







# **AN ABSOLUTE, LIBERAL MONUMENT**

Investigating the Potential of  
Group Renovation for Cohousing in Wellington's Inner-City Suburbs



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## 0.2 abstract

Increasingly divergent housing needs together with dilapidated housing stock requires us to consider upgrading many inner-city suburban areas. Renovations to individual dwellings rarely take advantage of the opportunity to develop density, maximize the use of green space, pool economic and social resources, and to share costly but necessary infrastructural changes while retaining or reinvigorating neighbourhood character. The rhetoric of the Moderns and their attitude to buildings of character is still with us, to the detriment of the suburban realm. Attempts to address these concerns have resulted in reductive, generic, commodified space that allows little scope for flexible use by different social groupings.

By tracing Denise-Scott Brown's canonical arguments regarding the place of social sensitivity through the work of contemporary architects Pier Vittorio Aureli and Alexander D'Hooghe, together with investigation of how shared domestic space can be ordered, bounded and framed for a variety of heterogeneous privacies, a built proposition which adds to the formal quality of the inner-city suburbs is developed. This new kind of integrated, shared dwelling can be viewed as a Rossian monument, at once an embodiment of the 'idea of the city' as well as discrete, absolute, architectural product allowing the inhabitants as individuals or households a space which can be taken ownership of in a liberal spirit.

This thesis elaborates upon discussions between too-often separated realms of discourse that Scott-Brown identified: that of physical form generation on the one hand, and social aims on the other. By using architectural research through design, a proposition for an alternative housing model is proposed. The specific formal and social situation of the building stock under examination form a point of departure alongside recent trends in alternative dwelling arrangements. The point is made that there is a vital role for the place of design in the housing market as a way to shape and redefine statistical analysis of living styles and standards.

The design case study is an example of a specific proposition which, rather than being a replicable typology, is an example of the kinds of choices that should be available to suit current demographic changes and social desires.





## 0.1 acknowledgements

I would like to thank both Peter Parkes and Sam Kebell for their advice, direction and guidance over the duration of this undertaking.

I would also like to share my deep appreciation of the assistance my family have given me through their unwavering faith in my abilities and pride in my achievements - not only this year but throughout my studies.

And to my great friends who, whether close or far away, have all contributed immeasurably to the completion of this paper. I wish you the same sense of pride in your endeavours as you have helped me to attain.



#### 0.4 introducing an approach: note on methodology

This thesis originated from a personal desire to design for a typology that has a vital social element. Creating shared domestic space calls traditional notions of privacy and communality into question. Shared dwelling arrangements carry the stigma that they are only for people in low socioeconomic situations, or for people propelled by religious or environmental goals. But as a design problem, issues of negotiated boundaries and of living together can inform interesting, fresh design solutions for a contemporary suburban environment. An abundance of literature exists on the practice of creating the right social, cultural and managerial environment for shared dwellings - but what are the possibilities for negotiated typologies, critical form and for the architectural profession at large? Though the thesis takes a social proposition as a departure, these are issues which are necessarily discussed through form and material.

The thesis first identifies the main problem facing suburban dwellers: The state of housing and lack of choice. The shared dwelling is proposed as a social mechanism to ease this situation, proposing that from this familiar dwelling arrangement other, diverse housing forms and types can be conceptualised.

The Case Studies in section 2.0 are examined for their formal attributes - through their placement in the urban environment, their materials and relationship to the surrounding prototypical typologies that give them cultural and formal context, together with the range of privacies that they allow their inhabitants. Renovated villas and modern interpretations of the suburban villa - widely recognised as the prototypical New Zealand house - together with local and international shared-dwelling precedents are examined for how they achieve higher densities, the possibility of shared living, alternative approaches to spatial ownership, and possibilities for different expressions of domestic privacy.

The salient boundaries in, of and concerning the placement of the dwellings in various contexts are examined, and a theoretical lens for this analysis is constructed in 3.0 : The Absolute Liberal Monument.

The broad aim of the thesis is to address the concern that the infamous post-modern Architect Denise Scott-Brown raised in 1975 concerning what she perceived as a false and damaging separation of formal concerns from social ones in the production of urban and architectural space. In her canonical essay 'On Formalism and Social Concern: A Discourse for Social Planners and Radical Chic Architects', Scott-Brown explains architects have traditionally had problems with communicating the importance of form when addressing social concerns. Through her essay she describes that social agendas can and must be achieved through the production of critical and vital form - and that neither social nor formal concerns can be overlooked in the design process. Throughout this thesis, therefore, issues of boundary conditions become paramount - as the shared dwelling necessarily operates through a rearranging legal, spatial, material, and interpersonal limits, and becomes successful when these are dynamic: constantly and democratically negotiated.

It is intended that the design work sit alongside the written research and be weighted equally.

(1.1.1)  
 expected number of shared dwellings needed by 2030

(1.1.2)  
 'the shire' envisioned by Frame, Taylor and Delaney  
 as a viable landcare future for New Zealand

<p><b>Fruits for the few</b></p> <p>Powerful corporations</p> <p>Businesses adopt sustainable practices to protect their investment and trade</p> <p>Strong economic growth</p> <p>Individuals not sustainability minded</p> <p>80/20 society (80% wealth held by 20% of population)</p> <p>Minimal Government intervention</p> <p>Some social unrest</p> <p><i>Future housing implications</i></p> <p>Gated communities for some locals and rich migrant communities</p>	<p><b>The Shire</b></p> <p>Comprehensive sustainability measures</p> <p>Modest economic growth</p> <p>Consensus building</p> <p>Government role in facilitating social cohesion</p> <p>Quality of life focus</p> <p><i>Future housing implications</i></p> <p>Regional community housing developments, assisted by Government</p> <p>High level of sustainable features in housing</p>
<p><b>Market orthodoxy</b></p> <p>Globalisation proceeds apace</p> <p>Resource depletion</p> <p>Strong competition and individualism</p> <p>Short-term Government focus and strong economic growth</p> <p>Economy not resilient to climate change</p> <p>Economic slow-down post-2030</p> <p><i>Future housing implications</i></p> <p>Gated communities</p> <p>Low sustainability uptake in housing</p>	<p><b>Living on No. 8 wire</b></p> <p>No change in current sustainability practices until 2030</p> <p>Environmental and ecosystem depletion</p> <p>Eventual pragmatism, public work camps, and community environmental initiatives</p> <p>Informal markets and barter</p> <p>Modest economic growth</p> <p>Strong Government role in trade-offs, redistribution, environmental restoration and public works after 2030</p> <p><i>Future housing implications</i></p> <p>Regional focus and away from the major cities. Government housing a significant % of total stock. Eventual provision of sustainability features in houses</p>

### 1.1 New Zealand's Housing: The Present Situation

New Zealand's population is estimated to increase by 17% between 2006 and 2030<sup>1</sup>. By 2026, 16,000 people will need to be housed in the region bringing the population to 204,500. To house this increase in population, 24,000 homes will be built nationwide and 3,000 major refurbishments to dwellings will take place each year<sup>2</sup>.

This increase in population alone is enough to warrant more housing and an evaluation of the processes and design. But there is also a risk of losing the character of the inner-city suburbs<sup>3</sup> and the green space that New Zealanders are privileged to enjoy as we increase density. There are significant demographic changes underway too - household sizes are shrinking from 2.7 persons in 1981 to 2.4 in 2021, meaning that although Wellington's population is due to increase by only 17%, the number of individual dwellings is projected to increase by 28%<sup>4</sup>.

### 1.2 Changing Demographics and New Solutions

While the statistics noted here are mathematically sound, there seems to be fundamental oversights in the predictions that result from these numbers. There is an assumption that the new houses built in the next 30 years will reiterate the types of housing that suit present social groupings and cultural norms; and that the only solutions to housing available already exist - as private flats, apartments or houses.

