amenities for a variety of users, i.e. benches, walkways, cafe connected to the park, cyclists.

**fig. 5.2** Opposite 1:25000 cardboard model of Porirua Region highlighting the beautiful hills surrounding the two harbours - Pauatahanui Inlet and Onepoto.

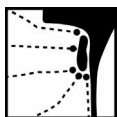
fig.5.1 Wetland Process Sketch











### Sedimentation ponds

The wetland plans incorporate five key 'blue-green' corridors consisting of a mixture of planting and water pools. The corridors link a network of sedimentation ponds to the wetland. The sediment ponds are artificial ponds designed to collect and retain stormwater from the surrounding catchments. The water goes through settling and filtering processes. It is then released slowly through 'The Green Fingers' to the wetland - where pollutants are further removed through settling, filtering, and uptake by vegetation. The ponds and green streets provide a natural solution to deal with flashes of heavy rain that often lead to flooding.

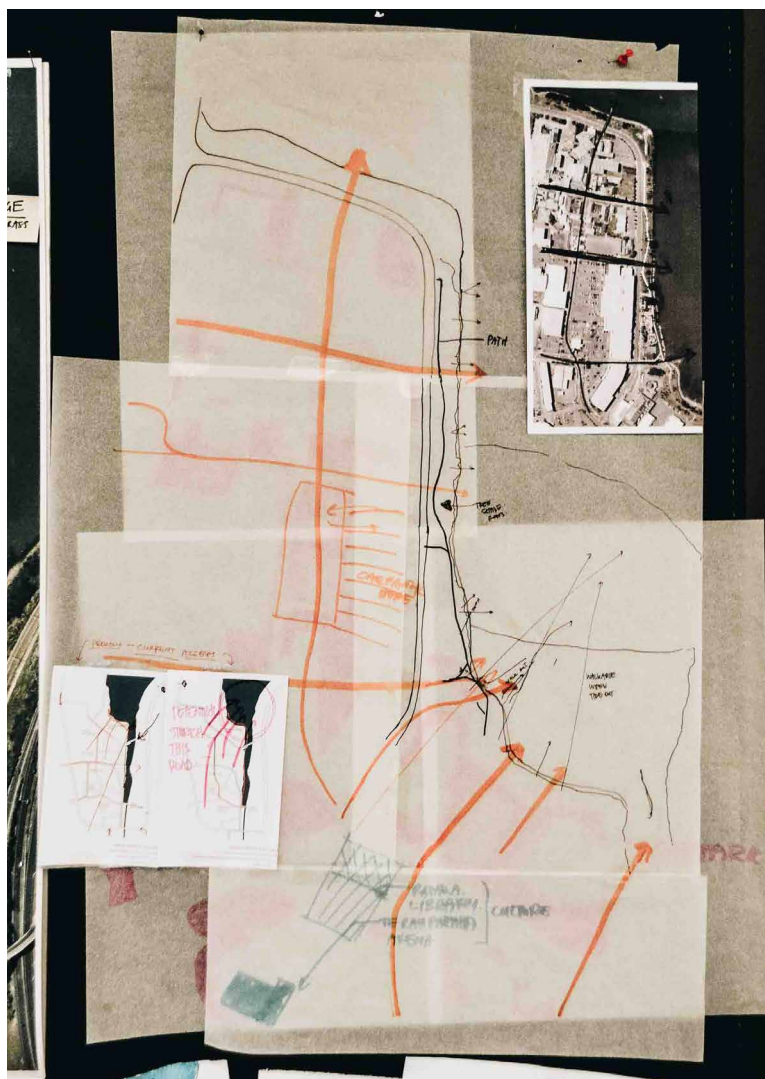
**fig. 5.3 Right**

The harbour edge is currently reinforced as people move north-south. The main traffic roads contribute to this as they run parallel to the edge. This early sketch recognized the need to make lateral links *through* the city- connecting the current activity in the CBD to the harbour.

**fig. 5.4 Opposite**

1:5000 cardboard model of Porirua City showing the catchment areas into the proposed sediment basins, that then flow through the green streets and into the constructed wetland.

fig. 5.3 Initial diagram sketch of lateral links at urban scale











## En route: Finding the Green Fingers

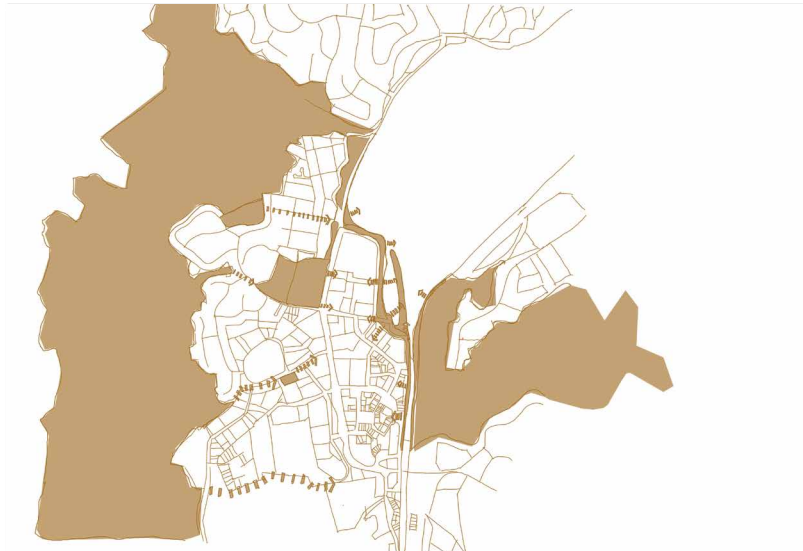
**fig. 5.5**

**Reclaimed land** shown in shaded area. Initial reclaimed area is shown hatched. This is the area that experiences flooding from the surrounding catchments. Areas within this space needed to be selected to relieve some of the water flow in heavy rainfall.



**fig.5.6**

**Green reserve areas** around the city. The arrows aim to find roads that can connect the hills with the harbour edge.



**fig. 5.7**

**Public Open Spaces**  
Locating the areas that can be used for both stormwater infrastructure and flood mitigation, and new social spaces.





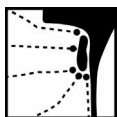
**fig. 5.8**  
**Connecting Routes**

Appropriate areas are selected to include sedimentation ponds.

Routes are made along existing roads and new connections in order to connect the ponds to the wetland. These become the green streets.

The routes at the harbour end are located as 'catalyst' areas for suitable development - ie. Recreation at the end of one street, the housing at the end of another.



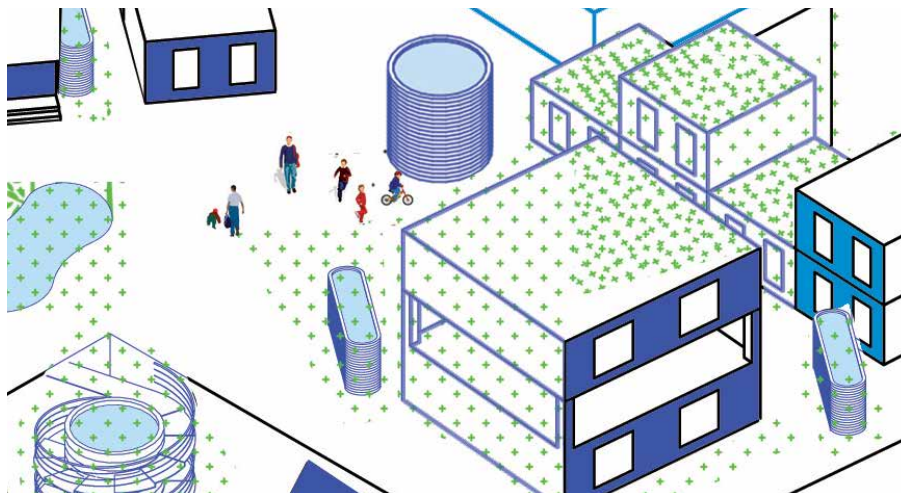


## Water Sensitive Urban Design Devices

**The New Zealand Water and Environmental Research Foundation provides information needed to select and design suitable on-site stormwater management devices. These devices are shown in the following pictures.**

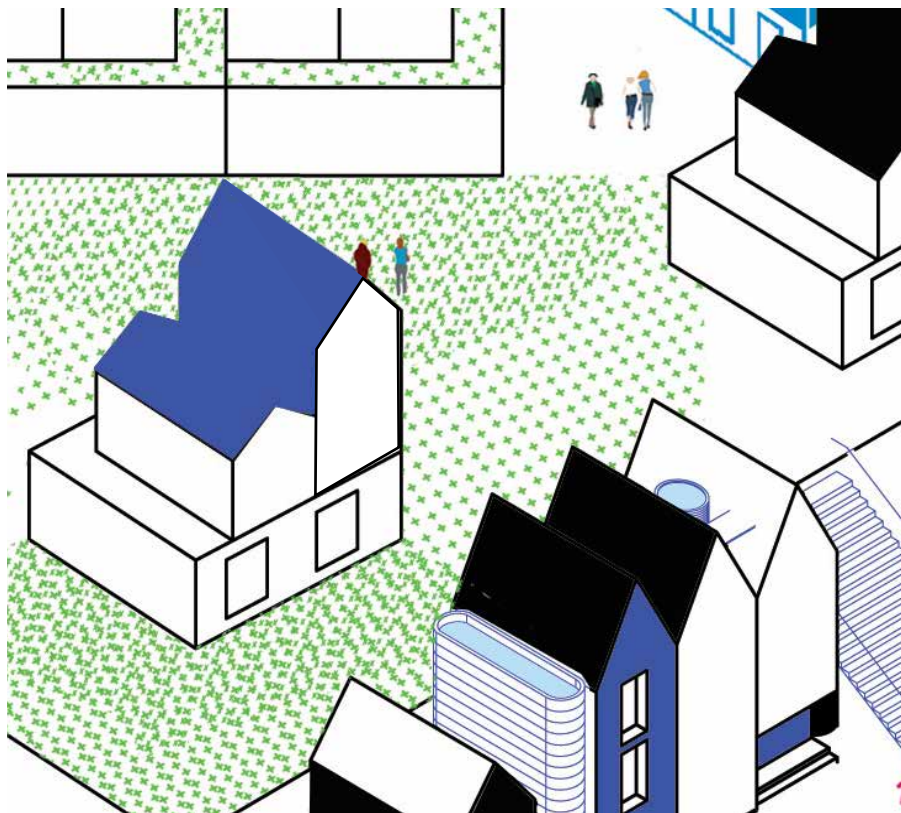
### Rainwater storage tanks

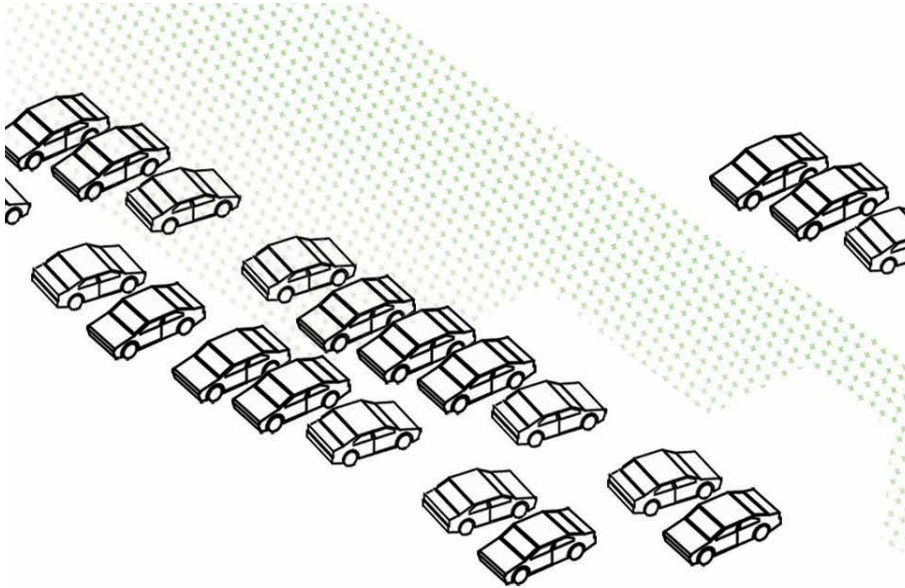
**fig. 5.9** Encourages the reuse of rainwater for everyday and emergency use. The tanks have the advantage of improving community resilience during and after disasters. These water tanks serve the whole 'village' of housing as opposed to individual dwellings. This is to encourage a community presence.



### Living/green roofs

**fig. 5.10** Although a higher-cost strategy, green roofs can provide a wide range of public and private benefits; reduce stormwater runoff and delay in which runoff occurs (resulting in less stress on drainage systems at peak flow periods); increase green urban space amenities including urban agriculture; prolong the life of waterproofing membrane; improve air quality and energy efficiency; noise reduction; increased biodiversity; positive impacts on community health and psychological well-being; and educational opportunities.





## Swales

**fig. 5.11** Swales help to manage and improve water quality on-site, low-cost strategy, habitat creation, adds visual interest to site.

fig. 5.12



## Permeable paving

**fig. 5.13** Permeable paving reduces the amount of land needed for other integrated stormwater management measures, increase groundwater recharge and reduce pollutants in stormwater runoff, design opportunity for coherence throughout the city.

fig. 5.14



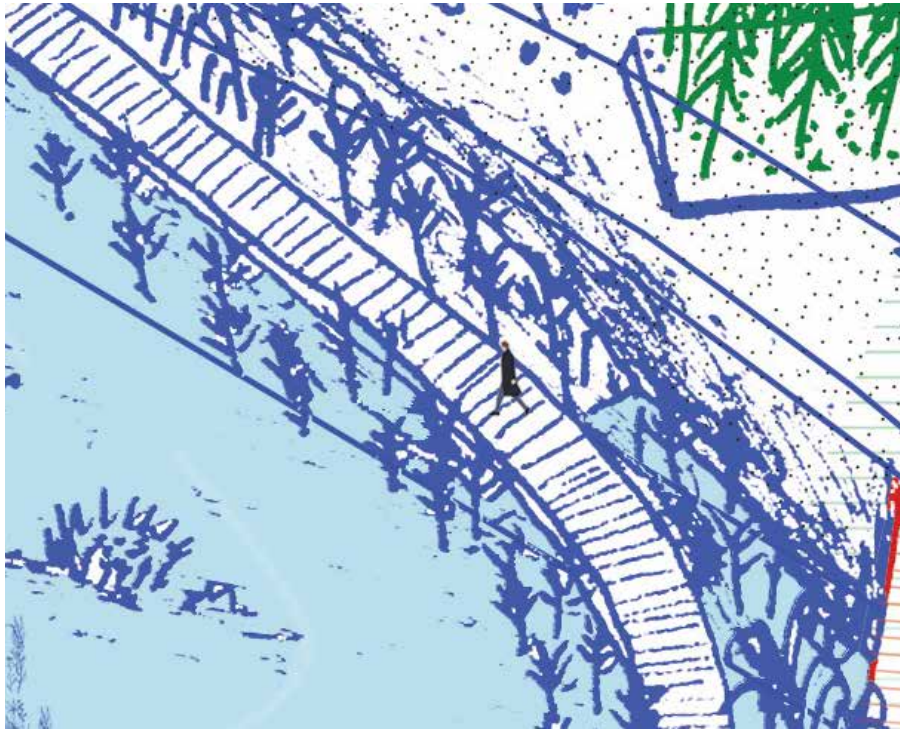
fig. 5.15



## Riparian buffer

**fig. 5.16**

Green buffers along wetland edges protect water quality by filtering out sediments and pollutants. These can be an opportunity for engagement with community groups and schools.



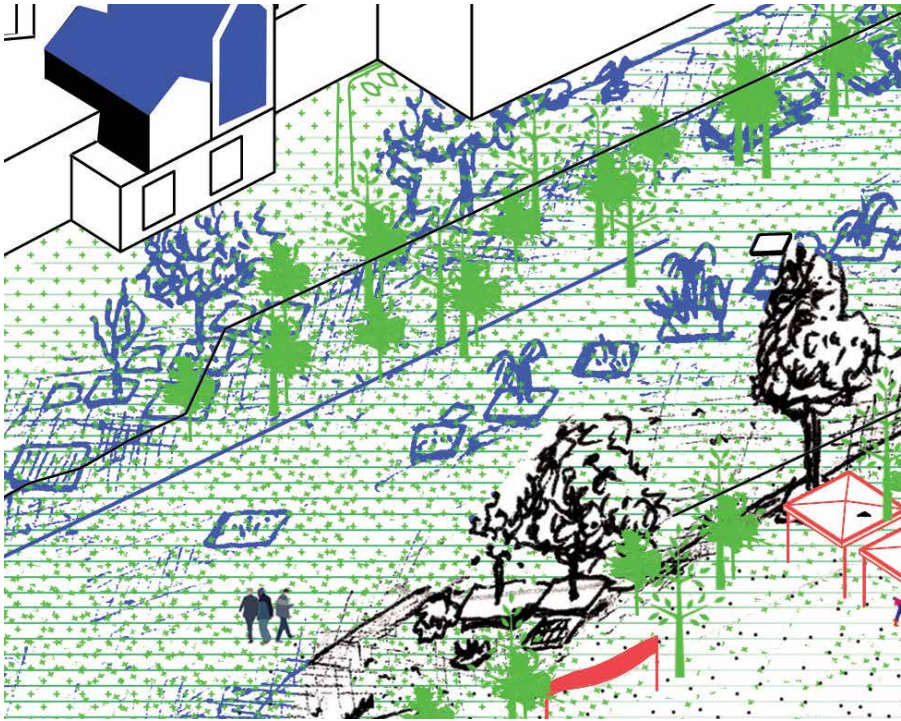
## Raingardens

**fig. 5.17**

Raingardens provide amenity but also enhance biodiversity and help to manage stormwater in terms of water quality and quantity. Incorporate street furniture to encourage social and recreational activities.







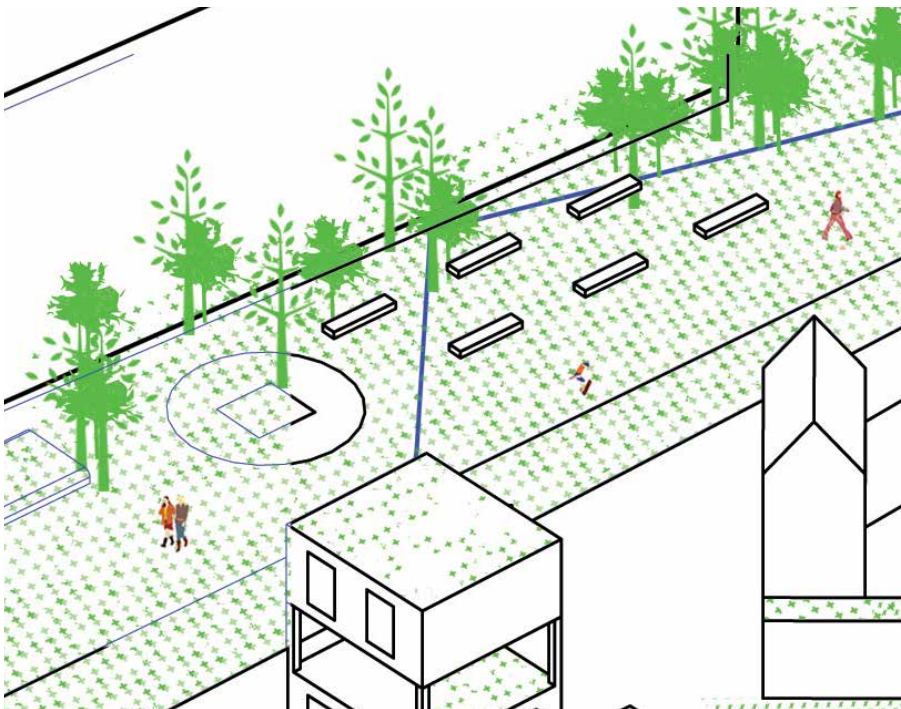
## Street trees/tree pits

**fig. 5.19**

Trees are used at regular intervals to soften the streetscape, capture stormwater, improve air quality and provide a sense of scale in the built environment.



fig. 5.20



## Planting

**fig. 5.21**

Pockets in the roads are made more pedestrian friendly with regions for planting right next to street furniture. This provides places for community gardens and places to sit.



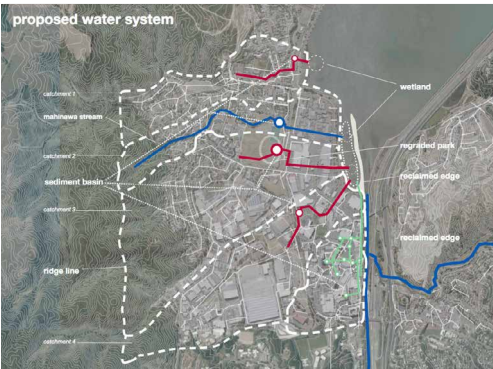


## En route: The wetland technical considerations



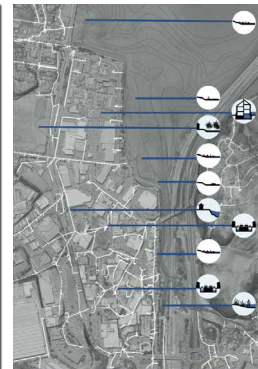
**fig. 5.22**

Wetlands are more suited for areas over 1 hectare. The approximate area to treat water on the harbour is 3.9ha.



**fig. 5.23**

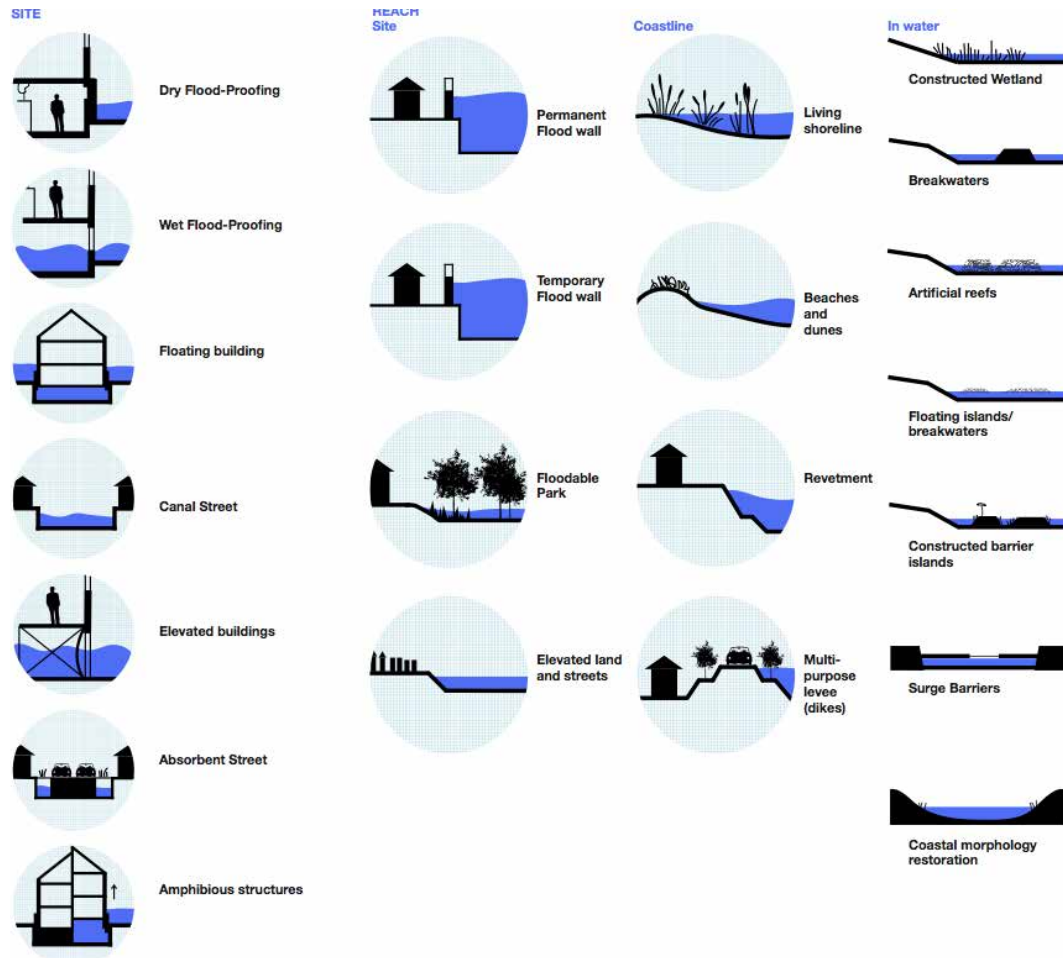
The catchment area to treat is 97.5ha-195ha - influencing the catchments used outlined in the image above. This was calculated by using landscape architect Robert L Francis method of 2-4% of wetland area to catchment area.



**fig. 5.24**

Resiliency measures from figure below are applied appropriately to the site.

fig.5.25 Resiliency Measures for flooding



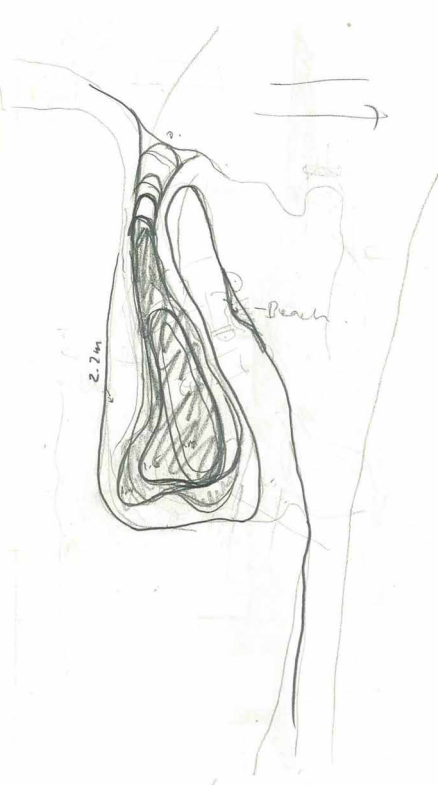


fig.5.26 Shape of wetland and gradient sketch

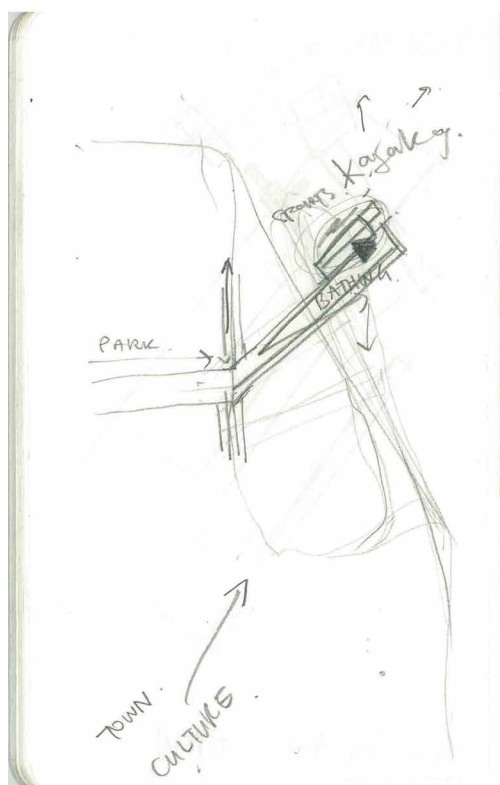


fig.5.27 Integrating the wetland and catchment

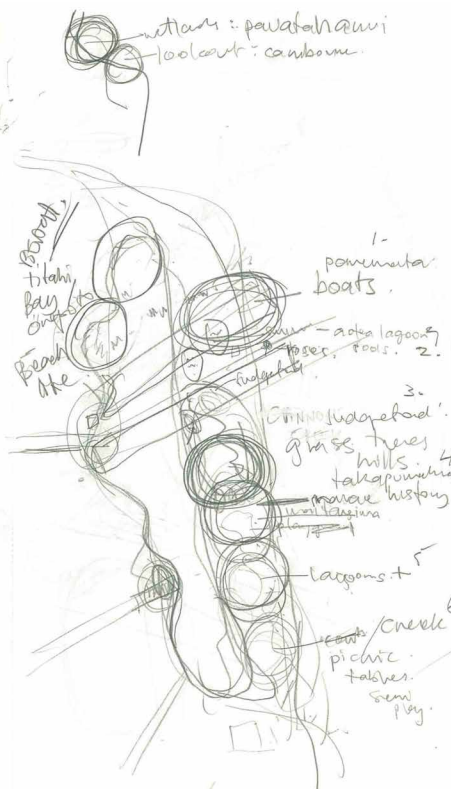


fig.5.28 Planning the functions of the park

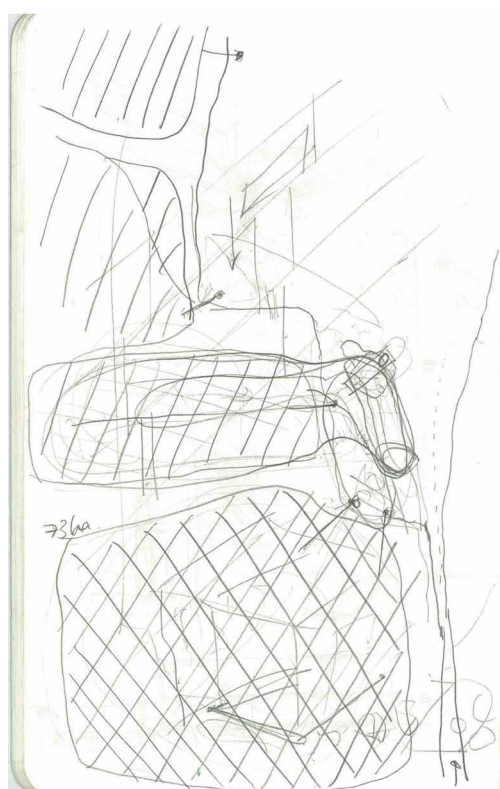


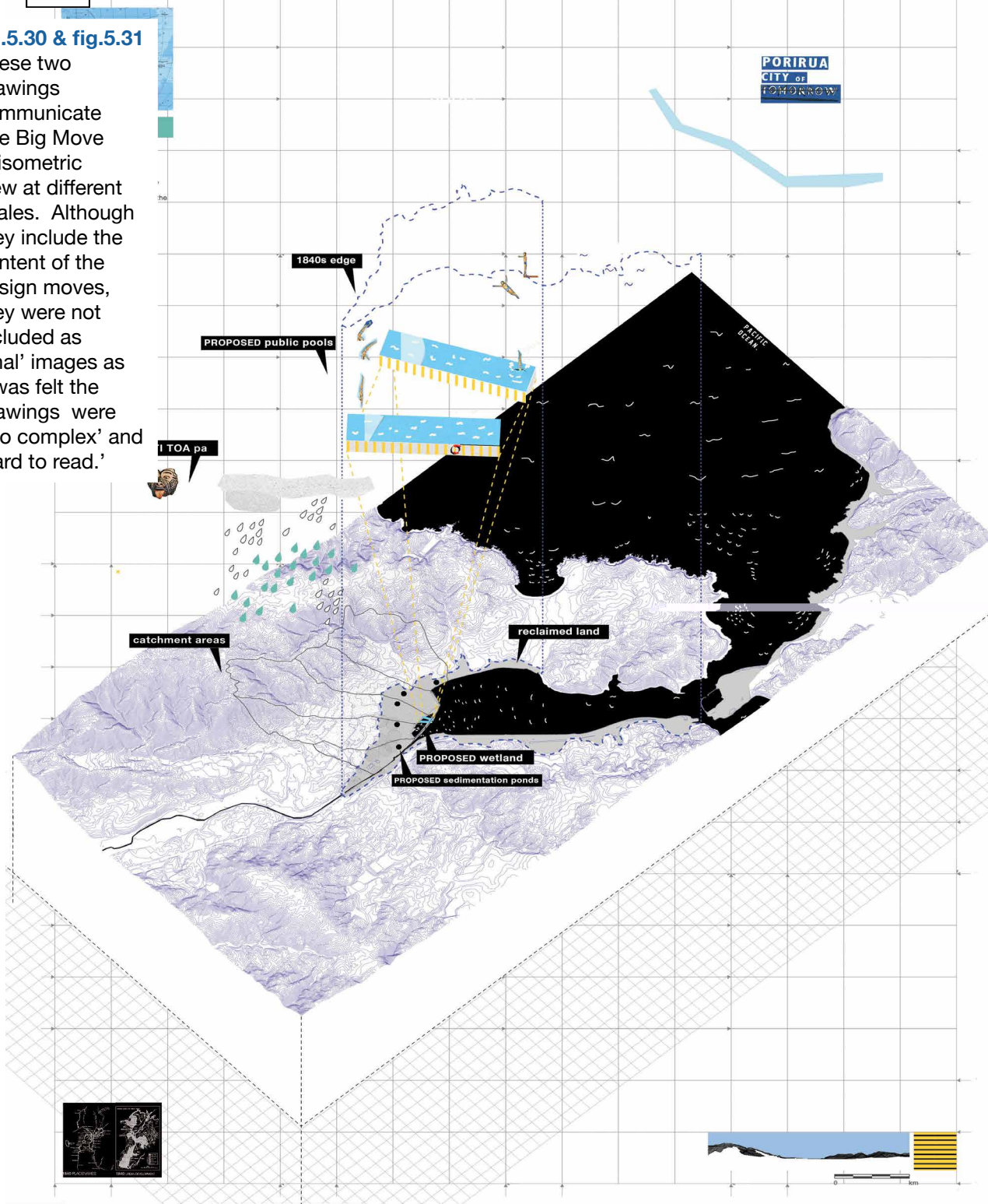
fig. 5.29 Catchment/wetland/pools sketch





**fig.5.30 & fig.5.31**

These two drawings communicate The Big Move in isometric view at different scales. Although they include the content of the design moves, they were not included as 'final' images as it was felt the drawings were 'too complex' and 'hard to read.'



