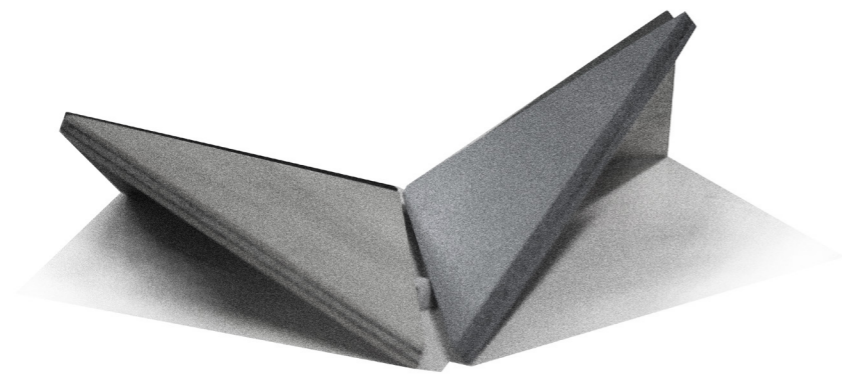# URBAN GENEROSITY

Design Strategies for an architecture of liveability.

Enza Angelucci
Submitted for Post Graduate Research
Masters of Architecture by Project
School of Architecture and Design
RMIT University

February 2014

01.01

DECLARATION

I certify that except where due acknowledgement has been made, the work is that of the author alone; the work has not been submitted previously, in whole or in part, to qualify for any other academic award; the content of the thesis is the result of work which has been carried out since the official commencement date of the approved research program; and, any editorial work, paid or unpaid, carried out by a third party is acknowledged.

Enza Angelucci

February 2014

ACKNOWLEDGEMENTS

CONTENTS

INTRODUCTION

01.03

Residential high rise skin studies in Hong Kong, repetition of the facade intensifies the volume of the tower.

The beginning of the twentieth first century has seen the rise of greater populations within cities and with those populations new demands on the form and structure of cities. This proliferation of human activity has given rise to the nature of cities, a place of exchange and surplus, and I would hope a place of *urban generosity*. This spirit of the city is reinforced through the urban form of the city, how it negates, generates and, or neutralizes the qualities of the city. Architecture clothes the culture of the city; architecture prompts the city's imagination and has a profound impact on civic amenity.

Even though cities are a relatively new phenomenon, there are inherent qualities living in these dense conditions that celebrate our human existence within them. I have been interested in understanding how in certain urban conditions, a set of design principles have evolved to create a series of spaces that delight, evolve and authenticate the environment around it, developing architecture as a network of exchange between the built environment and the living culture of those

01.02

17 Wills Street Melbourne skin precedent . The quarter circle can be repeated allowing for variation to the patterning creating a sense of movement.

01.04

The NAPOLI AFFECT:

typical street in Naples, Italy.

Life extends beyond the boundary

hovering above the ground condition,

The edge is operable to filter air,

light and sun into the interior.

spaces. However, in many cities architecture has had the reverse effect and compartmentalized rather than sustained our urban existence.

1. 'Part of the extraordinary efficiency and productivity of cosmopolitan density is this often overlooked dimension of unexpected generosity.' The city is by definition a place of co-existence of sharing one's environment with other people.'

To sustain, enhance and also reinvent the nature of the city, it is necessary to decode what is local. In decoding the local, this research commenced with a series of questions to facilitate the discoveries: What opportunities can architecture give the city, what is urban? Why is the impact of the existing and future built environment important in our daily lives? How can the living and built environment, be utilised to engage architecture to extend itself, maintaining and creating livable habitats well into the future? How are these design principles developed in my designs? These questions have developed a series of observations that has highlighted the quintessential nature of architecture as place/space for people, which fosters the nature of the city as a place of urban generosity. [1]

In exploring the idea of urban generosity, I have been privileged to work both locally and internationally and experiencing the cultural differences of cities. I have observed how architecture has impacted and facilitated the cultural qualities of these dense urban environments or detracts from these same qualities. I have observed that the local conditions can readily be shifted given our global assertion of liveability and governance, with either detrimental or enhancing outcomes, on the long-term generosity of the city. It has been essential in my architectural practice that I interpret what is local through a process of review. I have revisited and revised existing typologies and put them 'on the couch' [2], to re-understand how architecture has developed and how these developments have been and can be further utilised in my architectural practice.

In my emerging practice and teaching at RMIT, through a series of speculative, commissioned, built and unbuilt works, I have defined urban generosity as a series of design

2. "The deconstructive architect is not one who dismantles buildings, but one who locates the inherent dilemmas within buildings. The deconstructive architect puts the pure forms of the architectural tradition on the couch and identifies the symptoms of a repressed impurity"

01.05

Images of daily life in the city left to right Ho Chi Minh City, Manhattan New York, Melbourne

3. "Melbourne remains the most liveable location of the 140 cities surveyed, followed by the Austrian capital, Vienna. Vancouver, which was the most liveable city surveyed until 2011 lies in third place."

interventions such as, the edge condition, porosity and nature correctedness. The edge condition through tectonic devices is an intentional weaving of form and program of existing and proposed structures to its immediate, localised context. Porosity facilitates a flow between environments, enabling architecture as a process of exchange. Nature correctedness is the opportunity architecture allows us to engage with the living environment we inhabit.

This research has been catalogued into three main sections: Chapter One defines, through a series observation, the various qualities of the city. A comparative analysis of the conditions of three cities, Manhattan, Ho Chi Minh City and Melbourne is reviewed to define the inherent nature of these cities. These observations proceed an examination of Melbourne and how the impact of an immense increase in residential occupation in Melbourne's Central Business District (CBD) has renewed urban activity in the city, establishing Melbourne as the most livable city in the world for 2012 [3]

at the same time, I will review how the very governance that created this new found condition for Melbourne may potentially undermine the existing liveability of the city. Chapter Two unpacks the key elements of Urban Generosity through elements of my architectural projects and determines the design tools developed to create these conditions. This will be explained through a series of visual mappings of the projects comparing precedence and design components. The appendices, explains in depth the design process of three competitions that were entered to speculate on the key elements of urban generosity at various scale and within various typologies. These competitions were specifically chosen as they further developed our commissioned work of educational and rail facilities.

The examination of my designs has facilitated the discovery of a binding process as key to my overall design strategies embedded in a condition termed *urban generosity.* These design strategies emerge in my projects through a series of

Masters   Project List [4]

2012   Flinders Street Station Design
        Competition: Atelier Fab

2011   Future Proofing Schools Competition
        Award: Landscape Integration

2011   Ode Residential Tower
        17 Wills Street Melbourne

2010   Nexus Centre
        Proposition 2065 Competition

Emerging Practice Angelucci Architects

Masters by Research, RMIT University

Sessional Design Tutor RMIT University
Lower Pool Design Studios

Sessional Tutor Melbourne and Swinburne
Universities

Senior Associate Architect at
Norman Day and Associates, Project List

RMIT University Vietnam, South Saigon Campus

Learning Resource Centres Can Tho University
Vietnam

Civic, Educational and Residential Projects

Research of South East Asian Mega Cities with a
focus on the urban fine grain

RMIT University.
Bachelor of Architecture with honours

Major Project
Doncaster Community Information Centre
Award: Commendation AA Prize for Unbuilt
Works 1997

Development of architectural design ideas
through 'Deconstructivist' theories by Jacque
Derrid, Peter Eisenman, Elizabeth Grosz

Other/third/IN between/Symbiosis/Plato's
Timaeus

01.06

Practice

Chronology
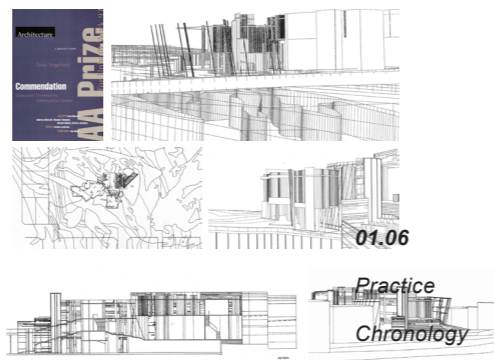
typologies, scales and programs. Specific design features
have been reviewed to qualify these components of urban
generosity.

My residential projects are steeply embedded in an interactive
play between interior and exterior. Deliberately creating
opportunities within tight sites that harness the landscape
as a point of departure for the design. Notably re-inventing
nineteenth century housing with a series of openings both
vertically and horizontally, revealing the delight of space and
light in an otherwise interiorised living condition.

The design approach to educational space encapsulates
the belief that learning is ever evolving and has an intrinsic
connection to the environment in which this learning occurs.
That the most productive learning occurs through the
establishment of flow both psychological and physiologically.
In developing my designs for educational facilities, it has
become evident that learning environments at any given scale
should no longer be regarded as a binary condition of interior
and exterior spaces but should flow, be interconnected, and
porous to allow the possibility of the most evocative space
to prosper. Ultimately the twentieth century educational
model of compartmentalized environments for teaching is
reinvented to allow the development of the exchange of ideas
through the permeability of traditional learning spaces and the
environment it is engaged in.

The various civic projects extend the expected notion of
program, creating a series of opportunities within the site that
have otherwise not been considered. These civic projects
commence with the notion of the community and where
practical allow for a series of design charrettes to develop
and engage the community. An inclusive approach typically
extends the brief and generates programmatic opportunities
within the architectural outcome.

Notes

1. Audi Urban Future Initiative in collaboration with Columbia University, New York, "Extreme Cities - Hypothesis 4 Generosity in the city 2050 summary statement", http://audi-urban-future-initiative.com/location/new-york, (accessed May 2013)

2. Jodidio, Philip. "Hadid: Zaha Hadid 1950, The explosion Reforming Space" Taschen, Germany 2012, page 9

3. Economist Intelligence Unit, "A Summary of the Liveability Ranking and Overview." http://www.eiu.com/site_info.asp?info_name=The_Global_Liveability_Report&rf=0, (accessed 2012)

4. The Masters project list, chronologically notes the projects and dates in descending order, unlike the exhibition and exegesis which unpacks the projects in reference to the reflective qualities of the work which has no chronological hierarchy.

01.07

Typical street view, Park Avenue, New York City

01.08

Basement brassier in the Seagram Building, New York City, fit out by Diller Scofidio & Renfro

URBAN GENEROSITY

01.01

Observations of the Local

In mid 2000, working briefly on a residential project in Manhattan, I became aware of the nature of that city. Negotiating an unknown urban landscape such as Manhattan was relatively simple, given the extensive and efficient transport infrastructure available, but I found the city inhospitable.

Walking down Park Avenue in high summer was exhausting until I reached the Seagram Building where I was able to retreat from the relentless building edges, footpaths, roads and cars. Even though the Seagram Plaza was a relative uninviting vast sea of concrete, the pool of water and Diller Scofidio & Renfro's Brasserie was a welcomed remedy needed before negotiating the city again as a pedestrian, evidently reflected in my expression distributed on the monitors above the bar ten minutes after my arrival. What struck me the most, from this experience, was the lack of horizontal pedestrian permeability along Park Avenue and most of Manhattan. Irrespective of the impressive

Observations: Front facade of my Manhattan refurbishment. The stoop acts as an urban binder. Unlike the neighbours this townhouse has the typical fire escape attached to the front facade which is also acts as the balcony.

Typical HCMC street scape, life and commerce filters onto the street, pedestrians negotiate the roads, car and traffic are secondary

architecture, there were limited moments to stop walking, to observe, to contemplate, to loiter, few moments for exchange, no crevices for tables and chairs to fill the pavement. The convenience store had never felt so inviting, as a moment's reprieve from the pace of the city, an opportunity to retreat, unfortunately mostly there was nowhere to sit to observe the street, no street bench. Yet I noticed the project I refurbished for my client had a delightful urban condition. The entrance was raised by a series of steps (the stoop) that blurred the condition between the private and public condition to the street. I realised the stoop became a fundamental urban binder for the community, this is Manhattan's moment of loitering on the street, of watching and being watched. The architecture is very present on the street with the stoop acting as the welcome mat. In retrospect, I have noticed the 2- 3 meter setbacks and the second storey balconies in the front of the typical Victorian terrace in inner city Melbourne have a similar condition to the stoop. The Victorian terrace allows for an opportunity to loiter, to watch the street and be watched.

A year later, I had a vastly different experience on my first walk around Ho Chi Minh City, Vietnam. The antithesis of Manhattan, the city had no sense of infrastructure or order, no evidence of crossing a road safely, yet all the human elements of pedestrian life through a series of permeable spaces along the edge conditions of city blocks that were readily available to any pedestrian. Here in lay the nature of the city, a permeable edge condition to retreat from the vast noise of moving vehicles, a place to loiter, a place to meet and exchange, a place to contemplate, a place of contrast. Unlike Manhattan's axial grid planning, Ho Chi Minh City is planned horizontally, the city blocks are filtered with a series of minor arterials that perforate and infiltrate the city blocks, through a series of courtyards available to the public. Based on a Parisian urban model, the city is about watching and being watched.

Ho Chi Minh City's cultural quality accommodates human exchange, it is made possible by the close proximity of open

01.11　　　　　01.12.　　　　　01.13

People gathering in at the river's edge celebrating football victory 2004. Cars are surround by a sea of people on motor

bikes traffic is in grid lock for an hour.

01.14　　　　　　　　　　　　01.15

Typical Vietnamese street, vehicles and people occupying the same space.

vehicles, such as bicycles, the city's traditional mode of
transport. Now predominately motorcycles, whilst commuting
there is always evidence of conversations to be shared
with commuting neighbours, especially as the traffic lingers
at intersections. Interestingly, the motorcycle becomes a
prosthetic for the city. Without ever leaving the motorbike seat,
it is possible to ride through the street market buying daily
groceries, purchasing food from a street stall, sitting, waiting,
sleeping, eating, meeting friends. One of the most spectacular
sights I witnessed in Ho Chi Minh City was Vietnam winning
the semi final soccer round of the South East Asian Games in
2004. In less than ten minutes of the victory, the streets were
filled with over one million exuberant Vietnamese jamming
the river's edge with people on motorcycles, followed by
a filtering of street hawkers. The next hour saw the main
roads transformed into an instant street party dominated
by celebrations and food, with large vehicles jammed
into a see of people on motorbikes. As quickly as it had
naturally assembled it had dissipated. I observed, that unlike

Melbourne, Ho Chi Minh City traditionally facilitates pedestrian
life on the street and on the road. The vehicle is secondary
and the pedestrian is not confined to buildings and footpaths.
The spilling of the pedestrian onto the road reminded me of
Melbourne's lane ways.