Our existing housing stock in New Zealand is not flexible enough to cater for what we know about our changing demographics<sup>5</sup>. Potential buyers are being priced out of the housing market, an inability to afford to move into houses that have basic levels of insulation and structural stability, and to find access to meaningful green space living in the outlying suburbs is supposed to be the only solution<sup>6</sup>. The housing stock we have has mostly been built with a generic traditional, nuclear family in mind - and has little relevance for the way we live today<sup>7</sup>.

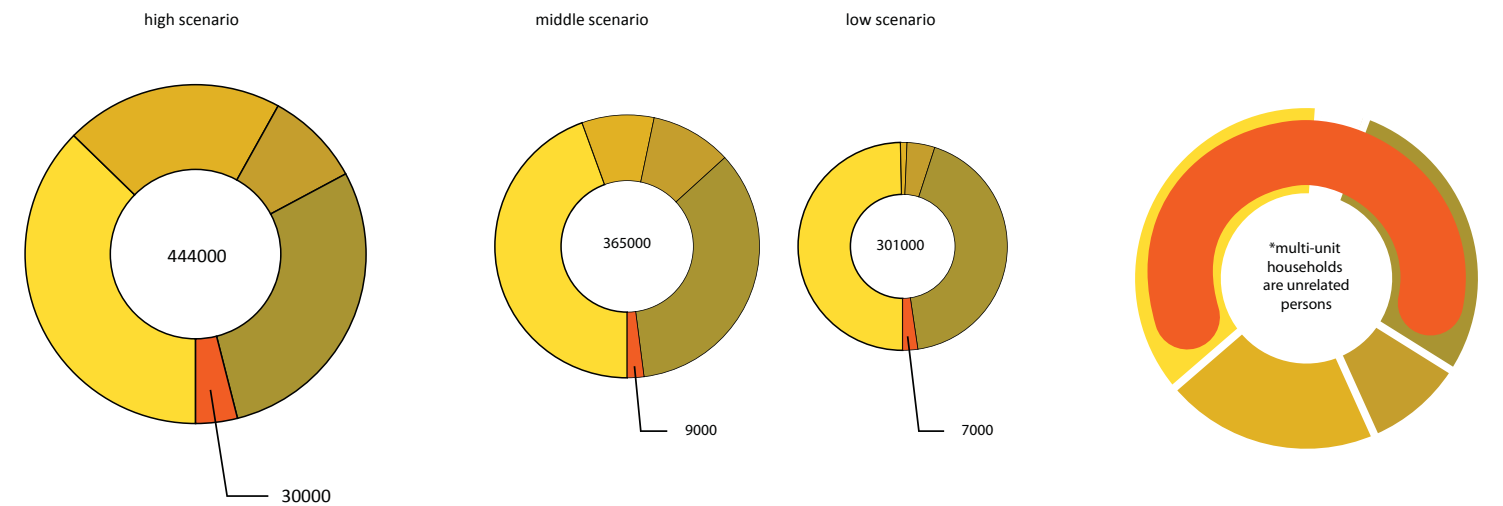
It is becoming clear that the generic nuclear family model and 'normal' groupings are becoming a thing of the past as shared domestic spaces and flatting are becoming increasingly common for all ages<sup>8</sup>. At the start of most people's independent lives, flatting is seen as a normal and even expected first step towards home ownership. But later pairing, marriage, and a high probability of divorce; having fewer children later in life and longer a life expectancy all contribute to a very different relationship between people and their dwellings to that which existed even twenty years ago. Retirees, young families and friend-groups are beginning to see the value in shared space and shared resources in the domestic realm<sup>9</sup>.

In fact, there is a strong history of innovation and experimentation in housing arrangements in New Zealand<sup>10</sup>. Architects interested in shared living typologies, McIntosh, Gray, Sargisson and others, have traced New Zealand's long history and benefits of conjoined living and intentional communities<sup>11</sup>.

1. "Housing Statistics for the Greater Wellington Region"  
2. compiled from various sources.

3. Areas with particular characteristics are treasured in Wellington, for example in Mt. Victoria where additional rules in regard to permutations, overall mass and layout apply. These design rules are prescriptive in nature. See "Mt Victoria North Character Design Area"

4. "Housing Statistics for the Greater Wellington Region"



6. Following the economic recession of 2010-11 the property market in New Zealand is still artificially inflated, with houses regularly selling for 20% above their capital value. Housing affordability has become a huge issue in urban and suburban areas particularly. "Flexibility, perseverance home-hunter's friends"

7. In 2007, BRANZ undertook a study on the needs and aspirations of population, as well as the requisite attitude to policy required from the government and municipalities for change in the housing market. Highlighting 4 possible avenues for the future of our housing stock, this thesis follows the assumptions outlined in Frame, Taylor and Delaney's paper describing a 'Shire'-like land-care scenarios. "BRANZ Study Report: Changing Housing Need"

8. Gibson, "You're never too old to go flatting"

9. Williamson, "Flatting Futures"

10. Sargisson, Intentional Communities, 5

11. Maher, S L., & McIntosh, J, "A Shared Sense of Belonging"

### 1.3 Existing Housing Stock in New Zealand: A Compounding Problem

The condition of New Zealand's existing housing stock - its energy requirements and the impact on health of the inhabitants was surveyed by BRANZ from 2005 to 2009. 565 houses from Wellington formed part of the sample group, and it was found that 45% of homes were lacking adequate earthquake restraint, basic weatherproofing, insulation and/or adequate ventilation<sup>12</sup>.

Rather than undertaking remedial work to fix fundamental issues, homeowners prefer to modernise the amenities in the homes, especially for the rental market. The kitchen, laundry and bathrooms - the amenity spaces - are renovated to add rental value or to give the impression of a more modern home, but often fundamental structural and weathertightness issues are not addressed.

Renovation of the everyday architecture that gives the inner-city suburbs character is a costly, time-consuming and unpredictable process. Renovating en-masse could take advantage of economies of scale for material costs, labor and time spent on site. The literature available only draws conclusions from the number of renovations undertaken on an individual property basis, as presently there are few incentives to invest in en-masse renovation<sup>15</sup>. Wellington City Council has promoted the initiative of pooling financial resources in heritage areas such as Cuba Street in central Wellington for seismic retrofit, but there is no information available for private or domestic projects of a similar kind<sup>16</sup>. However, there are small entities which undertake such projects, such as Daniell Street Houses in Newtown (2.4.12.0).

Potential for sustainable architectural engagement and praxis lies in this altered attitude to property boundaries, spatial ownership as well as the legal and social entities they embody<sup>17</sup>.

#### 1.4 A Point of Departure for Design Investigation :

The combination of increasing population changing demographics and the costly renovation of housing are threatening access to meaningful green space, the character of the inner-city suburbs and leads this thesis to pose the question -

How can we approach the design of medium-density housing that renovates existing housing stock en-masse, accommodates a wide range of demographic groups in established suburbs, while operating in a socially and formally coherent way?