**fig.5.30** Catchment - Basins - Wetland

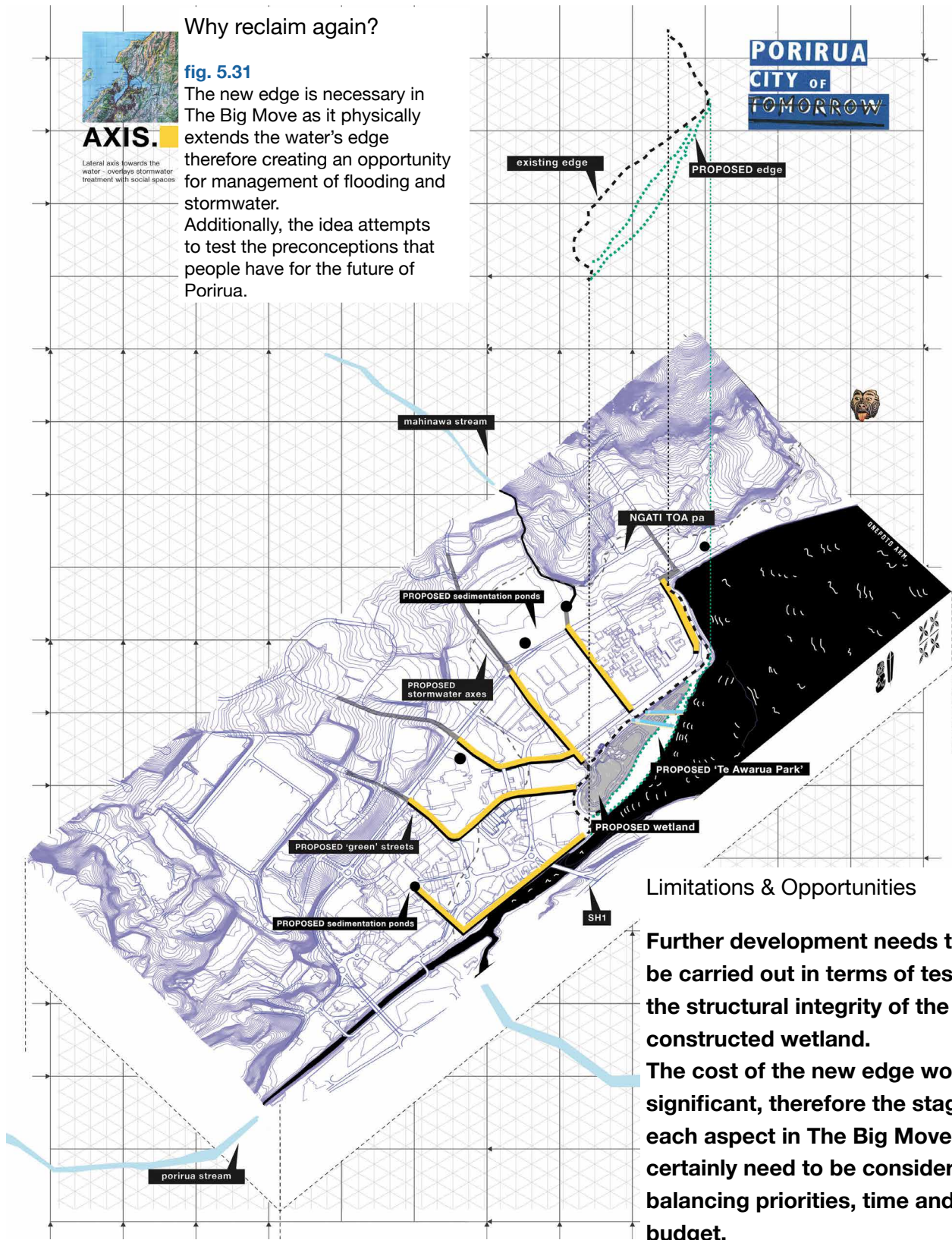


**AXIS.**  
Lateral axis towards the water - overlays stormwater treatment with social spaces

### Why reclaim again?

**fig. 5.31**

The new edge is necessary in The Big Move as it physically extends the water's edge therefore creating an opportunity for management of flooding and stormwater. Additionally, the idea attempts to test the preconceptions that people have for the future of Porirua.



### Limitations & Opportunities

Further development needs to be carried out in terms of testing the structural integrity of the constructed wetland. The cost of the new edge would be significant, therefore the staging of each aspect in The Big Move would certainly need to be considered, balancing priorities, time and budget.

fig.5.31 Basin - Green streets - Wetland



## DESIGNED ECOLOGIES A HOLISTIC RELATIONSHIP



What are designed ecologies and why are they important?

The book, *Design Ecologies: The Landscape of Kongjian Yu*, explains the concept of designed ecologies. The book commemorates the work of well-known landscape architect, and founder of Turenscape practice, Kongjian Yu. *Designed Ecologies* presents more than twenty of Turenscape's most influential projects and contains eleven essays by Yu's associates that give insight into what 'designed ecologies' are.<sup>2</sup> The book's publisher, William S. Saunders, former editor of *Havard Design Magazine*, describes Yu's motivation as follows:

*'Although Yu's driving motivation is to reestablish a healthy relationship between nature and civilization, he has several others operating simultaneously and in parallel:*

*to create beauty and art, to enrich the quality of everyday local lives, to design spaces that attract and promote social interactions, to preserve cultural history, to make the land productive, and to educate people about what makes landscapes supportive of life. This is a big agenda...'<sup>3</sup>*

Four of Turenscape's projects were studied to see what may be learnt and applied to Porirua. The projects studied were:

1. Beach Restoration, 2007
2. The Floating Gardens, 2004
3. Red Ribbon Park, 2007
4. Shipyard Park, 2001

These projects are considered in the following pages.

fig.5.32

<sup>2</sup> Saunders, William, editor. *Designed Ecologies: The Landscape Architecture of Kongjian Yu*. Birkhäuser Architecture, Nov 2012, pp 7

<sup>3</sup> Saunders, 8

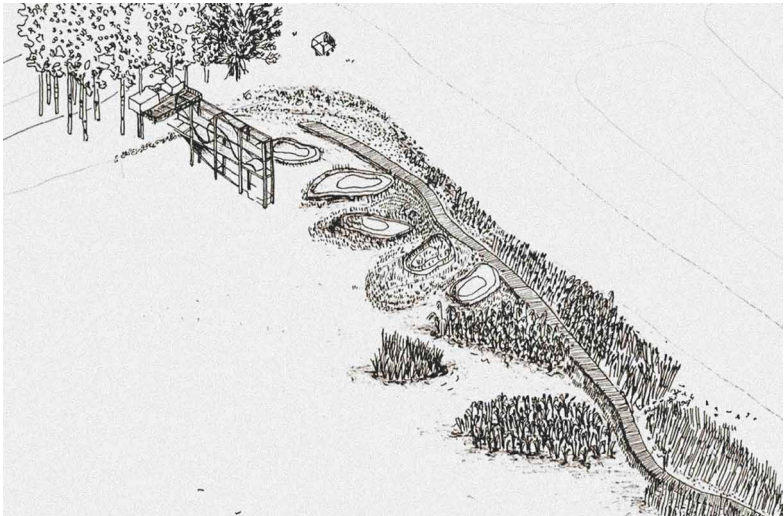


1. Beach Restoration

**Function: River Park**  
**Location: China**  
**When: 2007**

**fig. 5.33**  
A boardwalk is used as an ecological restoration device, linking plant zones and protecting erosion on the shoreline. Rip-rap design is ecologically restorative and aesthetically attractive. Function of a wetland museum seem integral in educating people about the landscape, but it is unclear if this museum would suit Porirua harbour context.

Northern corner restoration



**fig. 3.34**  
The northern corner of the harbour experiences erosion caused by wind and tidal movement. The Strategy applies methods used in 'The Beach Restoration' to this area, such as a boardwalk. The boardwalk is made of fiberglass that floats on the water. The boardwalk connects a diverse group of wetland plants.

**fig. 5.35** Cardboard model showing ecological rip-rap area





## 2. The Floating Gardens

**Function: River Park**  
**Location: China**  
**When: 2004**

**fig. 5.36**

Turenscape overlays park functions and elements as the method to create the park: storyboxes, tree matrix, wetland area, paths, planting. The park has a good balance of naturalistic and designed elements - the planting is not too controlled. This is a great example of the use of colour and greenery.



## En route: Initial Proposition

**fig. 5.37**

The 'Initial Proposition' for the park considered a number of contextual elements, including buildings, types of amenities, access, and connections. Methods from The Floating Garden influenced this design test.

Each character area had the potential to be a project, but this approach seemed superficial.

- The path lines became confusing. The rip-rap islands would not have been the most effective solution for water treatment in the harbour.

- The drawing itself is hard to read.





# 05 THE BIG MOVE

1. Walk/cycle path
2. Low wetland plantation
3. Cultural sculptures/installations
4. Pataka Cafe types/ treehouse
5. Outdoor area for cafe/events
6. Viewing platform
7. Fishing dock
8. Extended playground in water
9. Pataka storehouse (storybox)
10. Sports training field
11. Waka storage
12. Terraced amphitheatre
13. Terraced hill
14. Pavillion of native plants
15. Riparian area
16. Bridge dock
17. Swimming Pool
18. Spa
19. Mini golf
20. Pavillion of nikau palms
21. Carwash pad
22. Industrial structure/Education pad
23. Skatepark
24. Vegetable garden
25. Pavillion for picninc
26. Floating wetlands



fig.5.37





### 3. Red Ribbon Park

**Function: River Park**

**Location: China**

**When: 2007**

**fig. 5.38**

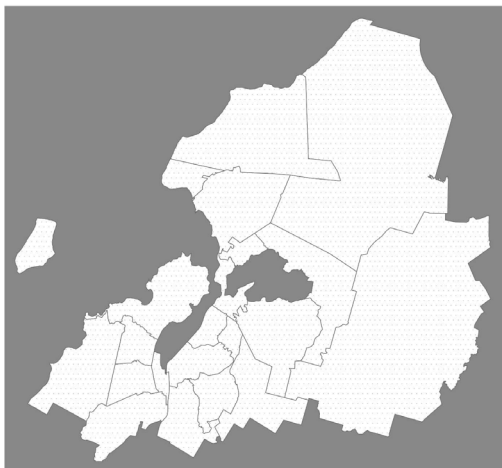
The Pavilion, along the edge of the river, would give walkers a place where they can sit, rest and eat. A long bench, however, would reinforce the water's edge, not soften it.

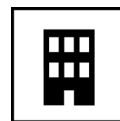


### En route: Suburb characteristics

**fig. 5.39**

The island shapes for the Initial Proposal were influenced from an exercise carried out with designing with the city suburb shapes. Each of the suburbs were re-arranged around the harbour in relative closeness to each other. The landscape features of each suburb then influenced parts of the proposition. Although the islands idea wasn't efficient ecologically, this idea of the suburb 'characters' was kept and developed in the storyboxes of The Big Move.





#### 4. Shipyard Park

**Function:** River Park

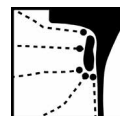
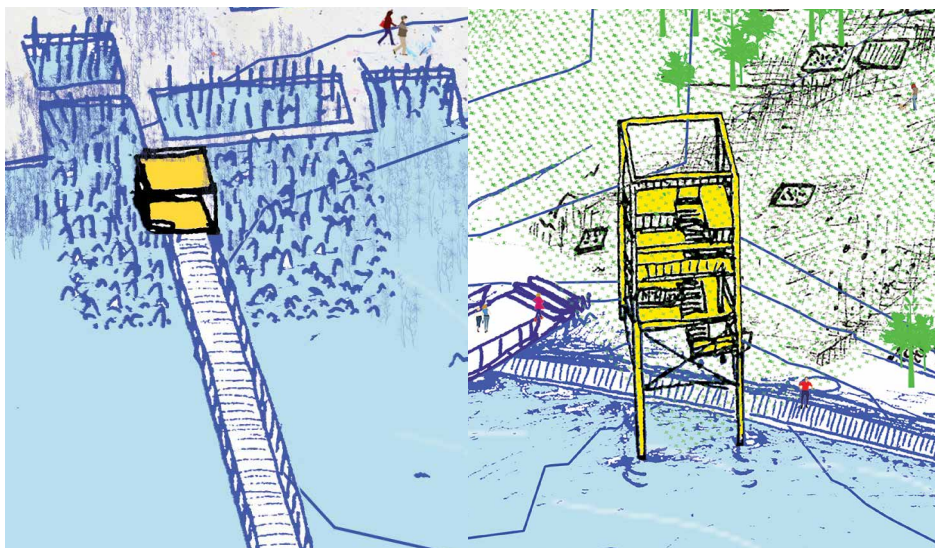
**Location:** China

**When:** 2001

**fig. 5.40**

The 'built elements' in red are strong and elegant. The red is a cultural reference to the colour of the Marae, and provides a contrast to the green of the wetland plants.

#### Te Awarua Park: The Storyboxes



**fig. 5.41**

The red, cube-like structure in the Shipyard Park influenced the simple forms of the storyboxes around Te Awarua Park. The truss structure also influenced the design of the 'Elsdon/ Kenepuru' storybox to reference Porirua's industrial history and area. (Continue next page...)





### Te Awarua Park: The Storyboxes

Located around Te Awarua Park are various 'storyboxes' that reflect the characteristics of different suburbs in Porirua. For example, Camborne/Plimmerton is located on a hill with lookouts over the water, reflected in its storybox. The storyboxes could be created and shaped by engaging with the communities in each suburb. Residents could participate in the creation of 'what story to tell.' Storybox numbers 4, 9 and 10 have been modeled to illustrate how the storyboxes could reflect their respective areas.

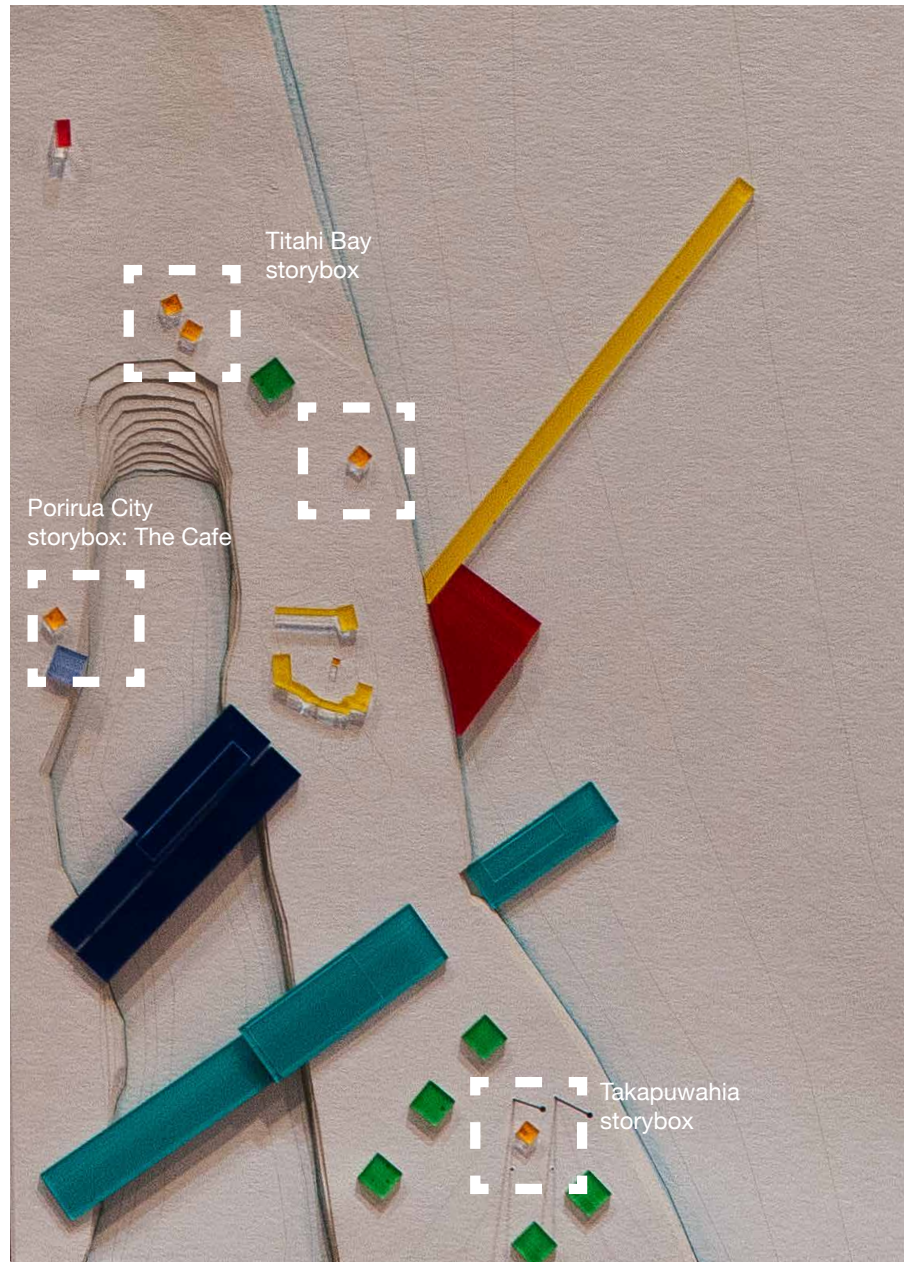
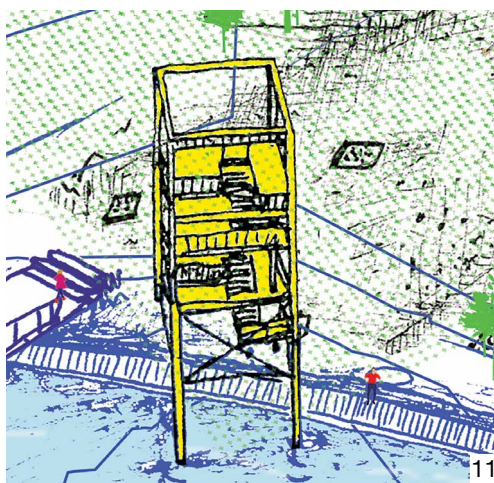
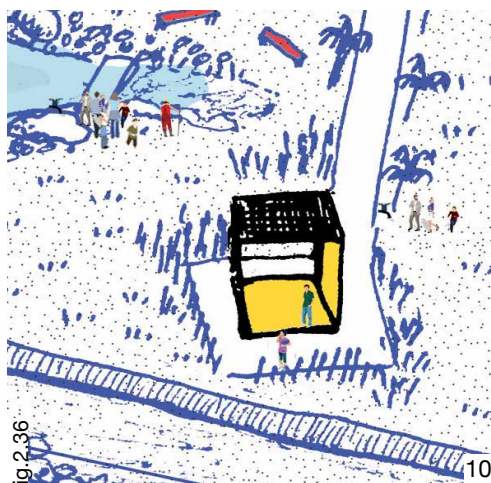
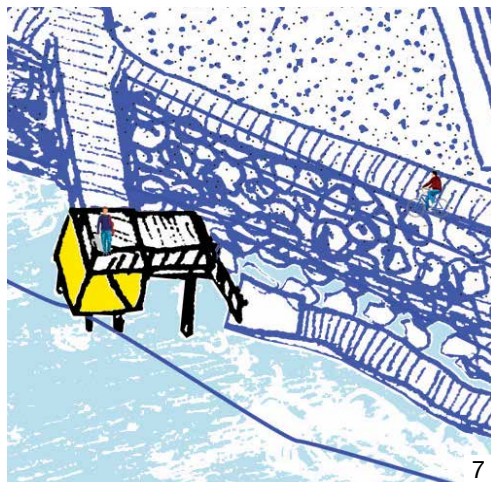
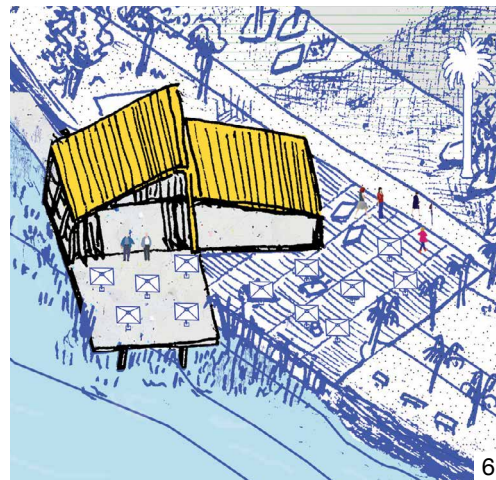
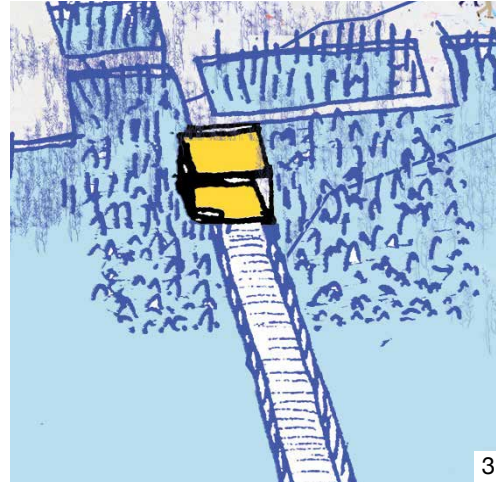
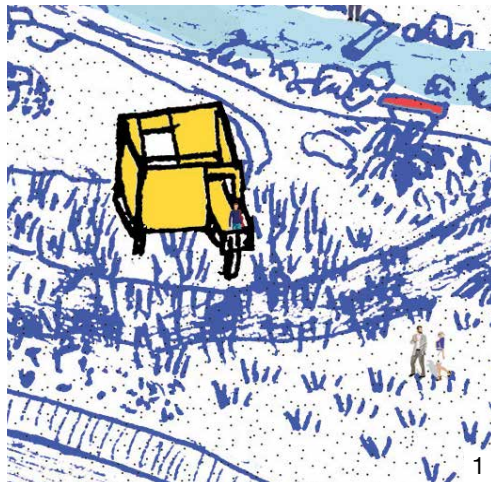


fig.5.42 1:500 Cardboard Model



# THE BIG MOVE



## Te Awarua Park Storyboxes

(left to right)

1. Camborne/Plimmerton
2. Ascot Park/Papakowhai
3. Paremata
4. Takapuwahia
5. Pauatahanui Inlet
6. Porirua City Centre
7. Pukerua Bay
8. Mana Island
9. Titahi Bay
10. Porirua East
11. Elsdon/ Kenepuru



**fig. 5.43**

Titahi Bay Beach Storybox. Titahi Bay is known for its beach and the distinctive stretch of colourful pitched roof boatsheds.

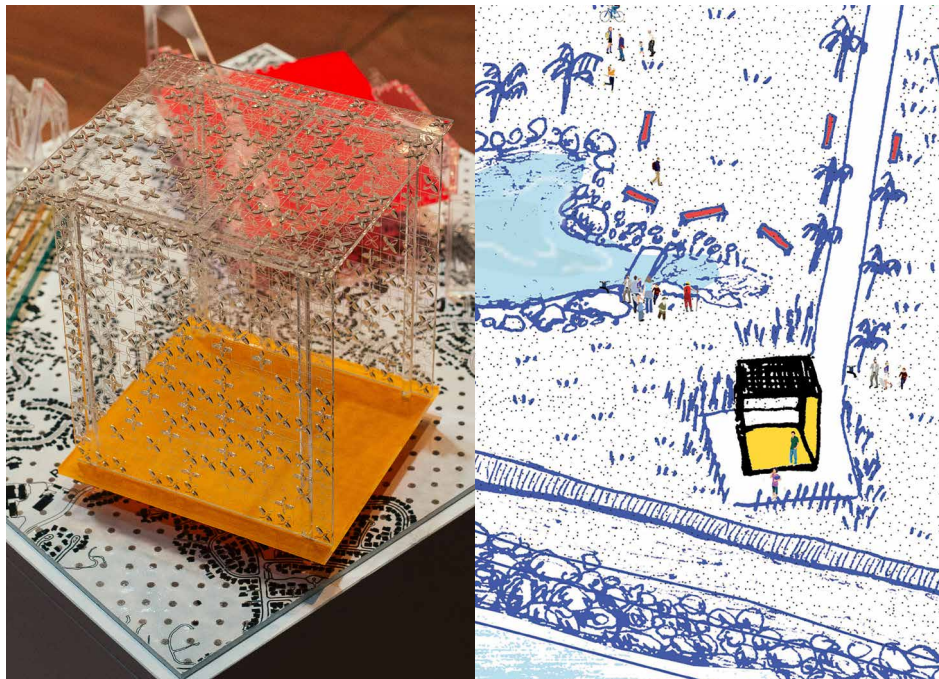
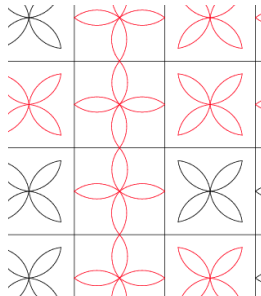
fig.5.44 Titahi Bay Boat Shed



**fig. 5.45**

Porirua East Storybox. A simple pattern is repeated, and cut out of the wall material of a shelter at random to let light through and to cast shadow patterns in changing light conditions.

fig.5.46 Pacific Island pattern used for pavilion



**The neighbourhood-characteristics in the park celebrate diversity. The storyboxes do not attempt to replicate Porirua at a smaller scale, but showcase and educate others about what makes the city enjoyable and unique.**



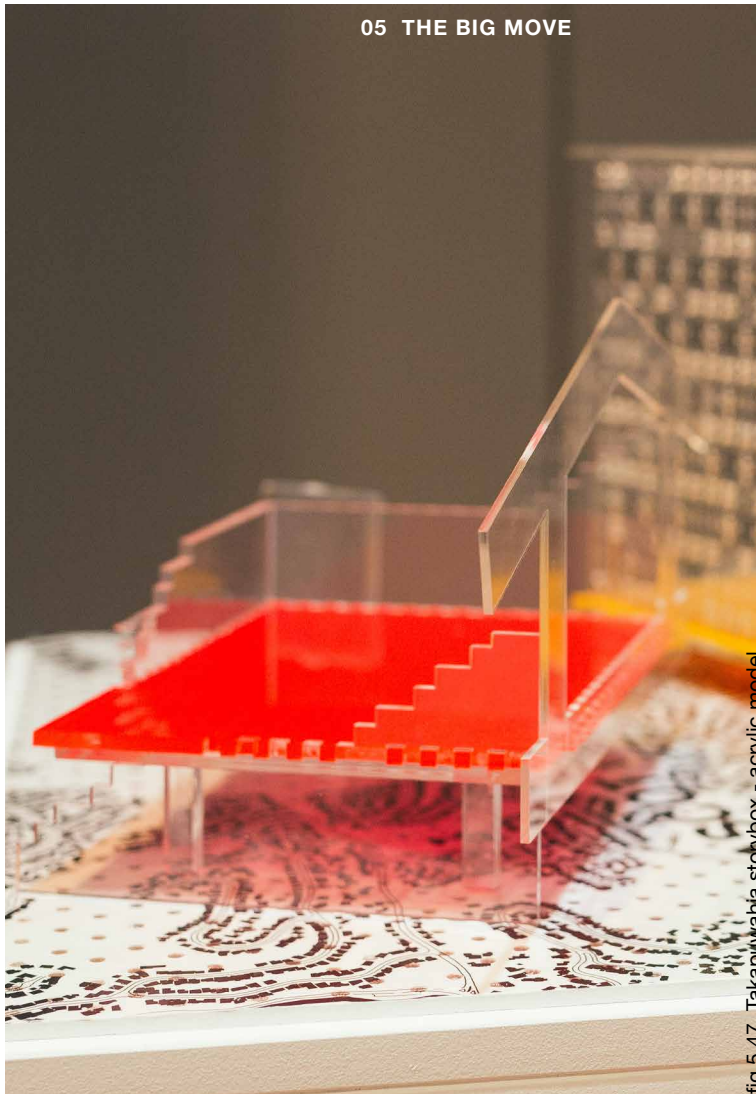


fig. 5.47 Takapuwahia storybox - acrylic model



### Opportunities and Limitations

The storyboxes provide an opportunity for community groups to collaborate on what they think their suburb is about. Children and youth can be primary ‘makers of architecture’ for the storybox, representing the youthful population of the city. This would increase social engagement and has the potential to empower people to contribute to their city. The storyboxes give visitors a chance to learn more about the area. Limitations of the storyboxes would be in the management of how these are represented, making sure that everyone who wants to contribute is able to do so, and negotiating differences in those suburbs that have a large number of diverse groups.

fig. 5.48

The Takapuwahia storybox located close to the water's edge on the park-respecting and re-establishing it's historical position.