01.16

Typical HCMC streetscape, urban life is extended vertically as well as horizontally. The edges of buildings are

proliferated with openings at ground level and above. Balconies continue opposite each other ensuring a continued

visual connection.
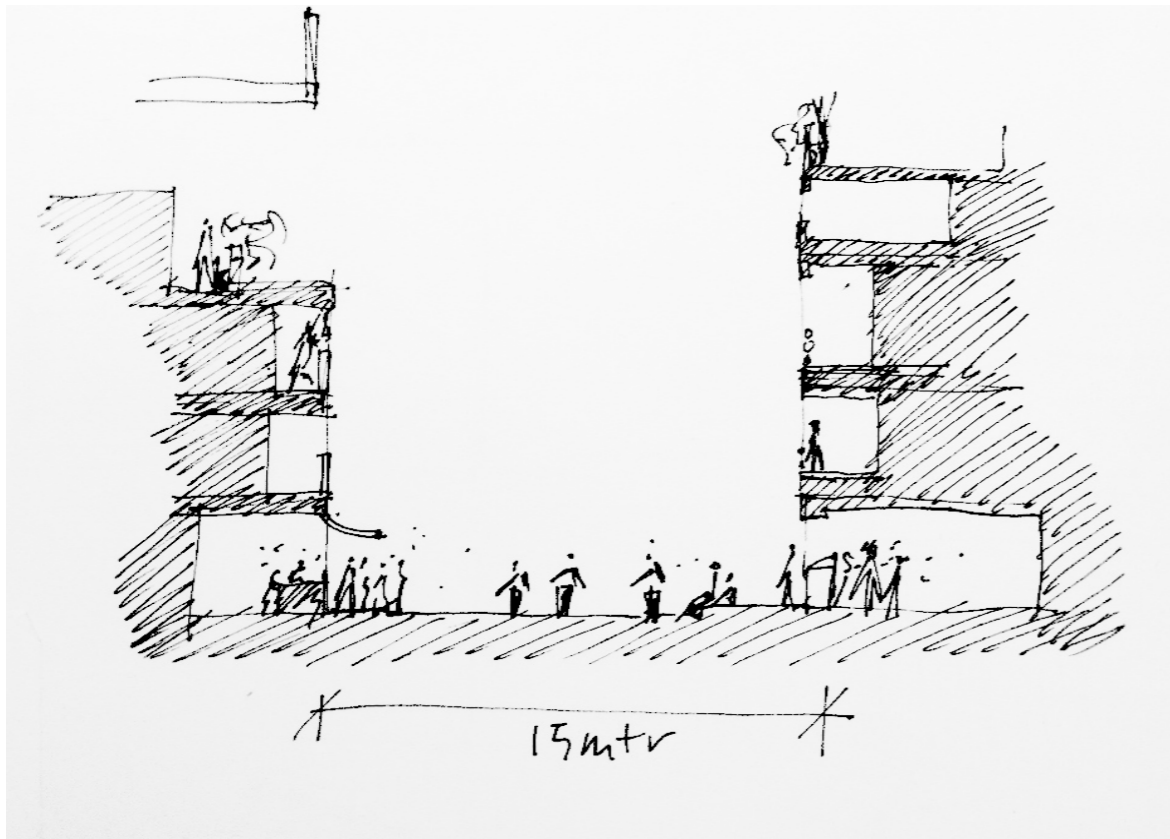
01.17
Cross section sketch study of a typical street in Ho Chi Minh City

01.18

Typical Hem in HCMC, act as a retreat from the hectic street, people loiter, this hem leads to restaurants and homes.

01.19

Car free Centre Place, Melbourne filled with eateries and places for people to sit.

1. "A good city is like a good party - people stay for much longer than really necessary, because they are enjoying themselves"

Since 1994, following the urban interventions, "Places for People",[1] developed by Gehl Architects and the City of Melbourne, Melbourne, particularly the Central Business District (CBD), has developed in certain ways a similar cultural identity to Ho Chi Minh City, by discovering the fine grain of the minor arterials of the city, allowing the urban edge to develop porosity both horizontally and vertically for the city. Traditionally the city block has been permeated by a series of arcades, filtering the edge conditions of the grid, this filtering has been extended by reversing the nature of the service lanes into active areas for pedestrians, through a series of simple interventions such as program, lighting/security, public gallery spaces, activity filtering the building edge onto the pavement. The nature of the city has developed to accommodate the pedestrian. The CBD is no longer strictly a business centre but a thriving metropolis of commerce, education, living and human exchange. The success of the city lies in the nature of a city for the people, the urban generosity prevailing human interaction rather than transport

efficiency, has given Melbourne the enviable title of the most liveable city in the world.[2] The development of a city for the people has had a positive effect on the economy of the city yet the desirability of the city will potentially be compromised given an increase of residence's in the city and this is predicted to almost double in the next twenty years.[3]

To understand the nature of these city experiences, a series of mapping exercises were developed to try to unpack to what extent the urban planning strategies and built typologies contributed to the cultural qualities of the city. Initially the figure ground was developed as a graphic comparison to analyse the permeability of the street layout. Manhattan and Melbourne are formal grid cities however, the difference lies in how these city grids operate. Melbourne has denser city blocks compared to Manhattan, but each block is filtered by a series of lane ways running predominately in a north south direction, filtering the city blocks for pedestrian movement. Manhattan's blocks are permeated by private courtyards,

3. "The 2014 population forecast for Melbourne CBD is 29,691, and is forecast to grow to 52,323 by 2036."
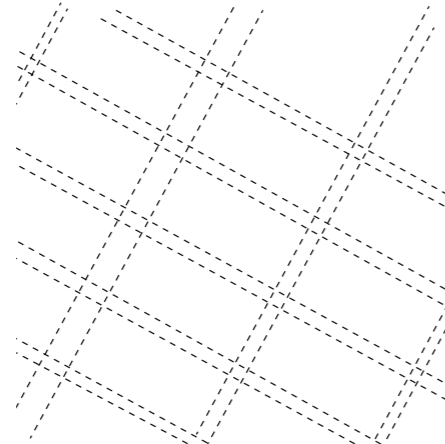
URBAN GRID STUDIES

From aerial views, the streets have been traced to highlight the permeations through the various

city grids . Even though the grids are not necessarily to an exact scale, the porosity of the city

blocks are varied from each other, indicating the fine grain of the blocks respective to each city.

01.20

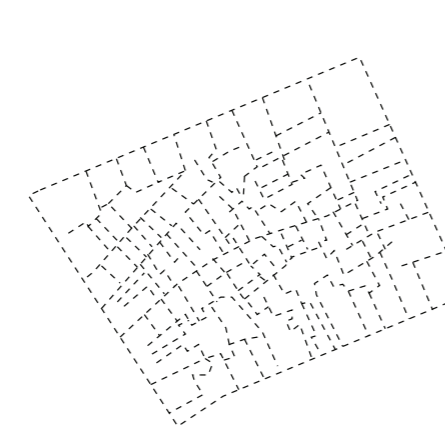*New York City grid is predominantly regular.*

01.21

New York City sketch outline of roads

01.22
Ho Chi Minh City grid typically flows, less

linear

01.23

Ho Chi Minh City sketch outline of roads

01.24

Melbourne grid is filtered in a north/south

direction
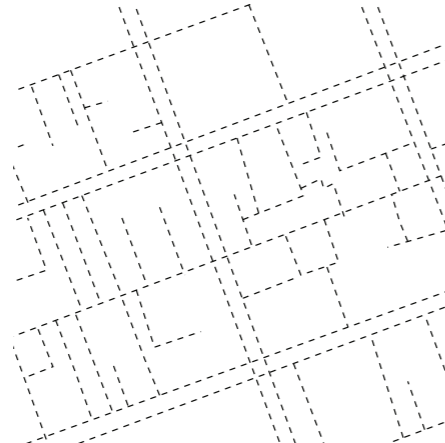
01.25

Melbourne sketch outline of roads

which do not reach the edges of the buildings, ensuring the public is only able to negotiate the edge of the city block, never the interior. The pedestrian is constantly sandwiched between built form and traffic.

Ho Chi Minh City utilises a less formal grid, compared to Melbourne and Manhattan. The buildings are planned to create hems, a series of blind lane ways, filtering the pedestrian into public courtyard spaces within the city blocks, protecting the pedestrian and inhabitants from the movement of the city and allowing for an increased edge to the city block. The increased urban edge has a dual benefit for the city. The hem creates an economic surplus for the city by increasing the residential and commercial densities available within the block. It is this permeability within the block, the continued pedestrian movement into the block that creates a 'back yard' for the community, rather than the individual household. This was evident, watching children playing safely within the hems, surveillance is attributed to the openings and activities along

01.26

Bitexco Financial Tower, HCMC a typical global tower,
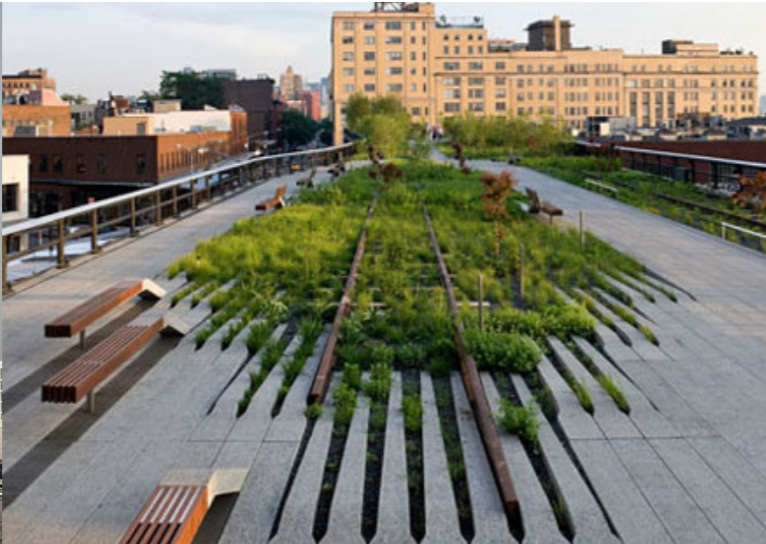
01.27

High Line City Park, NYC. Urban transformation of a disused elevated railway line by Diller Scofidio & Renfro

01.28

Urban transformations of Broadway, NYC by Jahn Ghel Architects before and after. Pedestrians filter the road previously occupied by cars

the edge of the buildings, allowing the community to watch and be watched.

However, it is important to note that the urban conditions observed in 2000 in New York are being slowly eradicated [4] through the introduction of urban projects such High Lines by Diller, Scofidio + Renfro [5] and Green Lights for Mid Town [6]. Likewise the urban conditions of Ho Chi Minh City are being also eradicated through the introduction of high rise city block buildings, such as the Bitexco Financial Tower, that demolish the fine grain of the city to accommodate the large footprints of these towers. Melbourne is also susceptible to global forces[7] that have short-term profit for individual sites rather than long-term gains for the overall civic of the city. I am interested in exploring the devices architecture can manifest as long term gain for the city, This is intended to sustain and/or increase the liveability of the city's occupants.

4. "Building upon the inherent strength of the City's diverse communities and innovative residents, public realm strategies are an essential component of he City's overall sustainability strategy.....enable the city to continue to grow its economy while retaining existing citizens, attracting new residence and visitors and inviting everyone to spend more leisure time in New York City."

5. "The High Lines, in collaboration with James Corner Field Operations and Piet Oudolf, is a new 1.5 mile long public park built on an abandoned elevated railroad stretching from the Meetpacking District to the Hudson Yards in Manhattan."

6. "To enhance NYC by providing improved mobility, a comfortable walking environment, inviting streetscapes and pleasant places of workers, residents, shoppers and visitors to rest and congregate. While these benefits can be difficult to measure in the short term, a variety of inputs and feedback is used to gain an understanding of the project's full impact."

Notes

1. City of Melbourne in collaboration with Gehl Architects, Urban Quality

Consultants Copenhagen, "Places for People." 2004, http://www.jcu.edu.au/soc/

bug/resources/Gehl%20Melbourne%202004.pdf, page 10

2.Economist Intelligence Unit, "A Summary of the Liveability Ranking and

Overview." http://www.eiu.com/site_info.asp?info_name=The_Global_Liveability_

Report&rf=0, (accessed 2012)

3. Australian Bureau of Statics http://www.abs.gov.au/Ausstats/abs@.nsf/

mf/3222.0 and the City of Melbourne populations forecast site http://forecast.

id.com.au/melbourne/about-forecast-areas/?WebID=150

(accessed 2013)

4. Gehl Architects, "New York City: Urban Realm & Bicycle Strategy."

Department of Transport NYC 2007 - 2011, http://www.gehlarchitects.dk/files/

projects/100125_NYC_4page_CVD_ENG.pdf (accessed 2013) Page 2

5. Diller Scofidio & Renfro, Highlines Phase 1, Public Park, New York City

2009 , http://www.dsrny.com/#/projects/high-line-one, (accessed 2013)

6. New York City , DOT, "Green Lights for Midtown Evaluation, January 2010",

http://www.nyc.gov/html/dot/downloads/pdf/broadway_report_final2010_web.

pdf (accessed 2013) page 6

7. An example of these global forces is evident in the recent announcement of

the public's choice wining entry for the recent Flinders Street Station Design

Competition by Eduardo Velasquez + Manuel Pineda + Santiago Medina.

Evidently not as economically viable as the winning competition, the proposal

of "a project for the people where a new urban forest will become *the true*

heart of Melbourne" has captured the imagination of Melbourne's public given

its urban generosity. I would argue that this civic gesture would have a greater

economic surplus for the city in the long term, http://vote.majorprojects.vic.

gov.au/entrant/eduardo-velasquez-manuel-pineda-santiago-medina

(accessed 2013)

01.29

Swanston Street Melbourne, 1970, desolate streets

01.02

Reflections of Living in the city

I always marvel when it is assumed that the nature of Melbourne has continually existed as it is today and enjoy noting how recent a history it actually is. It also intrigues me that any city can transform itself given appropriate governance. All cities have inherent historic qualities,[1] once recognized this can give rise to economic surplus within the city. Historically, Marvellous Melbourne did have a tradition of continuous urban activity during the nineteenth century but was eradicated by the mid twentieth century, rendering the Central Business District (CBD or Capital City Zone) a relative ghost town after business hours. In the early 1990s, as an undergraduate at RMIT University, whilst occupying affordable studio space in the CBD, conveniences were limited and it was difficult finding food outlets operable within walking distance after 10 pm. Lamenting the closure of the only convenience store in the city square in the 1980s, highlighted the cultural economy of the city relied heavily on the exchange of commerce during business hours and not on social activity beyond those hours.