12. N Bucket, M Jones & N Marston, "BRANZ 2010 House Condition survey", 9.

13. *ibid*, 32

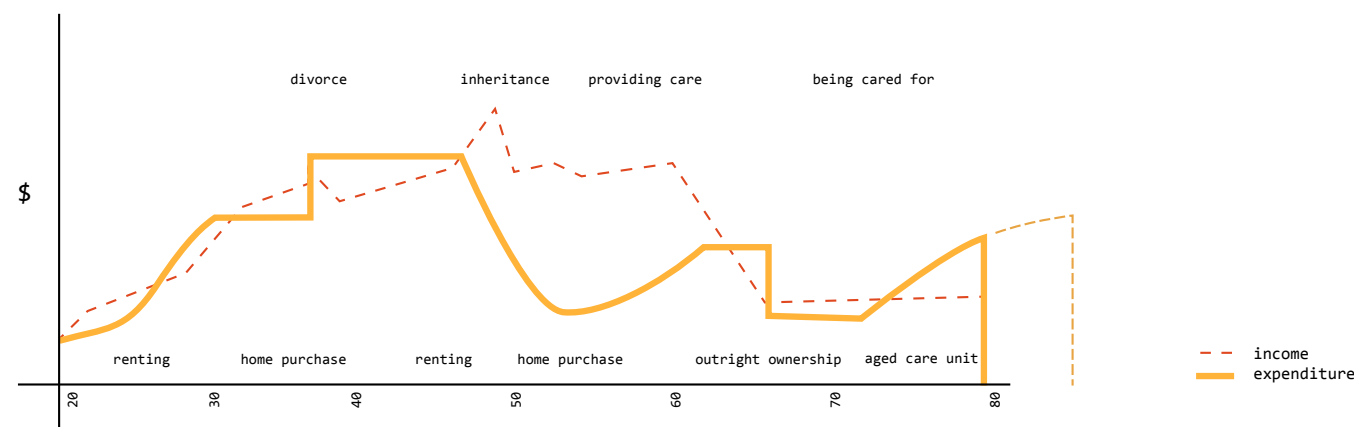
14. "BRANZ Study Report: Changing Housing Need", 53

15. The type of ownership of the property is also not noted on the descriptions or types of renovations. A wider study around this topic would include a survey of renovations undertaken by group property ownership models, such as cross-lease. For a detailed description of various property types, refer to Sargisson, L, "Living in Utopia", and consumerbuild.co.nz, "Land Titles"

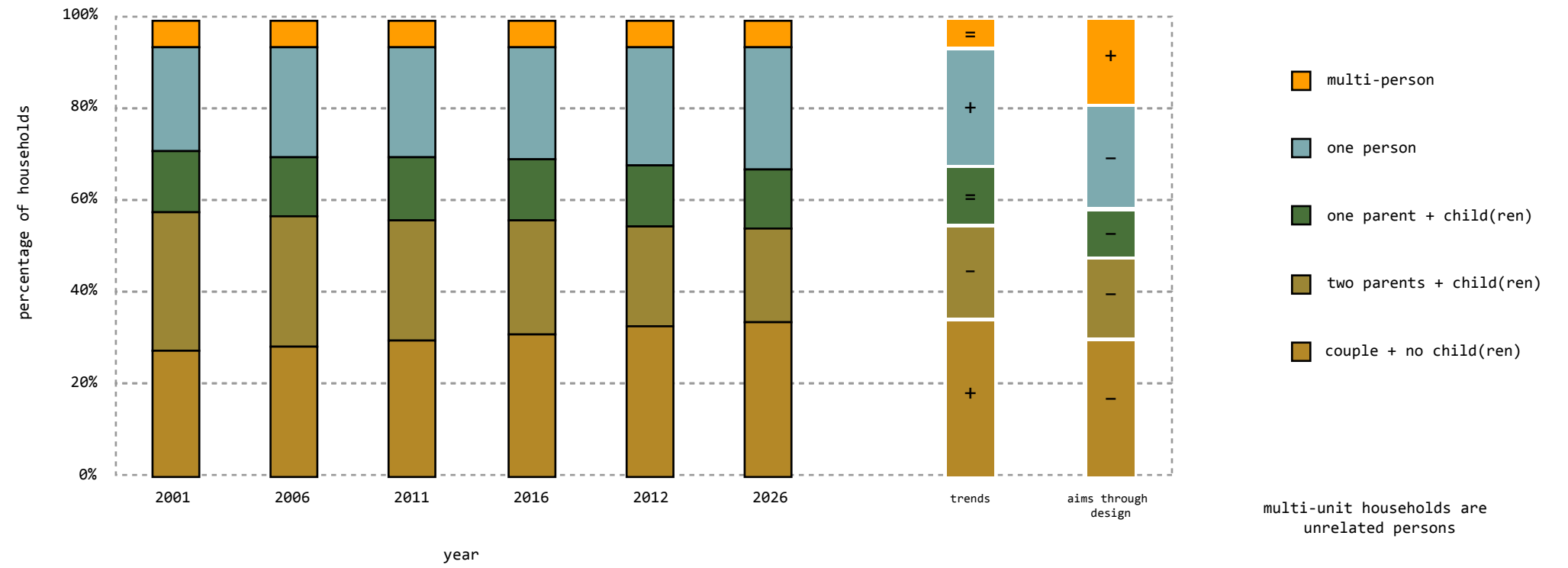
16. Property owners in Wellington's inner-city area are pooling financial resources for necessary seismic upgrades. A similar communitarian spirit among freehold property owners could be useful in the housing sector. (Inner City Association), "ICA submission to MBIE's Building Seismic Performance Consultation".

17. Many housing schemes initiated by groups or communities include a description of the specific legal situation as ignorance to the possible legal definitions is a hindrance to interest in progressing group developments. This was the case for Dehli Village, Wanganui. Richard Thompson, email message to author, 3 April 2012.

(1.3.1)  
typical modern housing career



(1.5.1)  
changing household types in New Zealand



### 1.5 Looking Closely at Oversights : A Possible Trajectory

It is far beyond the scope of this discussion to engage with the sociological and anthropological issues that are implied by the increase in shared dwellings and their cultural, social, and political development<sup>18</sup> - but it is nonetheless true that the assumptions drafted by the available statistics deny the role of changing cultural conditions and the role of effective, critical design to facilitate change in household design.

18. There is a wide range of literature available on shared spaces and the requirements for management and cooperative living. My own experience as a flatter was useful - but more organised approaches for design outcomes is comprehensively described in Sargisson, Intentional Communities and Dorit, Collaborative Communities. Both books address the social aspects of shared dwelling typologies, rather than the process and design as a group-exercise.

Figure (1.5.1) shows the effect of a critical oversight in the presentation of statistics on dwellings by the census. The groups surveyed in the census aren't mutually exclusive - those that consider themselves single or part of a couple may reside within a larger household group in one dwelling, but are counted in the "multi-person" household category; conversely, a group of single people dwelling in a multi-person household are not counted. From a designer's point of view, these two different scenarios could be best catered for with very different housing solutions, yet both are considered as having similar, yet vague, living requirements under this classification.

This has the effect of falsely homogenizing the household makeup of multi-person groups has lead us to misunderstand the role that this kind of housing has now - and could have in the future.

The role these residences have in our social and cultural make-up is largely unexplored, and the required physical, spatial arrangements is an understudied and misunderstood area of Architectural endeavor<sup>19</sup>. Shared dwelling is employed not as a topic of research but as a social mechanism driving research into forms which could be employed to create meaningful housing alternatives for inner-suburban situations.