## En route: "The hunch"

This pencil drawing was the first project proposal communicating 'the hunch.' The idea was for a park with different areas, including a pool, seating areas and wetland plants.

The early design look is incoherent because the design did not have the necessary layers of analysis and research to support a unifying theme.

However, this drawing impression provides a reference to many of the characteristics that were carried forward to 'The Big Move.'

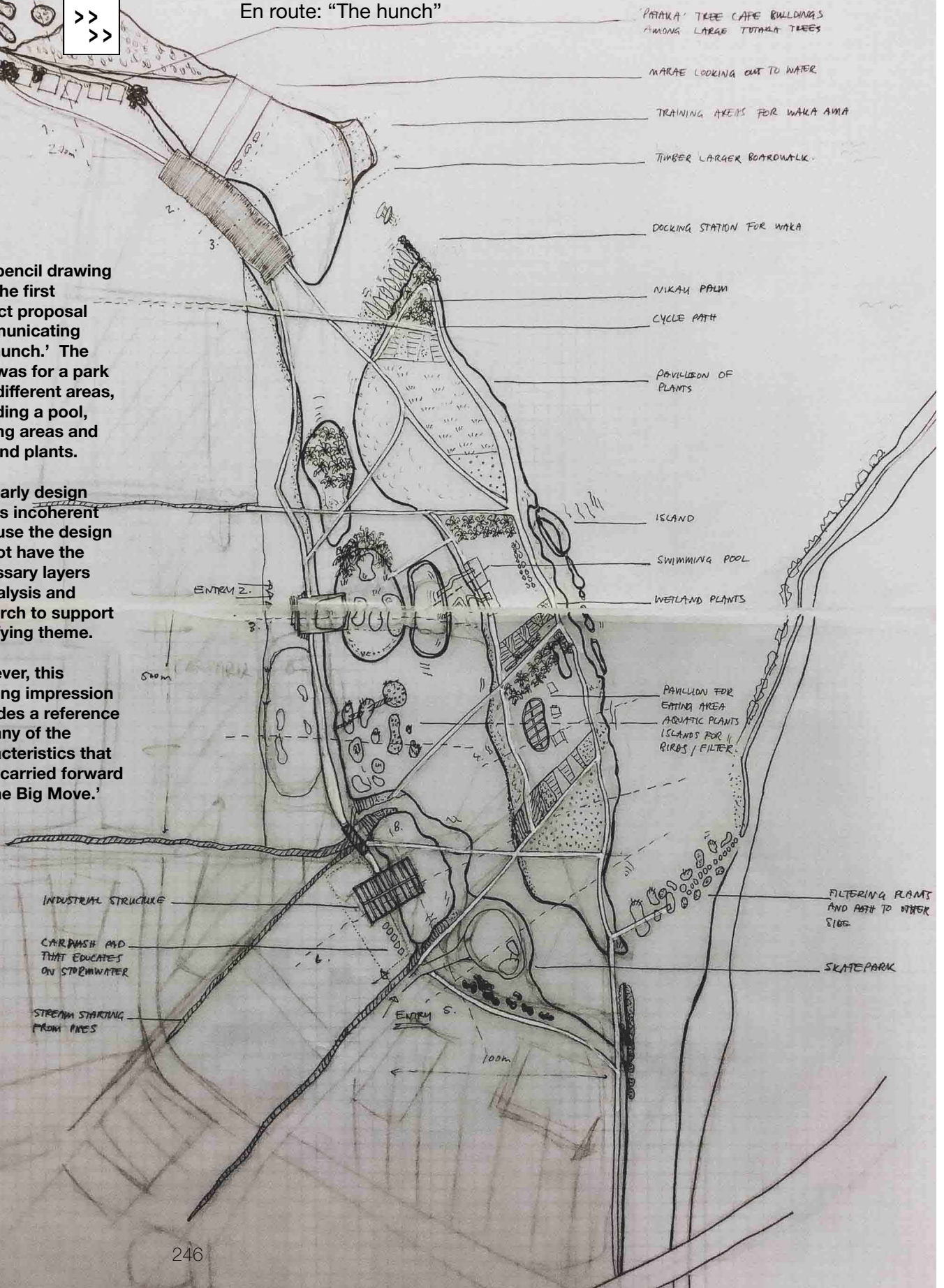


fig.5.49 The Hunch, A2 pencil drawing



## En route: The Nikau Palm Area

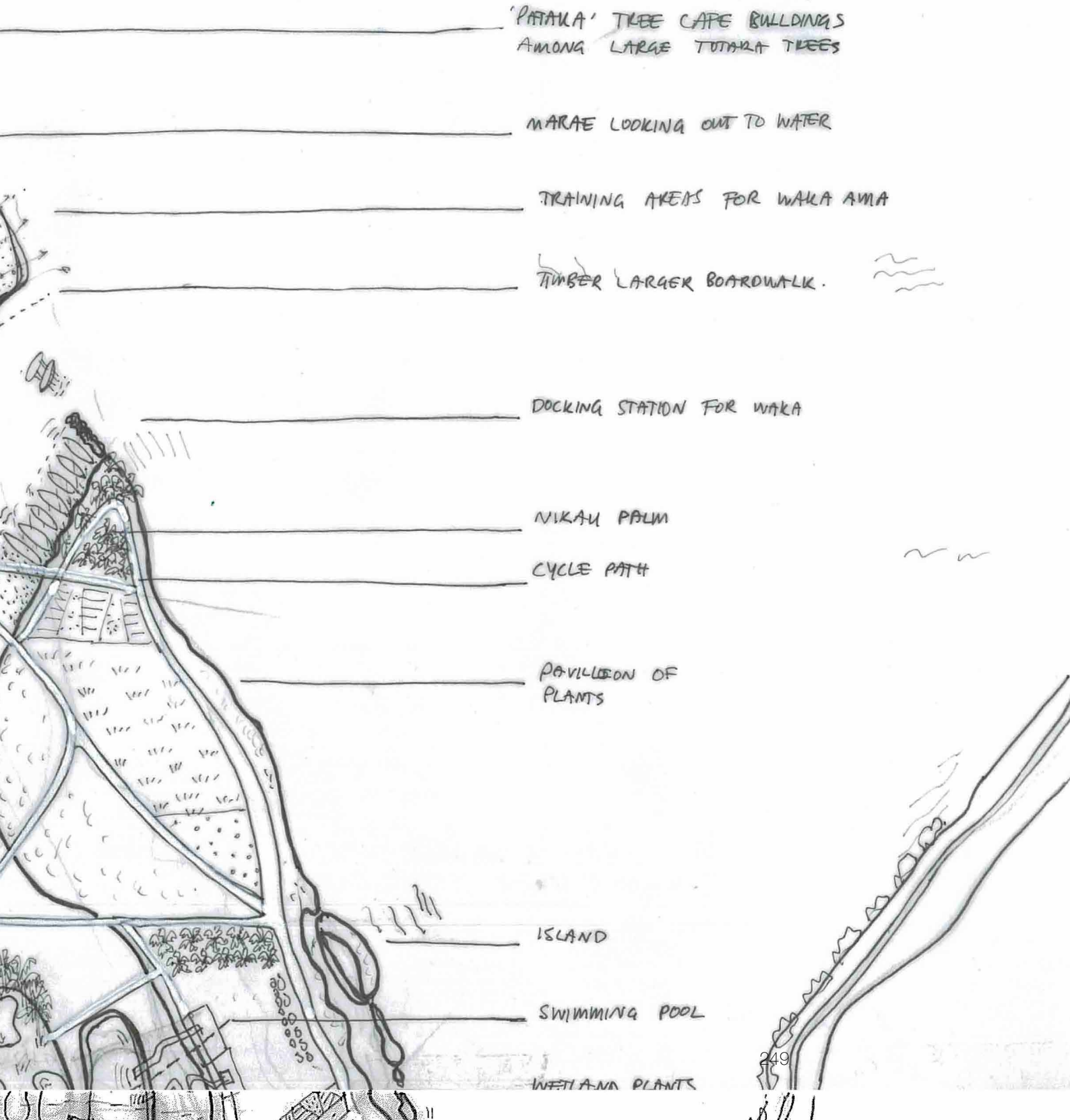


fig.5.50 Nikau Palm area, A2 ink on brown paper



WETLANDS / TALL GRASS  
THE CONSTRUCTED WETLAND & GREEN FINGERS

Figures 5.49 and 5.50 are examples of hand drawings communicating a soft whimsical, intriguing sense. This sense becomes important when representing The Big Move through The Drawing.



'PATIKA' TREE CAPE BUILDINGS  
AMONG LARGE TUTARA TREES

MARAE LOOKING OUT TO WATER

TRAINING AREAS FOR WAKA AMA

TIMBER LARGER BOARDWALK.

DOCKING STATION FOR WAKA

NIKAU PALM

CYCLE PATH

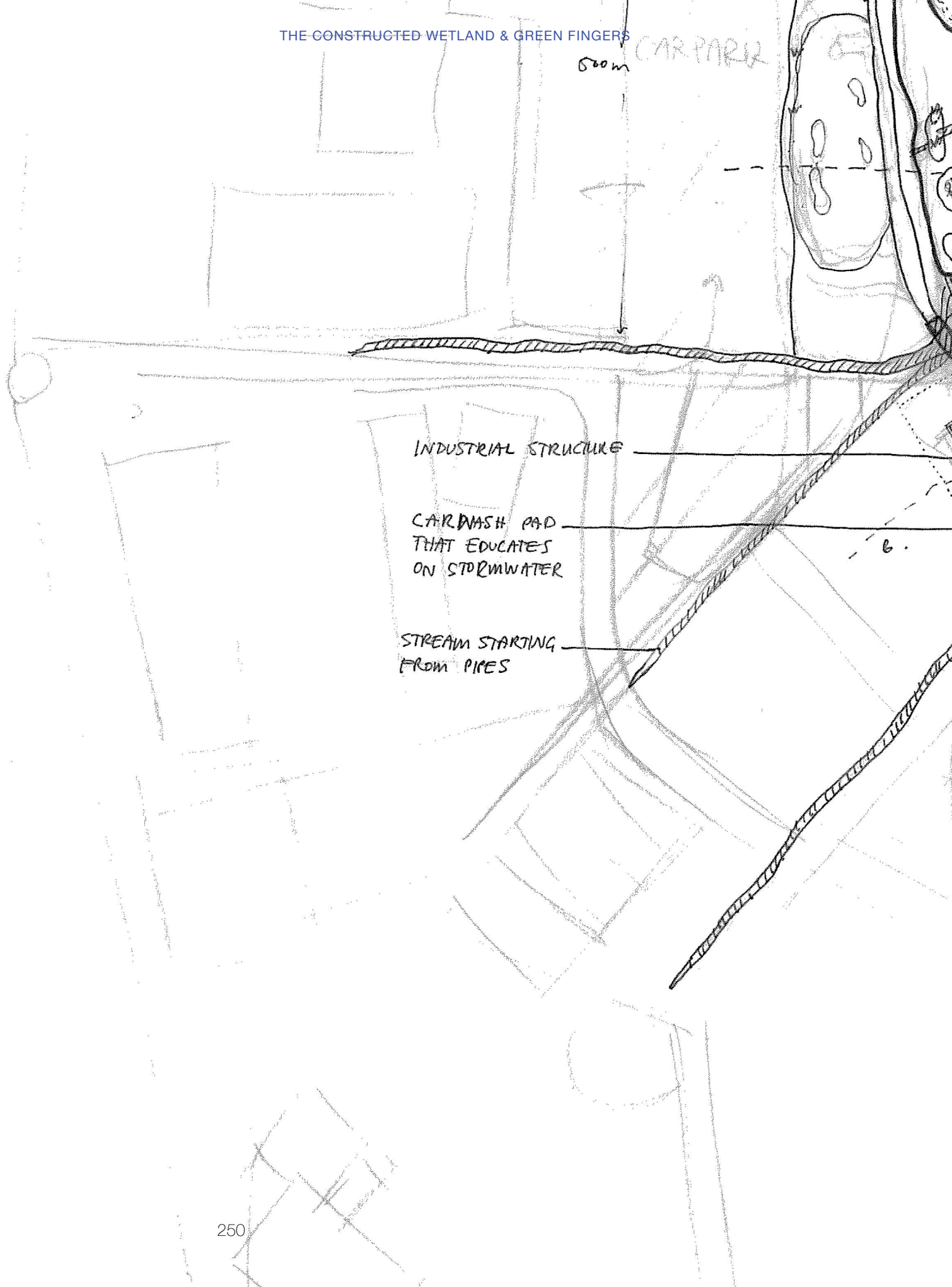
PAVILION OF  
PLANTS

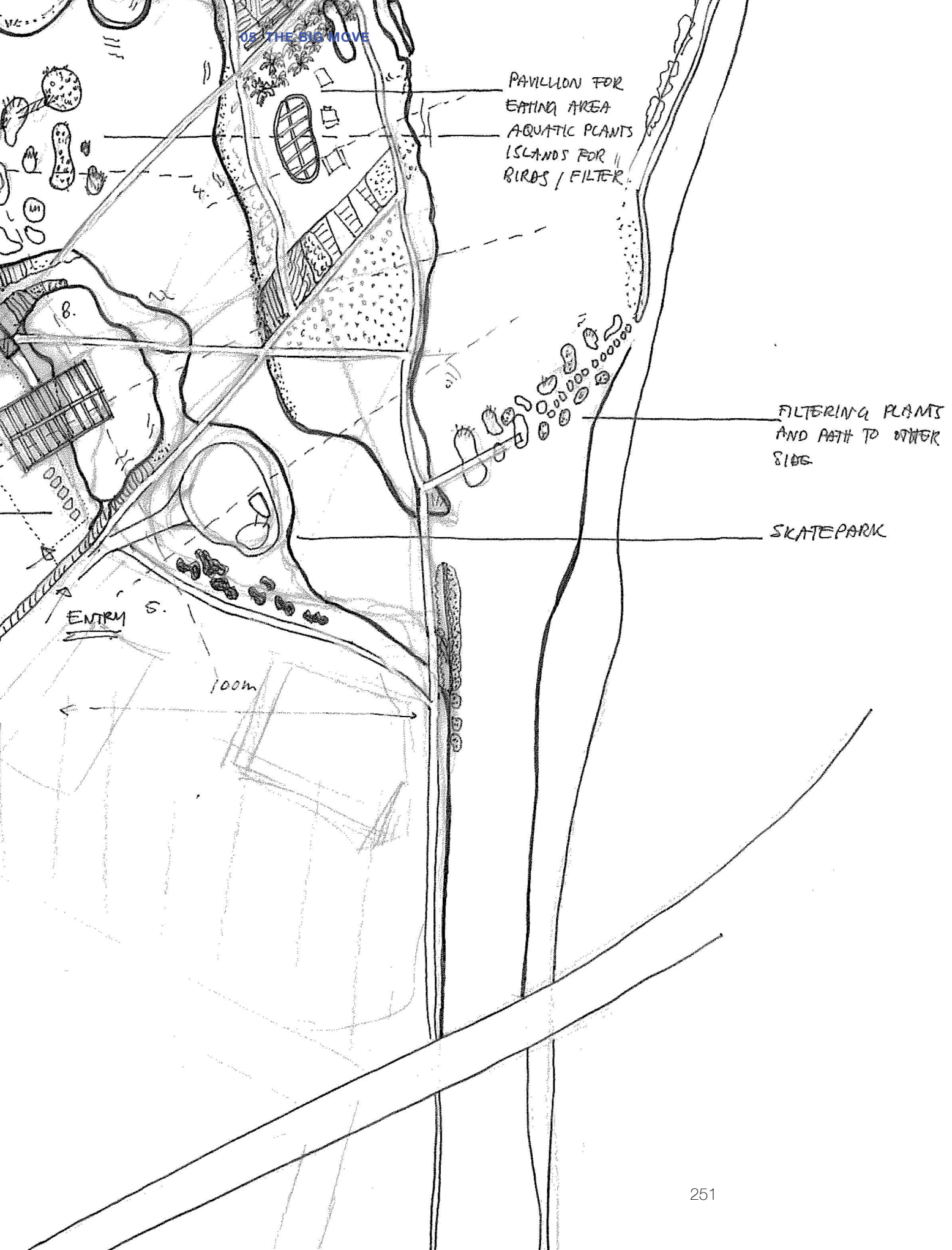
ISLAND

SWIMMING POOL

WETLAND PLANTS









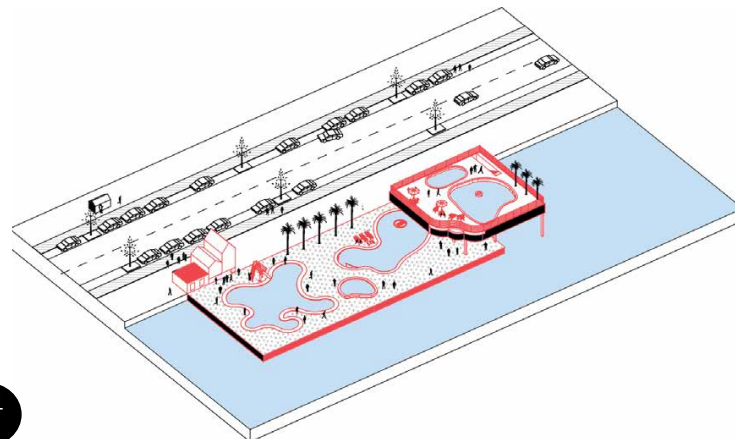
## THE POOLS

### A NEW WATER INTERACTION

A leisure pool, two swimming lanes, a spa pool, and two naturally filtered pools (the Natural Pool and the Beach Pool) are designed to gather people from across generations out beyond the harbour's edge. These public pools aim to inspire new ways of engaging people with water and with each other.

The pools develop the '4c Harbour Baths' idea from The Toolkit. The idea in this tool is to develop the social aspect of urban sustainability. The pools would contribute to social, cultural, economic and environmental aspects of the city.

The Leisure Pool and Lane Pool are integral into the function of the wetland. They separate the wetland areas, filtering water as it flows from pool to pool. The Beach Pool then slowly releases water out to the harbour.



04  
C

#### HARBOUR BATHS

**TOOL** Recreational bathing facilities, winter and summer  
**AIM** To create a leisure and aquatic culture in the heart of the city that citizens of the city can enjoy

**fig. 5.52 Right**  
1:500 Cardboard and acrylic model of The Pools in Te Awarua Park.

fig.5.51 Social - Theme 4 Recreation - Tool 4c  
Harbour Baths



Estuary

Existing Waka  
ama shed

Wharf

Titahi Bay  
Storybox

Beach Pool

Natural Pool

Stairs

Cafe

Lane Pool

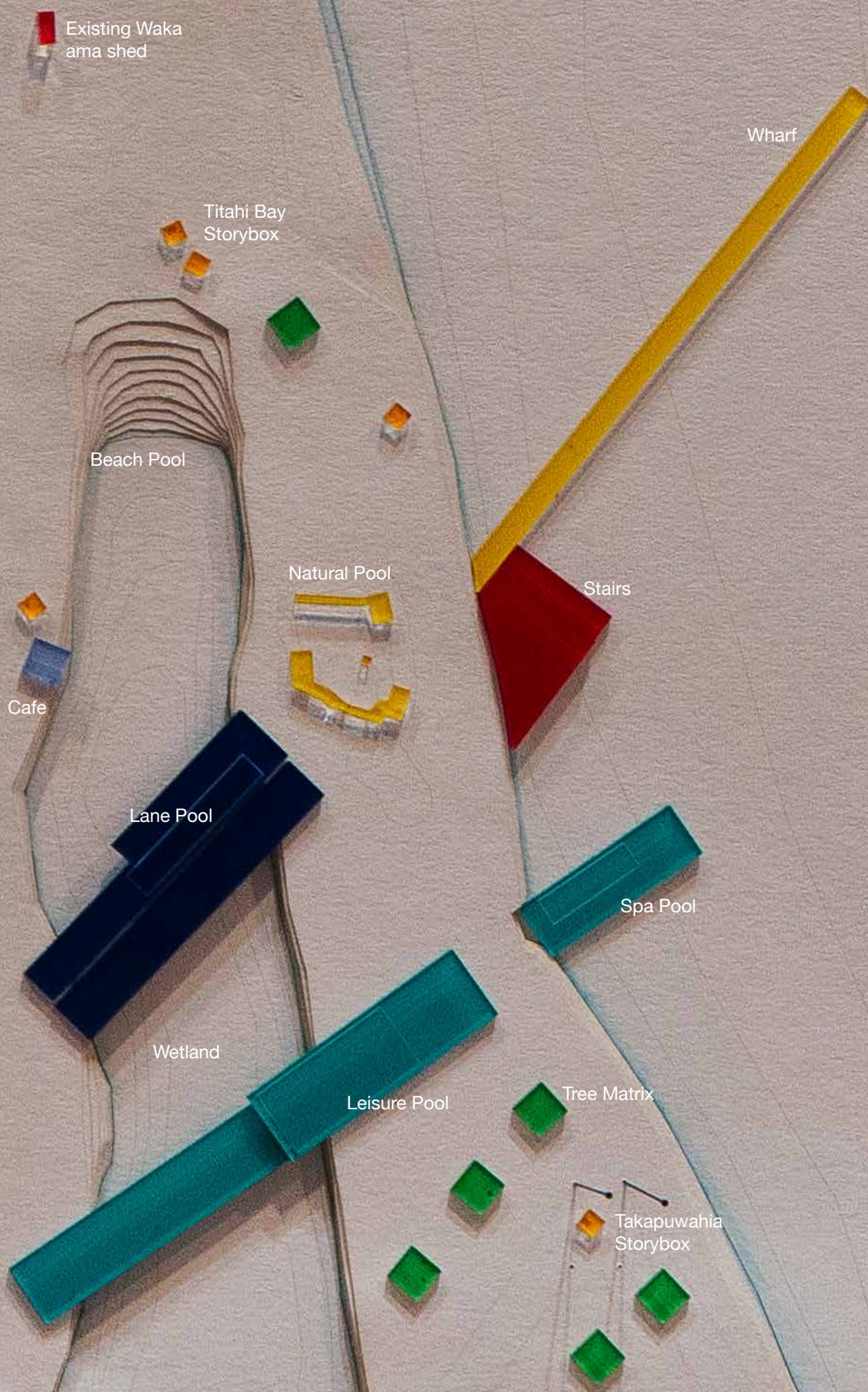
Spa Pool

Wetland

Leisure Pool

Tree Matrix

Takapuwahia  
Storybox







## Why design pools? The Physical, Psychological and Social Effects of Swimming

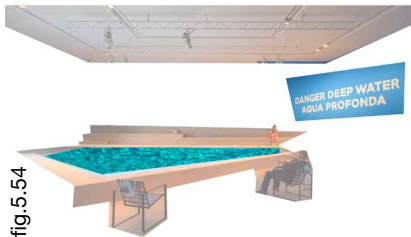
**Swimming is recommended as a rehabilitation activity more frequently than any other sport, has a large target audience, and is accessible to both children and the elderly at the same time.<sup>4</sup> Studies show swimming reduces mental tensions and anxiety.<sup>5</sup> They also show that swimming programs have had beneficial effects on social behaviours in children with autism. The social effects of the pool were discussed in Australia's Pavilion 'The Pool' at the 2016 Venice Biennale.**



'The Pool'  
Australian  
Pavilion, 2016

**fig. 5.53**

Function: Exhibition  
Location: Venice,  
Italy  
Time: Project 2016  
Architect: Australia's  
2016 Creative  
Directors, Aileen  
Sage and Michelle  
Tabet



<sup>4</sup> Petrescu, Silviu et al. "The Effects of Practicing Swimming on the Psychological Tone in Adulthood." 5th World Conference on Psychology, Counseling and Guidance: Procedia - Social and Behavioral Sciences, vol. 159, Dec 2014, pp 74-77.

<sup>5</sup> Pan, Chien-Yu. "Effects of water exercise swimming program on aquatic skills and social behaviors in children with autism spectrum." Autism, vol. 14, no. 1, January 2010, pp. 9 – 28.

<sup>6</sup> Martin, Robin. Vennice Biennale Curator Series: Australia, May 2016.

**The directors of the Australian Pavilion use the pool as an architectural device to discuss social and political narratives embedded in Australian history:**

***'We see the pool as an element that can so strongly evoke both the sacred and the profane – an element of sport and survival, leisure and lifeblood, social space and place of quiet contemplation.'*<sup>6</sup>**

**The pool becomes more than a place to swim. It is a place for people to gather and share experiences. The community value of the pool is highly significant.**

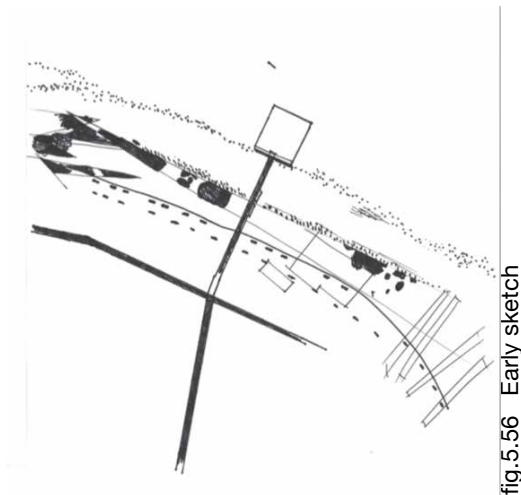
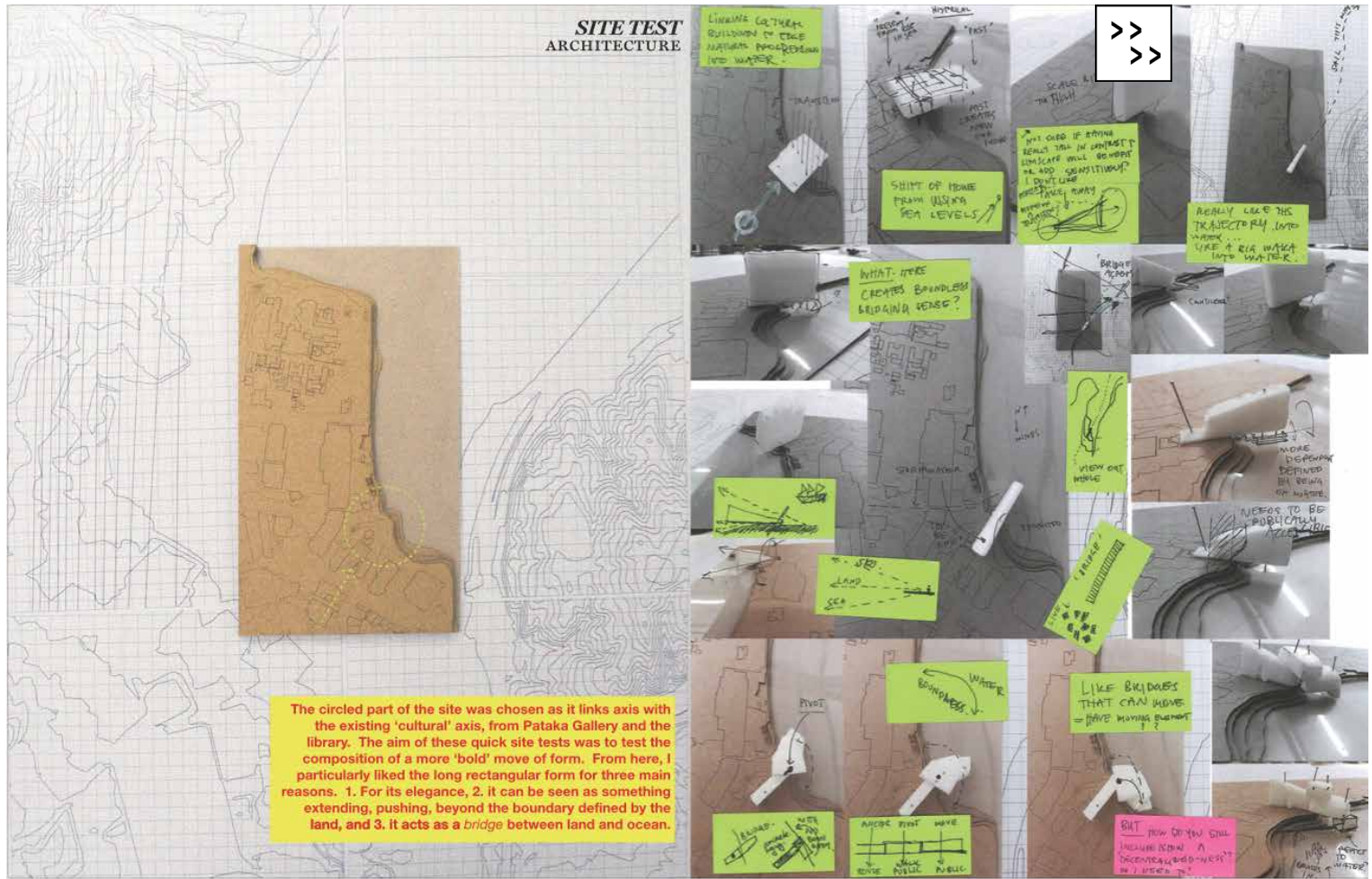


fig.5.56 Early sketch

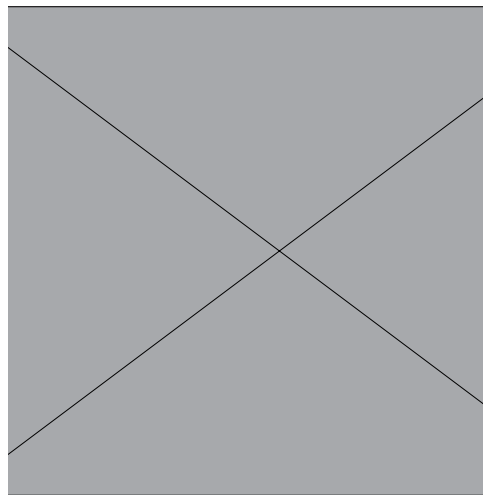


fig.5.57 Lookout from harbour

## Site test

**fig. 5.55 Above**

The initial form test of 'architecture' on the site. The long rectangle became the main form as it extended beyond land, acting as the bridge between land and water.