1. "Culture provides insight and so has many impacts: it is the prism through which urban development should be seen"
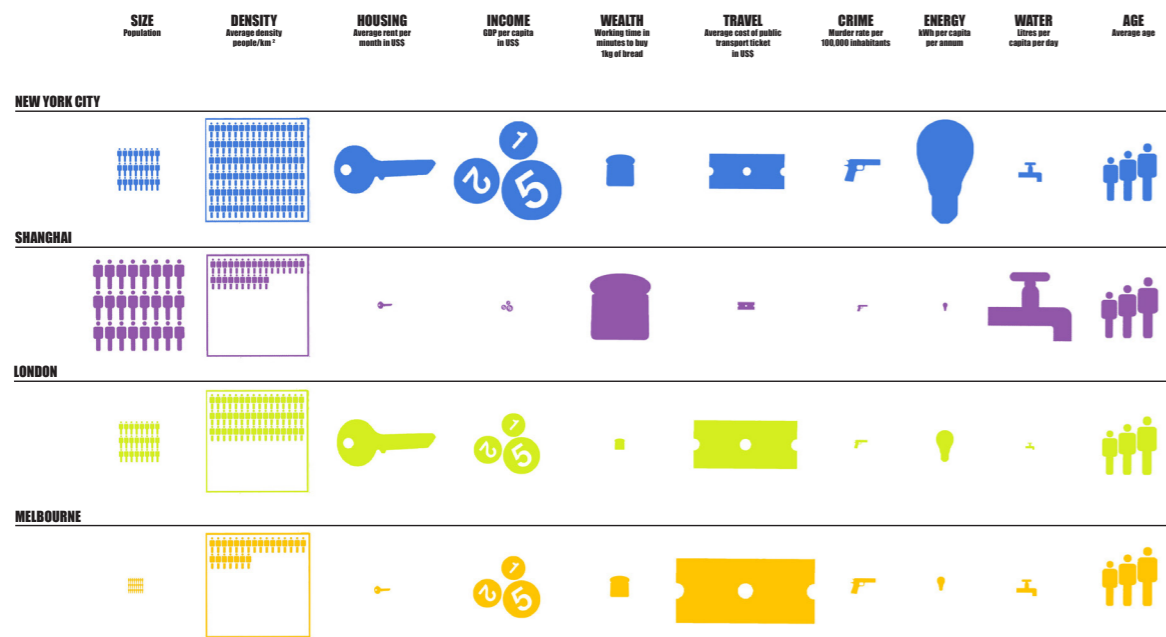
SIZE Population	DENSITY Average density people/km²	HOUSING Average rent per month in US$	INCOME GDP per capita in US$	WEALTH Working time in minutes to buy 1kg of bread	TRAVEL Average cost of public transport ticket in US$	CRIME Murder rate per 100,000 inhabitants	ENERGY kWh per capita per annum	WATER Litres per capita per day	AGE Average age
NEW YORK CITY									
SHANGHAI									
LONDON									
MELBOURNE									

Existing data and maps from the London School of Economic, Urban Age, were used to compare the liveability of Melbourne to three major cities on three different continents, Shanghai, London and New York.

The data collected from this analysis highlighted that Melbourne's overall population is relatively low compared to the other three major cities but our density within Capital City Zone is comparable to a Mega city such as Shanghai.

2. "The Postcode 3000 program is a wide ranging program of initiatives designed to facilitate and support residential development in and around Melbourne's central city or Central Activities District. The Postcode 3000 program commenced in 1992 and will extend through to the end of 1995.....The program is underpinned by the belief that increased residential development in the Central Activities District is long overdue and that the benefits of a far larger central city population support Melbourne's position as one of the world's most livable cities "

The concentration of Melbourne's CBD as a business zone rendered Melbourne's CBD in crisis, following the recession of the late 1980s, commercial occupancy at an all time low, the introduction of Post-Code 3000 policy [2] in the early 1990s, allowed residential occupation within the city, giving rise to a new cultural identity for the city as a "home, work and play " paradigm, rather than "work" only.

If history repeats, this may lead to the eradication of the very qualities that make Melbourne's city architecture liveable. I postulate that given the existing governance which is inherently developer driven, that is, quantitative rather than qualitative, the existing policy which give rise to the celebrated nature of the city today, may in fact render the city unlivable tomorrow.

Following my return from Vietnam, my emerging practice commenced in 2006 in parallel with this practice based research. By establishing an office and residence in Melbourne's CBD, my initial concerns and research on Ho Chi Minh City as a 'neo-

liberal urban' Mega City, was re-directed to Melbourne's Capital City Zone which was undergoing similar neo-liberal, free market, global economic issues, under Post Code 3000's development policy. Gotsch and Peterek aptly summaries the neo-liberal city as "designed and planned like a product, not the city with a market, but the city as the market." [3]

Research was undertaken to see if Melbourne was susceptible to this globalising phenomenon. Given the existing policy framework, a comparative analysis was determined between Melbourne, London, New York and Shanghai. With the use of London School of Economics, Urban Age mappings [4], it was concluded that Melbourne's CBD projected population growth by 2030 per square kilometre would be equivalent to that of Greater London in 2011. Highlighting that this rapid densification of the city's capital city zone, was a potential area for concern. Further comparative analysis of the four cities' figure ground indicated that Melbourne's Hoddle grid is by far the densest of the four cities. The open space available between city developments and the urban open space amenity to sustain a population rise in Melbourne's Capital City Zone is questionable.

How can we design residential towers with adequate amenity on small city blocks, whose footprints averages 700 – 900 square meters and average cost is $8000.00 AUD per square metre? The economic rationale on a typical site, such as this, would require at least a 35 storey high tower. The economic conclusion is that most sites sold would be susceptible to a high-rise development.

As part of Melbourne's neo-liberal urbanism, Postcode 3000 ensures any development over 25,000 square meters bypasses

2011
Central Area: 6,200 people/kmsq

2030 (PROJECTED)
Central Area: 11,682 people/kmsq

2006

01.31
Melbourne population

GREATER MELBOURNE
3,473,015 PEOPLE
MELBOURNE CITY: 4 COUNCILS
331,282 PEOPLE
Central Area: 7,269 people/kmsq

SHANGHAI MUNICIPALITY
16,610,000 people
SHANGHAI: 18 DISTRICTS
16,610,000 people

2000

2000

01.32
Shanghai population
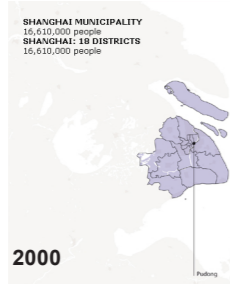
SHANGHAI MUNICIPALITY
16,610,000 PEOPLE
18 DISTRICTS
Central Area: 24,673 people/kmsq

NEW YORK METROPOLITAN REGION
21,200,000 people
NEW YORK CITY: 5 BOROUGHS
7,956,113 people

2000

Central Park

2000

01.33
New York City population
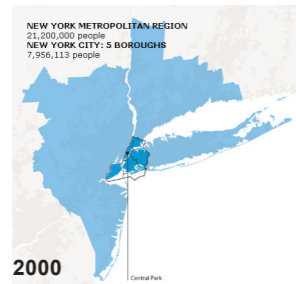
NEW YORK CITY METROPOLITAN REGION
21,200,000 PEOPLE
NEW YORK CITY: 5 BOROUGHS
7,960,000 PEOPLE
Central Area: 15,361 people/kmsq

SOUTH EAST OF ENGLAND
19,030,000 people
LONDON: 33 BOROUGHS
7,538,440 people

2001

Trafalgar Square

2001

01.34
Greater London population

SOUTH-EAST OF ENGLAND
19,030,000 PEOPLE
LONDON: 33 BOROUGHS
7,540,000 PEOPLE
Central Area: 7,805 people/kmsq

01.35
Melbourne figure ground

01.36
Shanghai figure ground
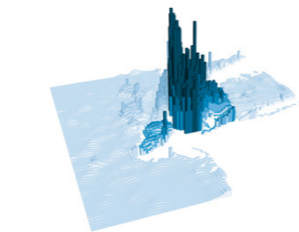
01.37
New York City figure ground
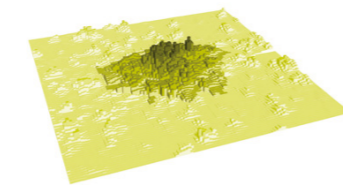
01.38
Greater London figure ground

Further existing data and maps from the London School of Economic, Urban Age, were used to compare these cities.

Top to bottom: Melbourne, New York City, Shanghai, London.

01.31 Melbourne

01.32 New York

01.33 Shanghai

01.34 London

and Figure Ground Maps (nominally 1 square kilometre)

The data highlighted that the predicted population growth in Capital City Zone is expected to double by 2030 and will be equivalent to Greater London in 2011. The figure ground studies highlighted that Melbourne has the densest grid. Sugggesting that the amount of vertical density in the grid needs to be assessed against amenity impacts to existing residential towers.
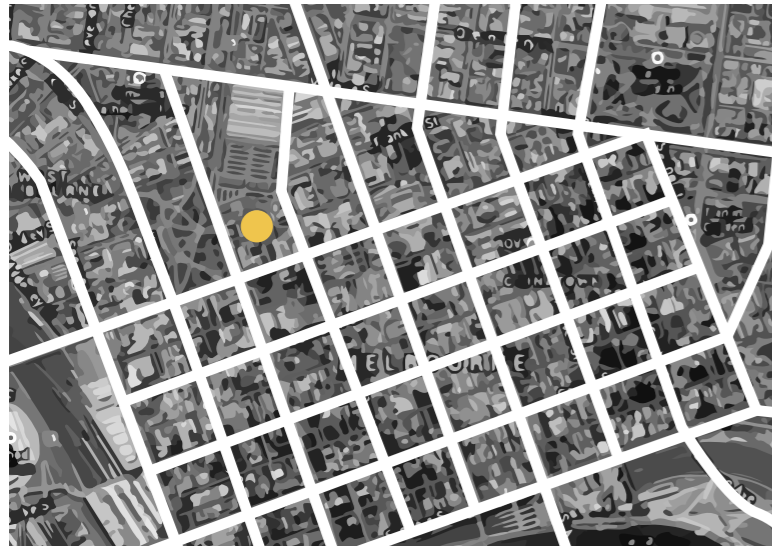
01.39

17 Wills Street, Melbourne location map in reference to the Melbourne's hoddle grid
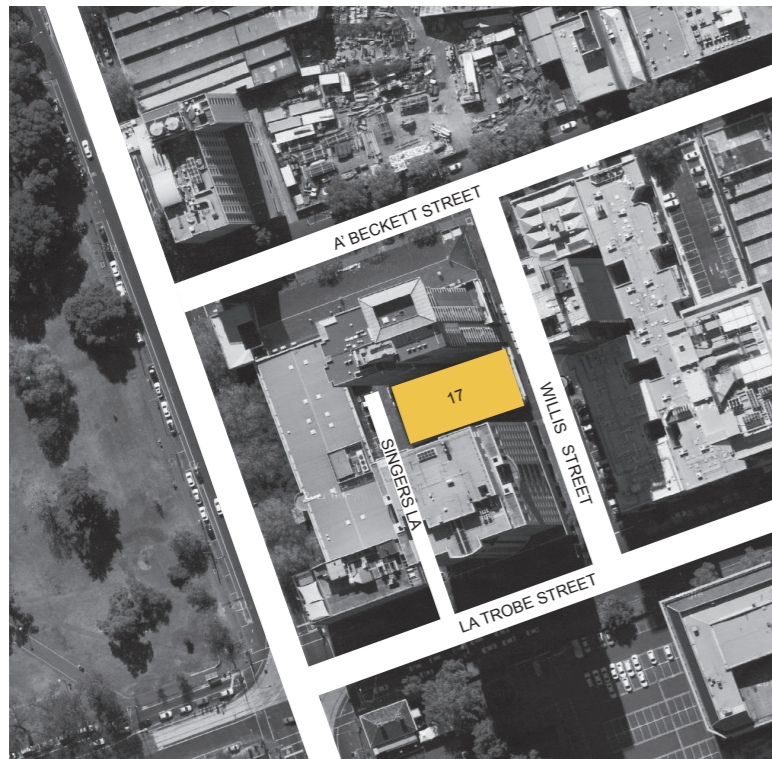
01.40

17 Wills Street, Melbourne location map in reference to the city block

01.41
17 Wills Street site photos

01.42
17 Wills Street site photos

01.43
17 Wills Street site photos

01.44
17 Wills Street site photos
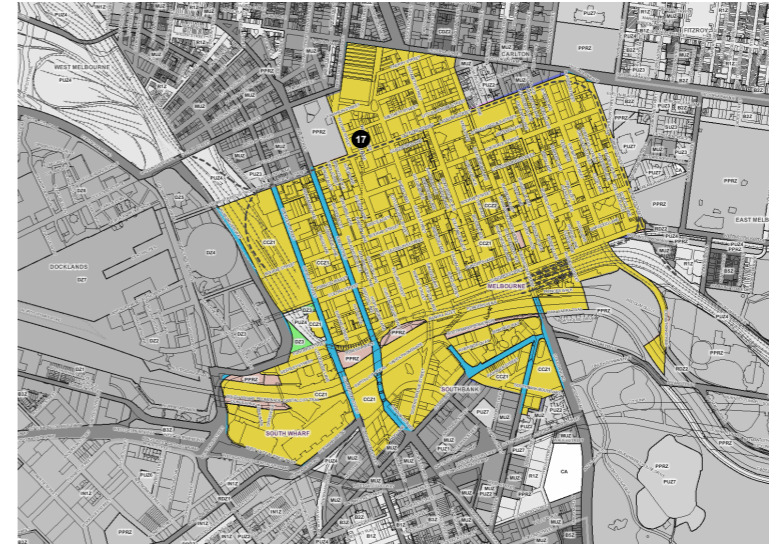
01.45

The extent of Melbourne's Capital City Zone is highlighted. This zone has a planning overlay allowing any development over 25,000 square meters to bypass local planning authorities and be approved directly by the State Planning Department.

5. The Minister for Planning is the responsible authority for considering and determining applications, - Developments with a gross floor area exceeding 25,000 square metres.

6. "These new settlements, with up to several hundred thousand inhabitants, are not a mere consequence of increasing urbanisation, population growth and centralisation, but also an effect of the respective cities' ambitions to become part of a global network of profitable "world cities'"

Local Planning jurisdiction and is approved by the State Government Planning Department.[5] Not requiring any public notification with the existing community in Melbourne's Capital City Zone, these developments become formulaic, mitigating any opportunity for existing residences to re-call any adverse impact on their amenity. It is evident that Melbourne's CBD is no exception to the forces of globalisation that Gotsch and Peterek[6] discuss and the important question must be posed, "Whose City is it?"[7] If we design cities for the people, particularly the local, then the specific conditions of the local must be evaluated. A test case site, at 17 Wills Street, Melbourne, was used to design a tower within this economic framework, evaluating design opportunities in an obviously difficult site. 17 Wills Street is a tower locked site of 700 square meters and was sold in 2010 for nominally $5 million dollars. Flanked by three residential towers and bounded to the south by a commercial office tower, the design approach taken was to create a tower that not only accommodated essential amenities for the occupants but also became a living tower for adjoining residential neighbours.

7. Saskia Sassen argues with "the partial unbundling of the national through the insertion of the global produces a re-scaling of old hierarchies – running from the local, regional and national, onto the global. This means that we need to decode what is local, it means specifying what are new territorial and institutional conditionalities of the local in a global and digital era. These features, also raises the question of how the edge works, about the presence or absence of intersections between different environments, about what happens to contextual conditions.."