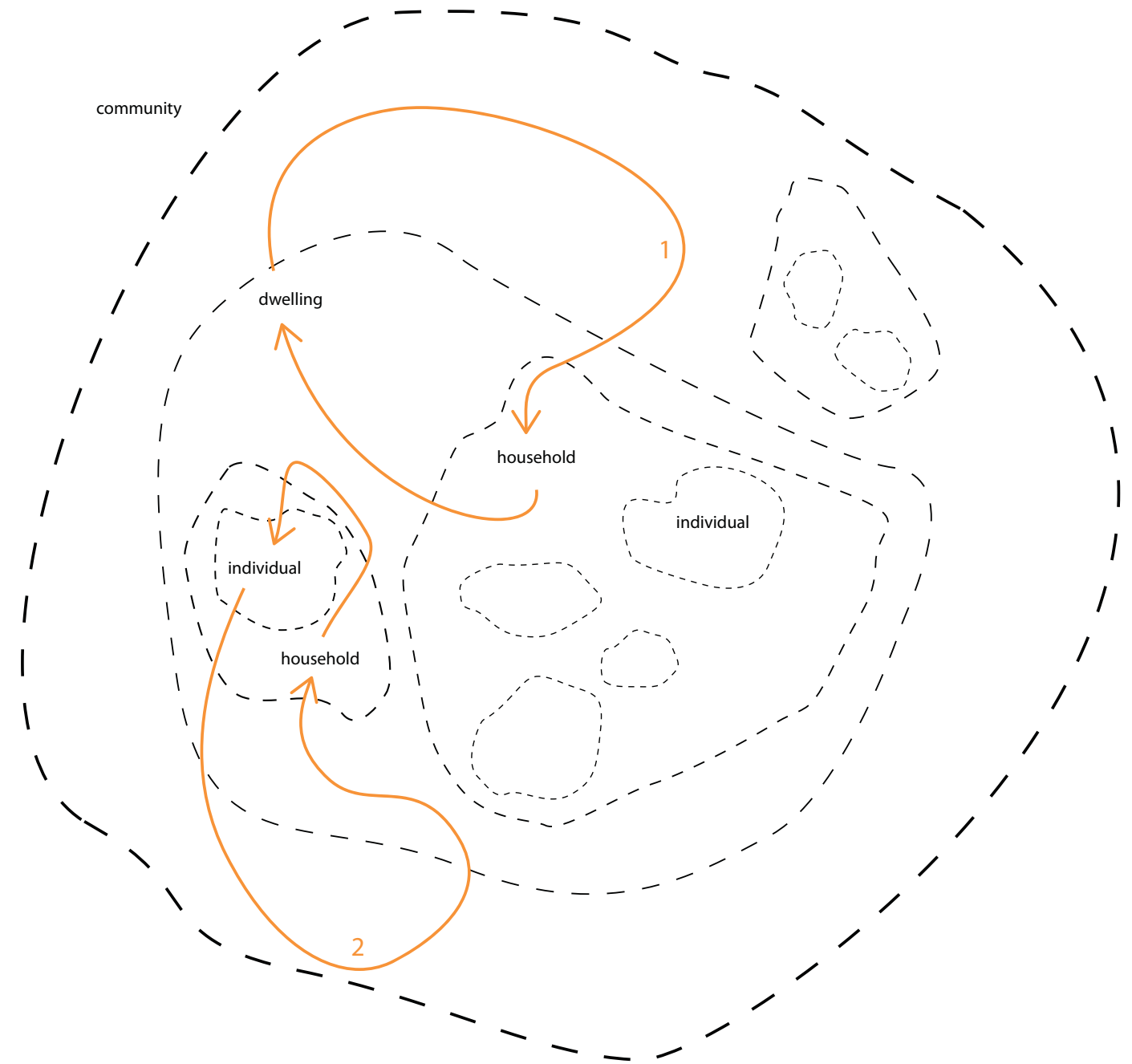
19. Georgiou, "Architectural Privacy: A Topological Approach to Relational Design Problems"

Researching and developing this trajectory for design is complicated by the terms that are currently used to describe the social make-up of dwellings and the physical manifestations of those dwellings. Figure (1.5.2) shows the confusion of some of these terms:

1. dwelling and household,
2. individual and household,
3. housing and dwelling(s)

All these terms have social meaning and physical attributes (see 2.1 Note on Typology for more about this relationship). More work needs to be done to define a working taxonomy for discussing shared-space dwelling typologies, in order to successfully analyse existing conditions, communicate the findings in a meaningful way and to demonstrate the benefits of such living arrangements.

Gathering statistics which prove inconsistent and ambiguous is symptomatic of the larger problem: Even the design community cannot be specific about the terms that describe the social and physical components of shared dwellings and their derivative typologies.



(1.5.2)  
confusion of terms used in the architectural and design profession for describing shared dwelling arrangements



## 1.6 Approaching Design as Research

“...design professionals have given little consideration to what should be the role of the architect and urban designer in a multivalent aesthetic culture, nor to how formal languages might differ to meet the unknown group client that is known statistically or through social profiles, as opposed to the individual client whose worried eyes may belie the approval of her or his words across a conference table<sup>20</sup>”

20. Scott-Brown, On Formalism and Social Concern, 319

This thesis examines the possibilities of en-masse renovation to prototypical, inner-city residential typologies by employing shared-dwelling as a social mechanism, and as a prescription to design for an largely unknown, statistically-defined group client. The creation of spaces which explore a range of privacies for individuals, families, householders and dwellers are explored through reconsidering existing typical New Zealand villa<sup>21</sup> as a shared home. A new approach to the problem of sprawl and the need for density in inner-suburban Wellington is undertaken which has roots in current cultural practices such as flatting, and accommodates these present tolerances for shared domestic space. Investigation into the boundaries that are created and maintained in the city, at the architectural and the urban scale are addressed and reconsidered.

21. Toomath, Built in New Zealand. Toomath traces the recognisable villa typology from its roots in south-east England, its colonial adolescence in the US to present manifestations. However, it stops short of describing the quotidian forms that are now being used to satisfy prescriptive residential zoning regulations, and has a focus on external form rather than internal layouts and methods of inhabitation.

Through the Case Studies and Theoretical Discussion, mechanisms are outlined which will encourage higher density living, retain the identity of a selected inner-suburban area, and reinforce the attractiveness of shared dwellings as a viable, practical and exciting proposition for inner-suburban housing.

A formal proposition is outlined which employs mechanisms discovered through research during the design process to produce a site specific, engaging, alternative housing option. The thesis discusses the issues involved in shared space design and demonstrates a possible avenue for designing by accommodating a statistically-defined group client. This issue is unpacked in more detail in 3.0: The Absolute Liberal Monument, which follows the issues raised in Scott-Brown's discussion to contemporary, supermodernist designers Pier Vittorio Aureli and Alexander D'Hooghe and their design mechanisms for inner-city suburban areas.

(2.0.1)

typology, shared dwelling and framing studies

local med-density typology

### case studies

Nouvo townhouses  
The Altair  
Elizabeth St townhouses  
77 Mien Street

### local precedent

Daniell Street houses

shared dwellings

### international precedents

Kings Road House  
Yokohama Apartments  
Sargfabrik  
Jystrup cohousing  
Svartlamoen  
Teufen Shared Dwelling

framing techniques

House in Okusawa  
KAIT

## 2.1 A Note on Typology

The following case studies grouped by typology and their placement in the urban environment, their material palettes, their relationship to surrounding prototypical typologies, and their range of privacies for individuals, households and the amalgamation of households. All the case studies provide insights into medium density development, shared dwelling, or the re-negotiation of boundaries - be they interpersonal (public/private), through renovation (old/new) or contextual commentaries (traditional/other).

Local, modern, medium density case studies highlight the problem with using quotidian form as a way to retain urban character. International shared-dwelling precedents are examined for how they achieve higher densities, the formal response to the cultural and social nature of shared living, alternative approaches to spatial ownership and the possibility of allowing different expressions of domestic ownership, privacy, and the demarcation of boundaries.

“Typology defines much more than a city’s appearance. It defines the border between the public and private realms. It defines the spatial relationships between households and even between the members of the same household. It defines whether one can adopt one’s home to his or her needs. It defines where the city ends and the home begins<sup>22</sup>”

22. Law, “Emerging Typologies: Boundaries, Privacy and Communitality”, 86.

## 2.2 Analysis techniques

The architectural projects explored in this chapter are located in their physical context, and the relationship between the formal architectural object and the wider suburban realm is noted alongside the formal and social attributes of the buildings<sup>23</sup>.

> Statistics

A shift from low to medium density is required in our existing inner-suburban centres. Each council in New Zealand defines Medium density in different ways. As with the statistics that are used to describe housing, there is little understanding of the social and cultural underpinnings to the houses being described, and instead the form, site coverage and area are relied upon for measuring density.