**fig. 5.56 Far left**

An early sketch exploring a long elegant form 'breaking' through the harbour's edge.

**fig. 5.57 Left**

The 45° tilt of the test models is influenced by the idea of a waka (canoe) about to sail after the moon between the hills and beyond the horizon. This is the desired view.





## River Thames Floating Swimming Pool

Type of use: Public,  
leisure  
Location: Thames  
River, London  
Time: Project 2013  
Architect: Studio  
Octopi

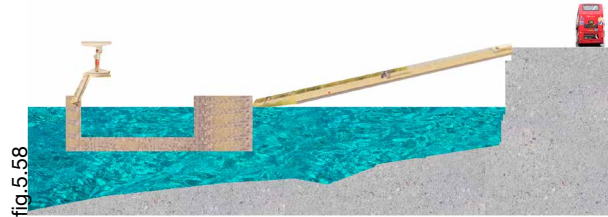


fig. 5.58

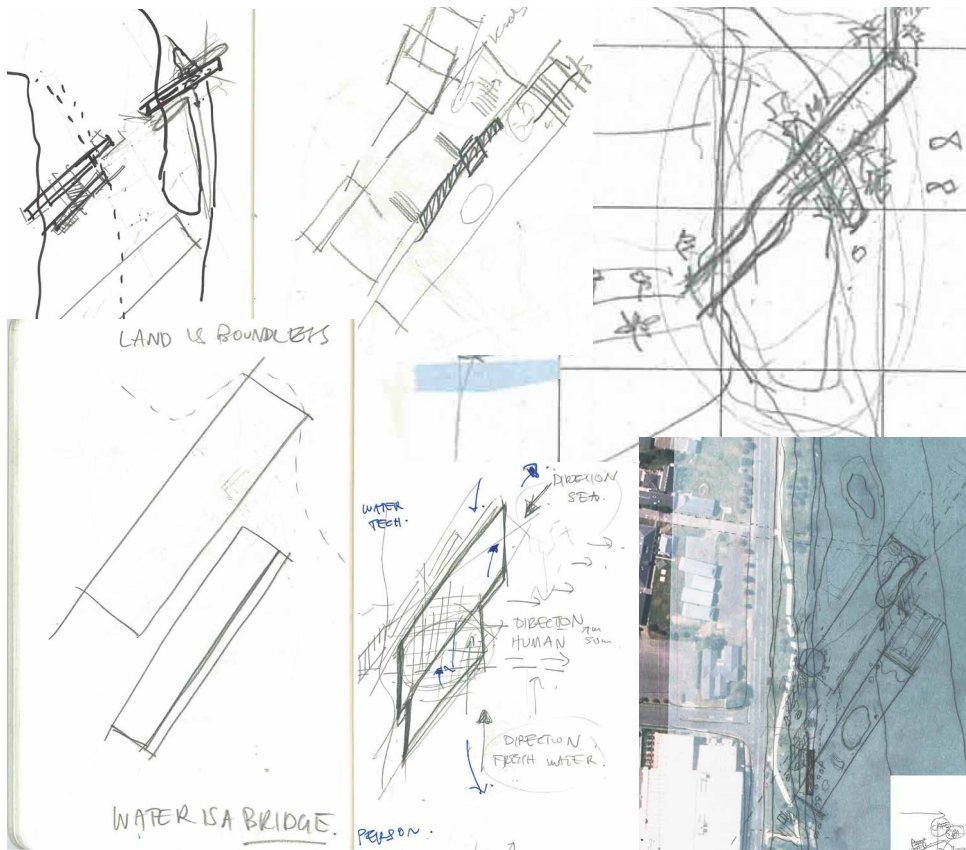
fig. 5.59 Case study notes

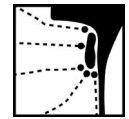
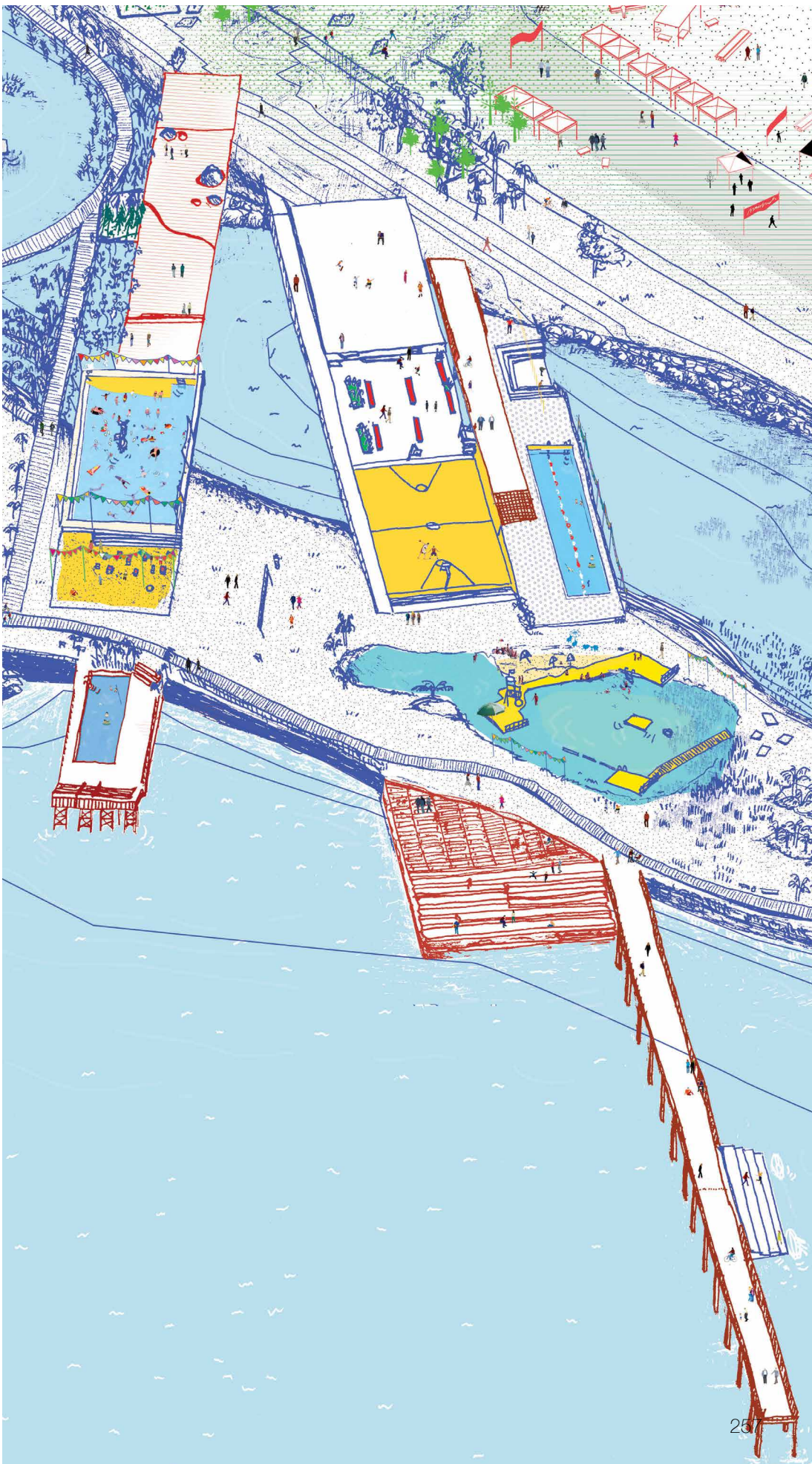


## The Rectangles

**fig. 5.60**

A sketch development of the pools extending into the water. The rectangle brought an elegance to contrast with the naturalistic forms of the wetland.





The two rectangle 'bridges'

**fig. 5.61**

The Pools form remained fairly similar to its initial sketches. The bridges connect the existing land to the new park land. These platforms are built on the ground, not floating, with mechanisms that can open and close to mediate water flow through the wetland stages.

Levels are played within the rectangle forms - the spa pool with stairs leading up, the 'stairs' leading down into the water.

The wharf extends the built form even further allowing people to walk right out and enjoy the water.





## Blue Plan, Copenhagen

Function: Recreation area,  
educational facility

Location: Copenhagen's  
harbour, Denmark

Time: Project 2013

Architect: Tredje Natur and  
PK3

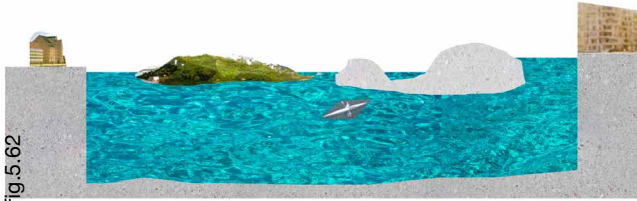


fig. 5.62

fig. 5.63 Case study notes



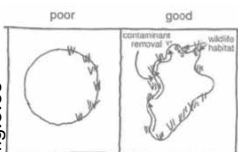
## Riparian beach

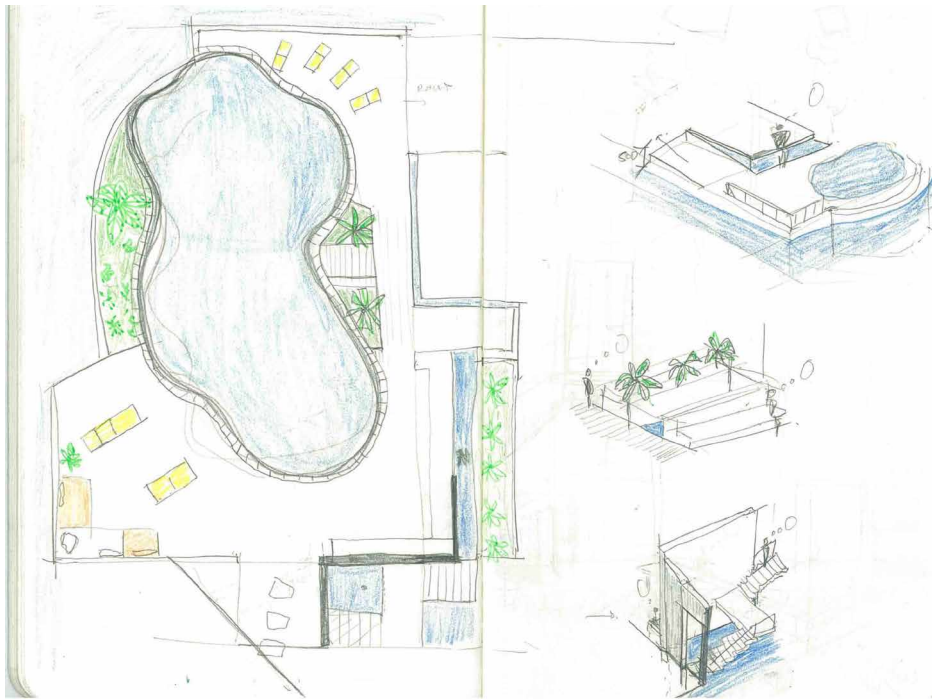
fig. 5.64

Sketch development  
of the Park. The  
coloured sketch  
highlights potential  
'beach' riparian  
areas. Irregular  
shorelines increase  
the number of sites  
for contaminant  
removal in wetland  
and provide benefits  
to wildlife.



fig. 5.65





To curve or not to

**fig. 5.66**

Sketch of a domestic pool. Initially, curved pools were designed in the scheme but it was felt this was too much 'like a backyard plastic pool.' Rectangular pools were designed to capture a more civic sensibility.



Islands for birds

**fig. 5.67**

Green islands for ecological reasons and for bird habitation.



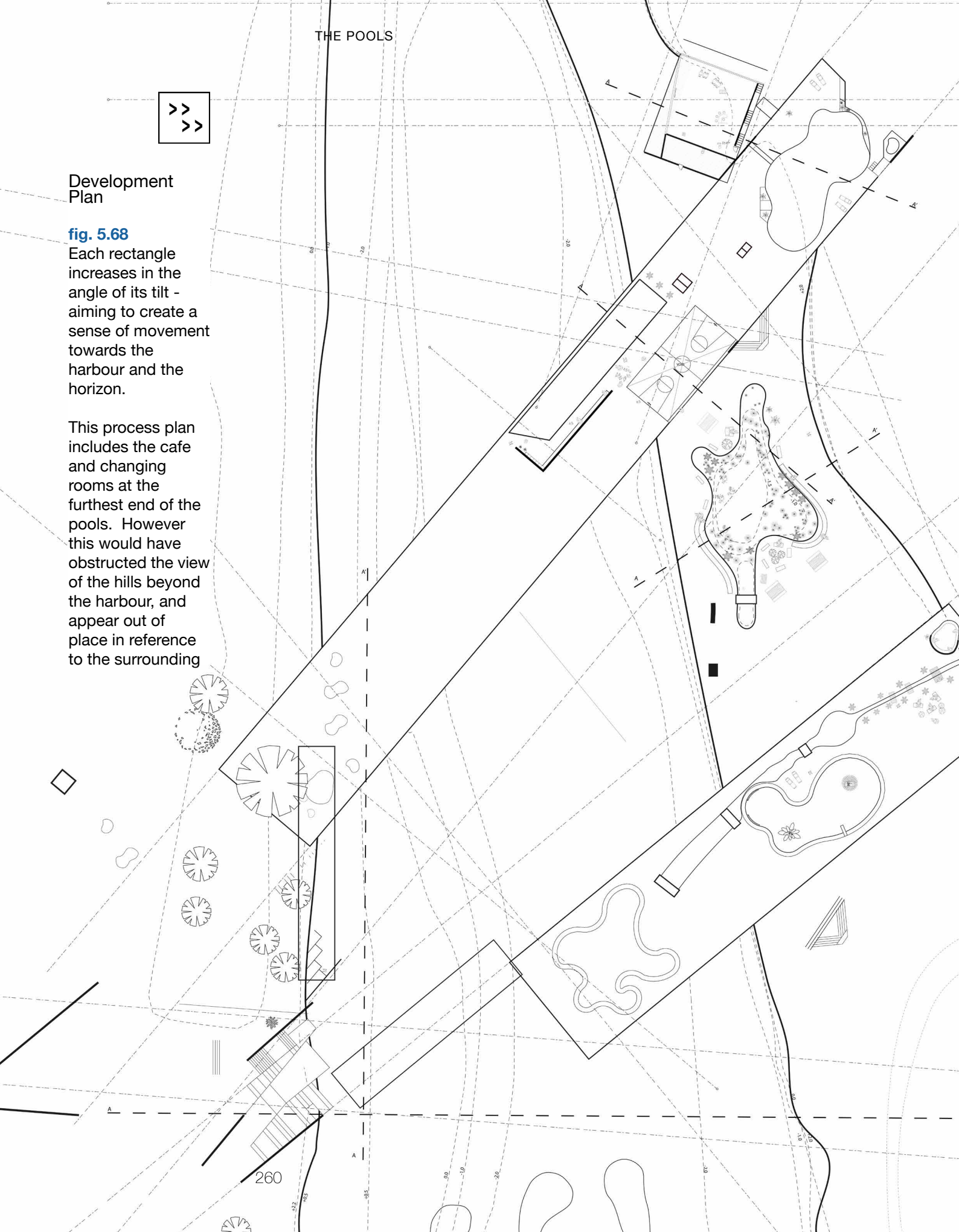


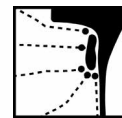
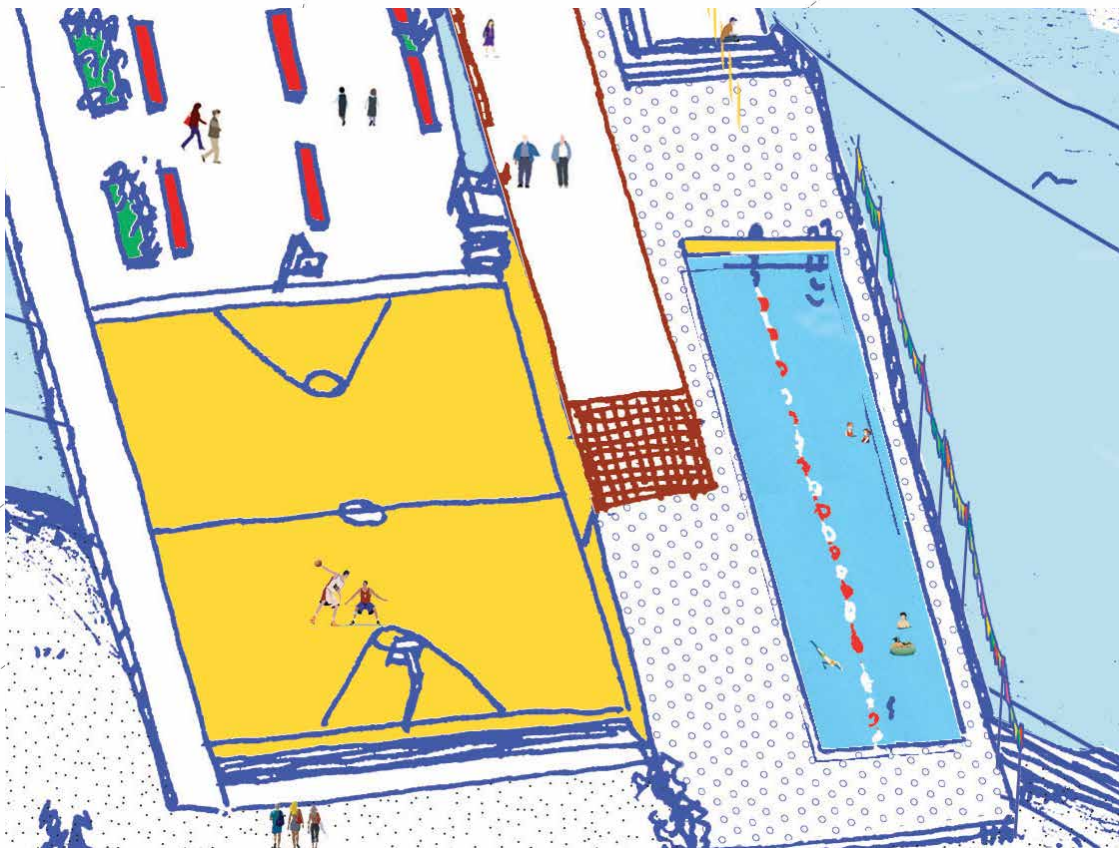
## Development Plan

**fig. 5.68**

Each rectangle increases in the angle of its tilt - aiming to create a sense of movement towards the harbour and the horizon.

This process plan includes the cafe and changing rooms at the furthest end of the pools. However this would have obstructed the view of the hills beyond the harbour, and appear out of place in reference to the surrounding





The Lane Pool

**fig. 5.69**

Two x 50m long by 2.5m wide lanes are included. The pool is heated and is imagined to be used by a variety of people - swimmers wanting to swim laps before work, or the elderly enjoying an afternoon aqua-jog in the sun.

### The Basketball Court

A 26m x 15m sized basketball court, closer to the water's edge, caters for the youth population and encourage new types of public recreation in the city and closer to the water.





## Leca Swimming Pools

Function: Public,  
Changing rooms, a cafe,  
and two swimming pools  
Location: Leca de  
Palmeira, Portugal  
Time: Project Year 1966  
Architect: Alvaro Siza

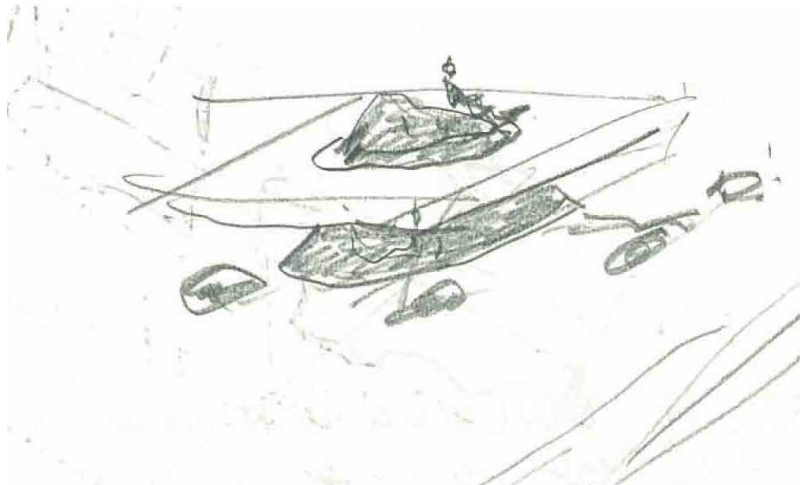
fig.5.70 Collage study and case study notes

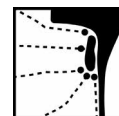


## Rocks and planks

**fig. 5.71**

Sketch of timber  
platforms designed to  
integrate with existing  
landscape.





Integrating with the existing

**fig. 5.72**

Rocks integrated with the platform. Better integration with the start of the 'bridge' could be designed. This drawing shows it to simply sit on top of the existing land. Over time this might naturally look integrated through dirt/overgrown grass.





## Porto Moniz Lava Rock Pools

Function: Natural  
bathing pools,  
kindergaten, facilities  
for disabled, changing  
room, snack bar, first  
aid

Location: Madeira,  
Portugal

Time: Project

Completed Unknown

Architect: Unknown

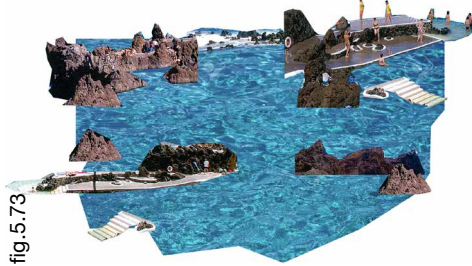


fig.5.73

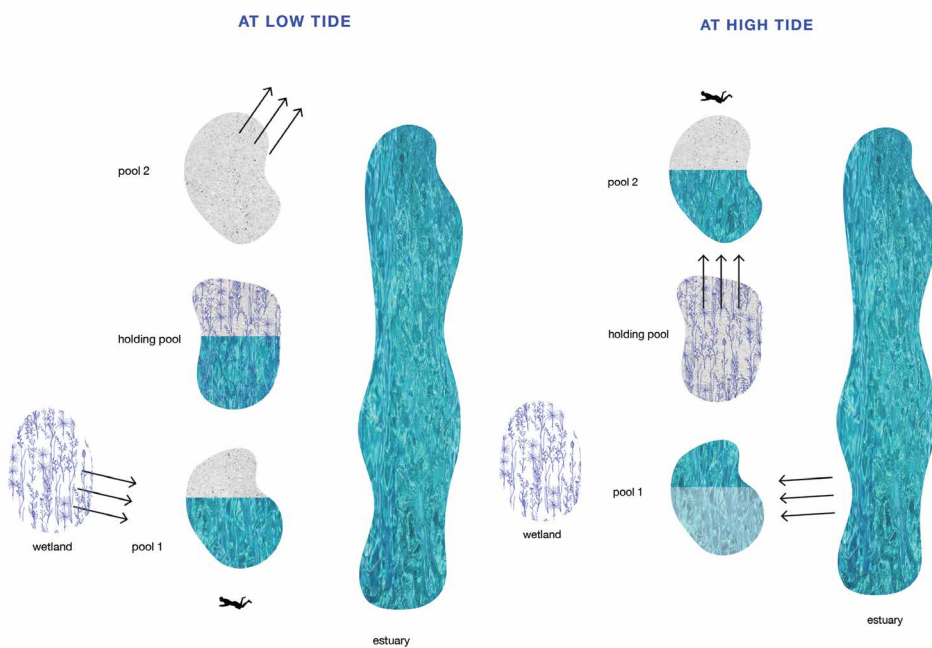
fig.5.74 Case study notes



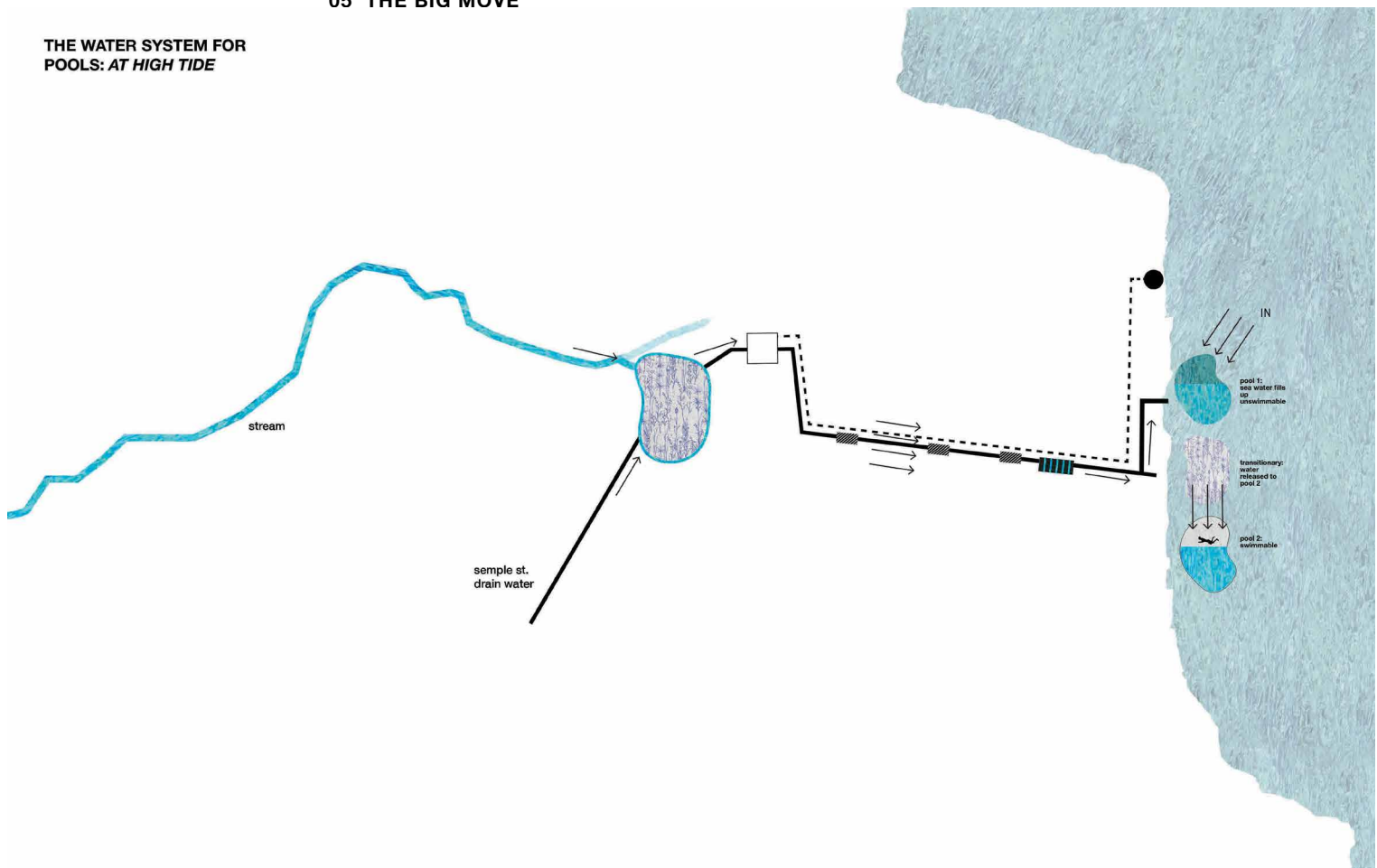
## The Pool Cycle

**fig. 5.75**

The pools process considered a cycle that was based on the tidal movements of the estuary. The intention was that each pool used naturally filtered water and was integrated with the larger water system.



THE WATER SYSTEM FOR  
POOLS: AT HIGH TIDE



### Linking the Pools to the system

**fig. 5.76**

In this idea, water would be piped from the sedimentation pond located on the field closest to it, through a UV lens to the pools, safe enough to swim in. However this system became redundant and too complicated in the development.