9AM 22/01/2012

9AM 22/06/2012
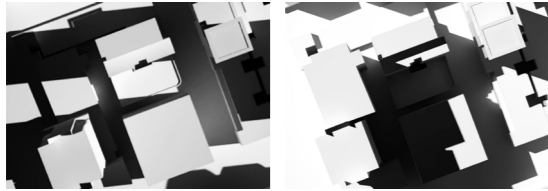
9AM 22/09/2012

12PM 22/01/2012

12PM 22/06/2012

12PM 22/09/2012

SUN STUDIES 17 WILLS STREET

17 Wills Street Sun Studies, noting that once the tower to the west is constructed the site will receive no direct sunlight. A site that should not be allowed to have a residential tower, given the amenity impact it will have on its future residences.
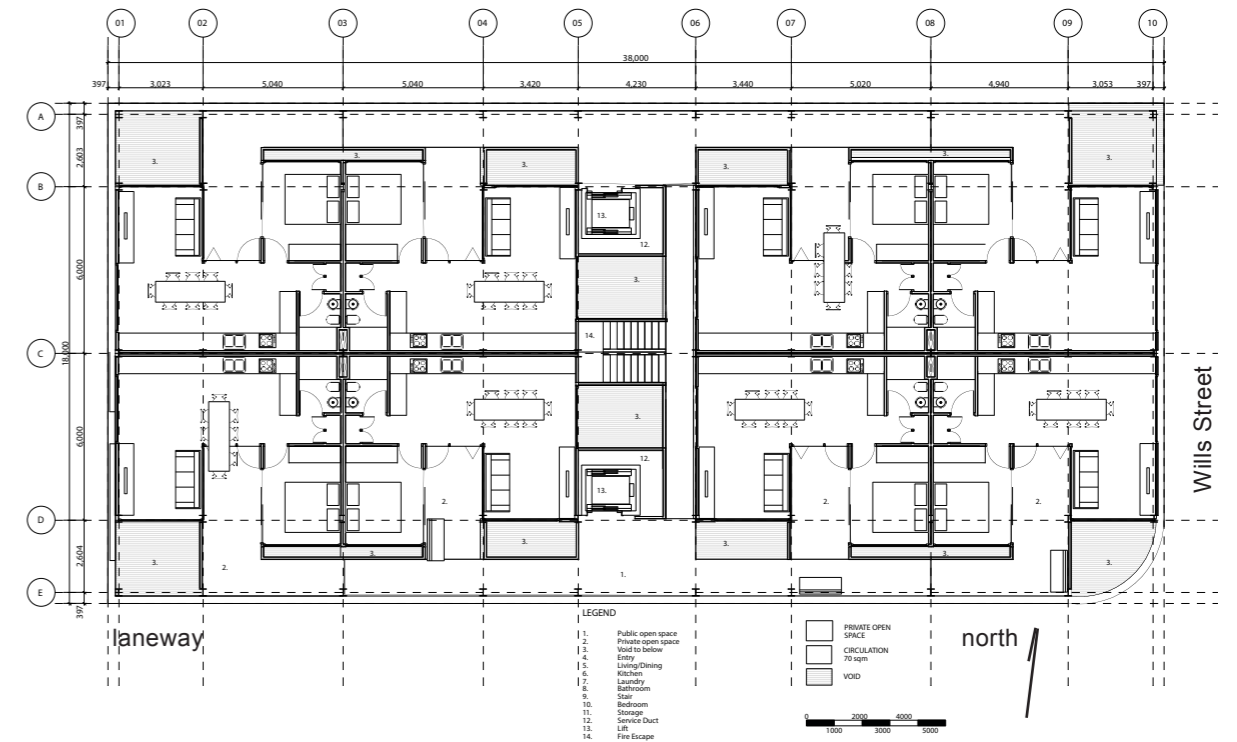

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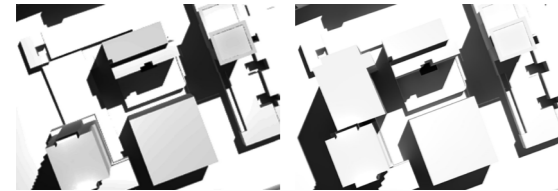
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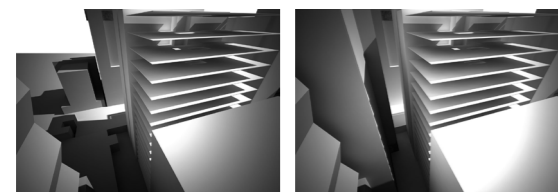
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9AM 22/09/2012

01.46

Typical sun studies in January, Summer
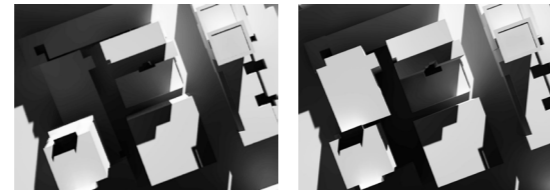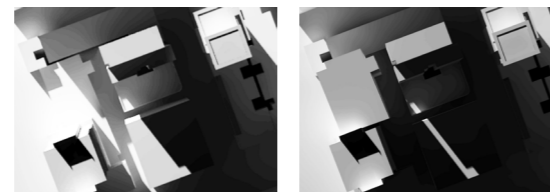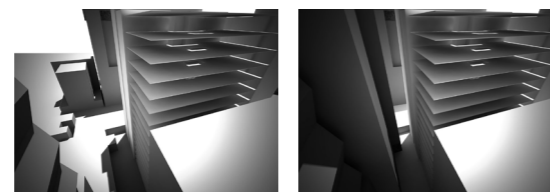
01.47

Typical sun studies in June, Winter
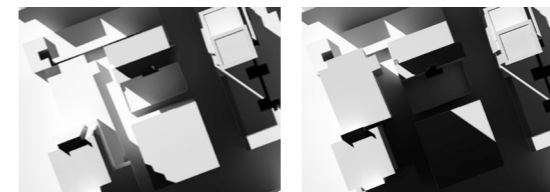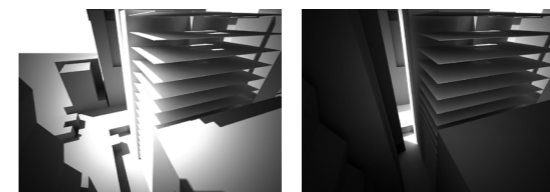
01.48

Typical sun studies in 22nd September, longest equinox in Melbourne

north
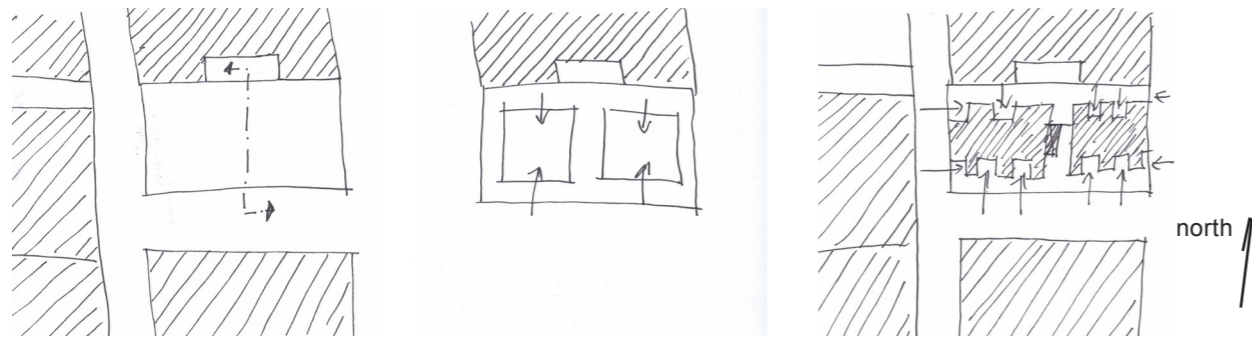
01.49

Sketch studies of tower. Architectural devices used to filter light into a lightless site. Spilt the site into two towers,

undulate the edges to allow deeper open space and voids through out the floor plates, filtering natural sunlight from

above for at least 2 to 3 hours a day.

laneway

Wills Street

north

LEGEND
PRIVATE OPEN SPACE
CIRCULATION 70 sqm
VOID

01.50

Typical floor with one bedroom apartment floor plans

The site offers several challenges:

a. The northern adjoining neighbour has an existing light court shared by 23 apartments, whose sole natural light and air into the apartments is to the south.

b. Shadow studies indicated that the tower would only receive natural light for an hour at 9am in high summer on the east façade, concluding that no occupant in the tower would receive any natural sunlight. This analysis alone verifies that this site is inappropriate as a residential tower, let alone the impact it will have on the amenity of its adjoining northern neighbour.

Given the predictability that the site was to be designated as a residential tower, the design addresses several design criteria through a series of tectonic observations:

1. The edge condition, the apartments are setback from the edge of the boundary creating a series of semi public and private open spaces surrounding essentially two towers on the site.

2. A series of void spaces are located in front of fenestration allowing the borrowed natural light to penetrate from above and air movement to passively cool the apartments.

3. The layering of the edge conditions allows the occupier to adapt the inner edge with residential activity such as washing, shoes, toys etc. Revealing the visual occurrences of daily life that typically towers tend to hide. Creating the "Napoli Affect" within the outer skin.

4. The open external vertical and horizontal passage creates the opportunity of elevated streets and front doors to the open air, a reference to the ninetieth century inner suburban Victorian front garden. Creating a series of individually authorized thresholds within the tower.

5. The external edge is a series of meshed circular screens creating a responsive skin that can be opened or closed by the occupiers of the tower. The screens are flanked with greenery and seating to activate the outer skin.

6. Floors are connected by a central open fire stair, similar to the fire escapes of New York City, to establish a sense of vertical

Open space

Built form

01.51

Inside versus outside:

Horizontal circulation

Vertical voids

01.53

Insert voids

Open space

Built form

Vertical voids
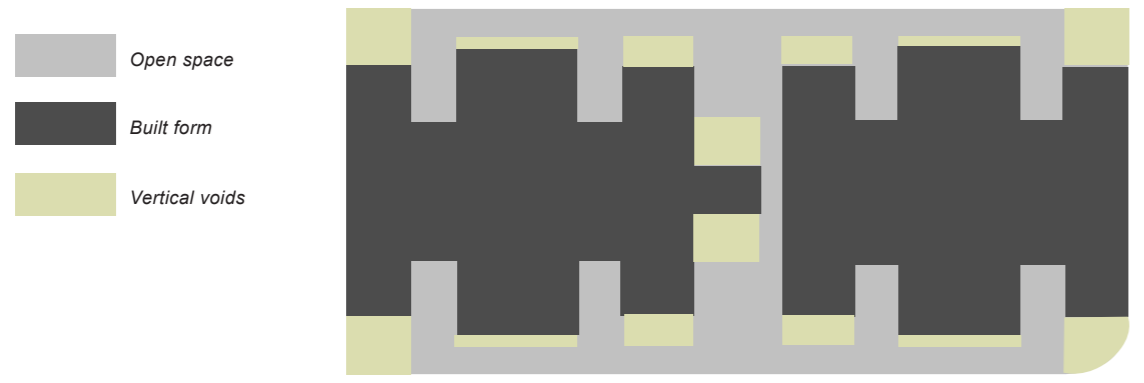
01.52

Skin depth, shared open space

north

Private open space

Built form
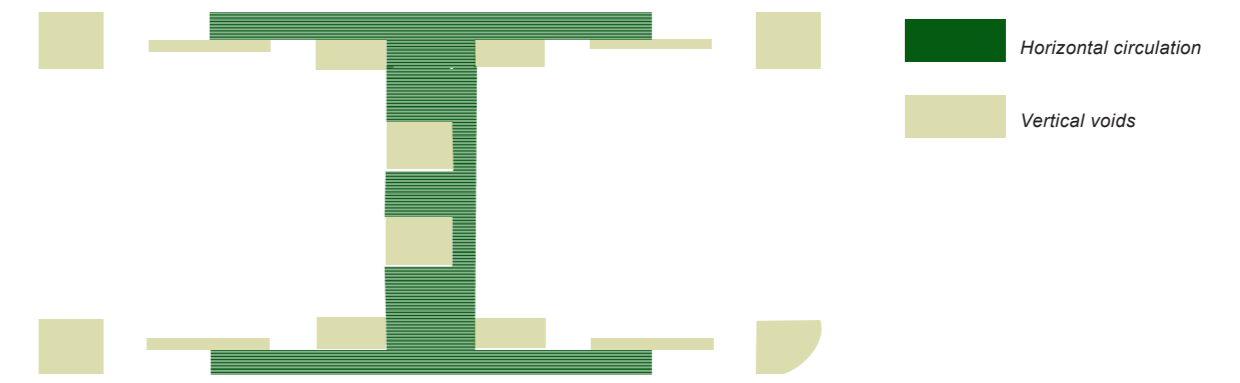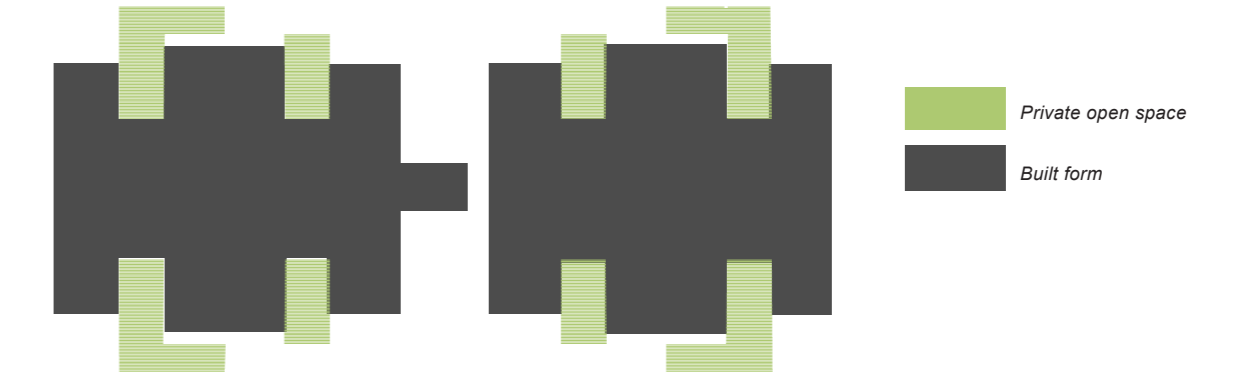
01.54

Private open space

north
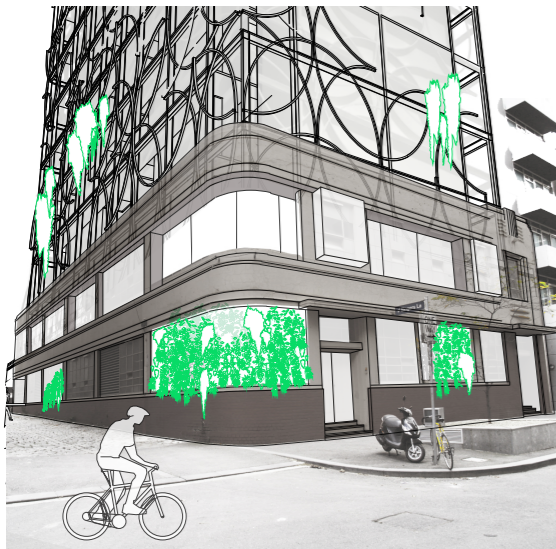
01.55

ODE Tower at 17 Wills Street, Melbourne. The existing heritage listed Art Deco two storey building is inserted with open greened public space.

01.56

Interior view of the shared open space.

01.57

Aerial perspective of tower in context. The tower to the south is a commercial building with no fenestration to the north, the height of the Tower is calculated on an economic return for the developer.

activity and community within the tower.

7. In a tower locked site, with no natural light, all living spaces are oriented to the open air, creating a further depth to the limited views available.

8. The outer skin is mediated, as the higher apartments are prone to high wind speeds, the operable outer mesh becomes denser.

9. The two towers within the site, are intentionally separated form each other; creating an outer edge that is traversable by the tower community and visible by the surrounding city. The tower is no longer interiorised but inverted to expose the daily occurrences of the occupants. Establishing passive visual security.