23. Clark, Roger & Michael Pause, *Precedents in Architecture*

24. Boffa Miskell group, “Medium Density Housing Case Study Methodology Criteria”, 2

25. These points of departure for analysis focus on the physical manifestation of shared space, rather than the codes of conduct or cultural / political conditions which are also necessary for a healthy shared dwelling to thrive. Work on the anthropological aspects of shared dwellings fall as a post-occupancy study fall outside the scope of this thesis, but have been investigated in Kim, “Designing the Cohousing Common House.”

From the Ministry for the Environment’s Medium Density Housing Case Study Methodology Criteria document:

multi-unit developments with an average site area density of less than 350m<sup>2</sup> per unit. It can include detached (or stand-alone), semi-detached (or duplex), terraced or low rise apartments on either single sites or aggregated sites, or as part of larger masterplanned developments<sup>24</sup>

The analysis of architectural form adds to the 7 C’s that are outlined in the Ministry of the Environment’s Criteria document:

Context / Character / Connections / Creativity / Custodianship / Choice / Collaboration






Shared space for the individuals and households is described in each case study and precedent, with the areas of overlap being looked at in detail to discover how the space stays useful for the diverse inhabitants, rather than becoming a deserted or neglected part of the house<sup>25</sup>:

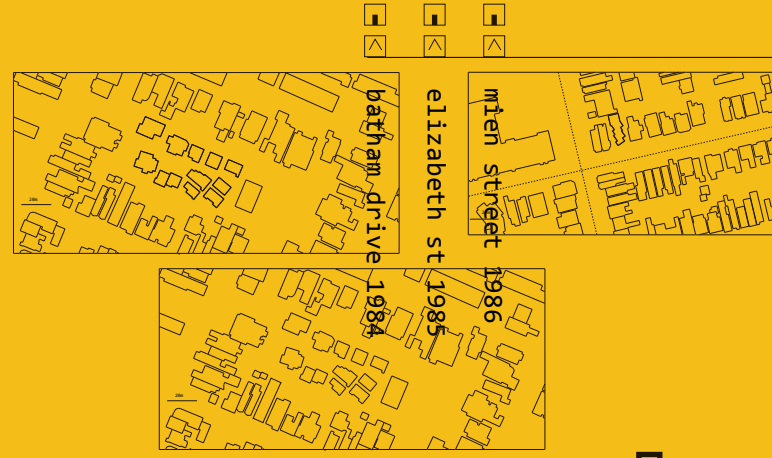
- > Circulation to user space
- > Plan to section
- > Example of a single dwelling / space for a single household
- > Access






The materials and framing techniques used throughout the buildings are noted for their distinctive qualities – both to distinguish the building’s parts; to distinguish boundaries between functions or between inhabitants’ spaces; and also to distinguish the architectural form as a discrete part of the suburban realm:






- > Structure
- > Repetitious / Unique
- > Additive / Subtractive Massing
- > Materials






This technique is used as a way to ascertain how the social and formal aspects of the architecture work together and how the architecture has come to be understood with respect to the surrounding context.

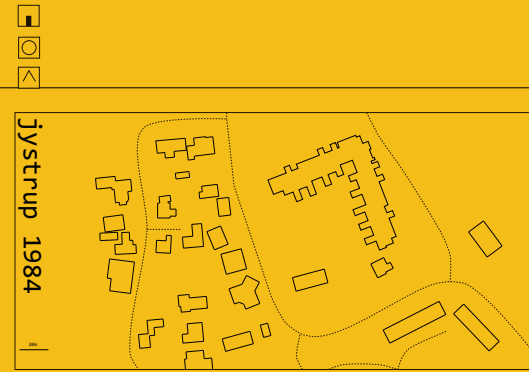
-  retained suburban geometry
-  increased on-site mass
-  built within the city block
-  shared space household
-  renovated property








     wesley housing 1991

     wilson street houses 1905

     missi sagfabrik 2000

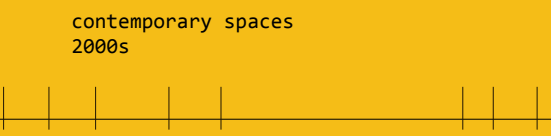
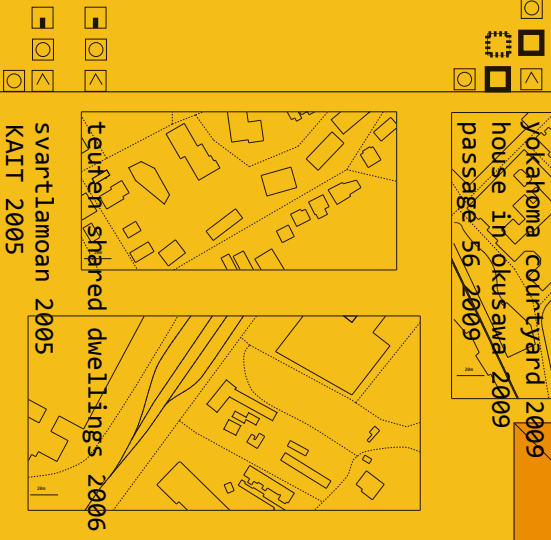
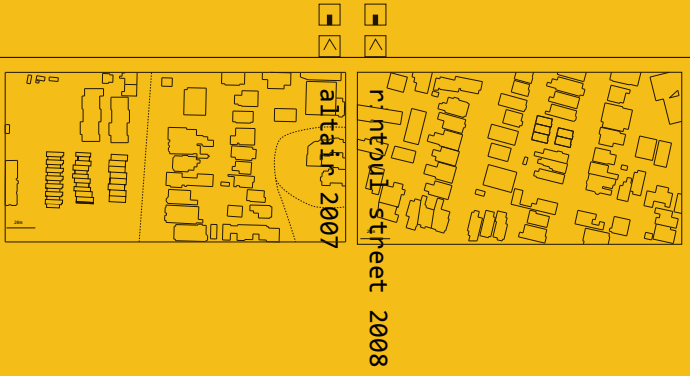
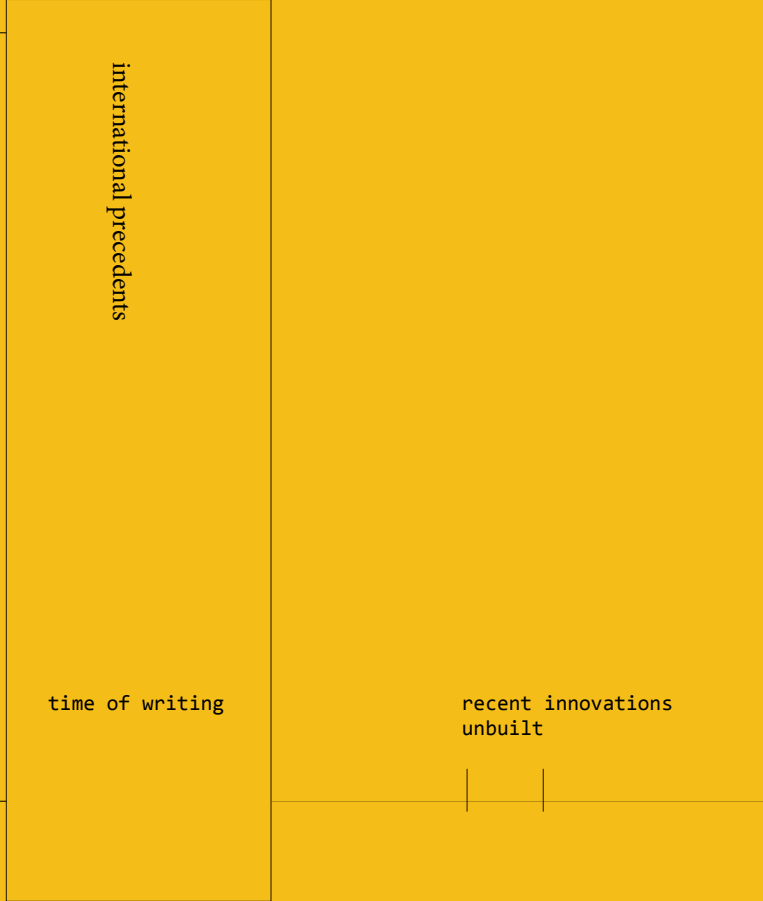
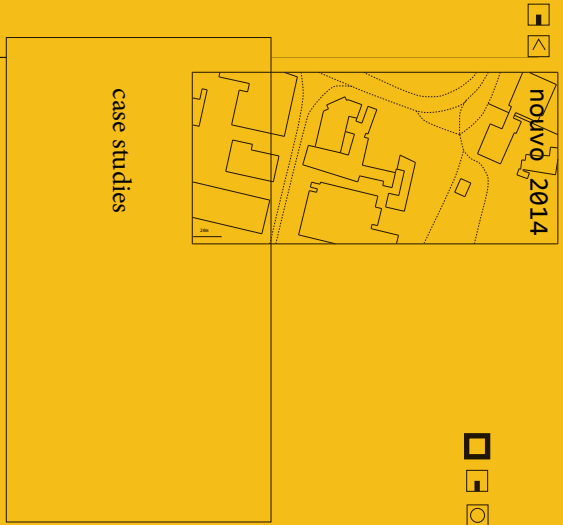