## Copenhagen Harbour Bath

Function: Public, Recreation

Location: Copenhagen, Denmark

Time: Project

Completed 2003

Architect: BIG + JDS

fig.5.77 Case study notes

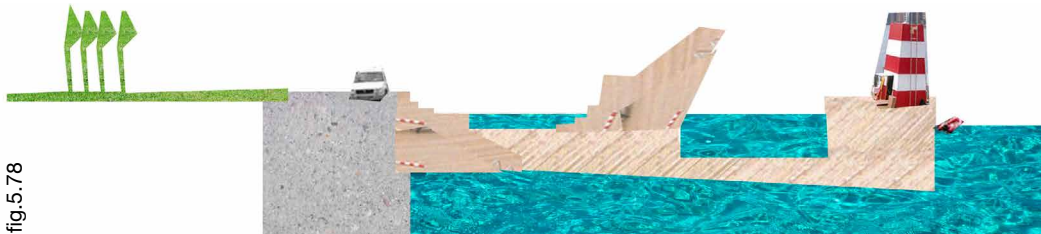


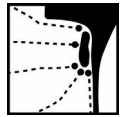
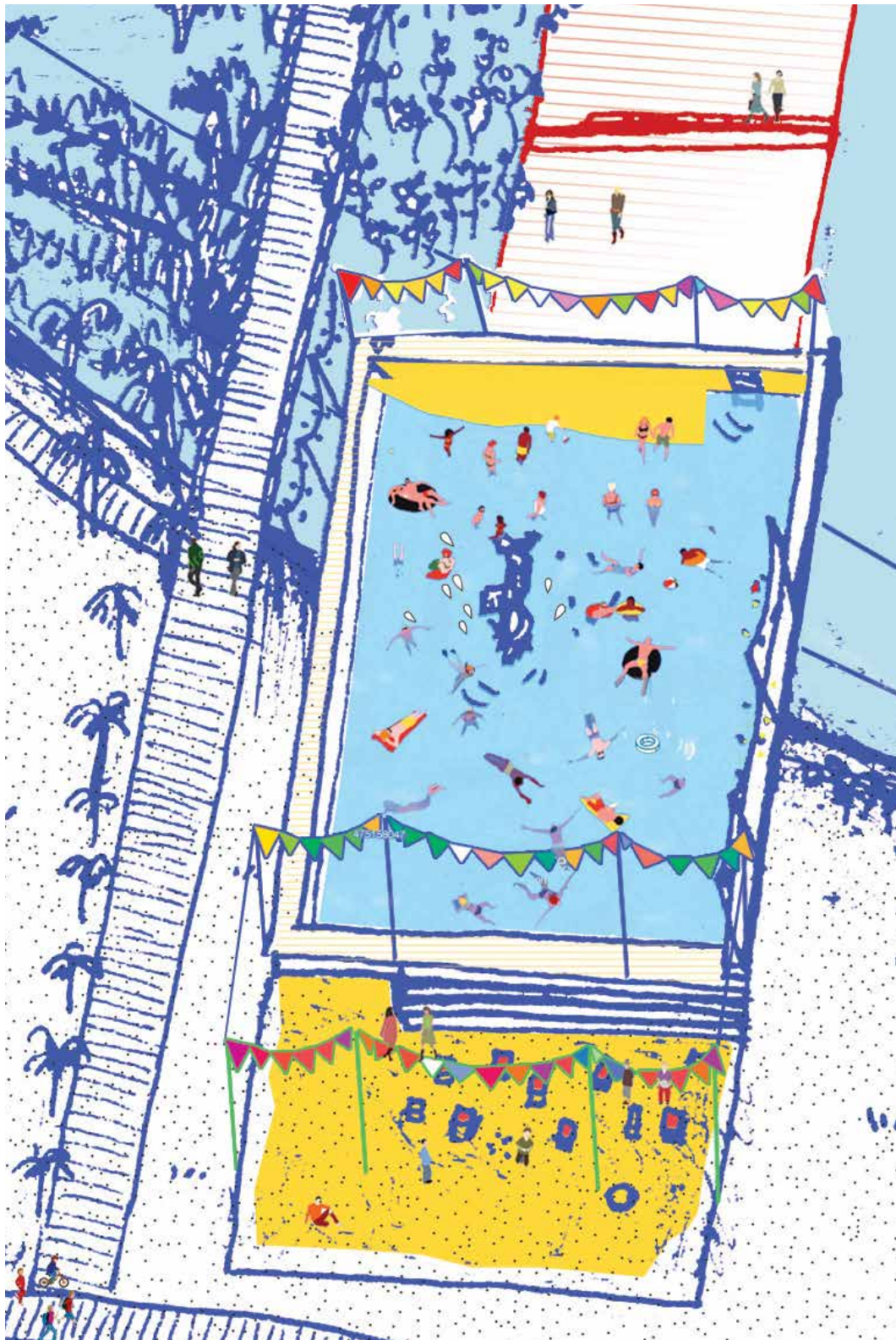
fig.5.78



## Pool Development

**fig. 5.79**  
Cardboard modeling of the pools, testing height of stairs and the gradients of pools.





A jumping platform

**fig. 5.80**  
The center of The Leisure Pool includes a spiral jumping platform.

A sandpit is designed closer to the shallower end where it is safer for children to swim.

fig.5.80 The Leisure Pool





## Natural Swimming Pool

Type of use: Public, changing rooms, cafe

Location: Naturbad Riehen, Switzerland

Time: Project 2007 - 2008, realization 2010 - 2014

Architect: Herzog & de Meuron

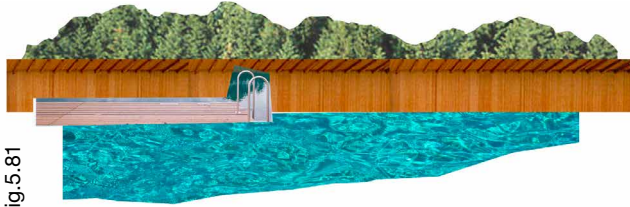


fig. 5.81

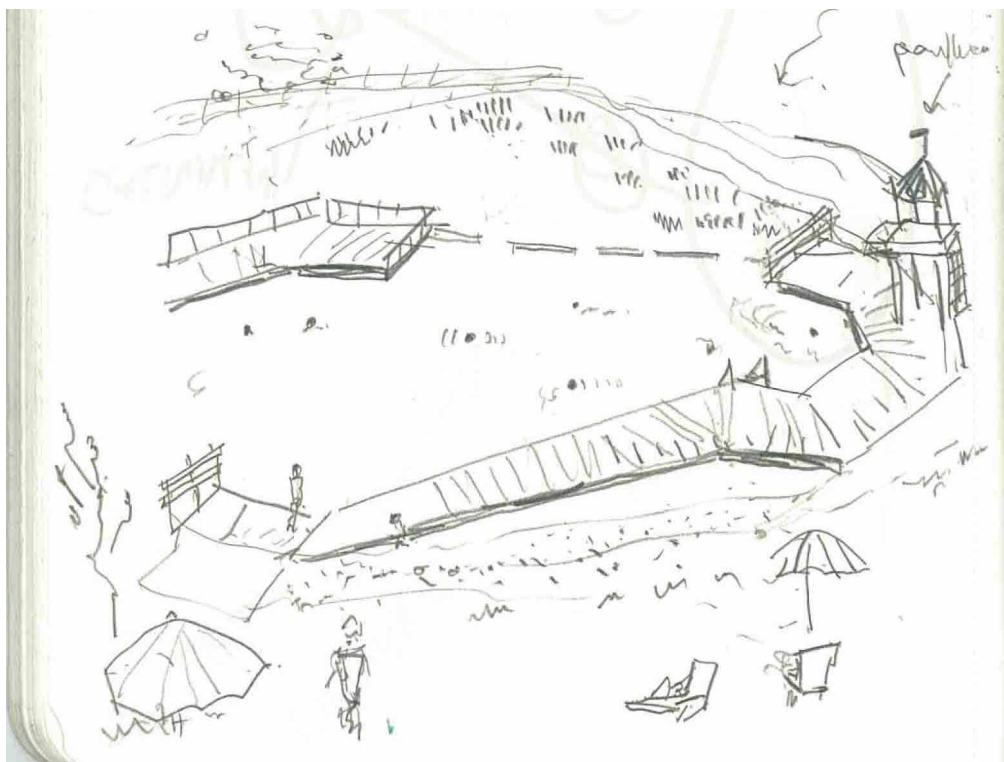
fig. 5.82 Case study notes



## A sedimentation pond

**fig. 5.83**  
The middle pool in the development plan was not considered as a swimming pool but as a sedimentation pool used to treat and transfer water between pool cycles.

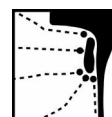




Naturally treated water to swim in

**fig. 5.84**

This middle pool was seen as an opportunity for a naturally filtered swimming pool. This was influenced by Herzong & de Meuron's natural pool in Switzerland. The timber platforms in the pool are also influenced by the timber used in this project as it adds to the natural impression.

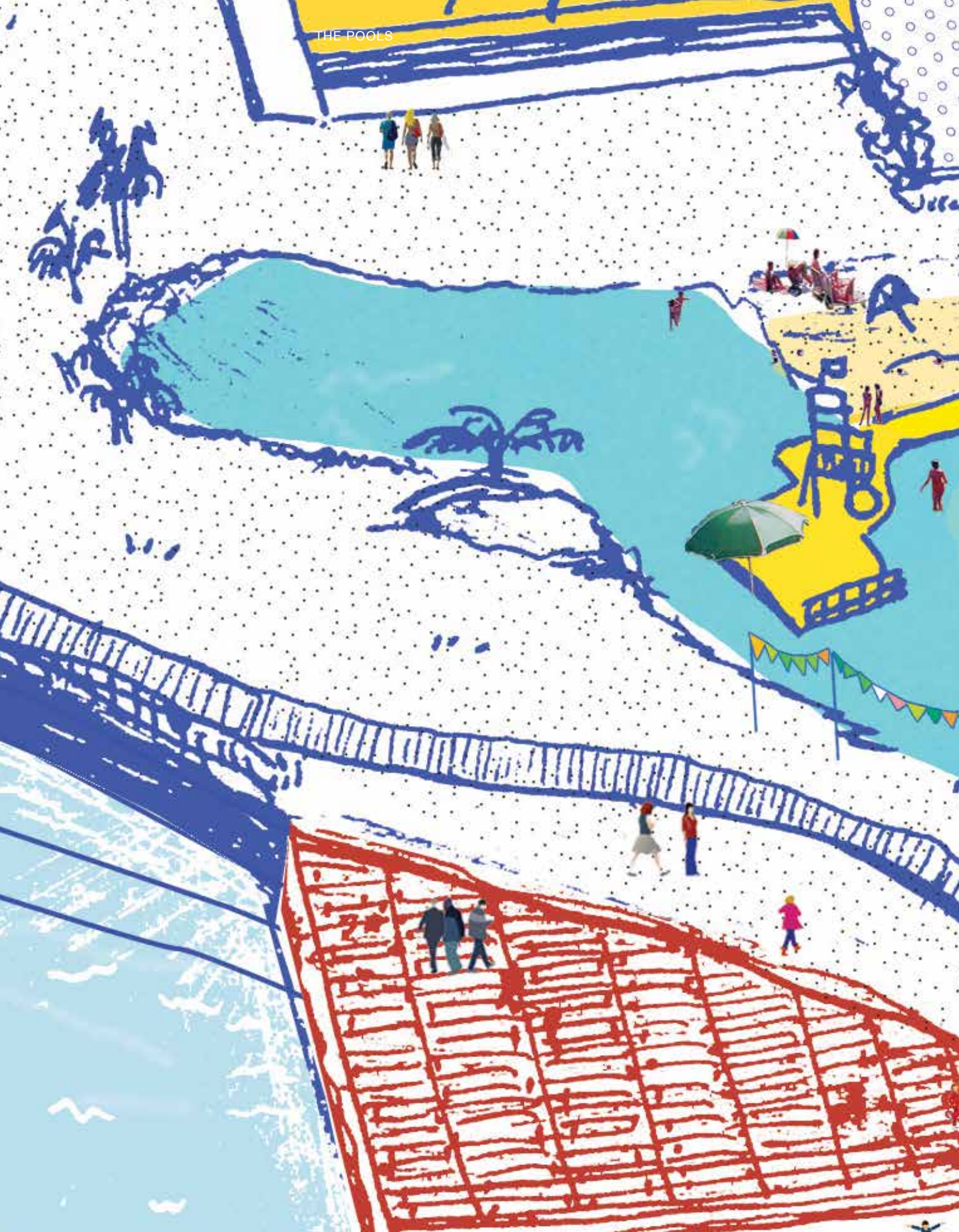


The Natural Pool

**fig. 5.85**

Designed sand/soft rocks to the entry of the pool mimic a river. Long grass surrounds the other end of the pool to provide a screen for swimming and people walking around the park.







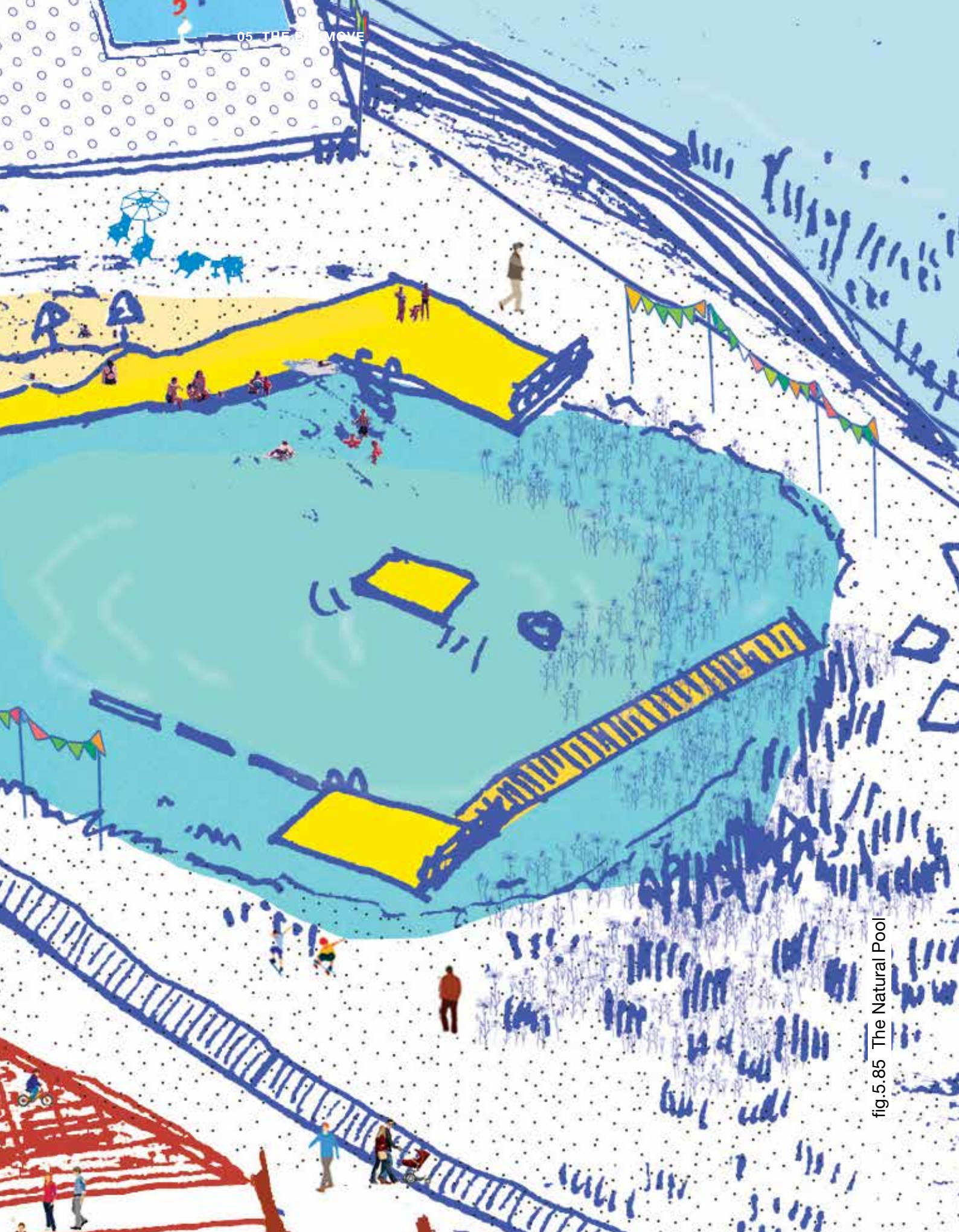


fig.5.85 The Natural Pool





## Naturbad Reihen

Type of use: Public,  
leisure, changing  
rooms

Location: Reichen, Switzerland

Time: Project 2013

Architect: Herzog & de Meuron

What: Naturally  
filtered swimming  
pools, kept clean  
using water plants,  
layers of gravel, sand  
and soil.

fig.5.86 Case study notes

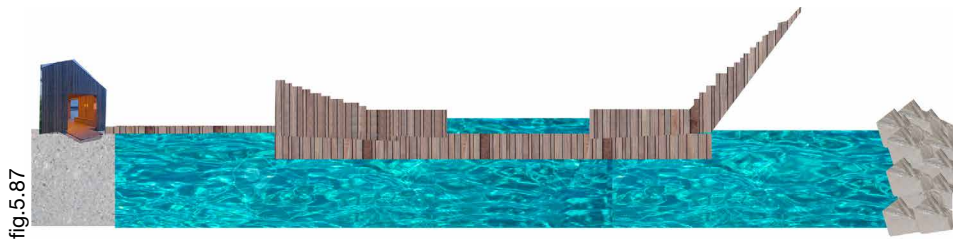


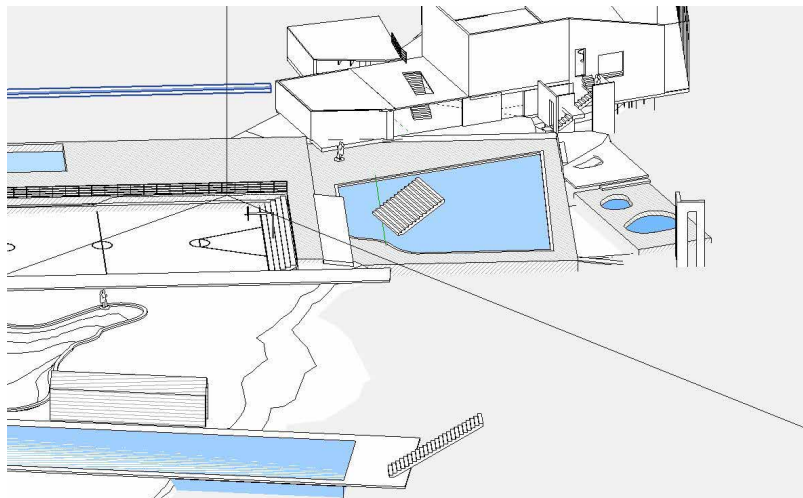
fig.5.87

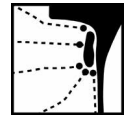
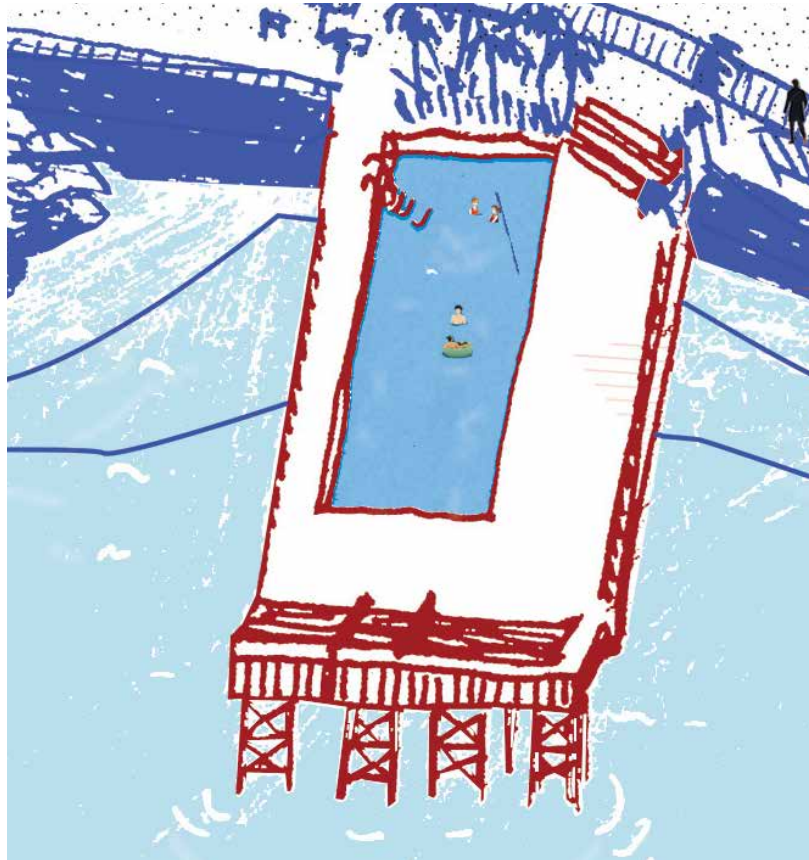


## Computer Development

**fig. 5.88**

The development plans modeled into Revit. The tidal levels were explored, leading to other explorations in section.



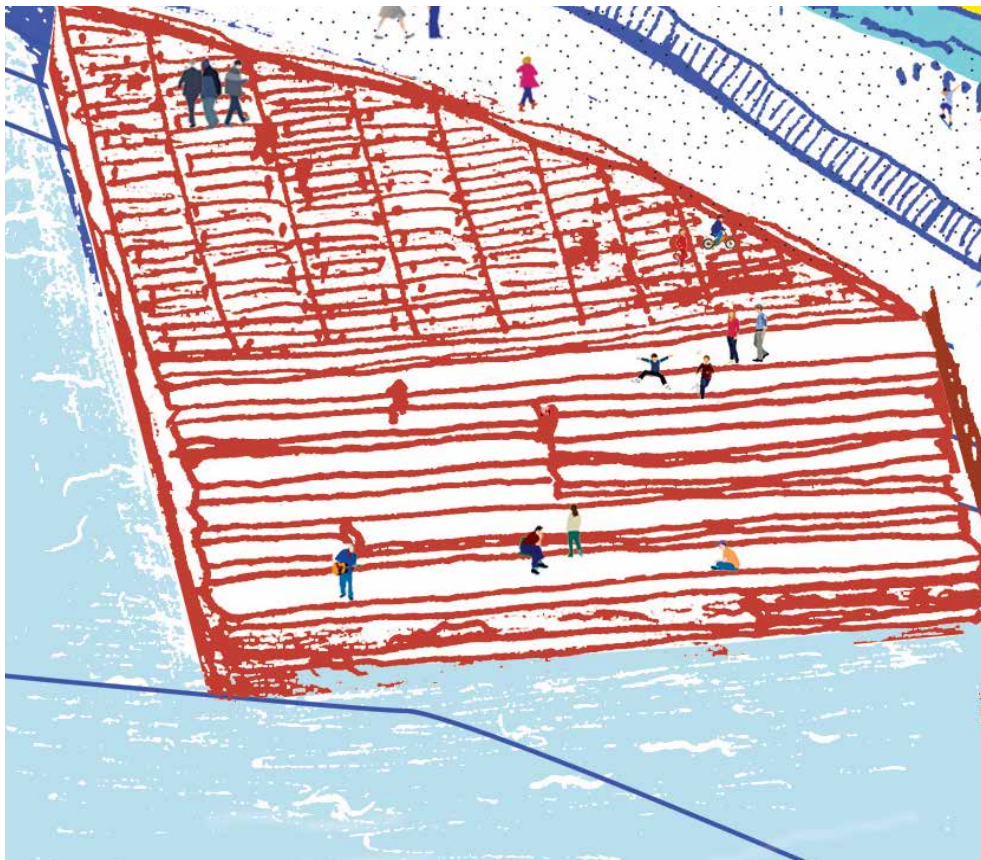


## The Heated Pool

**fig. 5.89**

The heated pool is designed to be out in the open so that occupants can enjoy a warm swim even in cold weather.

Influenced from projects like Naturbad Riehen, the stairs double as seating and provide a lookout over the water, with a backdrop of the hills, and safety barriers at the top.



## The Stairs

**fig. 5.90**

These stairs are designed to allow people to walk down to the estuary and even out onto the harbour when the tide is very low. This is where children can feed the birds and ducks.





## Yarra River, Floating Swimming Pool

Type of use: Recreation  
Location: Melbourne's Yarra River, Australia  
Time: Proposal 2016  
Architect: Studio Octopi

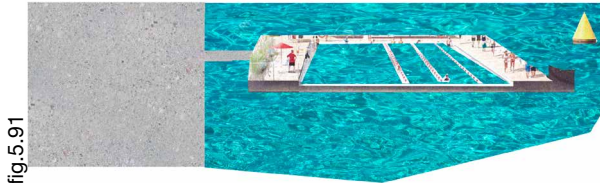


fig. 5.91

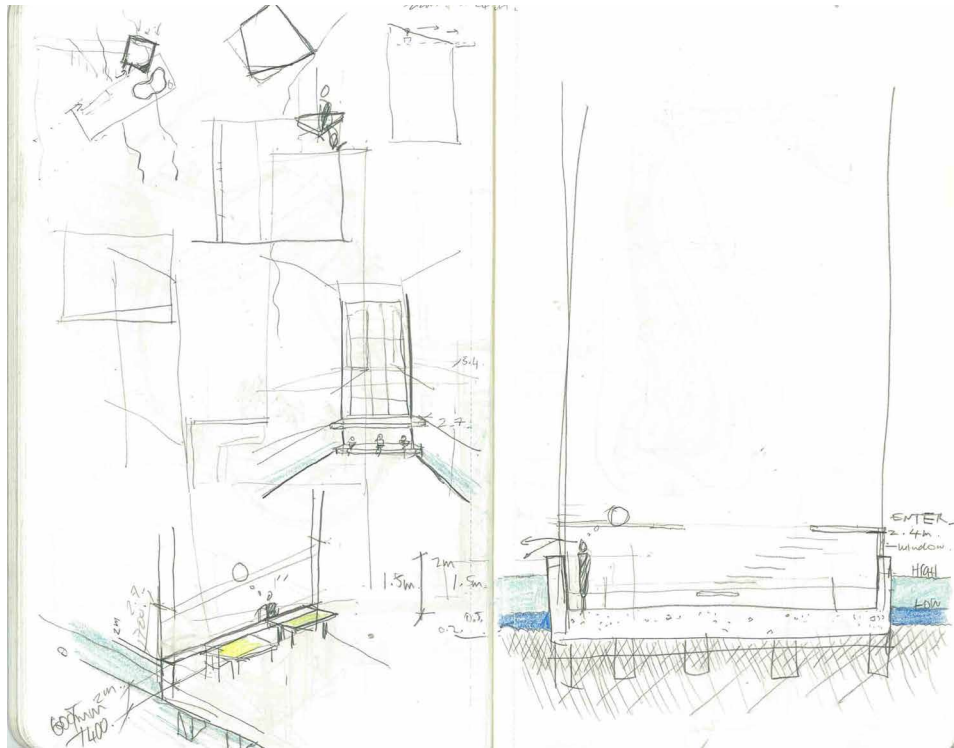
fig. 5.92 Case study notes

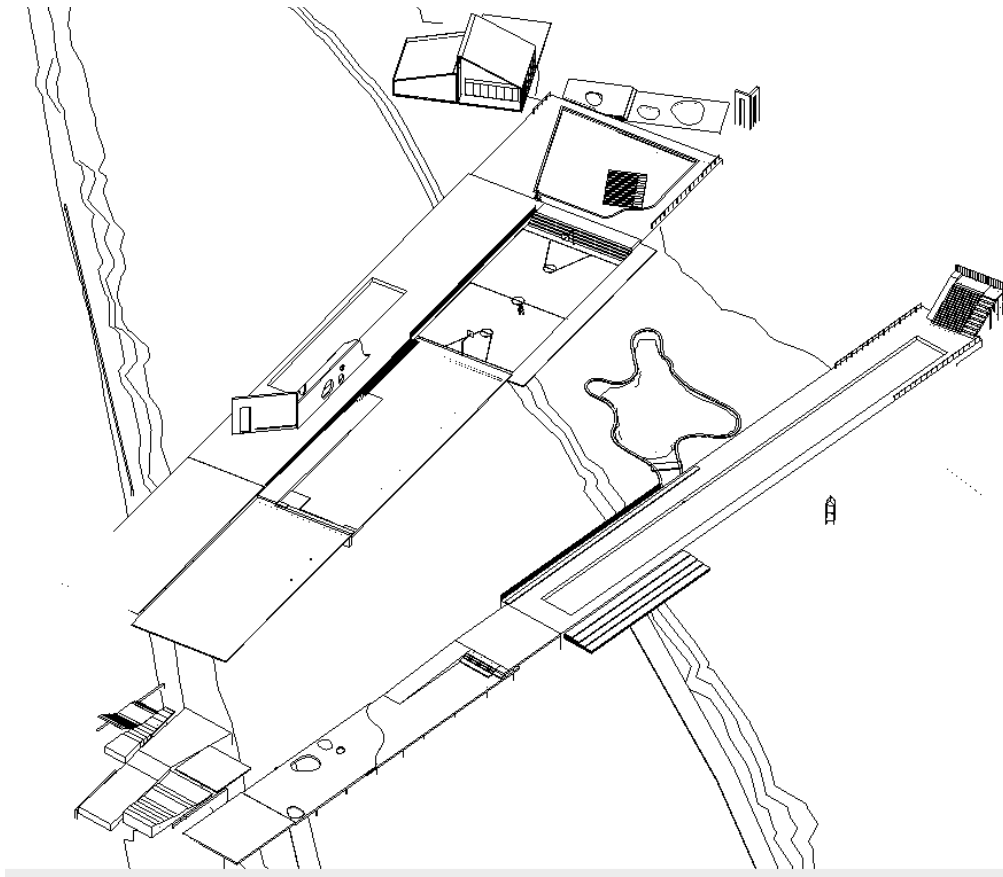


## The Cafe

**fig. 5.93**

The cafe was initially designed to be right next to the Leisure Pool. It was set with a low foundation, where the tide would play an active role in making occupants feel they were submersed in the harbour.



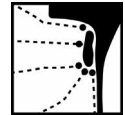


### Revit Model

**fig. 5.94**

This revit model shows where the cafe and changing rooms were initially located. This image also shows an early development of the pools.

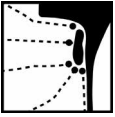
The computer models lost a sense of 'fun' through their rectilinear forms - influencing the decision to present the design as hand drawings.



### Pools as Partitions

**fig. 5.95** Wetland guide diagram - The pools mimic the performance of partitions that separate the stages of wetland treatment.