10. The density is comparable to Verve tower on Franklin Street maintaining approximately 8 apartments per floor.

11. The northern neighbour's amenity is maintained by setting back the southern apartments and utilising high reflective surfaces such as mirrored glass to angle light into otherwise lightless light wells.

Interestingly, a planning application for a 35 storey residential tower, requiring advertising due to the Heritage Overlay on the site was rejected by Council and VCAT.[8] The application has been re-submitted to VCAT with the appropriation of helio stats, a mechanical mirror, devised to reflect filter light into the adjoining northern neighbour's southern light well, as a solution to minimise the amenity impact of the development. This situation highlights how the role of the architect designing within a 'neo-liberal' urbanism needs to adapt the limitations of the typology and context to transcend the existing global economic assumptions of form and function, creating an urban generosity that creates mutually beneficial relationships that ultimately result in surplus rather than scarcity. Yet how can the architect extend the preconceived notion of surplus in an economically driven market? I believe that the surplus should not be fundamentally economic but rather social and environmental, a nature embedded in the spirit of the architecture – an urban generosity. I further question if we create urban generosity in architecture and the built environment through the implementation of

8. 17 Wills Street Melbourne's Planning application was rejected by VCAT on the 28th May 2012,

01.58

Kavellaris Urban Design's 2011
proposal for a residential tower at
17 Willis Street, Melbourne. This
proposal was rejected by the City
of Melbourne and VCAT and has
been re-submitted to VCAT with the
addition of 'helio stats' as an amenity
source for the northern neighbour.

01.59

Kavellaris Urban Design's 2011

01.60

An example of how built form can become a facilitator for the
living environment. Darling Harbour Sydney, overpass pylons
act as a grow wall for the surrounding vegetation.

9. The 'Blade Runner' affect refers to Ridley Scott's dystopian vision of the city in his 1984 film Blade Runner. Massive high rises have rendered the ground virtually unhabitable without natural light and is typically therefore inhabited by society's outcasts.

mechanical devices such as 'helio stats' or is there a mode of designing that generates this generosity of architecture?

On returning from Ho Chi Minh City, my desire for a similar density saw my migration from Melbourne bayside to CBD living. A highly enjoyable experience and one I wish I did not have to relinquish. Yet, one overriding factor saw me moving elsewhere basic amenity. Arguably, all the urban amenity required for living within the world's most livable city were immediately available to me, all except two, natural sunlight and views. This was a concerted decision on my behalf, as the flip side to the lack of these basic amenities was an affordable large city apartment in a tower with no open space but close to a park, less than a hundred meters away. I affectionately labelled our apartment's lack of natural sunlight and views as the 'Blade Runner' [9] affect. Not imaging any possible reason for concern, after a few years I was surprised to be informed by my doctor that a lack of sunlight was having a detrimental affect on my well being. I was diagnosed with a dramatic lack of Vitamin D, usually found in

women wearing Birquas and had to undergo a series of medical tests to determine my well being. Medication and relocation abetted any further cause for alarm. It was this awareness that Ridley Scott's, dystopian world was becoming my reality that I began to fathom the importance of the symbiotic relationship between our built environment and the natural world it resides in.

What I would argue as the 'nature correctedness' [10] architecture can instil on our built environment, a potential qualitative analysis of the impact of nature on our physiological and psychological selves. Assuming my observation was a prevalent concern for our contemporary cities, I was introduced to the biologist and naturalist, Dr. Edward O. Wilson's *Biophilic* hypothesis.[11] He argues that humans have an innate affiliation with other organisms, especially with the natural world and we are psychologically happiest when connected to nature. Our urban existence is relatively new in our evolutionary development and should be a major consideration when designing our cities. Raising the question, what is amenity and why does it seem

10. Coined form the term "nature connectedness" ..the extent that an individual includes nature as part of their identity". 'Nature correctedness' is a term I use to describe the qualitative nature of architecture with the natural world.

11."I can think of no more important way to apply the naturalistic approach to human beahovir than in the design of the places in whcih we live and work.... given a choice, people wihs to bring the beauty and harmony of nature within sight."
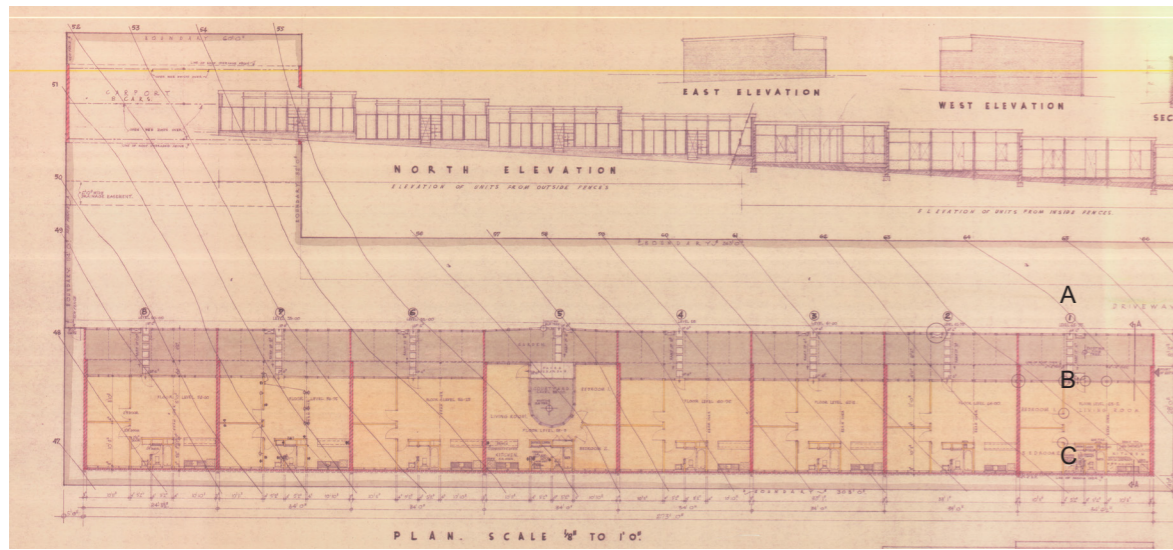
01.61

Grounds Romberg and Boyd Architects original construction plans for Power St Hawthorn

a. the driveway

b. the private open space

c. the apartment

01.62

Powers Street, Current conditions, (2012)

more and more absent in our urban conditions? At times the answer appears to be increasingly obvious and fundamental, surely basic elements such as light, air and views are basic rights for all urban dwellers? Yet contemporary architecture does seem to deviate from these principal components of space. As architects, it is this accepted deviation that we perpetuate in our contemporary environment that has enduring impact on our physical selves and our daily habitats.

As I have been contemplating these questions, on a recent site visit for a prospective client, to design a second storey extension to a 1950s unit in Hawthorn, on entering the unit, one of a cluster of eight units, I was struck by the simplicity and eloquence of the unit and realised it epitomised my concept of urban generosity. Entering through an opaque glassed north-facing courtyard, the unit has a north-facing floor to ceiling glazed wall nominally 2.7 meters high in which the living and bedroom are orientated and an open planned kitchen, services and second bedroom to the south. The unit is light, airy and

has a direct connection to open space. The floor area is approximately 77 square meters and the courtyard is 23 square meters but the unit seemed larger and accommodated a young family of two children adequately. It struck me as such a good piece of 'basic' architecture. On enquiring whom the architect was the prospective client introduced me to her neighbour who has been residing there since the construction of the project. The neighbour informed me that the units were designed by Grounds Romberg and Boyd Architects. She was gracious enough to give me a set of construction drawings. The project commissioned by the developer, Yarralands Pty Ltd, was titled: Own Your Own Flat at Power St Hawthorn, November 29th 1957. This project like its high-rise residential tower counterpart is a speculative development but does not negate the basic elements for living. As Le Corbusier wrote in the design strategy for Unite de Habitation in Marseilles, "each dwelling needs sunlight, views and air."[12] It struck me that the fundamental responsibility of all dwellings belongs to the architect. It is our role to ensure that basic amenity is facilitated. The profession

01.63

Density study inserting an inner city population into a high rise. High rise footprint is equivalent to the Rialto Melbourne.
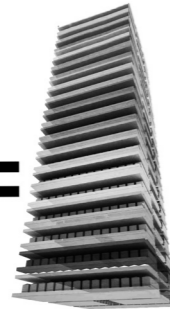
Typical city aparment floor area and open space
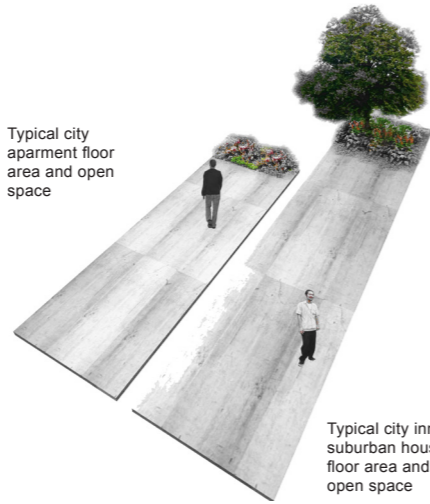
Typical city inner suburban house floor area and open space

01.64

A floor area study of a city apartment compared with an inner city suburban terrace, the city apartment is notably 30% smaller

01.65

Site appropriation of a high rise typology, stacking the terrace in a suburban context
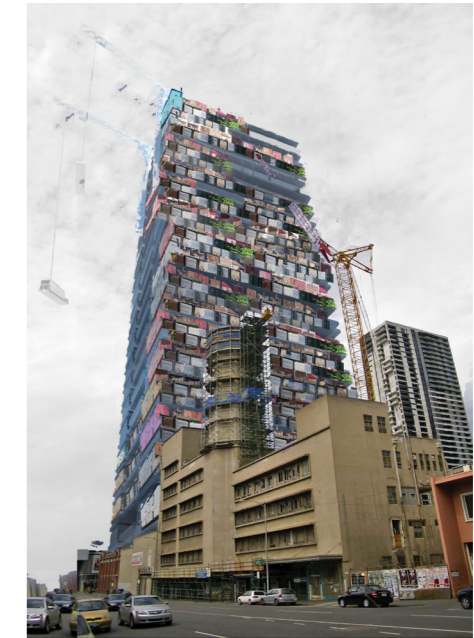
01.66

Site appropriation of a high rise typology, stacking the terrace in a city context

cannot neglect this responsibility based on an economic argument or in terms of typology restraints. The Grounds, Romberg and Boyd project highlights that good architecture will sustains diverse communities in the long term. I was interested to learn that two out of the eight units were still original owners and two residences had recently passed away but had lived there since construction of the units. Interestingly, to date no one has required to extend the units, the only modifications have been new kitchens and the removal of louvres to the southern elevation.

The key design criteria these units had were:
• Direct access to private open space, directed views
• Maximisation of natural sunlight
• Overhangs to the north to minimise summer sun
• Thermal mass
• Maximisation of living space by eliminating any circulation space.
• Cross ventilation

• Views to nature/courtyard
• Shared open semi-private space for the occupants to congregate
• Good proportions/volume a sense of openness
• High ceilings
• Sense of security
• Car parking was not included in the design, the car was not an essential design consideration.

I believe this list begins to establish a criteria for any habitat. These design criteria have become part of a design assessment for my projects including the residential high-rise.

On the basis of these observations a series of Lower Pool design studios were undertaken in the Department of Architecture at RMIT University. In designing a residential tower in Melbourne's CBD, some designs subverted the expected economic surplus of the tower by introducing alternate programs and occupations of the tower that created design outcomes that delighted and
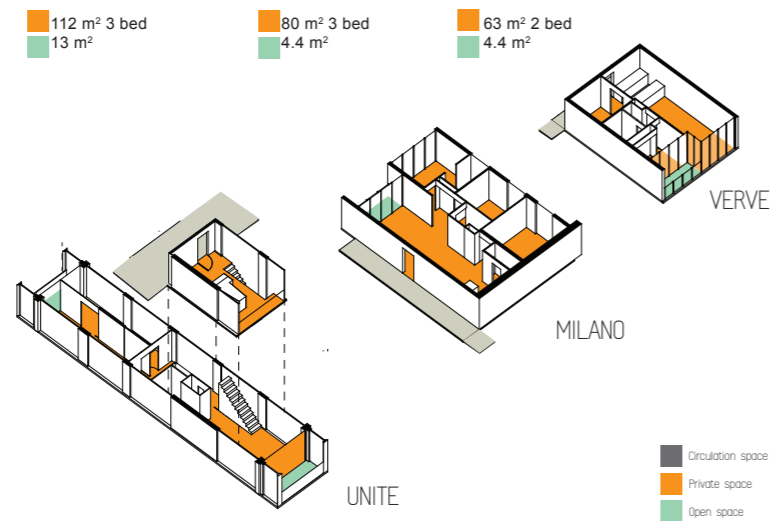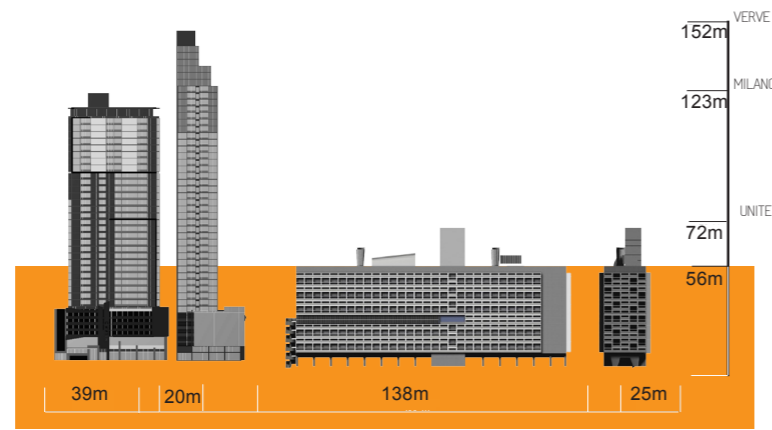
engaged in the notions of urban generosity. Some typical programmatic outcomes were:

• The vertical village, the dispersing of vertical programs accessible by the public.

• Vertical farming allowing residences to create economic return to maintain the ongoing infrastructure costs of the high rise whilst implementing physiological benefits to the residences and surrounding context.

• The decoding of the local, introducing suburban qualities, such as the front and backyards into the residential high rise, to sustain a diverse demographic for the city.