     kings rd house 1921

year built

early  
1900-1920s

housing boom  
1980s



recent innovations  
unbuilt

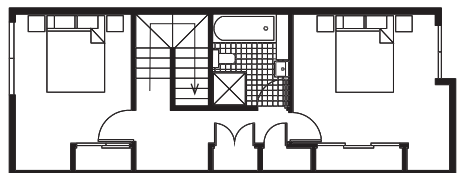
(2.4.1.0)

## The Altair

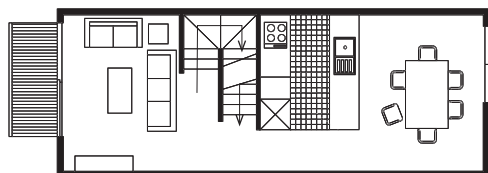
Completed in 2006 and designed by local Wellington firm Architecture+<sup>24</sup> The Altair has been praised by the New Zealand Ministry for the Environment in a survey of recent medium density residential developments throughout the country. The quotes in the analysis below are taken from this document, prepared by Boffa Miskell<sup>25</sup>.

24. architecture+, "The Altair"

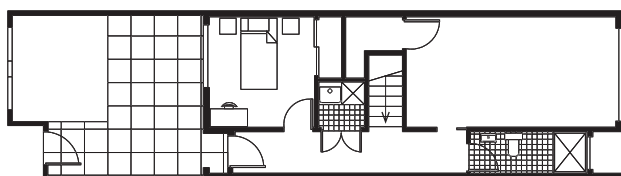
25. Ferreira, "Medium-density Housing Case Study"



2nd floor



1st floor



ground floor

### (2.4.1.1) Altair Development @ 1:1000

The street is an infrastructural domain rather than a place to relax - a space to be viewed and to access the apartments from, rather than a place which is part of the home

#### OWNERSHIP AND PROPERTY BOUNDARIES

"Multiple titles held in a single ownership facilitated the comprehensive design and implementation of Altair"

### (2.4.1.2) Typical Altair Plan @ 1:200

The circulation within the houses is defined through the placement of the furniture - mostly open plan apartments, narrow with similar dimensions to workers cottages



#### CIRCULATION TO USER SPACE

The relationship to the open space is non-hierarchical yet regimented, an courtyard-block open for access at either end making a common relationship to all the apartments

#### MATERIALS

Appearing as independent layers wrapping the rectilinear forms - the entries to the separate homes seem to be subtracted from the mass for definition

#### ADDITIVE MASSING

Densification has been achieved by significantly increasing the on-site mass - a row house typology with a consistent 3-stories

"The regular shape and size of the site (100 m by 100 m) facilitated the site planning of the unit blocks and the spaces between buildings. The wide street frontage helped to create a good street edge to Rintoul Street"

Large rectilinear blocks are punctuated with small steps which follow the topography and give differentiation to the houses along the length of the street

The overall forms are strictly rectilinear and modernist, ornamentation kept at a minimum

#### Statistics

Units on Site : 71 units in total

Site density : 71 households per hectare (includes all open spaces)

Average unit size : 142 m<sup>2</sup> (excludes courtyards)

Each household has : 20m<sup>2</sup> of private courtyard



(2.4.1.3)



(2.4.1.4)



(2.4.1.5)



(2.4.1.6)

(2.4.1.7)

#### ACCESS

Each house has a parking space and access from the common street within the complex or Rintoul St.

Admittance of natural light follows the same logic as the villa; the face to the street has regular permutations, and is admitted at the 'front' and the 'rear' of the homes

Body corp. rules cover the common spaces and they are cleaned and maintained. According to the developer, "the units fronting the communal open spaces are the most desirable and the easiest to sell"

"The design could have taken more consideration of the location and privacy of private open spaces, and the provision of communal rubbish storage areas, screened clothesline, bicycle spaces, and side screens in the balconies"



(2.4.2.0)

## Nouvo Town Houses

At the time of writing, the Nouvo apartments and townhouses have not been built, but are proposed as an inner-city, affordable housing option<sup>26</sup>. The townhouses are of particular interest here, as they fill the criteria for medium-density housing outlined by the MoE, but only the outdoor areas are shared between residents.

26. [nouvo.co.nz](http://nouvo.co.nz), "Overview"

(2.4.2.1)



(2.4.2.2)