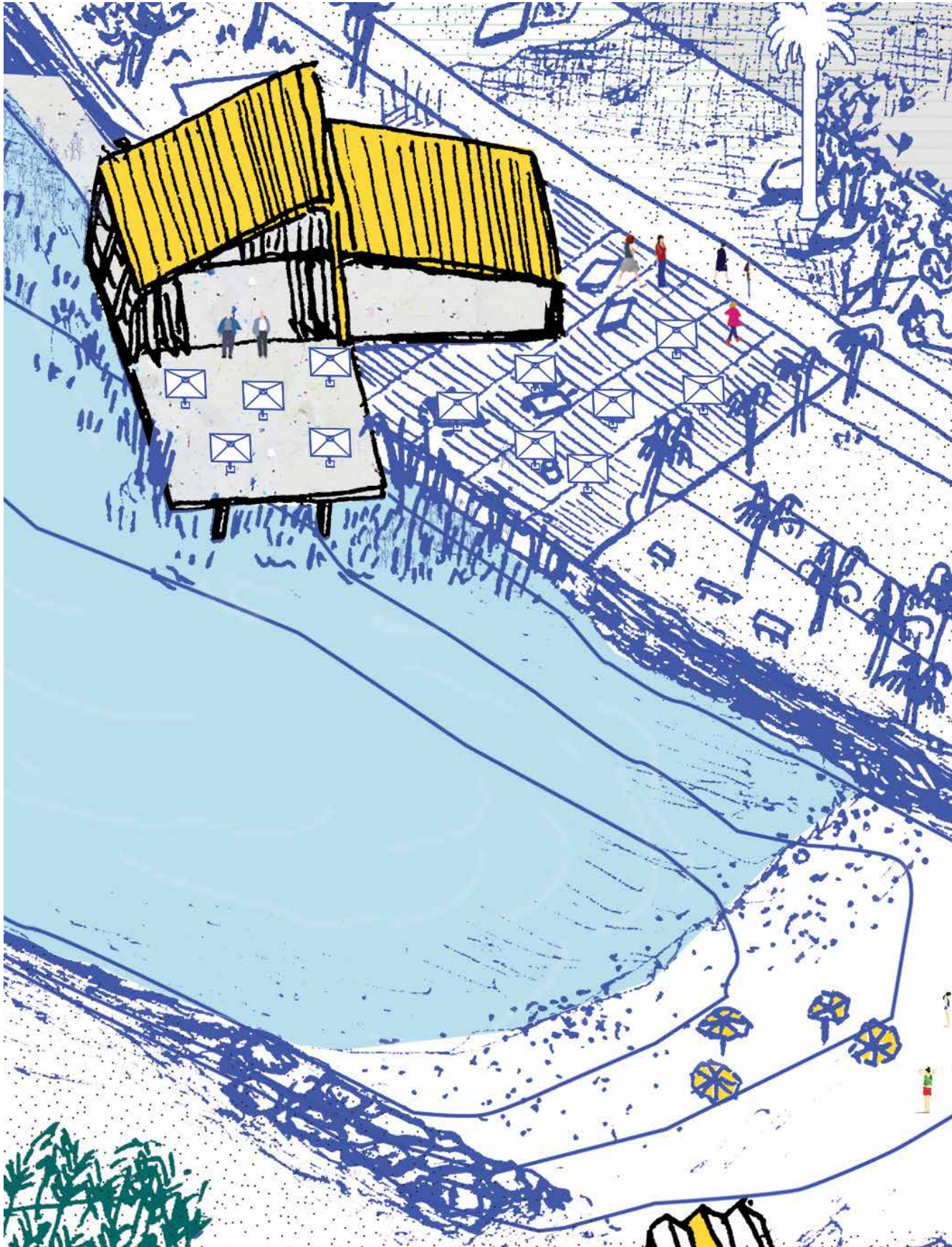




### Cafe/changing rooms

**fig. 5.96**

The cafe and changing rooms are designed to be near to and look out over the Beach Pool. The building is also the 'Porirua City' storybox - the detailed design would integrate some aspects of the Porirua City Centre history.





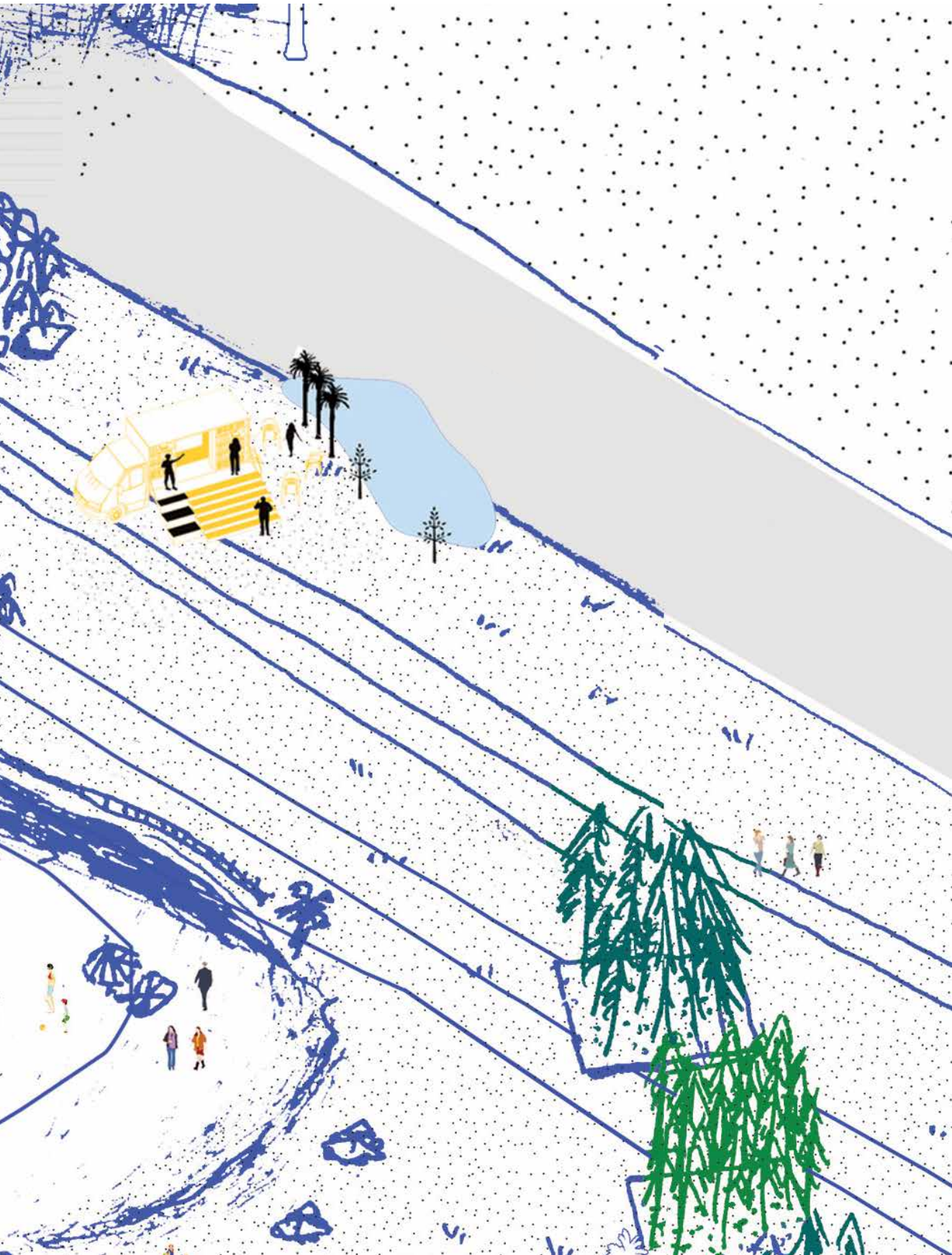


fig.5.96 The Beach Pool - Cafe/Changing Rooms - a Mobile Library from The Toolkit



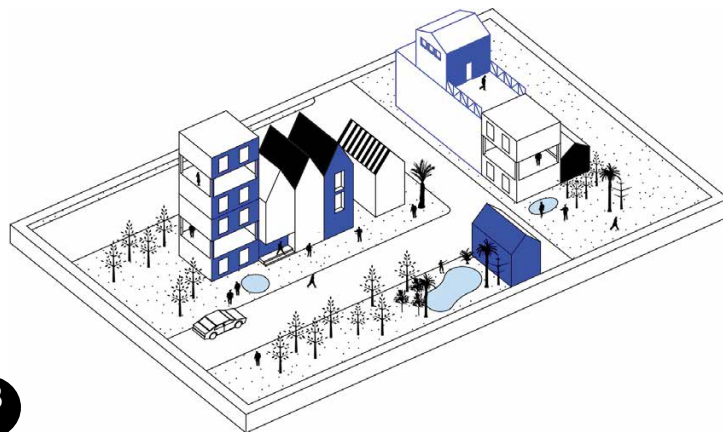
## THE HOUSING A STRATEGIC APPROACH

Three areas around Te Awarua Park are strategically located for housing development. The focus is to integrate the housing within its context. The harbour acts as prominent frontyard and a large backyard, considering the relationship between public, private, and shared spaces.

This 'strategic approach' suggests that future development of housing must consider a positive relationship with the public realm. Future detailed development of private dwellings can and should compliment its public context rather than ignore it. Each housing project has the potential to be an urban activity generator - providing the area with life and atmosphere for residents and guests.

**fig. 5.97** Opposite  
1:1200 cardboard  
model of Te Awarua  
Park, with the  
housing areas  
located in pink acrylic

fig.5.98 Economic - Theme 8 Housing - Tool 8d  
New Dwellings



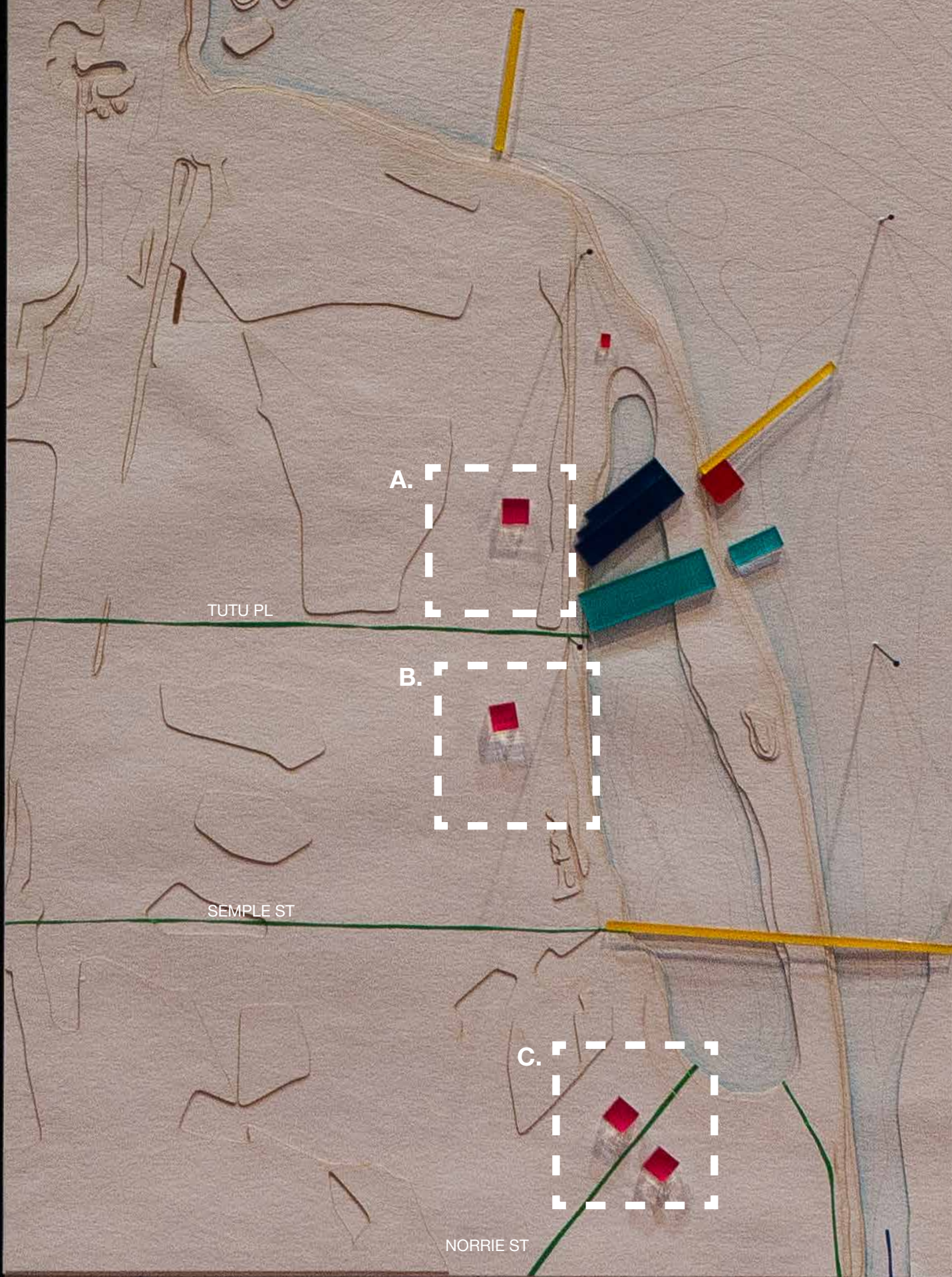
08  
d

### NEW DWELLINGS

**TOOL** New housing types.

**AIM** To offer new qualities of housing that are integrated with water sensitive urban design where possible.





A.

TUTU PL

B.

SEMPLE ST

C.

NORRIE ST



**Location A**

The Big Move applies an urban campsite from The Toolkit, and smaller new typologies of housing as a method for temporary accommodation in this area.

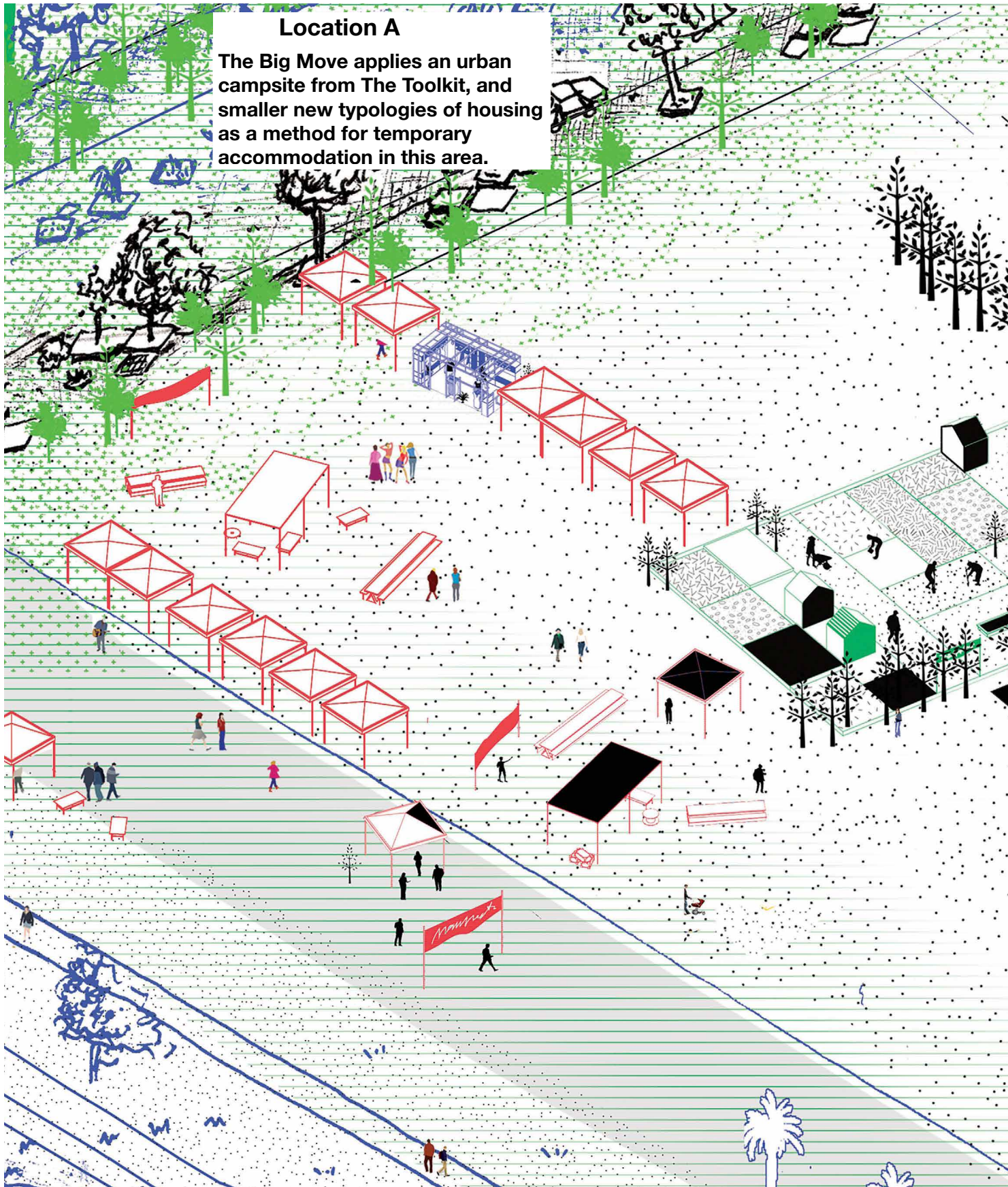






fig.2.36 'Location A' Crop from The Big Move





## Pac de la Villette

Function: Landscape  
Masterplan  
Status: Competition  
Location: Paris,  
France  
Year: 1982  
Architect: OMA

**fig. 5.99**

OMA's project  
provided an example  
of how to super  
impose different  
layers together.

fig.5.99 OMA case study

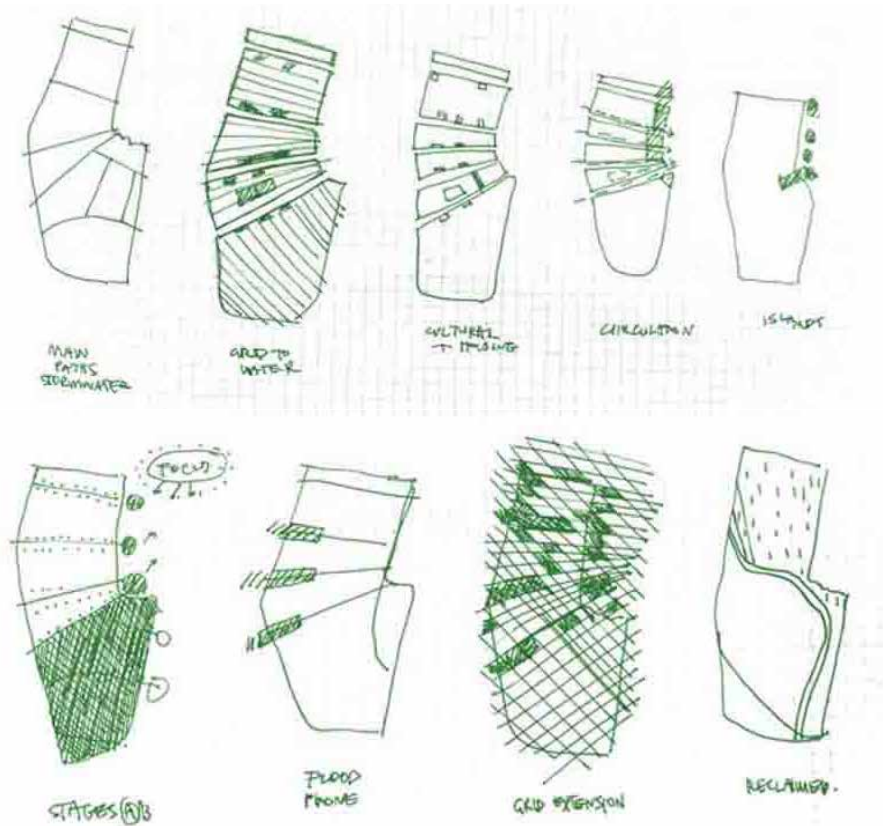


## Layering

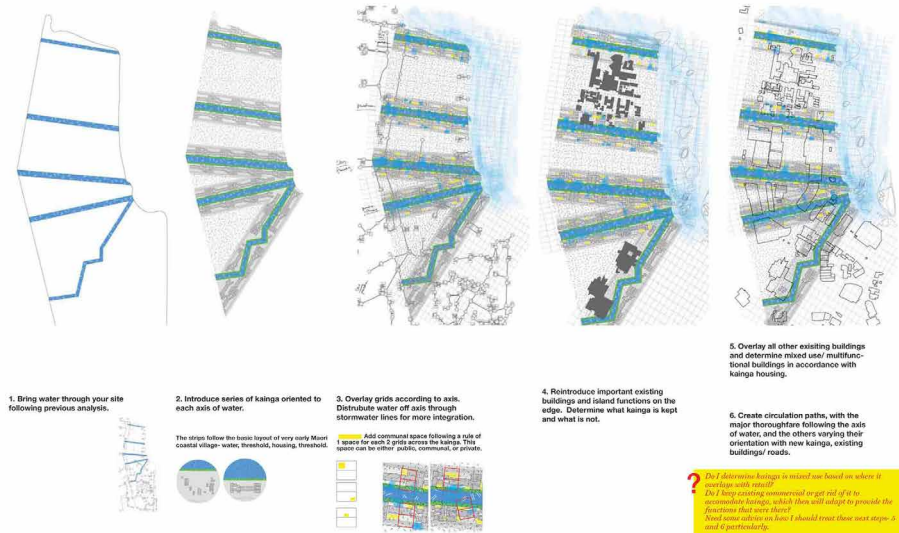
**fig. 5.1.0**

Sketches exploring  
OMA's approach to  
the site: identifying  
separate elements  
that make up the city  
and then layering  
together.

fig.5.1.0 OMA theory to site



## Reconstructing the landscape



## Arranging the Housing to an Axis

fig. 5.1.1

Housing is placed along the axis similar to OMA park, yet, this differs to the OMA approach as the housing here had to consider existing conditions whereas OMA did not.

Therefore this approach felt too controlled and linear. This followed the development of The Toolkit which allowed housing to be applied to site more flexibly.



## The locations

fig. 5.1.2

Areas around the city were pinned according to whether they had potential to contribute to:

1. Ecological sensitivity;
2. Mixed-use development;
3. and amenity from the landscape.

The Strategy developed this further by choosing three areas along the harbour for developing housing.

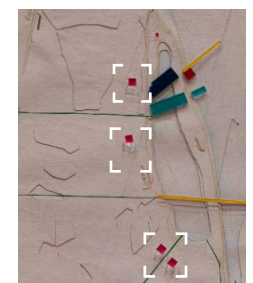
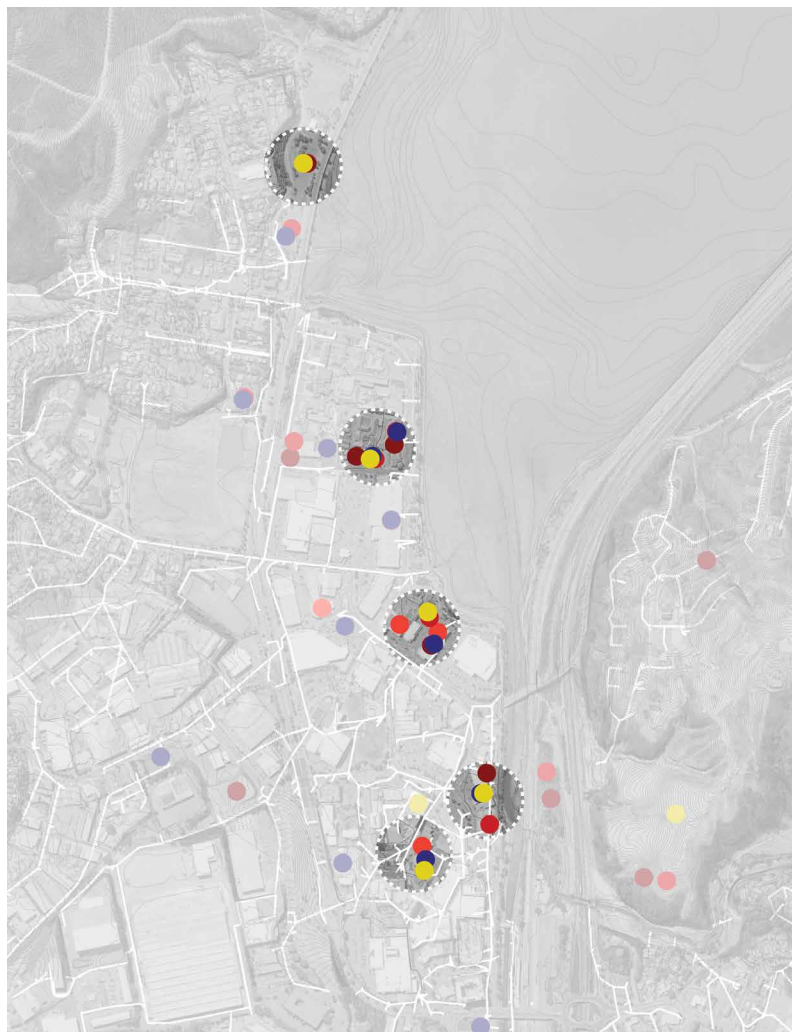
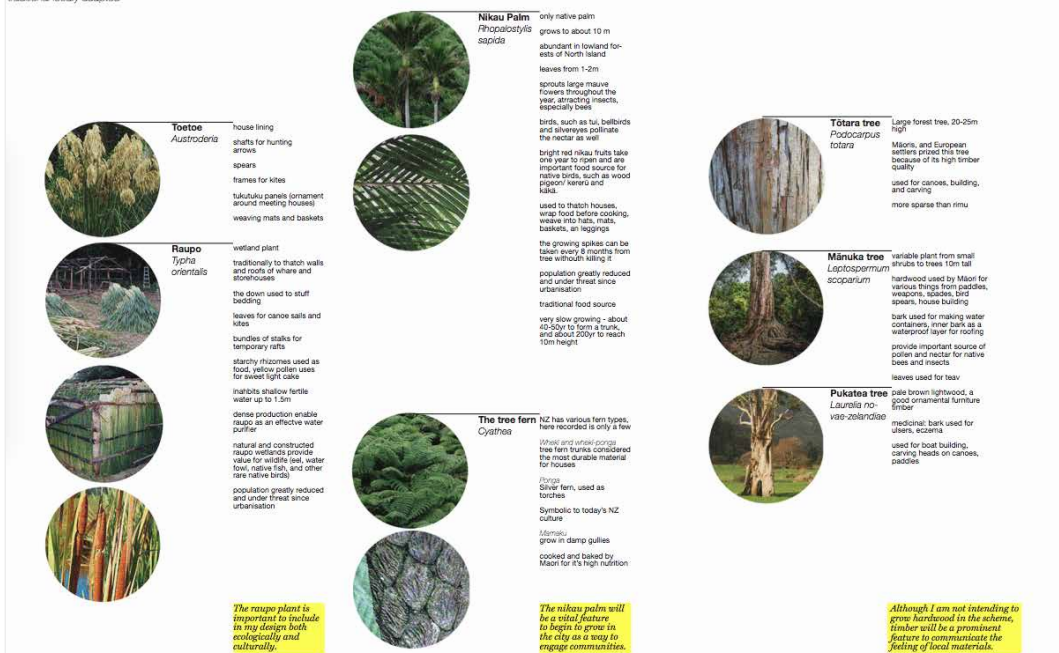


fig. 5.1.3 Development areas



**The thesis investigated what ‘the program’ was to bring change around the harbour. Before The Strategy discovered that the ‘answer’ was through multiple actions, housing was considered as the main program to design and detail.**

## Materials



This study also informed the storybox design.

**Form and function**  
a brief catalogue  
*traditional architecture*

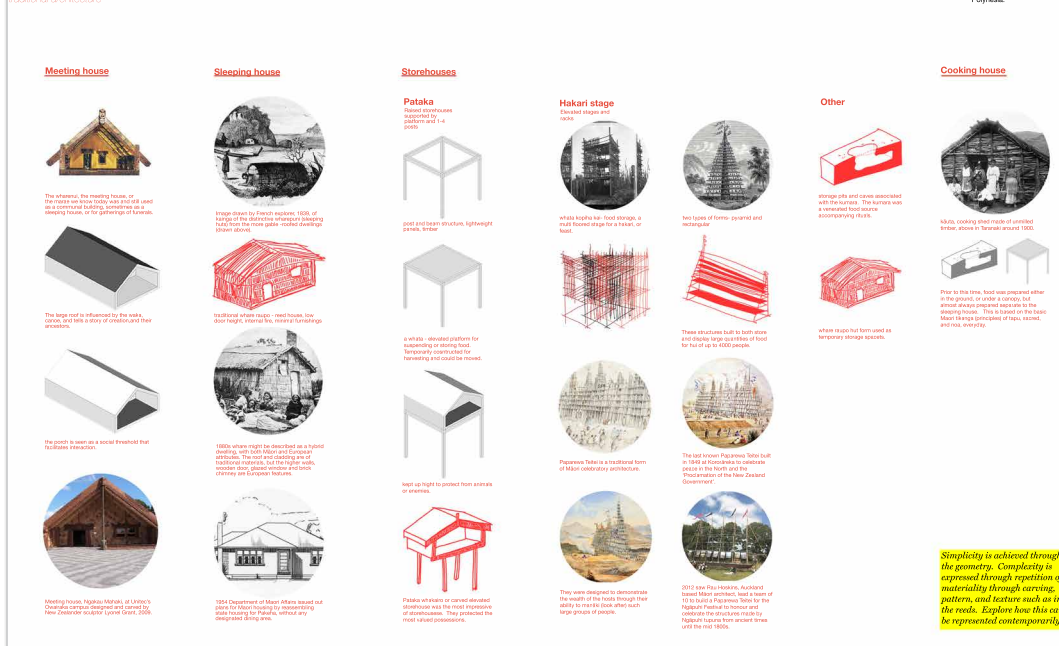


fig. 5.1.6  
Brief study of  
different forms  
of housing in the  
Pacific.

fig. 5.1.7  
Brief study of  
aspects of the village  
settlement.