Design outcomes were developed through a series of parameters and questions posed to the students such as:

a. How dense is dense?

b. Consider the appropriate densification of the Melbourne's grid both vertically and horizontally.

c. Consider the appropriate density of a vertical living tower. How do we create a vertical village within the tower?
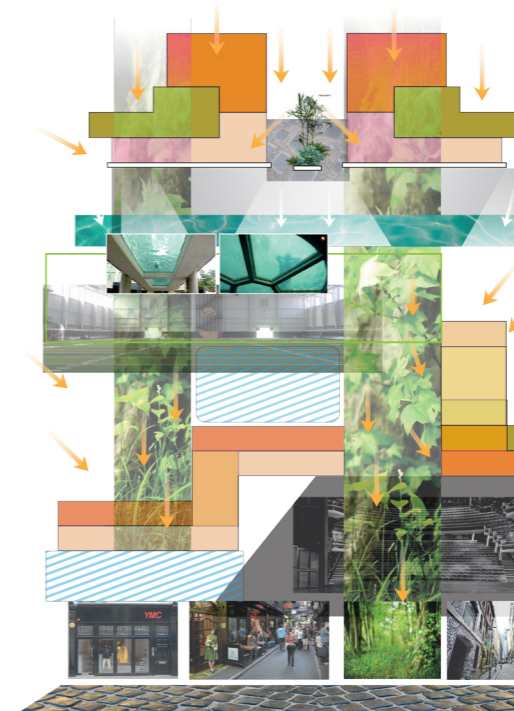
d. How can we create affordable high-rise accommodation?

e. Review the consequential banality of the high rise and how it will have a permanent impact on the cityscape that fundamentally cannot be altered because the tower is predominately privately owned.

f. Consider the opportunities for the occupier to have authorship on their dwelling.

g. Ensure the amenity of existing and future dwellers in the CBD are considered, maintained and enhanced.

h. Consider the planning guidelines that appropriate the amount of open versus private space versus semi private space.

i. Attempt to subvert the the high-rise residential typology so it can accommodate a 21st century life style.

j. Ensure the CBD maintains an adequate amount of light and minimises the wind tunnel affect as the number of towers increases.

k. How do we sustain the liveability and densification of our city particularly as it has achieved the title of most livable city in the world on several occasions?
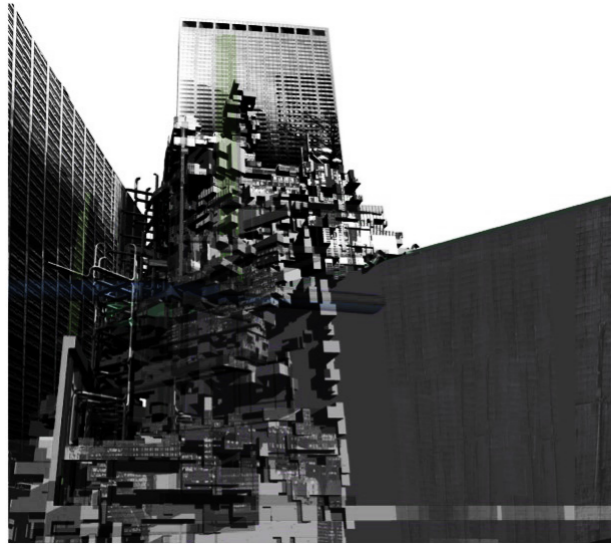
01.70

Student proposal, Utopia, Dystopian and Urban Fiction,

Design Studio, Department of Architecture, RMIT 2006

Dystopian view of Melbourne in 2130
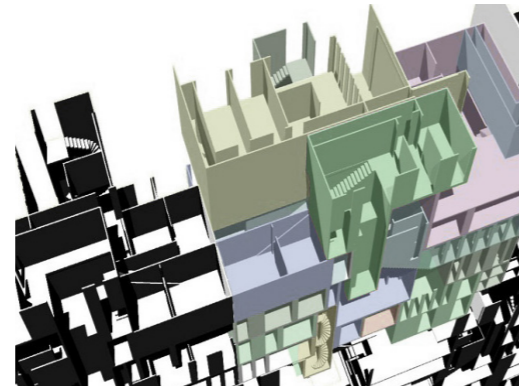
01.71

Student proposal, Dystopian view of apartments

Melbourne in 2130

01.72

Student proposal, Visionary Cities, Design Studio, Department of Architecture, RMIT 2012,

Carving the typical tower and inserting green spaces. Extending the communal open space within the tower.

l. What issues need to be considered to sustain the title of most livable city well into the future?

m. How do we achieve exemplary architecture in an environment whose planning laws verge on anarchy in Melbourne's Capital City Zone, and whose outcome is assessed via economic surplus?

n. How appropriate are the existing planning laws, 20 years on when the population of the city has doubled and its density is comparable to cities such as London?

o. Discover the poetics of the city and what makes it desirable to its inhabitants.

p. Ensure the city dweller is not transient in nature, design residences that can contract and expand on a need basis.

q. Ensure the city dweller is varied allowing for the diversification of population and high-rise residential typology.

r. Find a formula that appropriates the diversification of demographics within a tower.

s. Ensure that the CBD continues to facilitate affordable housing for varied demographics.

t. Ensure the planning laws have a way of physically testing the impact of any future development on its immediate and urban environment, impact on wind, light, shadowing, views and natural resources.

u. Establish a design methodology that enhances existing and future amenities.

v. Ensure the typology is legible in its streetscape to enhance the creativity of Melbourne's CBD.

These questions have not only been key to my teaching, but have developed in my speculative and commissioned work. The conditions of basic amenity in the residential tower has highlighted that it is a necessary component in all design, irrespective of typology. In reflecting on the Yarralands development I have noted that simplicity refines architectural components needed to deliver an architecture of liveability. To further understand this simplicity, I have unpacked key elements within my projects that make up the architectural devices within urban generosity as the edge condition, porosity and 'nature correctedness' [13] within urban generosity.

13. A process in how we as designers can appropriate architectural design to incorporate the quantitative measure of the connectedness to nature scale (CNS) by ensuring that natural elements such as light, air, views and greenscapes are evidenced in our civic spaces and built form.

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12. Yukio Futagawa and Takamasa Yosizaka, Le Corbusier : L'unite D'habitation,
Marseille, France 1947-52. L'unite D'habitation, Berlin, West Germany 1956-58.

13. "Five studies assessed the validity and reliability of the connectedness to
nature scale (CNS), a new measure of individuals' trait
levels of feeling emotionally connected to the natural world. Data from two
community and three college samples demonstrated that the CNS has good
psychometric properties, correlates with related variables (the new environmental
paradigm scale, identity as an environmentalist), and is uncorrelated with
potential confounds (verbal ability, social desirability). This paper supports
ecopsychologists' contention that connection to nature is an important
predictor of ecological behavior and subjective wellbeing. It also extends social
psychological research on self–other overlap, perspective taking, and altruistic
behavior to the overlap between self and nature. The CNS promises to be a
useful empirical tool for research on the relationship between humans and the
natural world." copyright 2005 Elsevier Ltd. All rights reserved.
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scale: A measure of individuals' feeling in community with nature", Journal
of Environmental Psychology 24 (2004) 503–515, abstract, http://www.
sciencedirect.com/science/article/pii/S0272494404000696
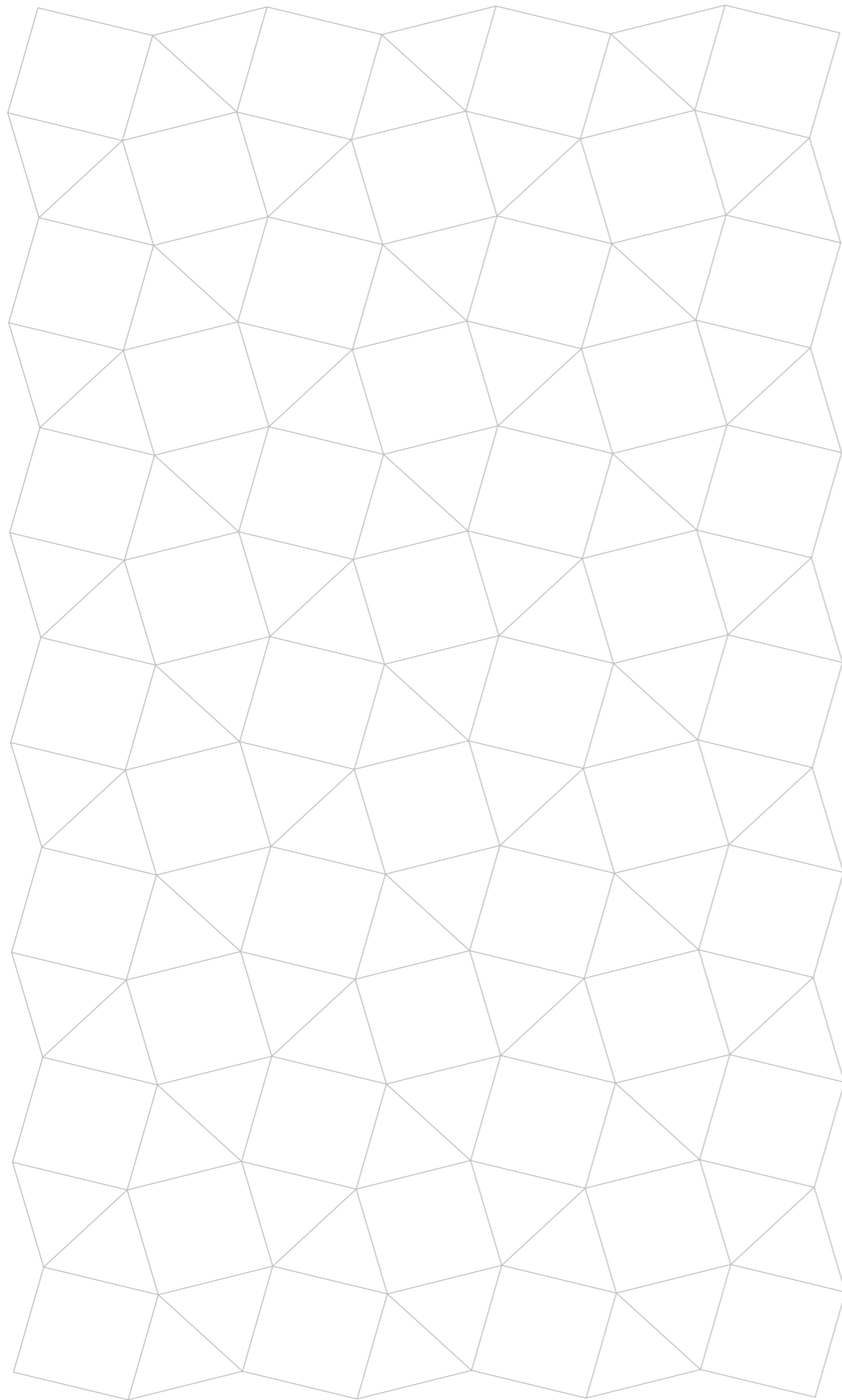
02.01

Tessellated pattern

used to developed

portable schools

CHAPTER 2.

DESIGN STRATEGIES FOR THE CITY

The nature of my emerging practice has delivered projects varied in scale and typology. Through out this research I have engaged in several speculative large scale projects assuming scale is essential in understanding the concept of urban generosity. Only to discover through unpacking my small scale work that all my designs have either one or several key components that consolidate the key design tools required in the development of urban generosity. These tools become an essential part of my design process.

In this chapter, I will review the various projects to reveal how these components of urban generosity have been extrapolated in my designs. This is explained through a visual mapping of the projects comparing precedents and the various design elements within the three key strata of urban generosity. I propose that urban generosity is active, it facilitates a series of design responses that transcends architectural iconic object making through a series of subtle design devices. I have classified these devices into three categories.

02.02

Sketch diagrams depicting edge condition, porosity and 'nature correctednes'
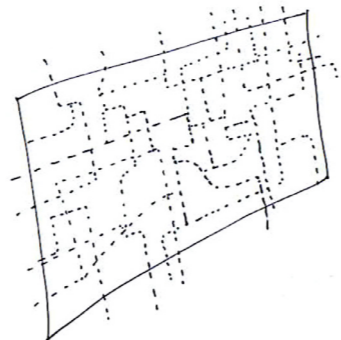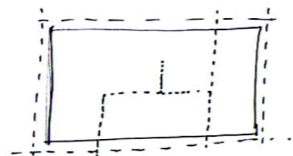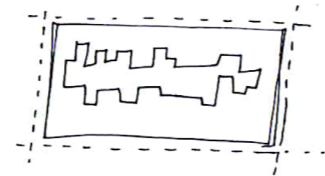
Firstly, the edge condition is the breaking down of boundary, the layering of anticipated thresholds that blur the expectation of interior/exterior paradigms. The spilling forth of life, of human activity, that ultimately delights in its complexities, the opportunities to watch and be watched. The production of an urban village, creating urban spaces that allows the body in space to loiter, delight, wonder and authenticate the environment in which it is experienced.

Secondly, porosity is the filtration of light, air, views, movement, and program. Like the human body, architecture is a porous vessel that accommodates the visceral matrix of life. The built form allows nature to filter and adapt the perceived static nature of architecture.

Thirdly, 'nature correctedness' is the qualitative, assessment of architecture's relationship to its context and the natural environment in which it exists.

02.01
Edge Conditions

The edge condition through tectonic devises is an intentional weaving of form and program of existing and proposed structures to its immediate, localised context.

1. Adaptable Edge

2. Electronic Edge

3. Undulated Edge

4. Extended Edge

5. Heritage Layered Edge

6. Layered Edge

7. Seasonal Edge

Adaptable Edge

02.03 Adaptable edge opening onto lane

02.06 Adaptable grid system

NEXUS CENTRE
ST LEONARDS (NSW)

RAIL STATION
FLINDERS ST , MELBOURNE

The variation in the topography allows the basement edge to open onto the adjoining laneway. This edge is filtered with a series of opening that can be folded and pivoted to open and accommodate specific programs for the building. Promoting the possibility of spilling internal functions onto the street and acquiring the street as apart of a useable pedestrian space.

An overall grid system is applied on a civic scale to allow for the infill of program on a need basis. This 'plug and play' system acknowledges the varied commercial needs of the station, by allowing the adaption of gross floor area via a portable built solution along Flinders Street edge.
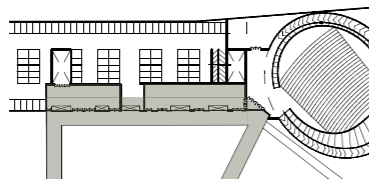
02.04 Laneway enters into building

02.07 Extent of grid system
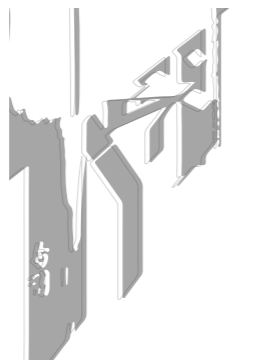
02.05 Boundary opening study
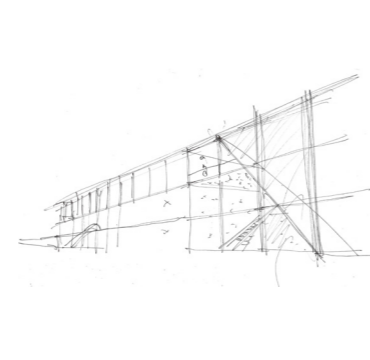
02.08 Grid system study along Flinders

Adaptable Edge

02.09 Adaptable shared path ways

02.12 Adaptable grid system

RESIDENTIAL TOWER
MELBOURNE

SCHOOL
MELBOURNE

Unlike a typical high rise, the layered skin condition allows the occupier to adapt the semi public internal skin of the exterior of the apartments. The external circular skin is maintained as the traditional homogenous fabric of the tower.

The use of an overall grid system that is a combination of a triangles and square forms, can be in filled and adapted according to various school and site requirements. At Merri Creek Primary School, the structural grid is attached to the existing portables expanding the terrain whilst enabling the portable to have usable internal and external spaces. The skin of Merri Creek portables are applied with green grow walls whilst in the CBD condition the skin material is an interactive skin using the architecture as a learning tool.