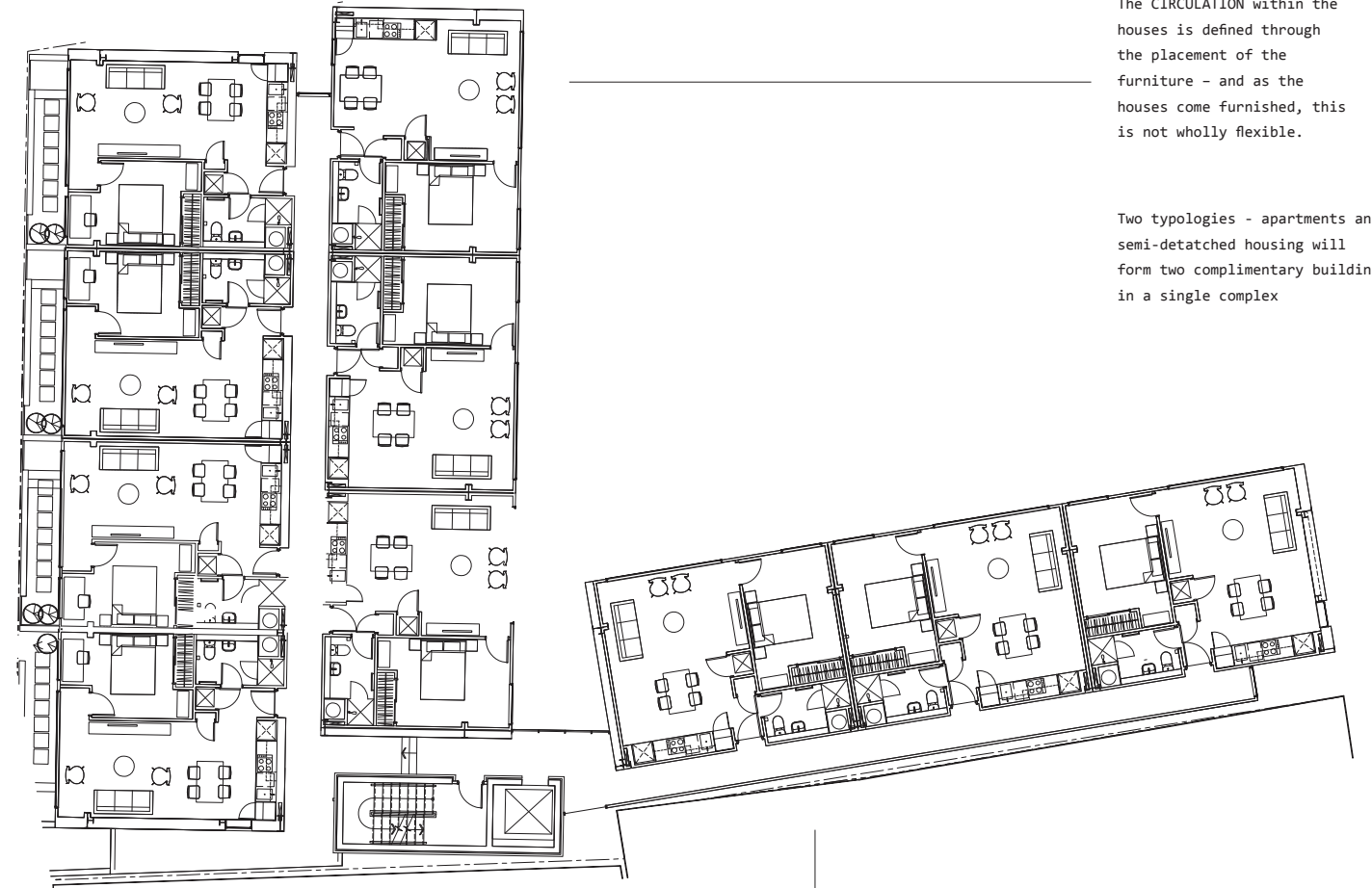


(2.4.2.3)



(2.4.2.4)

(2.4.2.5)  
first floor



The CIRCULATION within the houses is defined through the placement of the furniture - and as the houses come furnished, this is not wholly flexible.

Two typologies - apartments and semi-detached housing will form two complimentary building in a single complex

**MATERIALS**  
Brick cladding and dark weatherboards create the appearance of a solid, permanent mass. The penetrations are emphasised by subtracting from the rectilinear masses, in a pattern which holds no references to the surrounding suburban houses of the 1900s and 1950s.

The RELATIONSHIP TO OPEN SPACE is non-hierarchical and regimented. Body corp. rules cover the common spaces and they are cleaned and maintained, but they do not form part of the private townhouses

Shared streets and access, and communal green space

**ACCESS**  
The street is framed as an infrastructural domain rather than a place to relax - it's a space to be viewed and to access the apartments from, rather than a place which is part of the home

Each house has a parking space and access from the common street within the complex or Rintoul St.

**MASSING**  
Residential densification will be achieved by clearing an industrial site for housing

### Statistics

Units on Site : 14 townhouses @ 63m<sup>2</sup> each

Site density : 1:96m<sup>2</sup> per dwelling density

@ 2 people max. per dwelling : 1:48m<sup>2</sup> maximum

Each household has 14m<sup>2</sup> max. landscaped outdoor space

(2.4.3.0)  
**Mien Street**

In Newtown, Wellington, this small developer-led project has a different relationship to the street than the surrounding villas, and caters for the perceived need for compartmentalised, 2-bedroom houses for increased density.

In this row-house typology, nestled amongst the villas of Newtown, only the access space and the small outdoor lawn is shared. Without upholding the geometry and fenestration patterns of the surrounding villas, the dwellings are a noticeable departure from the typical housing arrangements in the area.

**CIRCULATION & USER SPACE**  
 The relationship between the angled units allows for privacy, and prevents reliance on the façade as the provider of primary character as in the surrounding villas

The bottom floor is open and flexible, and patterns of circulation can be defined by the inhabitant; on the first floor, the house is divided into rooms, the balcony stepped from the neighbour's for privacy



(2.4.4.1)

**MASSING**  
 Increased mass to terraced houses, orientation to the street is unusual creating small pockets of outdoor space

Staggered massing differentiates between the houses, giving the appearance of a small cluster of dwellings rather than a row

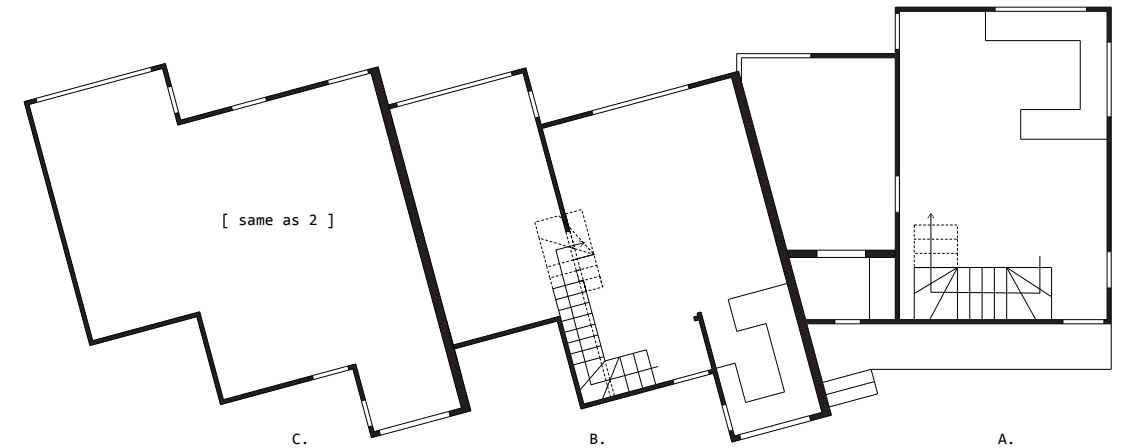
**REPETITIVE PLAN, UNIQUE SITING**  
 The available space on site together with the access to daylight have replaced the street as the primary driver for orientation, creating an unusual footprint but interesting streetscape

**Statistics**

Units on Site : 3 row houses, on 325m<sup>2</sup>  
 Site density : 1:108m<sup>2</sup> per dwelling density  
 @ 3 people max. per dwelling : 1:36m<sup>2</sup> maximum  
 The households share 200m<sup>2</sup> hardscaped outdoor space for parking and green space



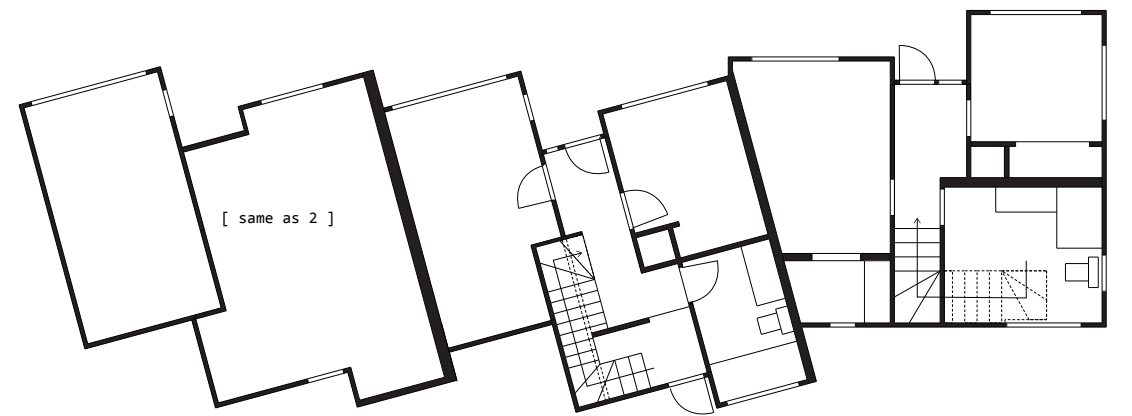
(2.4.4.2)  
 urban fabric surrounding Mien Street row houses @1:1000



(2.4.4.3)

**STRUCTURE**  
 Concrete block parti walls and timber studs define the houses, reduced sound transmission

Both the front and the rear have generous windows - undermining the sense of front and back but also, with the shallow building section, creating a light interior throughout