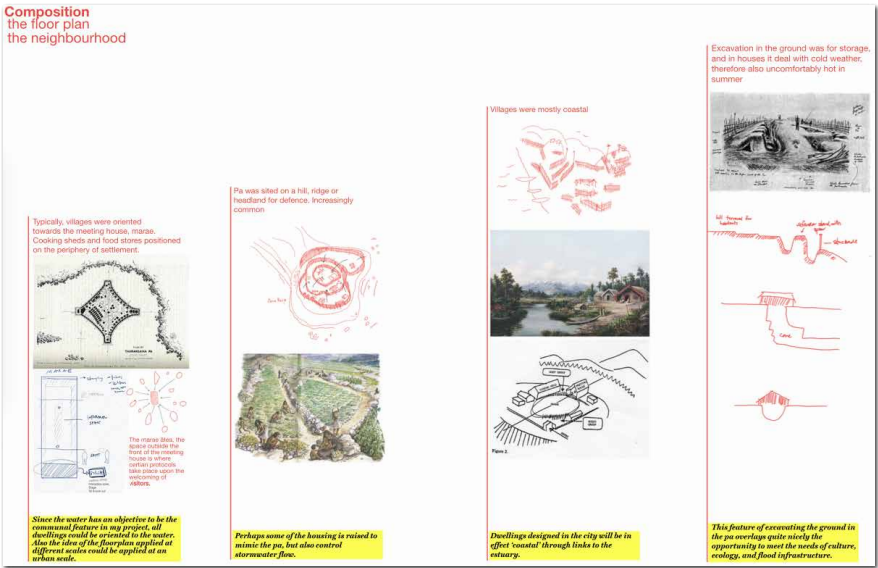
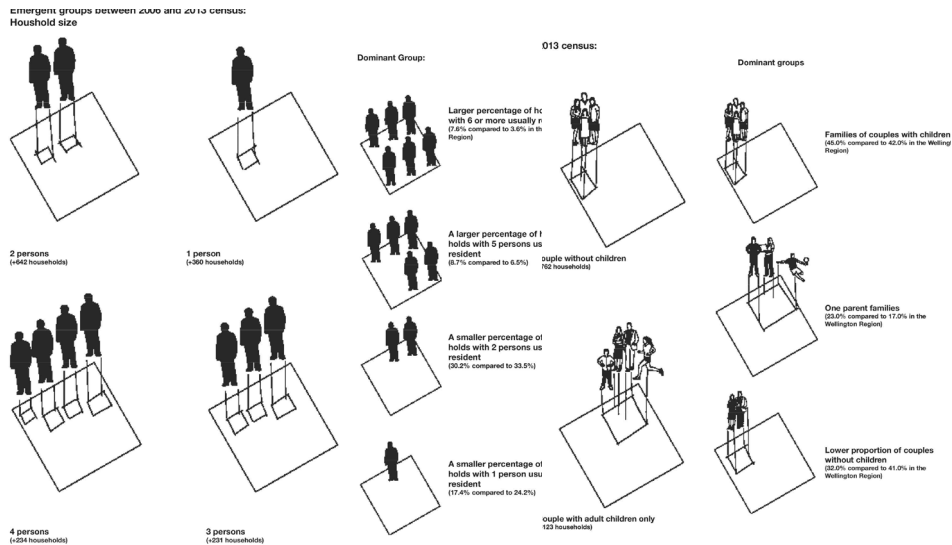


fig. 5.1.8  
Brief Study of  
composition of  
Maori villages.



**fig. 5.1.9**

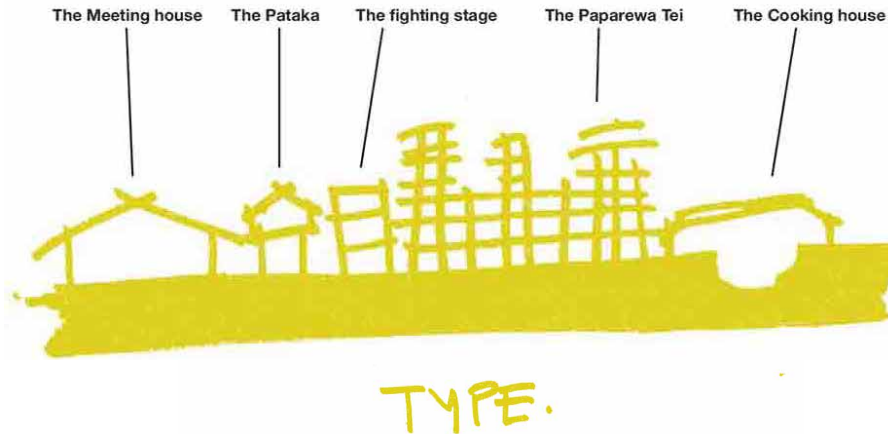
A study of housing demographics found that there was a larger percentage of families with 5 or more people, and emergent groups being 1 and 2 person households in Porirua.



## The types

**fig. 5.1.10**

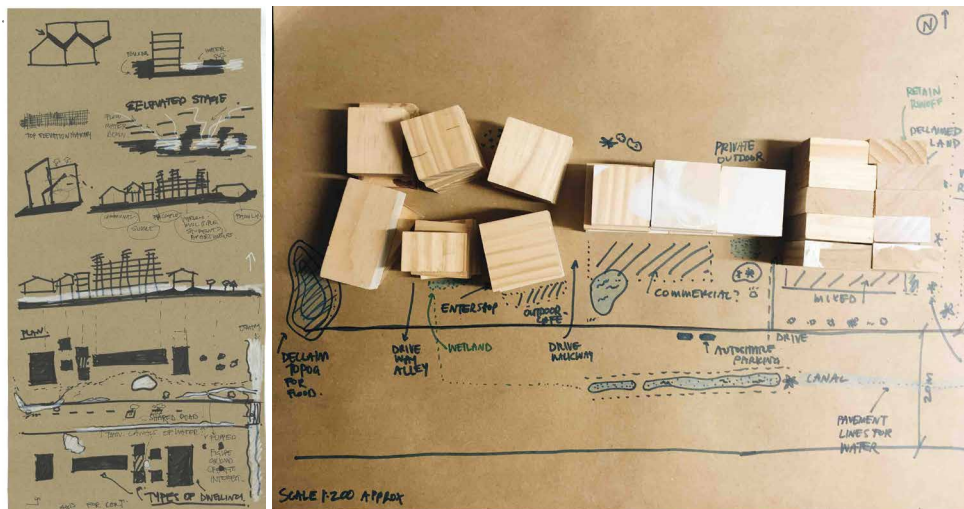
Based on a previous study of Maori architectural types, dwelling types were allocated to forms according to appropriate size.



## Block tests

**fig. 5.1.11**

Test iterations considered how different forms might work as separate blocks to create a 'village' feel - encouraging occupation between inside and outside. This test explored rain gardens as an integral part of the whole water system.





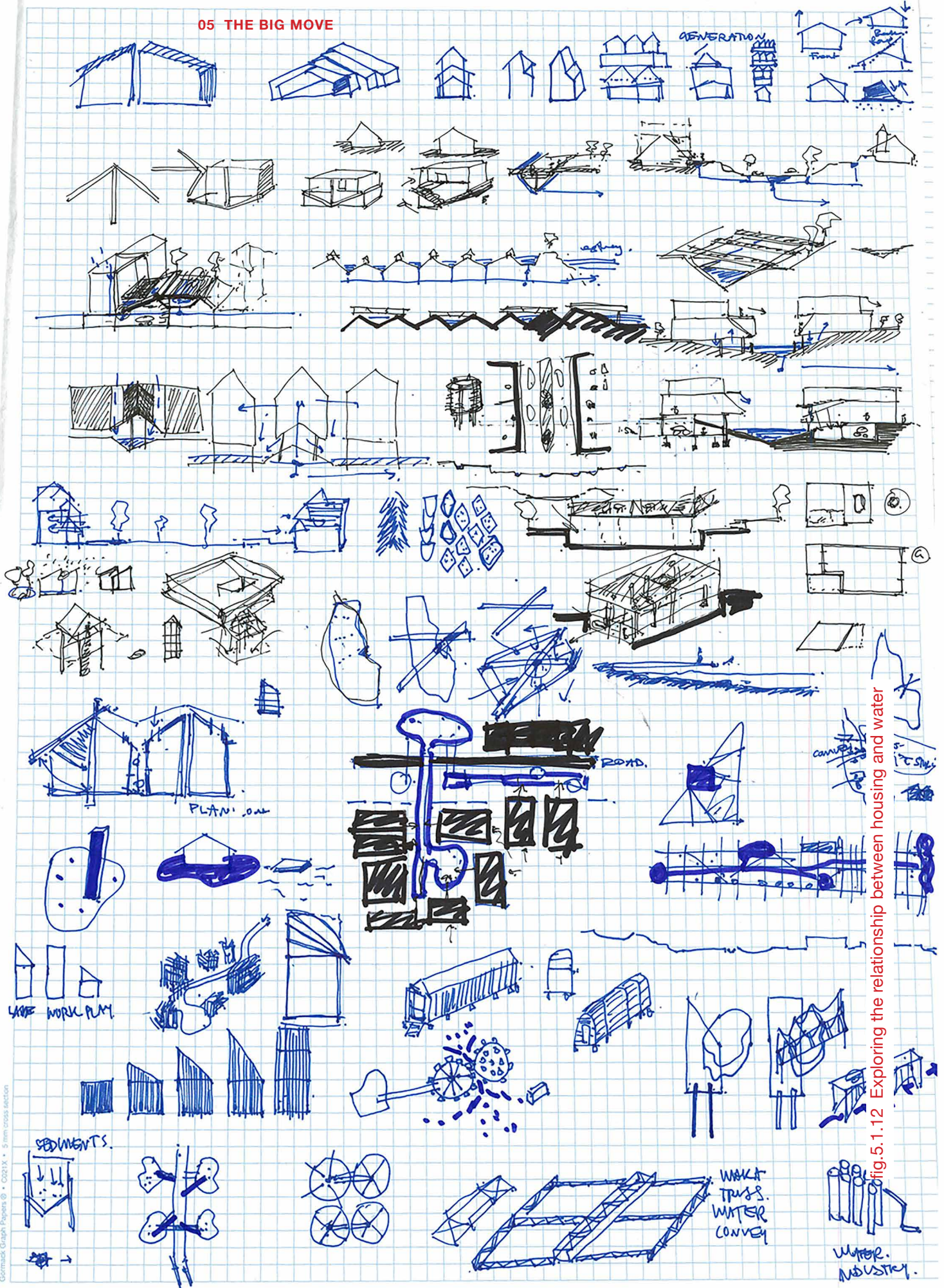
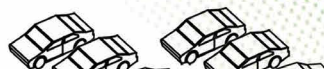


fig. 5.1.12 Exploring the relationship between housing and water









## Location B

Housing is designed on top of the retail spaces below. Houses are arranged to face the harbour where possible.

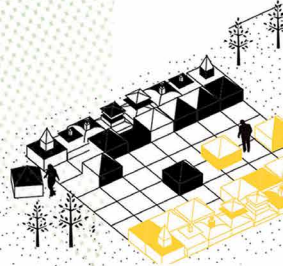
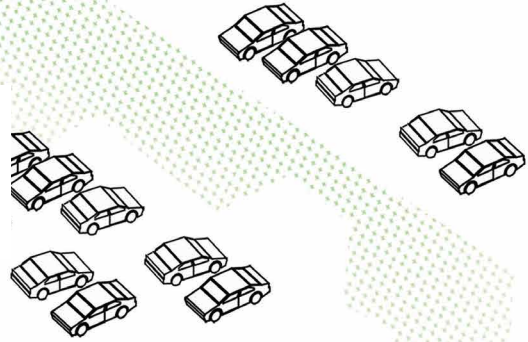


fig. 2.36 'Location B' Crop from The Big Move





## The Commons

Type of use: Shops, studio spaces, lobby (ground floor), 24 apartments, shared facilities on roof terrace

Location: Melbourne

Completed: 2014

Architect: Breathe Architecture

fig.5.1.13 Front facade

### fig. 5.1.13 Above

The Commons' key facade contains generous balconies, encouraging social sustainability and street engagement.

### fig. 5.1.14

The rooftop terrace is used as a gathering place, contains shared laundries, edible garden beds, BBQs, washing lines and beehives.

fig.5.1.14 Rooftop Terrace

### fig. 5.1.15

A community notice board encourages the 'know your neighbours' ethic.

fig.5.1.15 Community notice board

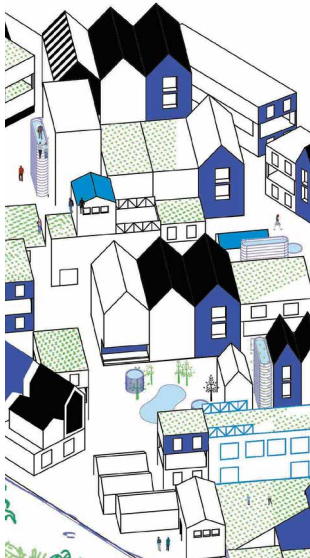
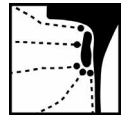


fig.5.1.16 Housing oriented along pools axis



fig.5.1.17 Interim spaces for shared



## Location B

fig. 5.1.16

The housing in the centre is oriented along the same axis as the pools, continuing a trajectory sense of 'moving through the harbour.' This avoids repetition and allows further open spaces between dwellings.

fig. 5.1.17

Open spaces on the roof take principles from The Commons, including spaces for shared laundries, BBQs, vegetable gardens, and beehives. The shared water tanks also encourage social, financial and environmental sustainability.

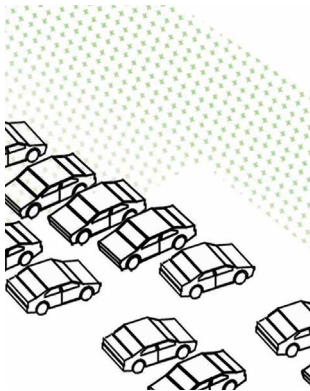


fig.5.1.18 Existing carpark for residents

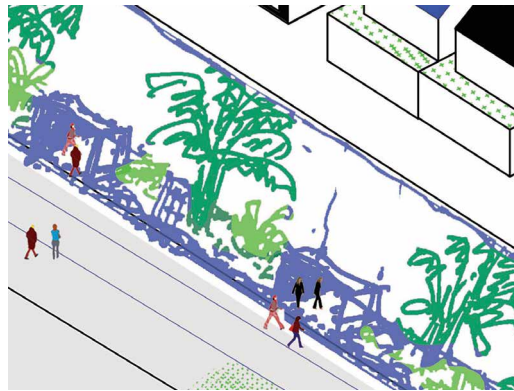


fig.5.1.19 Plant facade

fig. 5.1.19

Plant-facade 'hot-houses' - designed on the back of retail property activate the edge, and provide alternative ways for engaging community in vegetation, and physical connection to the wetland. There is further opportunity for this facade to develop - with the mixed-use functions eventually becoming street fronts.

fig. 5.1.20

Shared access connecting the carpark (fig. 5.1.18) and the harbour.



fig.5.1.20 Thoroughfare







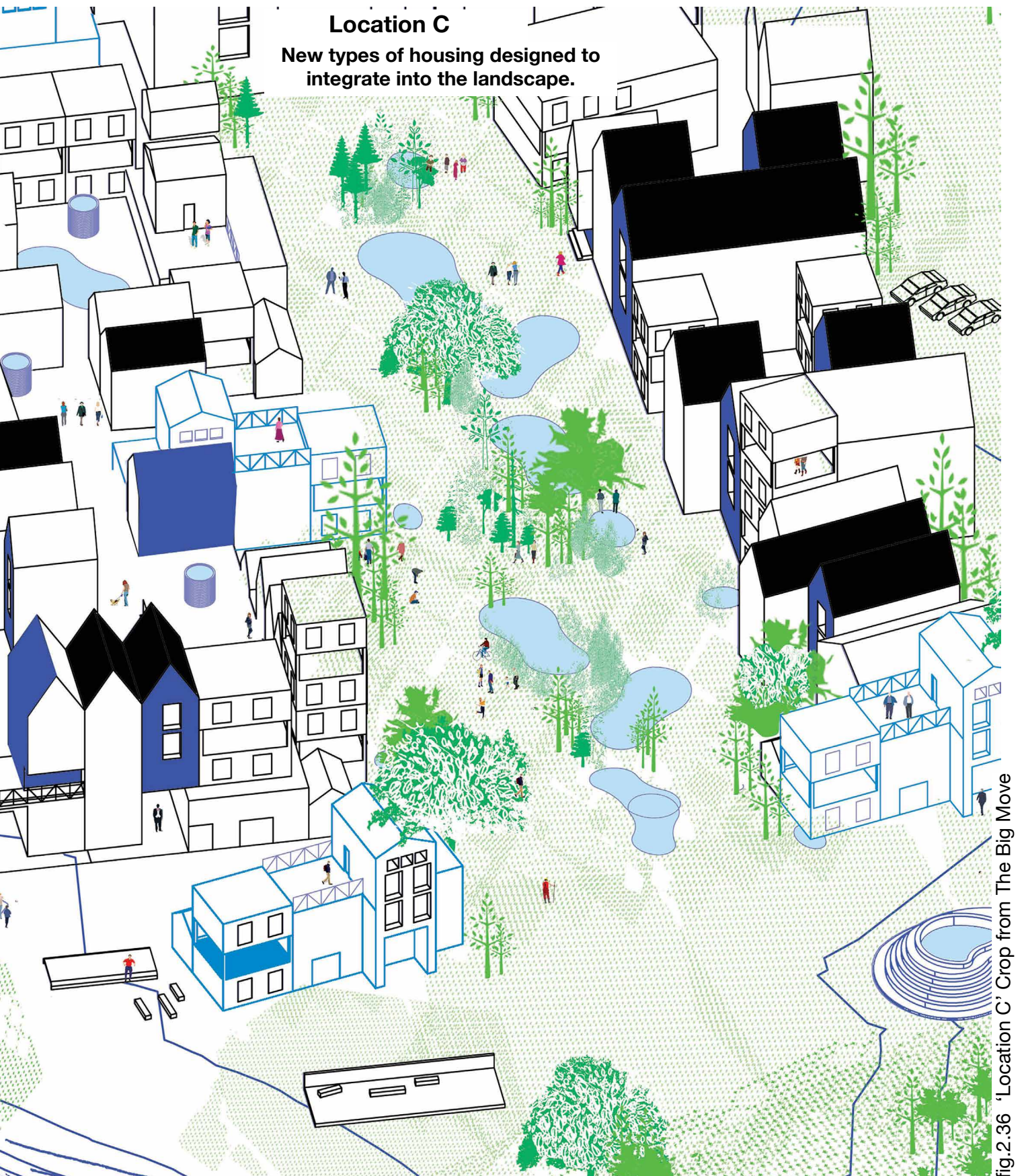


fig.2.36 'Location C' Crop from The Big Move





## House of Generations

### **fig. 5.1.21**

Type of use:

360 care homes, 150  
youth homes, 20  
senior dwellings, a day  
care institution, shops,  
cafes, workshop areas,  
parking.

Location: Copenhagen

Year: Competition

Proposal 2016

Architect: C.F

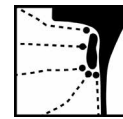
Moller Architects in  
collaboration with  
Tredje Natur

### **fig. 5.1.22**

The ground floors  
open up into three  
large courtyards,  
provide social areas  
for the residents,  
connect with public  
programs that  
respond to the urban  
context.

### **fig. 5.1.23**

The home is  
integrated into its  
surrounding context,  
with the lake acting  
as the 'backyard' and  
the street area as its  
front.



### Ground Floor connections

**fig. 5.1.24**

Ground floor opens up to green space. Functions on the ground floor are retail, cafes, workshop spaces; with residential dwellings above looking out over the park.



### A water view

**fig. 5.1.25**

These spaces are influenced by House of Generations. This scheme makes the harbour both the backyard and frontyard for housing. This takes advantage of the opportunity to connect with the water's edge without ignoring the street front.





## House of Generations

### **fig. 5.1.26**

The existing Solund care home, in Copenhagen's Norrebro district, will be replaced with this new, multi-generation community. By combining the different programs and housing types, the site will become a central hub of urban activity.

### **fig. 5.1.27**

The landscape design envelops the entire site in green space with public spaces facing the lake, and the courtyards serving as semi-public spaces. These landscape features include stormwater handling and urban drainage.

### **fig. 5.1.28**

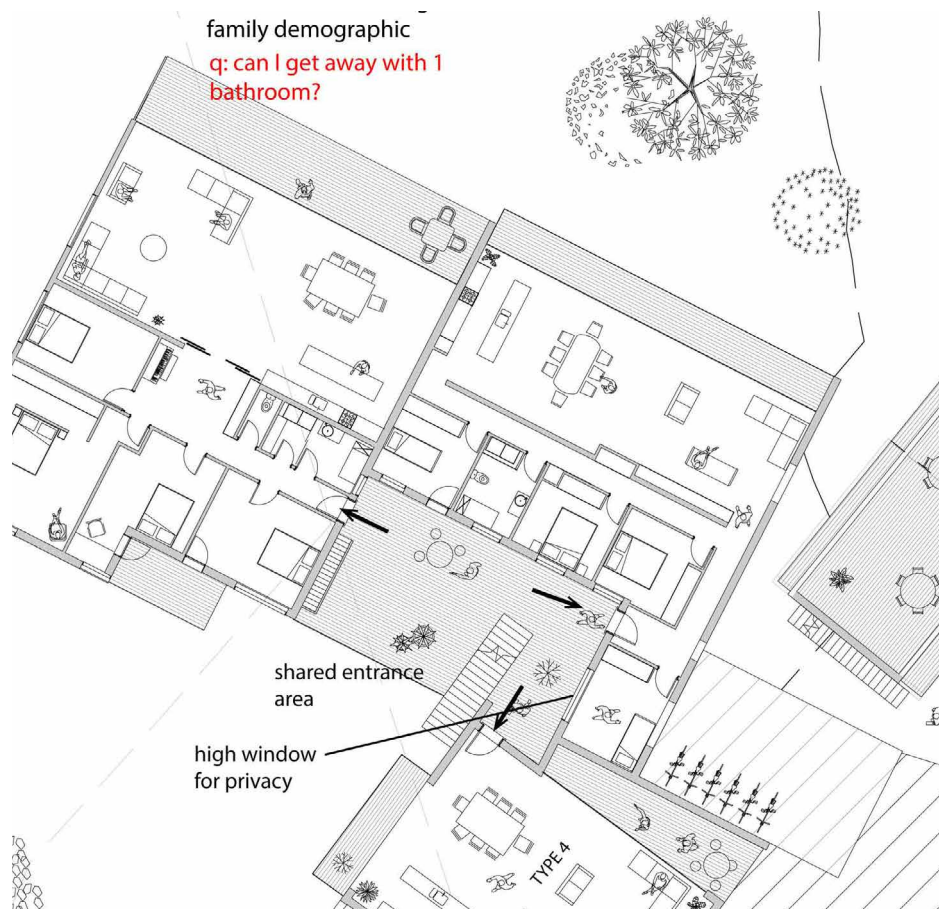
Dwellings look out onto the water with generous ceiling heights that windows allow plenty of natural light.



## Developing the Types

**fig. 5.1.29**

Revit plans were developed to accommodate a range of living situations. They were influenced from The House of Generations case study (opposite pg). The design considered family dwellings 3/4bd, student accommodation and temporary stay 1bd studios, 1&2bd apartments for the rising couple and smaller household sizes.  
(left: student accommodation)



**fig. 5.1.30**

Although these plans considered the detail of interior spaces, this process ignored the housing's integration with the landscape. The formation attempted to embody the courtyard idea too much which was not sensitive to the harbour.

It was through the process of detailing these plans that it became clearer that the housing component of this thesis was NOT about detail, but rather the larger strategy of how the housing was situated in relation to the site; ultimately defined by the public realm.  
(left: large family typology)



# THE HOUSING

current health  
care services

Od was thinking  
about having under-  
ground carpark  
similar to Hellers St,  
but there are no  
other underground  
carparks in city,  
possibly because it is  
reclaimed.

I'm wondering if I  
should put carparks  
somewhere along the  
back of the dwellings  
here -  
disadvantage - no  
garage/other storage  
advice?

TYPE 2  
3bed townhouses  
10x

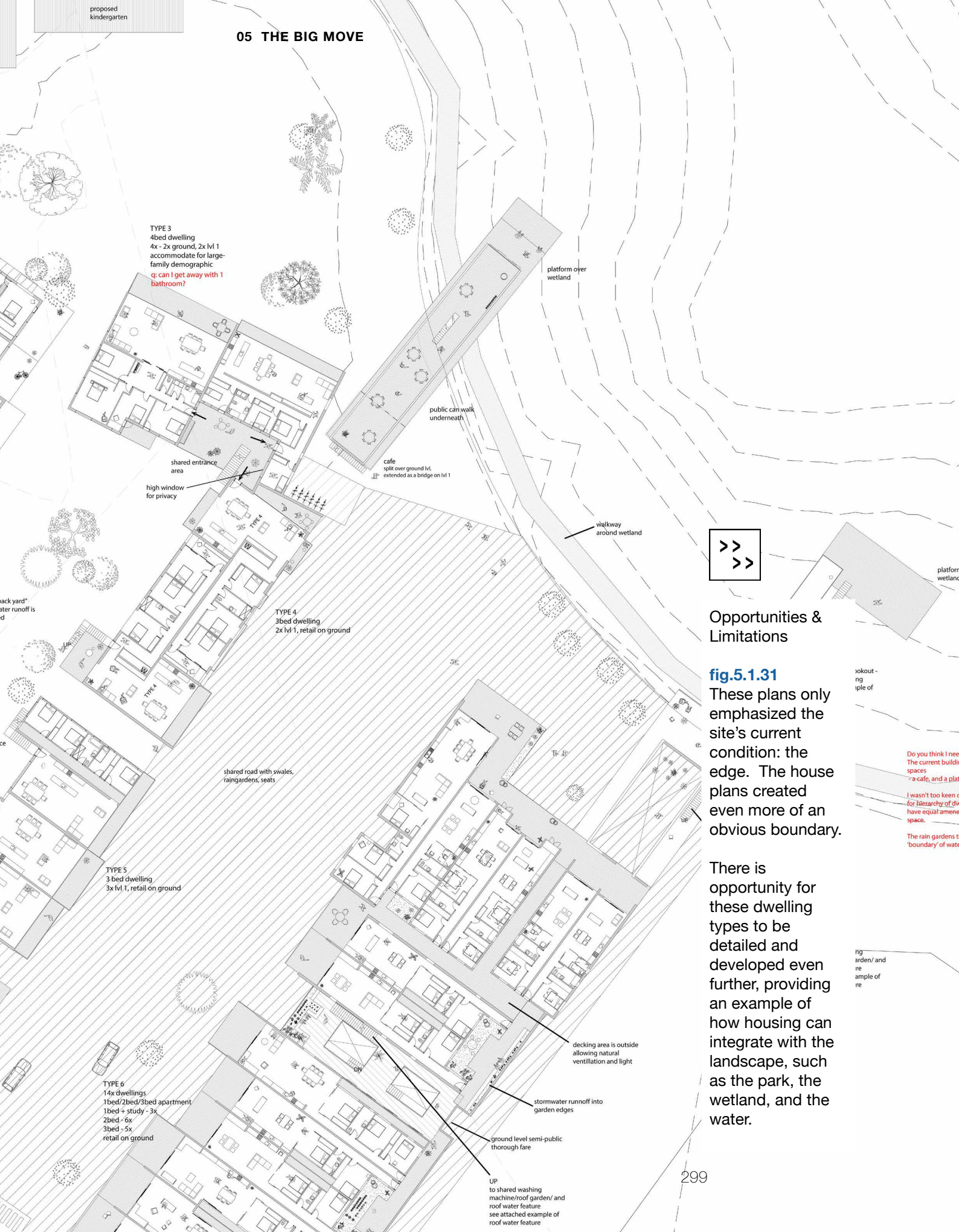
shared  
where w  
integrate

shared entranc  
area

TYPE 1  
3 storey incl ground (or 4)  
student hostel/temporary  
accommodation  
28x dwellings per floor



## 05 THE BIG MOVE



### Opportunities & Limitations

**fig.5.1.31**  
These plans only emphasized the site's current condition: the edge. The house plans created even more of an obvious boundary.

There is opportunity for these dwelling types to be detailed and developed even further, providing an example of how housing can integrate with the landscape, such as the park, the wetland, and the water.



THE HOUSING



TYPE 1  
3 storey incl ground (or 4)  
student hostel/temporary  
accommodation  
28x dwellings per floor

UP

300

shared entrance  
area

**fig.5.1.31  
(zoomed in)**

The Student accommodation block - with studio dwellings as well as communal areas. There is an opportunity for this to develop linking with the Whitireia Tertiary Institute.

The northern block contains the family types. Further development needs to consider issues such as gaining north light in bedrooms that only have windows on the south face.





## Heller St Park Residency

Type of use: 10  
Townhouses, parking,  
rooftop terrace  
Location: Brunswick,  
Melbourne  
Year: 2011  
Architect: Six Degree  
Architects

**fig. 5.1.32**

This project is an example of medium density housing that turns a contaminated site into land for both public and private use. The building sits comfortably in its context where its front private terraces are ambiguous to blur the boundary between public/private.

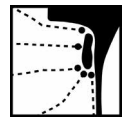


## Connecting to the landscape

**fig. 5.1.33**

The detailed housing plans are stripped back and seen only for their types of dwellings, the block opens up to the harbour providing more open green space for private and semi-public use.





Connected to the landscape

**fig. 5.1.34**

The green space is designated as private and semi-public use, where the landscaping allows for plenty of stormwater management through rain gardens. Through traces of water and vegetation the boundary of the water's edge is blurred.



## THE DRAWING

### ARCHITECTURAL REPRESENTATION



What is 'The Drawing' and why is it important?

**The Drawing refers to the representation of The Big Move. The combination of hand drawing, computer illustration, colour and use of scale is used intentionally to communicate an architecture of possibility. The drawing is produced in a style which deliberately rejects technical 'reductionalism.'<sup>7</sup> It has a bold directness resembling a child's work, with bright colours and expressive lines. This idea of naivety aims to translate a provocative vision for the future of Porirua. It seeks to engage an audience with the possibility of the future which is approachable and desirable rather than threatening or confronting.**

**By presenting the scheme as one composite 'map,' moving between scales is essential - strengthening the 'BIG' and 'small' thoughts and acts of the project.**

<sup>7</sup> WAI, Architecture Think Tank. *Drawing Architecture: A Conversation with Perry Kulper*, Aug 2012, <http://waithinktank.com/Perry-Kulper>.