02.10 Path ways connect to private open
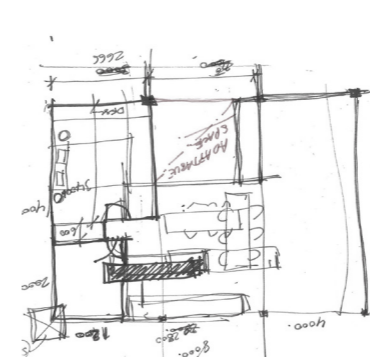
02.11 Apartment sketch

02.13 Grid study internal and external

The adaptable edge allows the occupier to appropriate the edge of the built form and engage in the immediate context, through devices such as, operable walls, interchangeable skins, contraction and expansion of the space. The incorporation of a structural main frame can be filled according to program, accommodating varied users over the varied life of the architecture.

02.14 Steven Holl New York Gallery

02.15 Image by Rob Hoeskstra railway bridge on the Wester-dokseiland in Amsterdam by de Architekten Cie.
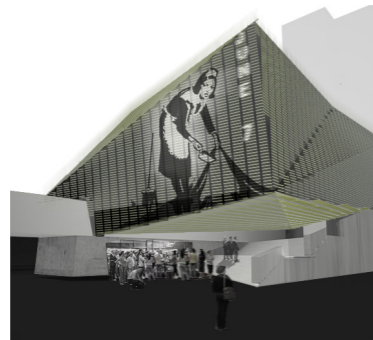
02.16 Low tech fluro billboard

**NEXUS CENTRE
ST LEONARDS (NSW)**

*Low tech fluro light strips
wrapping the building edge
becomes an electronic billboard
to advertise the civic programs
or events within the building.
The surrounding public including
the train passengers travelling
through the adjoining rail
corridor are made visually aware
of the building's function.*
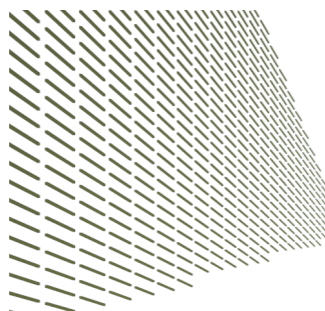
02.17 Fluro layout study
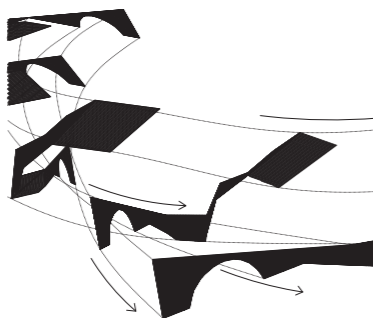
02.18 Various low tech skins

2.

Electronic Edge

The electronic edge allows
the skin to transform
delighting the city in
its variations. its about
change and movement of
a 2D interface.

02.19 Peter Cook's Graz Art Museum
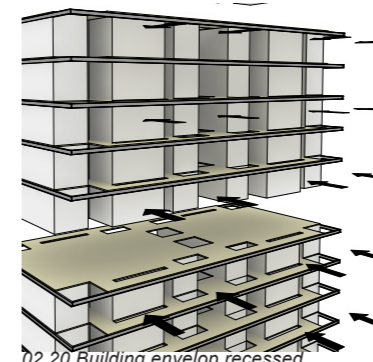
02.20 Building envelop recessed

**RESIDENTIAL TOWER
MELBOURNE**

*Private open space is inserted
between the private and semi
private spaces within the
apartments, extending the view
between these spaces. This
creates an undulated edge
condition between the skin of
the tower and the apartments,
allowing the occupier to retreat
from the edge of the building
or extend from the edge of the
apartment.*
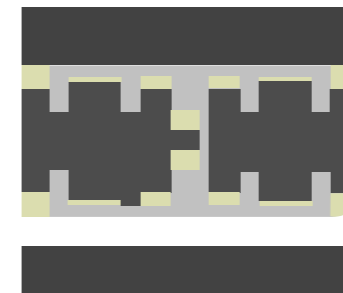
02.21 Plan study of recess into building
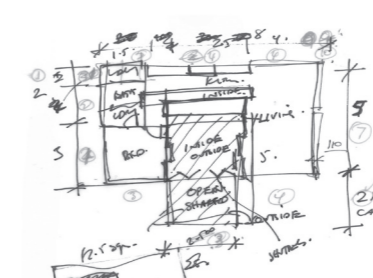
*02.22 Private and public space are con-
nected*

02.23 Facade concaved and convexed

**DOUBLE FRONTED HOUSE
CARLTON**

*The 'egg carton shaped'
undulated façade has a series
of picture frames that are
convex and concave creating
a pattern that frames the inner
city back yard allowing the
occupier to experience the inner
city 'orchard' through varied
perspectives and conditions.*

02.24 Sectional study of facade
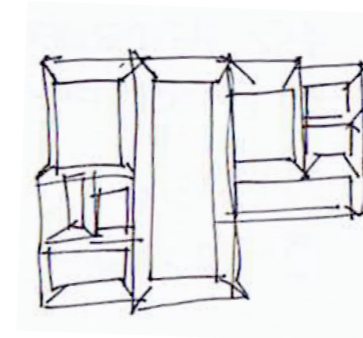
02.25 Elevation study

3.

Undulated Edge

The undulated edge
creates varied movement
along the edge of the
building interface creating
an enhanced and
varied experience of the
immediate context.

02.26 Moshe Safdie, Habitat 67
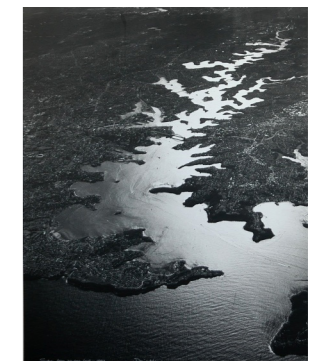
*02.27 Sydney harbour
photographer David Moore*

Extended Edge

02.28 Inner courtyard views to multiple rooms

HOUSING DEVELOPMENT
ELWOOD

The intermittent placement of balconies and courtyards throughout the development, extends visual views horizontally and vertically. Exposing views of the city, the bay, the sky and Plane trees along the street. All living spaces within the development have the option of multiple vistas engaging the occupant with outside and inside spaces.
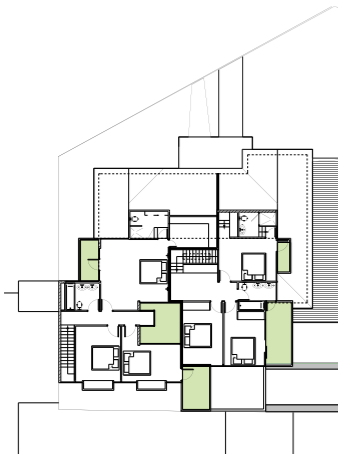
02.29 First floor plan
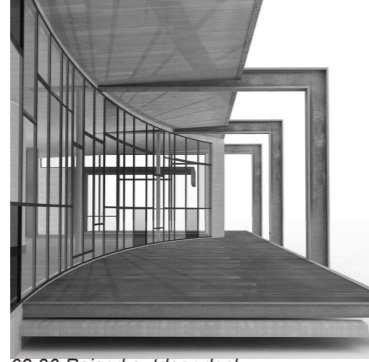
02.30 Raised outdoor deck

HOUSE
COBURG

A continuous glass wall along the street and the lenght of the site extends the garden-axially along the site and into the house. The passage way is positioned between the northern garden and the bedrooms blurring the condition between inside and outside.

02.31 Floor plan highlight glazing to the north

02.32 Built edge flow into garden

02.33 Construction of first floor

HOUSE
ELWOOD

A second storey extension is inserted into the existing roof. The new roof garden has direct access from the existing back garden vertically extending the living and open space into the streetscape.
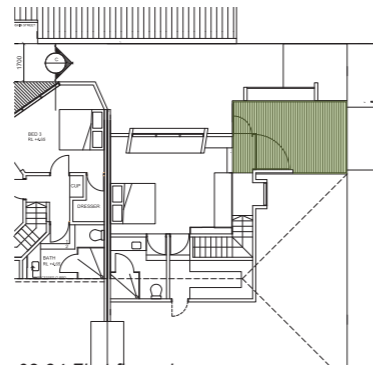
02.34 First floor plan
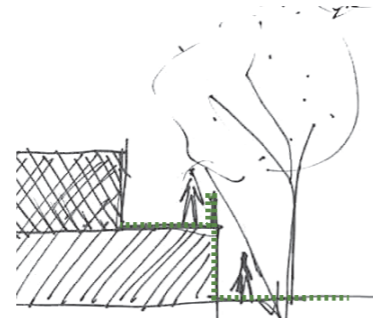
02.35 First floor garden connecting to street

65
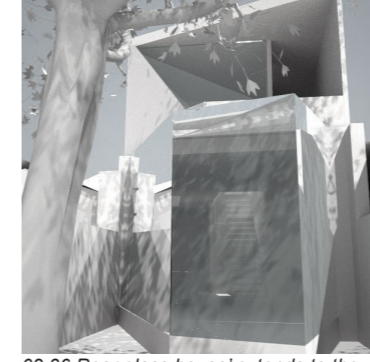
02.36 Rear glass house' extends to the tree

HOUSE
PRINCESS HILL

The extension of a two storey Victorian house extends the experience of the existing Liquid Amber tree into the living space by extending the rear living area with a glazed faceted 'glass house' which allows the occupier to view the tree both horizontally and vertically.
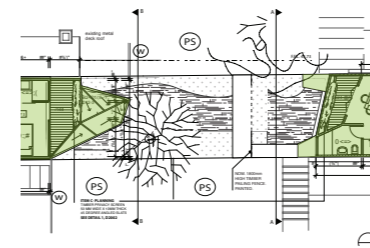
02.37 Part first floor plan internal garden

02.38 Study house and rear apartment edge
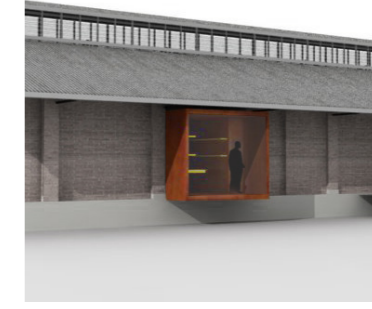
02.39 Cantilever box inserted into Goods

RAIL STATION
CHILTERN

The existing goods shed has a cantilevered box inserted into an existing opening of the heritage building. The cantilever extends the occupier beyond the building edge to retain the original experience of the opening as a door that connected to the outside for the purpose of loading goods onto trucks.
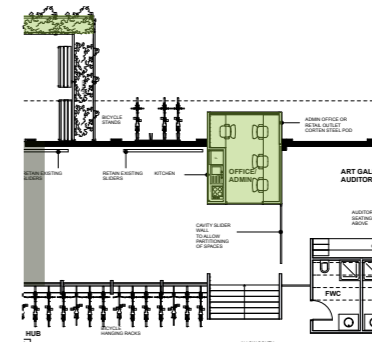
02.40 Part floor plan

20.41 Sectional diagram box extending beyond

66

Extended Edge

The edges of existing and proposed buildings are extended vertically and horizontally to enhance, capture or expose the context and histories of the site.
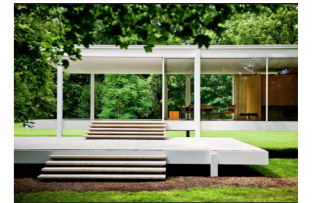
02.42 Mies van der Rohe Fransworth House

02.43 Heritage pattern applied to side facade

*CORNER HOUSE
NORTH CARLTON*

A single storey Victorian corner site in North Carlton, the new rear second storey extension takes the existing brick pattern of the front facade and wraps it around the corner. Like the existing front door, the new side door façade is decorative. The second storey bounding the rear lane maintains the plain red brick pattern as per the wall of the corner. The brick pattern of this speculative C19th house is maintained.
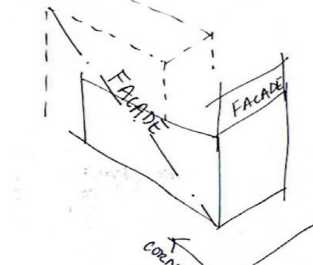
02.44 Facade diagram

02.45 Plain and decorative brick articulation

5.

Heritage Edge

The heritage edge reviews the historic skin and its meaning within its context-known as its street scape. It adapts this heritage onto the new surface-additional surface.
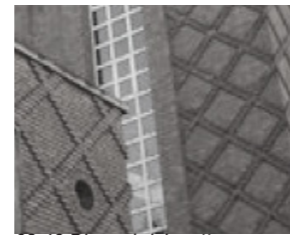
02.46 Diaper brick pattern

02.47 Diaper brick pattern

02.48 Boundary skin study

*RESIDENTIAL TOWER
MELBOURNE*

The two edges of tower flank the horizontal circulation between the apartments. Sharing a passageway with your neighbour blurs the transition between what is private and semi private, enabling these spaces to be shared.
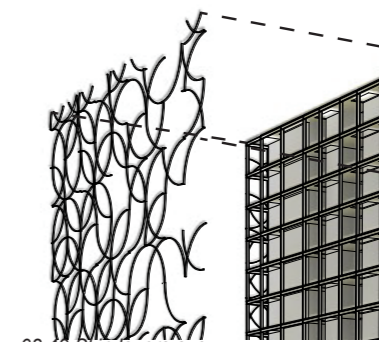
02.49 Skin layers axo
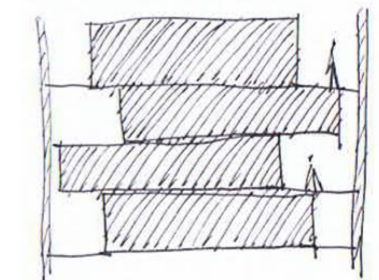
02.50 Sectional sketch skin and apartment edge

6.

Layered Edge

The layered edge has a series of thresholds that blurs the line between private, semi-private and public space.

Seasonal Edge
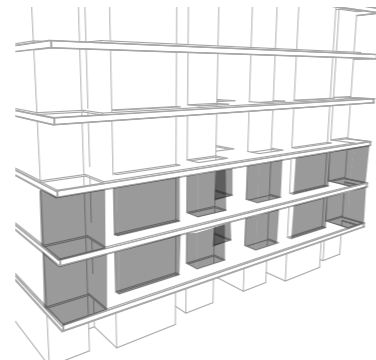
02.51 Shaded area indicates void posi-

*RESIDENTIAL TOWER
MELBOURNE*

In an otherwise tower locked site, voids are inserted in front of living room and bedroom windows to allow natural air to flow through the apartments. It is anticipated that rain will fall past the windows of the apartments even though windows are setback from the building edge.
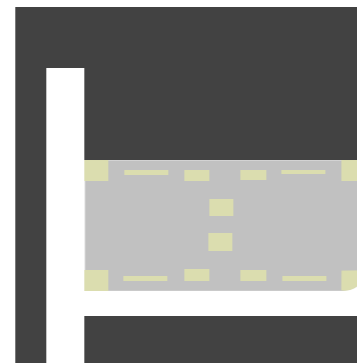
02.52 Plan diagram void positions
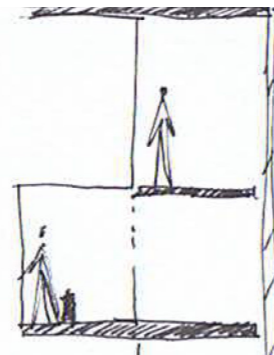
02.53 Sectional diagram void positions

Seasonal Edge

The qualities of the seasonal edge changes according to the seasons. The design's point of departure is from the natural elements on the site that allows the occupier a haptic experience of the context.