**fig. 5.1.35**

The Drawing was presented as a large scale drawing with detail at the smaller scale; inviting people to step closer to view its complexity. Printed on Bannitex, approx 3.6m wide x 2.2m high





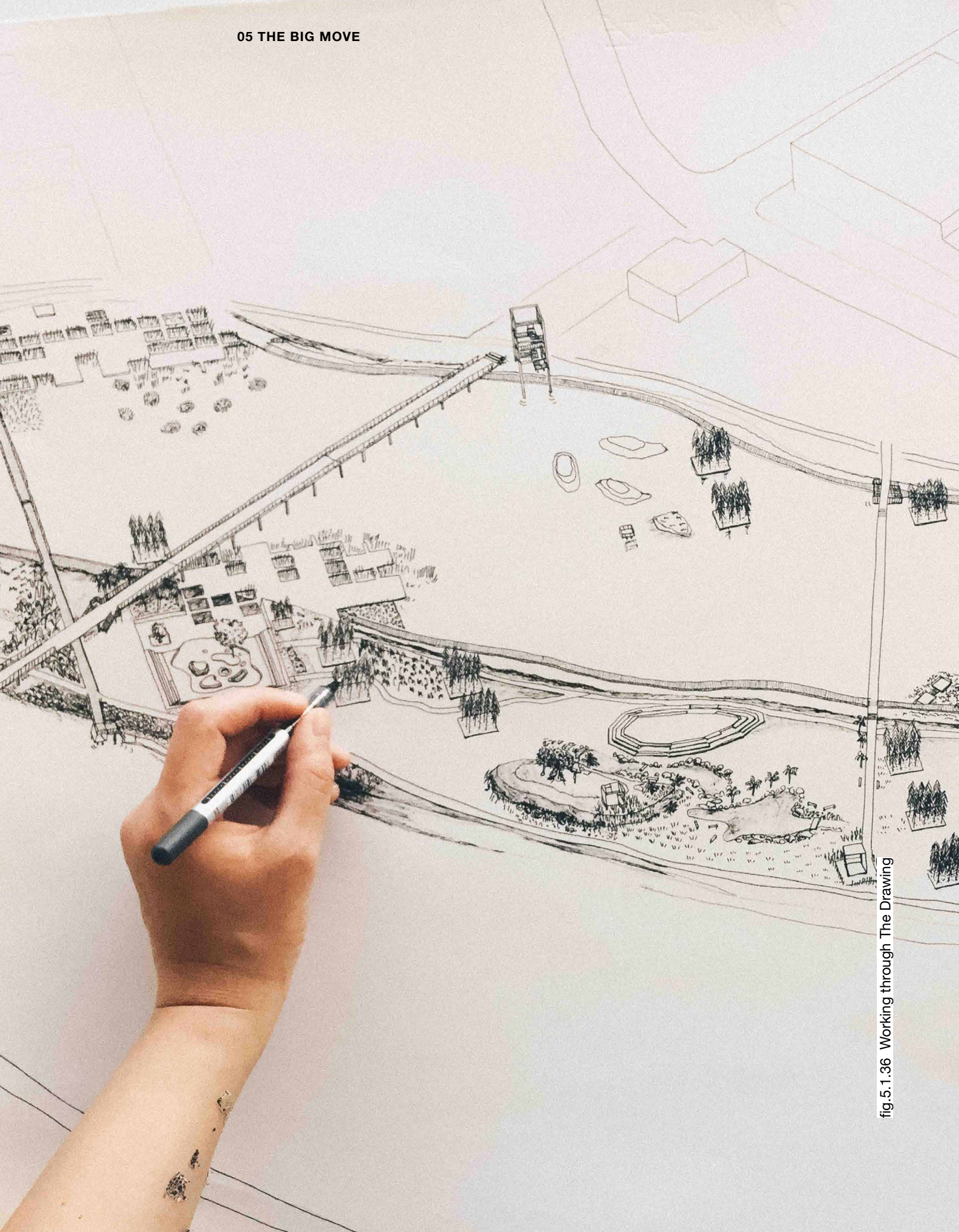
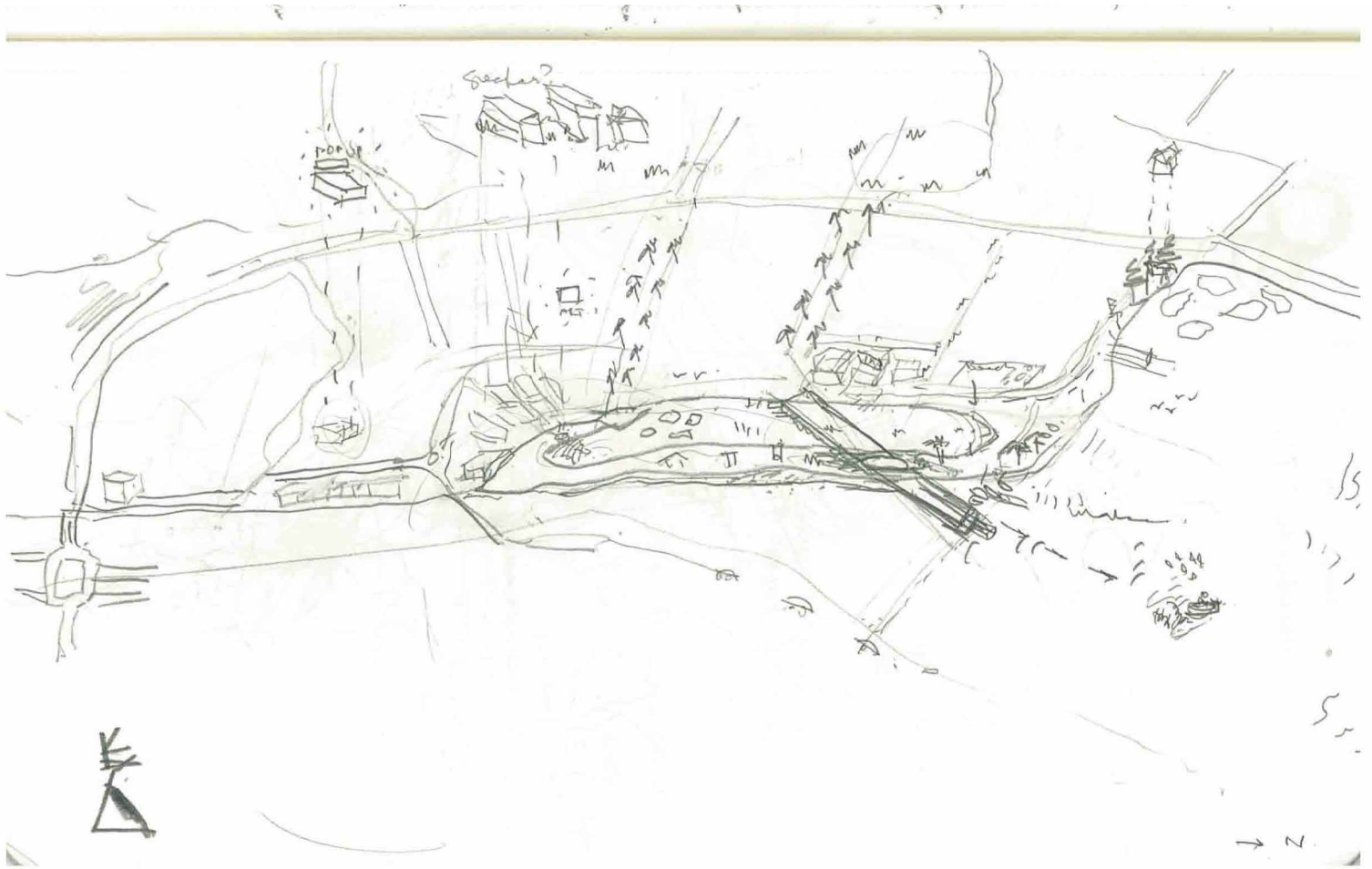


fig. 5.1.36 Working through The Drawing

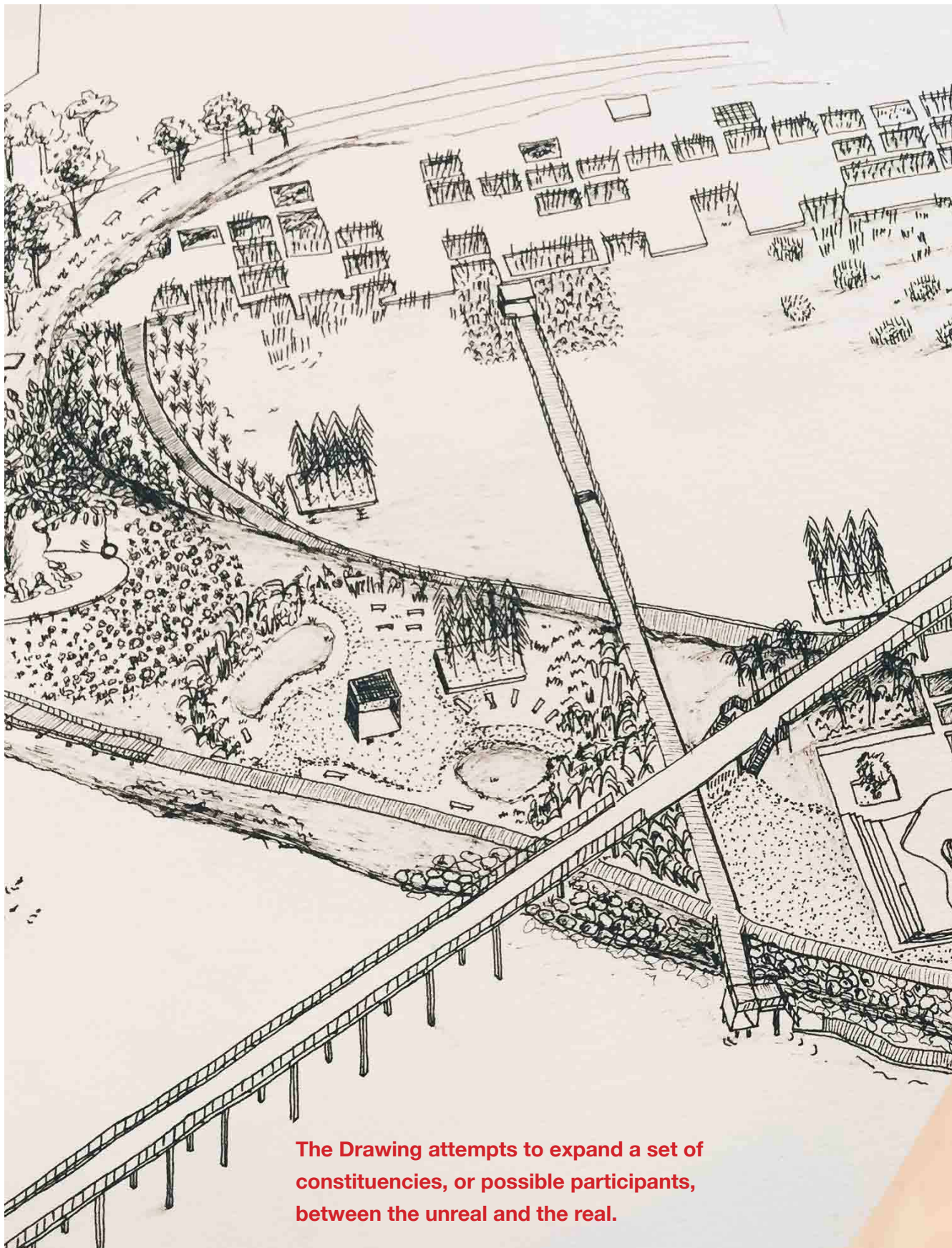






**fig. 5.1.39**  
Sketch drawing  
exploring how to  
visualize all the  
design propositions  
as one composite  
image.





The Drawing attempts to expand a set of constituencies, or possible participants, between the unreal and the real.



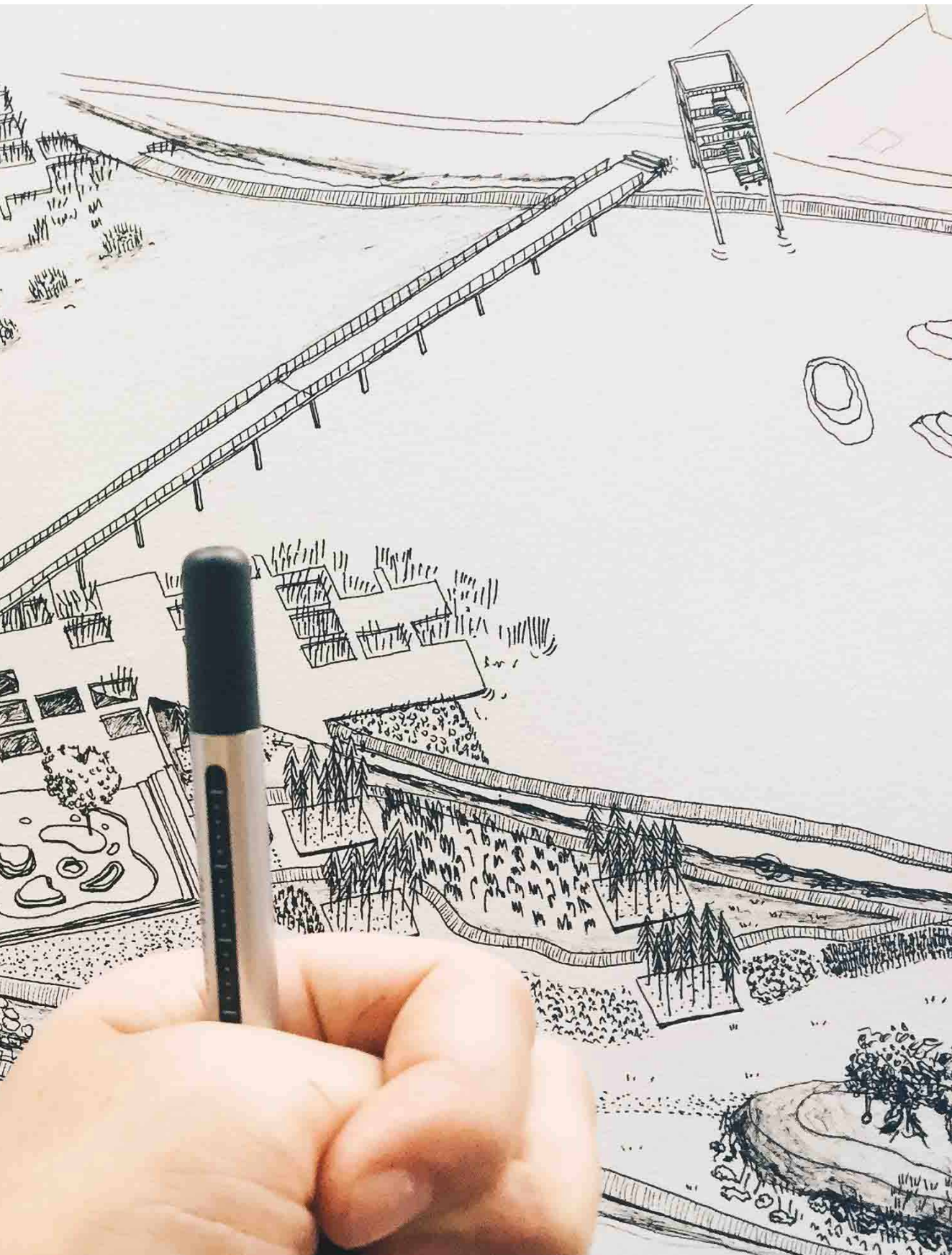


fig.5.1.40 Working through The Drawing





# conclusion

<b>So What?</b> Design Exegesis	<b>312</b>
<b>Research Question Summary</b> A Short and Long Answer	<b>314</b>
<b>The Future</b> A Closing Quote	<b>318</b>

*This section concludes the design research providing an exegesis and summary comments for the research questions.*



## SO WHAT?

### DESIGN EXEGESIS

The thesis behind *THINK BIG, act small* came out of two problems: Porirua City's urban design that ignores the city's beautiful waterfront landscape, and the city's lack of architectural representation for its cultural diversity. The thesis explored other ways that architecture can empower a community through the process and outcome of design.

The annotated approach to the research gave focus to the design process and outcome, with evaluations being made throughout the work as it developed. Case studies and literature reviews, including various project explorations, provided a comprehensive insight into The Strategy. These led to three approaches: planning from the top (The Big Move), acting from the bottom (Two Temporary Projects) and using The Toolkit as a point of encounter.

The Toolkit offered something for the future as well as for the now. It was flexible and changeable and responsive to each generation's needs. The Toolkit presented a range of architectural ideas that derived from the site analysis - despite the ideas potentially appearing as 'generic.' If the architectural ideas are applied to the site without consideration, the ideas may potentially limit the cultural diversity of the city. However, if the architect or other implementer takes the opportunity to explore the idea with various stakeholders in the community, the architectural outcome has the potential to be more representative of the people.

**The Two Temporary Projects** were significant contributors to the design as they created a culture of inclusiveness and empowerment for the public realm. By focusing on the human scale through the art installation and the local pop-up space, the process of co-creation was engaging and accessible for people in the community. Additionally, the use of social media fostered an even greater social engagement in the project.

**The Big Move** required the necessary interdisciplinary approach to turning the city towards its harbour. The Big Move showed that both the large and the small scale must work simultaneously. The Big Move is a composite of landscape architecture, architecture, urban design, and installation. Housing around the water begins to provide mixed-use development that encourages new opportunities for economic growth. A constructed wetland, sedimentation ponds and green streets create a more resilient city for flooding and improve the health of the harbour. Te Awarua Park and the pools encourage a lively, socially active space around the water's edge that is 'like a good party.' The Big Move is represented in a drawing style that aims to encourage a positive attitude towards the future of the harbour and of the city.



## RESEARCH QUESTION SUMMARY

*This section provides concluding marks on how the thesis answers the research questions:*

**Q 01**

**How can you  
re-orientate an urban  
environment towards  
its neglected waterfront  
through interdisciplinary  
design?**

***Short answer:***

**Across scales and over time.**

*Long answer:*

You can not separate the messy reality of scale in an urban environment. You can embrace it. You can see things as a composite, a collection of dynamic pieces that are constantly shifting and changing. You can embrace the reality that they will change, yet identify the key elements that need to be in place for better change and helpful development. You can shift, adjust, and test temporary ideas to see how the community responds, and to begin to challenge the cultural perspective of the water. You can connect large ideas with small interventions, such as an art installation or a pop-up space. You can introduce environmental engineering that deals with infrastructure on a large scale and link it directly to the harbour. You can overlay this technical rationale with the areas needed for economic growth. You can use a design of connecting roads so that, over time, you begin to see the creation of social spaces and delight.



## Q 02

**How can design as process and outcome empower a community for the future of a city?**

*Short answer:*

**By achieving spatial agency and social engagement through temporary architecture and social media.**

***Long answer:***

**You can not ignore the community within a city when you design for the future of that city. You can engage with it. You can use small scale interventions that give people the opportunity to be involved in the process of design. You can facilitate the co-creation of urban futures. You are the 'expert' architect collaborating with community participants that work towards a common outcome. You can design temporary architecture that explores 'other ways of doing architecture' with the motivation to empower people. You can maximize the potential of the public realm by using art in your work. You let art make way for speculative and imaginary thinking, creating discussion that might not happen otherwise. You have the free tools of social media as a way to engage people in the journey of architecture. You let your architecture tell a story, a story that empowers. You make this story relatable and sensitive to its context, and by that, you can reach more people than you expect.**



A CLOSING QUOTE

**on the future...**

# What is the city but the people?

(Shakespeare)



**the end.**

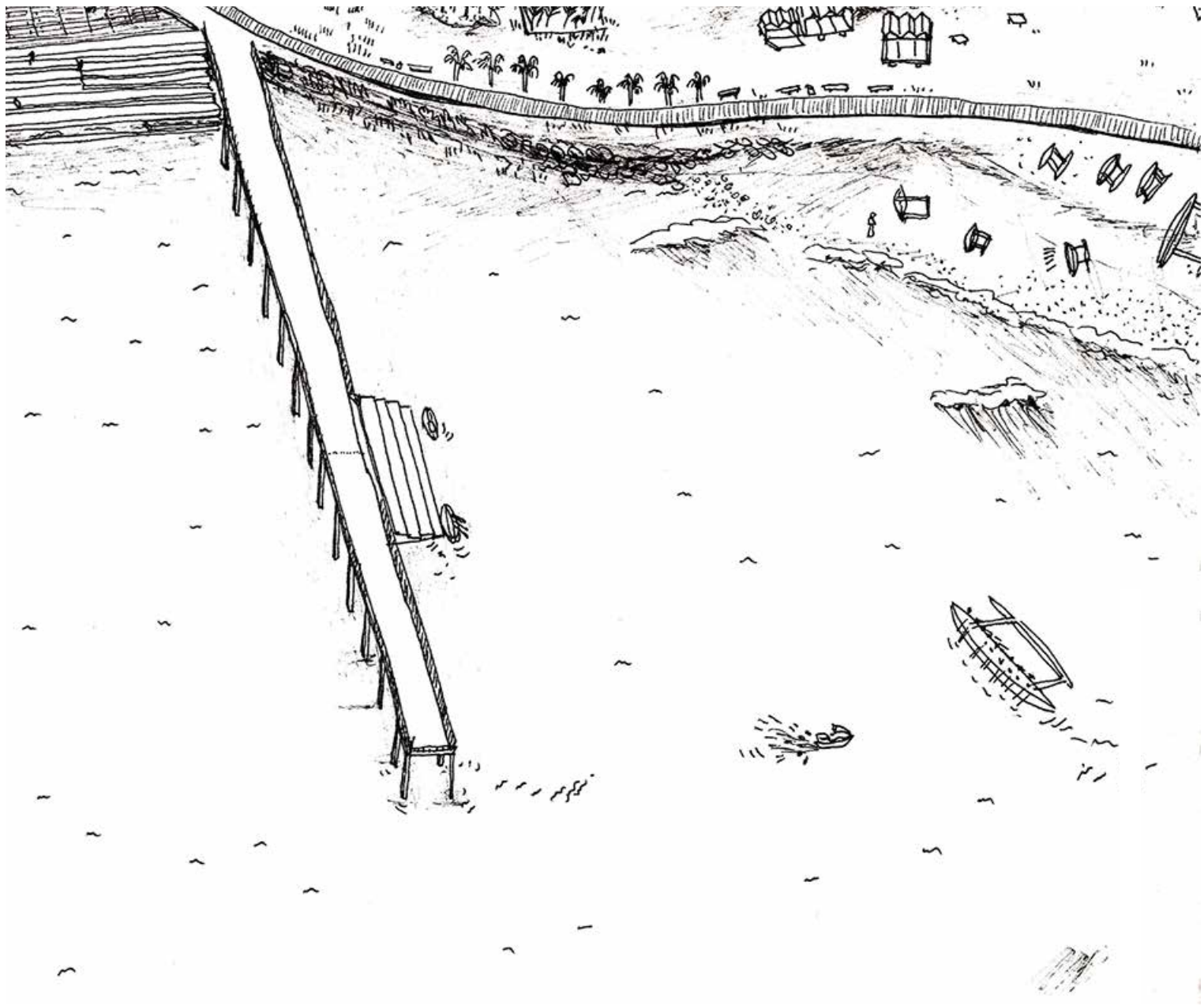
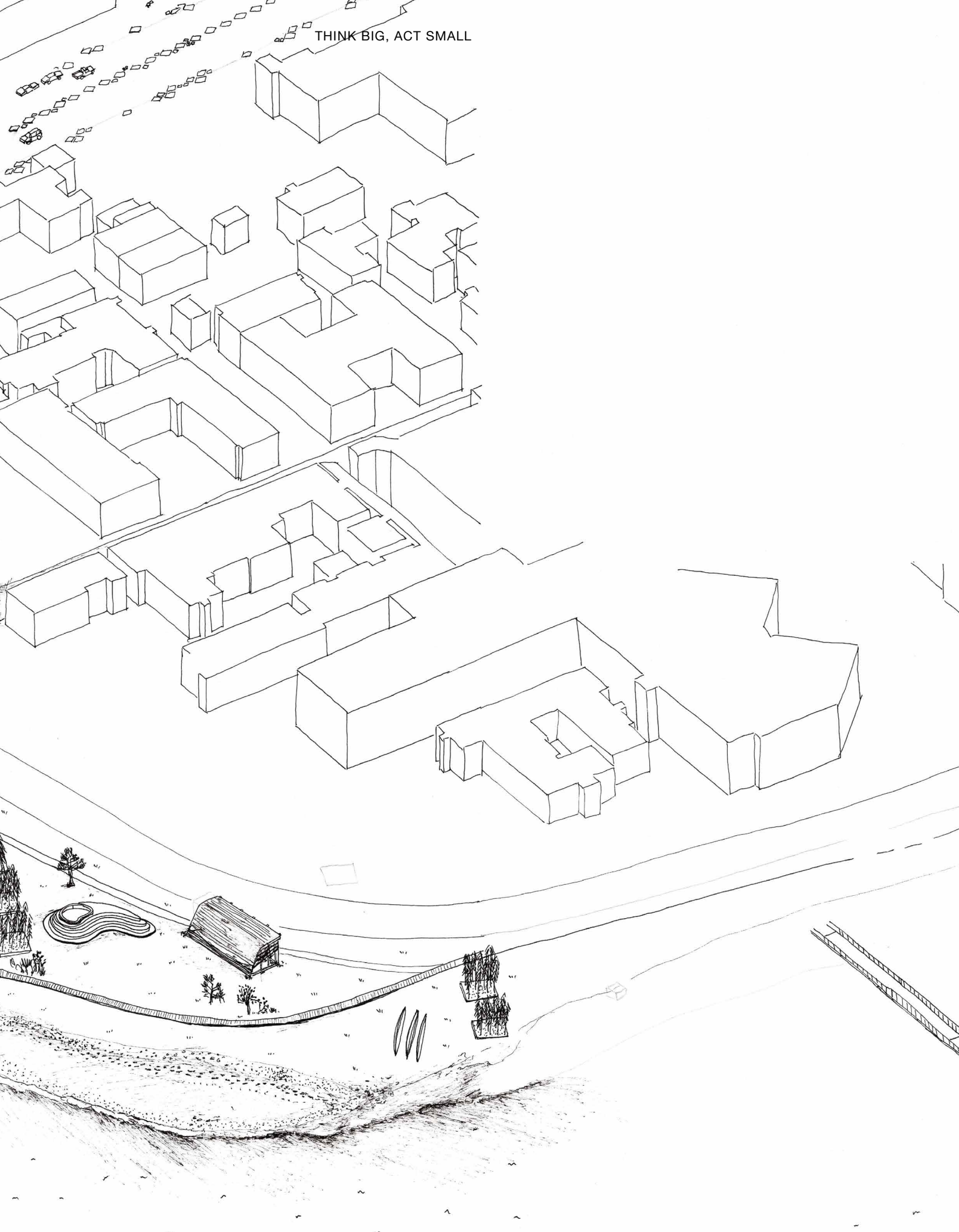


fig.6.1 The Big Move hand drawing



THINK BIG, ACT SMALL



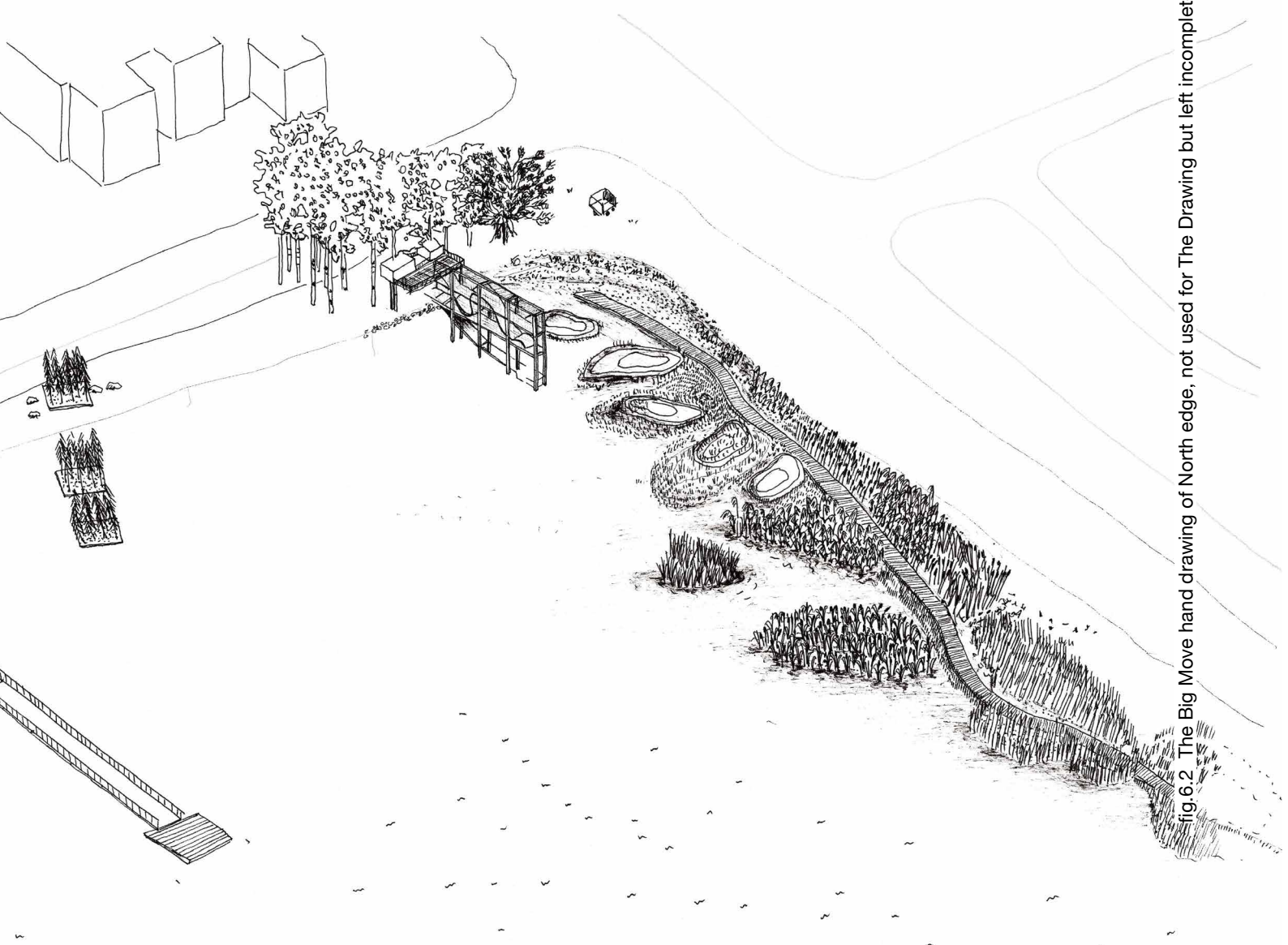


fig.6.2 The Big Move hand drawing of North edge, not used for The Drawing but left incomplete...



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