02.54 Existing Liquid Amber tree

*HOUSE
PRINCES HILL*

A long narrow block the centre of the house is inserted with a glazed second storey bridge that filters the sunlight and air through the centre of the house. Kitchen below it allows the occupier to follow the changes in the sky, experiencing sunlight, rain and clouds, the weather even though in the interior of the house.

02.55 3D study of balcony view to tree
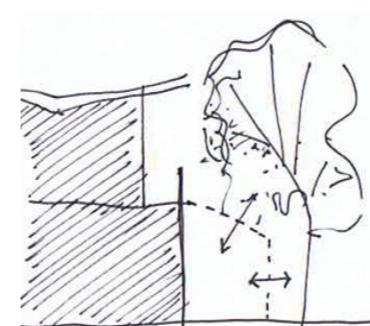
02.56 Study visual connection to tree

02.57 Existing palm dictates the form

*RESIDENTIAL DEVELOPMENT
ELSTERNWICK*

The existing palm tree dictates the form of the design. The vertical circulation follows the curved double storey glazed wall that wraps around the palm. Likened to climbing a tree house the glazed wall is operable enabling cross ventilation to pass through the palm, visually connecting the occupier to the trunk and canopy of the palm.

02.58 First floor plan

02.02
Porosity

Porosity facilitates a flow between environments, enabling architecture as a process of exchange.

1. Porous Climate

2. Porous Terrain

3. Porous Fabric

4. Porous Views

02.59 Central courtyard

02.62 Roof deck

**CORNER HOUSE
CARLTON NORTH**

With a relative small site footprint, the insertion of a central courtyard allows living spaces access to north sunlight and cross ventilation. A bridge connecting the upper bedrooms allows for air to flow from the ground floor and raise to be expelled from the upper windows which act as a thermal stack
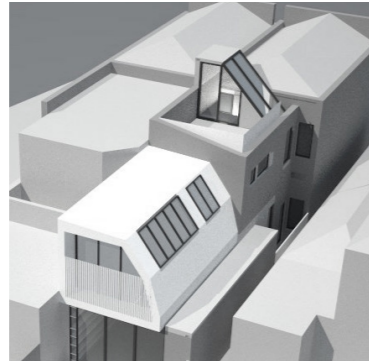
**DOUBLE STOREY HOUSE
CARLTON NORTH**

The incorporation of a third storey roof garden on an existing two storey terrace activates the existing staircase as a thermal stack.
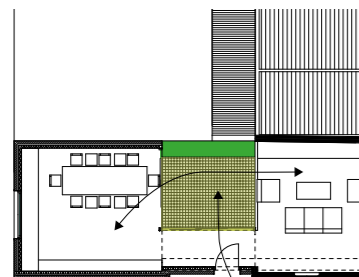
02.60 Part ground floor plan
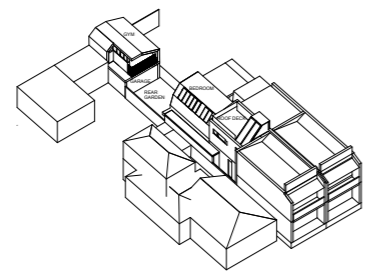
02.63 Axonometric
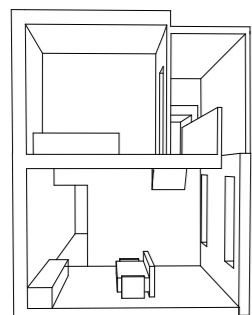
02.61 Sectional perspective through bridge
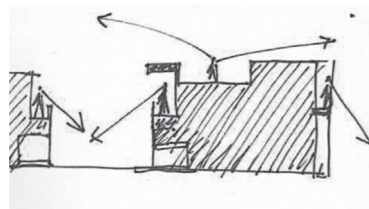
02.64 Sectional diagram balcony positions

1.

Porous Climate

The built form allows for the filtration of air and light.

2.

Porous Terrain

Porosity facilitates a flow between environments, enabling architecture as a process of exchange.

02.65 North bank a contiguous terrain

02.68 Aerial view

**RAIL STATION
FLINDERS ST, MELBOURNE**

The concourse becomes a contiguous terrain between the Federation Square, the Yarra River, the city, north and south banks. The new station terrain allow for a continuous pedestrian without limits.
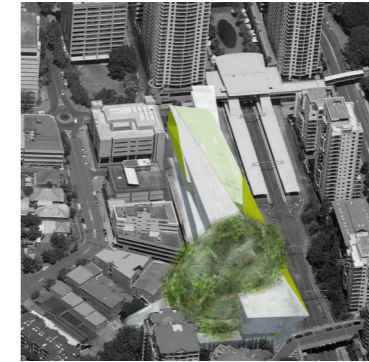
**NEXUS CENTRE
ST LEONARDS (NSW)**

The form connects pedestrian flow through the varied topography of the site and its surrounding context. Creating a pedestrian corridor along the rail corridor.

02.70 Federation Square, Melbourne
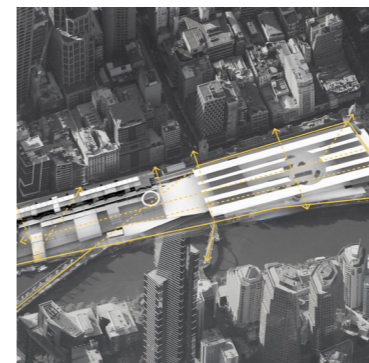
02.71 QV, Melbourne

02.66 Pedestrian flow diagram
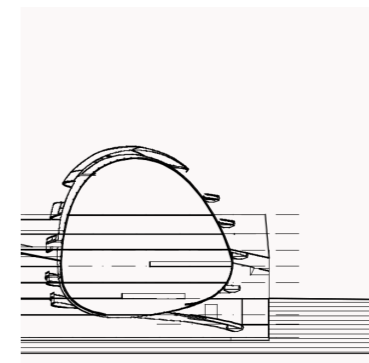
02.69 Circulation around the dome

02.67 Porosity plan
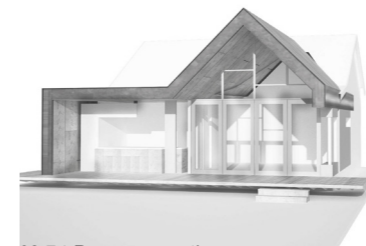
3.

Porous
Fabric
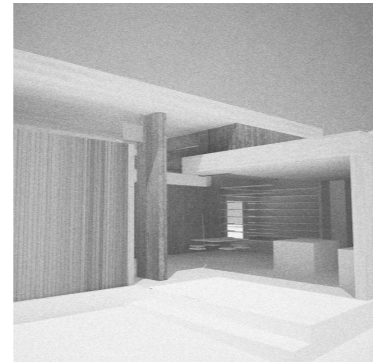
02.72 West elevation

*HOUSE
KENSINGTON*

The skirt of the proposed living
room is lifted off the floor to
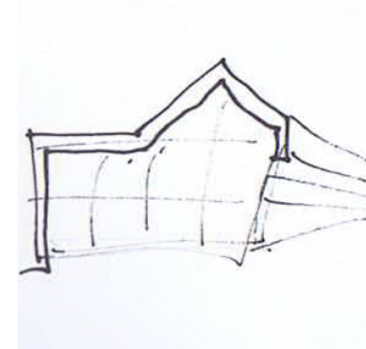allow the landscape to permeate
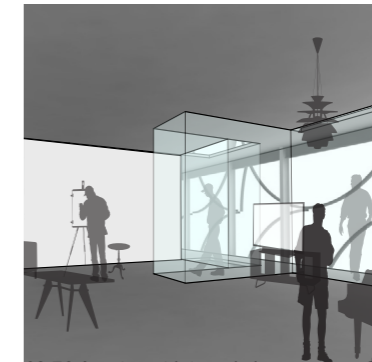into the living space.

02.73 Internal perspective to the garden

02.74 Rear perspective

*HOUSE
NORTH COBURG*

The wrapped wall and roof rests
on glazed east and north walls
that seems to disappear under
the structure, revealing the
interior of the architecture.

02.75 Folded wall and roof sketch

02.76 Apartment internal view

*RESIDENTIAL TOWER
MELBOURNE*

The various layers of the tower
allows the adjoining neighbours,
the natural elements and the city
to be filtered through the façade
into the private realms of the
tower either as an internal or
external experience. The outer
fabric of the building is made up
a of circular steel grid that is in
filled with perforated steel which
can be opened or shut according
to need.
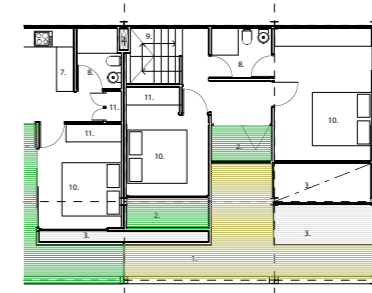
02.77 Typical floor plan
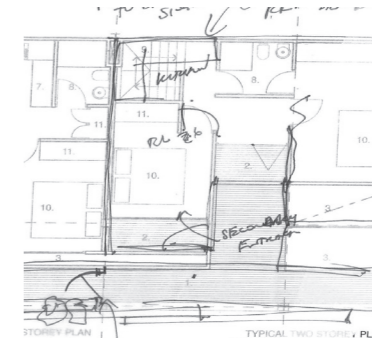
02.78 Sketch plan study

3.

Porous
Fabric

The material of the built
form allows an opportunity
for exchange between the
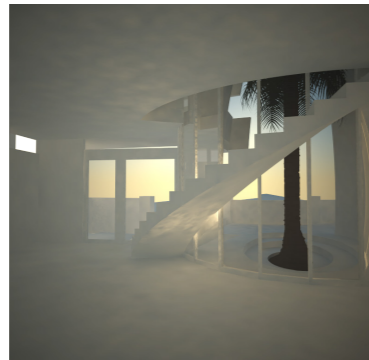occupier, the built form
and the site.

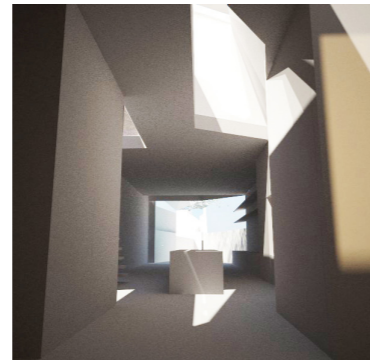*02.79 Site, high rise suburbs*
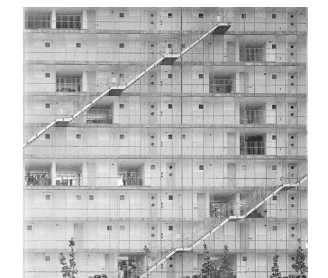
02.80 Kazuyo Sejima Gifu Building

Porous
Views

02.81 View form living room to palm

*DEVELOPMENT
GLEN IRA*

*Occupying the ground floor
living space the large views
are directed east and west with
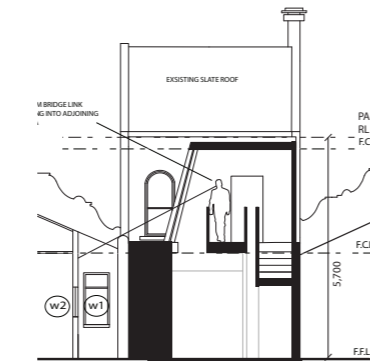glimpses of south and north view
through clerestory windows.*

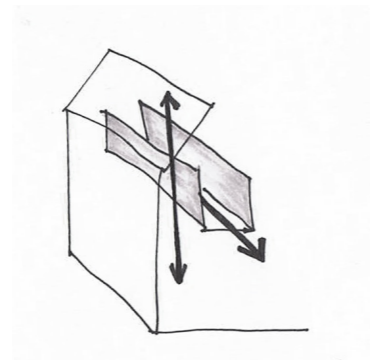02.83 Perspective view to the garden

*HOUSE
PRINCES HILL*

*The second storey bridge
connecting the existing and new
second stories establishes a
visual connections through the
house vertically and horizontally.*
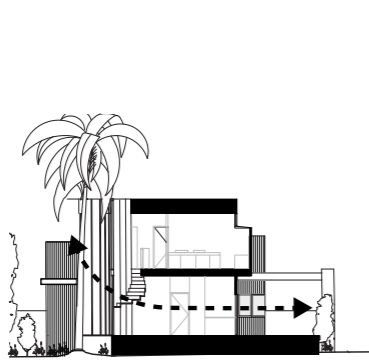
02.82 Cross ventilation

02.84 Section view bridge looking south

02.85 View study form bridge

Porous
Views

The insertion of apertures
in the built fabric allows
a series of views at any
given point beyond the
building envelope.

02.86 Skylight above stair

*HOUSE
WINDSOR*

*The insertion of a corner window
to the front of the second storey
extension allows glimpses of the
neighbourhood roofscape. Views
are purposely directed onto the
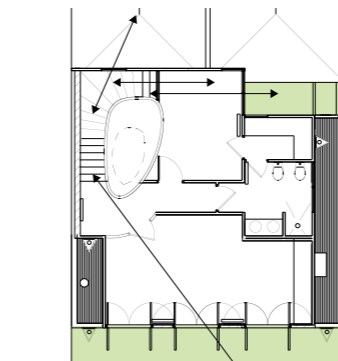street as well as the rear garden.*

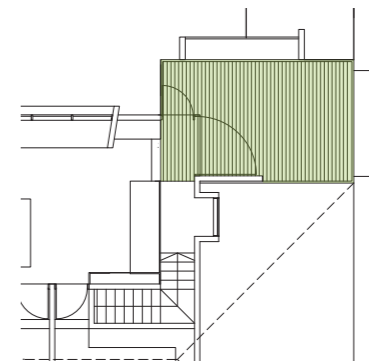02.89 Layered views to the apartments

*HOUSE
ELWOOD*

*The insertion of two windows
opposite each other on either
side of the staircase, one to the
street and one to the bedroom,
extends the view from the
bedroom across the street into
the neighbour's bedroom and
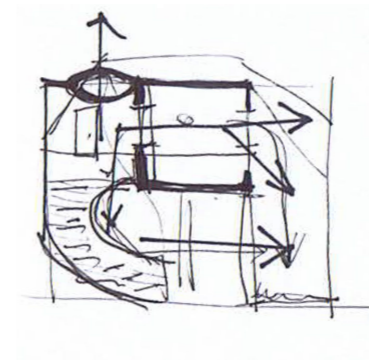living space.*

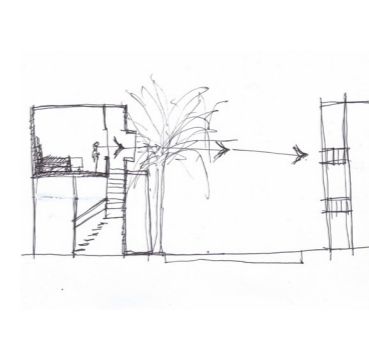02.92 Kazuyo Sejima Plum
Grove house

02.87 First floor plan views

02.90 First floor plan

02.88 Sectional diagram view study

02.91 Sectional diagram views