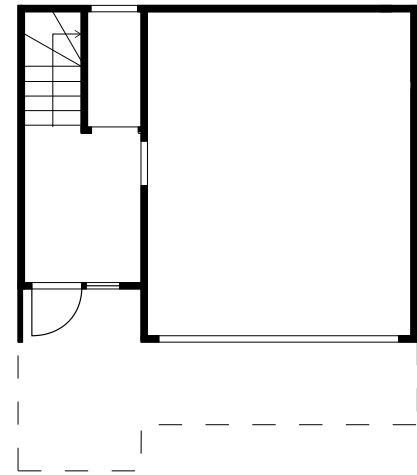
(2.4.4.4)  
 plans of Mien Street row houses @1:200



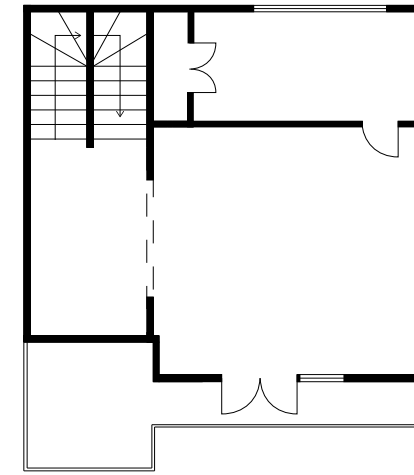
(2.4.4.0)  
Elizabeth Street Townhouses

In an poor attempt to appease prescriptive local area rules, these five 3-storey row-houses have been squeezed onto site in Mt. Victoria with an elongated gabled form, but without any consideration for green space or connection to the street or city.

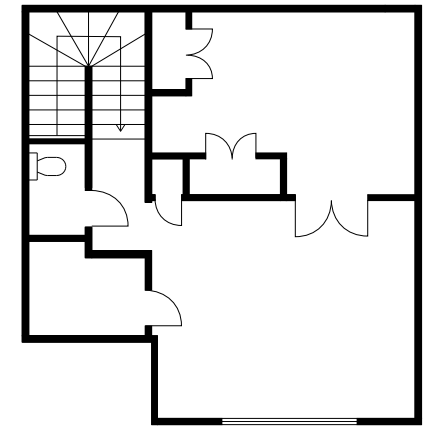
Rather than forming a retreat, this technique has isolated the dwelling and created an uninviting street edge, houses that have poor orientation and sunlight access, and which reject the character of and connection to the Mt. Victoria area. Only the vehicular access is shared between the residents.



ground



first



second

(2.4.4.2)

**RELATIONSHIP OF PLAN TO SECTION**  
No relationship between plan and section; the main elevation is the side of one apartment and very little is revealed about layout; very alienating arrangement, rejecting the street and possibilities for communal space  
Each unit's layout is a repetition with minor changes; balconies are continuous across

**MASSING**  
Very top-heavy massing creates a dark and intimidating street-level, fit only for cars and access. Each house has an individual roofline denoting the separate households visually

Increased mass up to three stories in a predominantly 1-2 story area; set of 5 terraced houses

Small windows on the northern and eastern facades together with shading from the topography create a very dark interiors, especially around the kitchens

The geometry quotes the villa in section, with the gabled roof following the axes of the site

**ACCESS AND MATERIALS**  
Street and outdoor spaces are neglected through poor orientation, overhangs and poor material treatment

**Statistics**

Units on Site : 5 3-storey townhouses houses, on 350m<sup>2</sup>

Site density : 1:70m<sup>2</sup> per dwelling density

@ 3 people max. per dwelling : 1:23m<sup>2</sup> maximum

The households share 105m<sup>2</sup> landscaped outdoor space for access



(2.4.4.1)



(2.4.4.3)

(2.4.5.0)

## Kings Road House

R.M. Schindler, Hollywood, LA, USA

Built in 1922, this house for three households remains one of the finest early examples of the potential for shared dwellings in the USA<sup>27</sup>.

Built to take advantage of social advantages afforded by living with others, the materials and details together with the overall layout demonstrate wholeness but also the possibility of personalisation and individuality<sup>28</sup>. The amenities such as the kitchen spaces and bathroom fittings are not only shared spaces, but expressed as visible connections throughout the public and private parts of the house. I was able to visit the house in 2010. It is now used as a cultural centre, holding exhibitions and performances about art and architecture<sup>29</sup>.

This kind of dwelling clearly falls outside the scope of the kind of medium density that is defined by the New Zealand Ministry for the Environment, yet the density of inhabitation and number of people residing on the site exceeds those in more traditional, stand-alone medium density arrangements.

27. McIntosh & Maher, "Density and Identity."

28. Noever, *Schindler by MAK*

29. "MAK centre for Art and Architecture"



massive rendered walls form the boundaries of the main house with slit-windows between modules allowing diffused light but not views



dark timber beams in the more spacious communal lounge



pale, polished concrete in a similar earthy tone to the walls throughout



windows are directed towards the private garden areas and are modulated in the same way as the walls with a consistent gridded pattern



garden becomes part of the private realms inside the home, becoming framed by the windows and the shaped mounds in the same ways as the walls defined the interior



polished brass and copper fittings in the bathroom and on the fireplaces mark the places where amenities are distributed and elements of the house are shared

(2.4.5.3)

### CIRCULATION AND USER SPACE

The private areas of the house are arranged around the central lounge, forming discrete areas on the interior and in the garden. The methods used to frame space are similar both inside and out; mounds of earth reflecting the wall structure and dividing the garden into room-like areas

The kitchen and the main lounge is shared; bathrooms are ensembles in the individual units.

Each unit has spaces of similar dimensions and access, only the orientation and relative position changes

### MASSING

Small windows and deep eaves distinguish the house as a shelter in the landscape and produce a dark but comforting internal environment - reinforcing the squat, earthen masses as cave-like: a stark contrast to the Californian sun

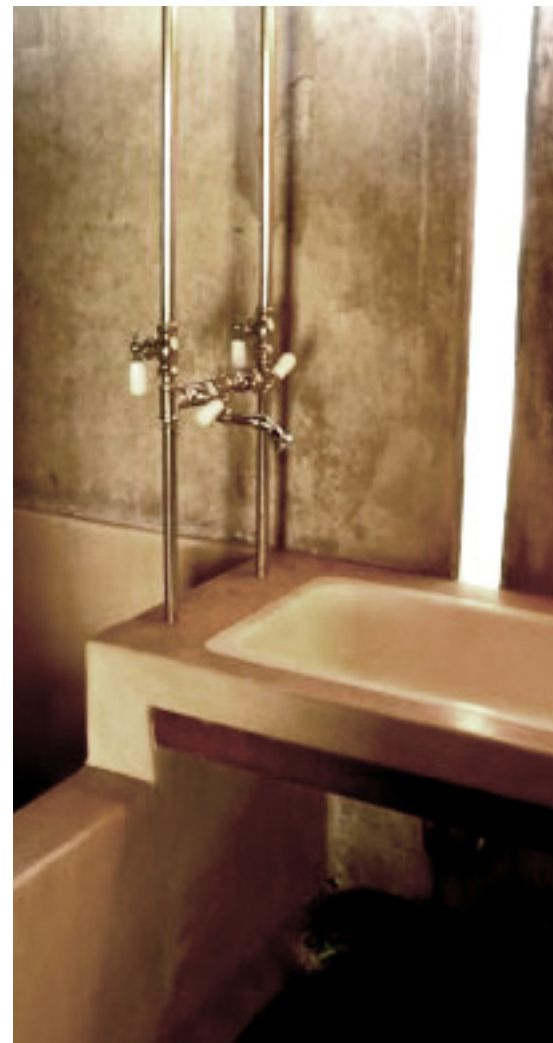
(2.4.5.4)



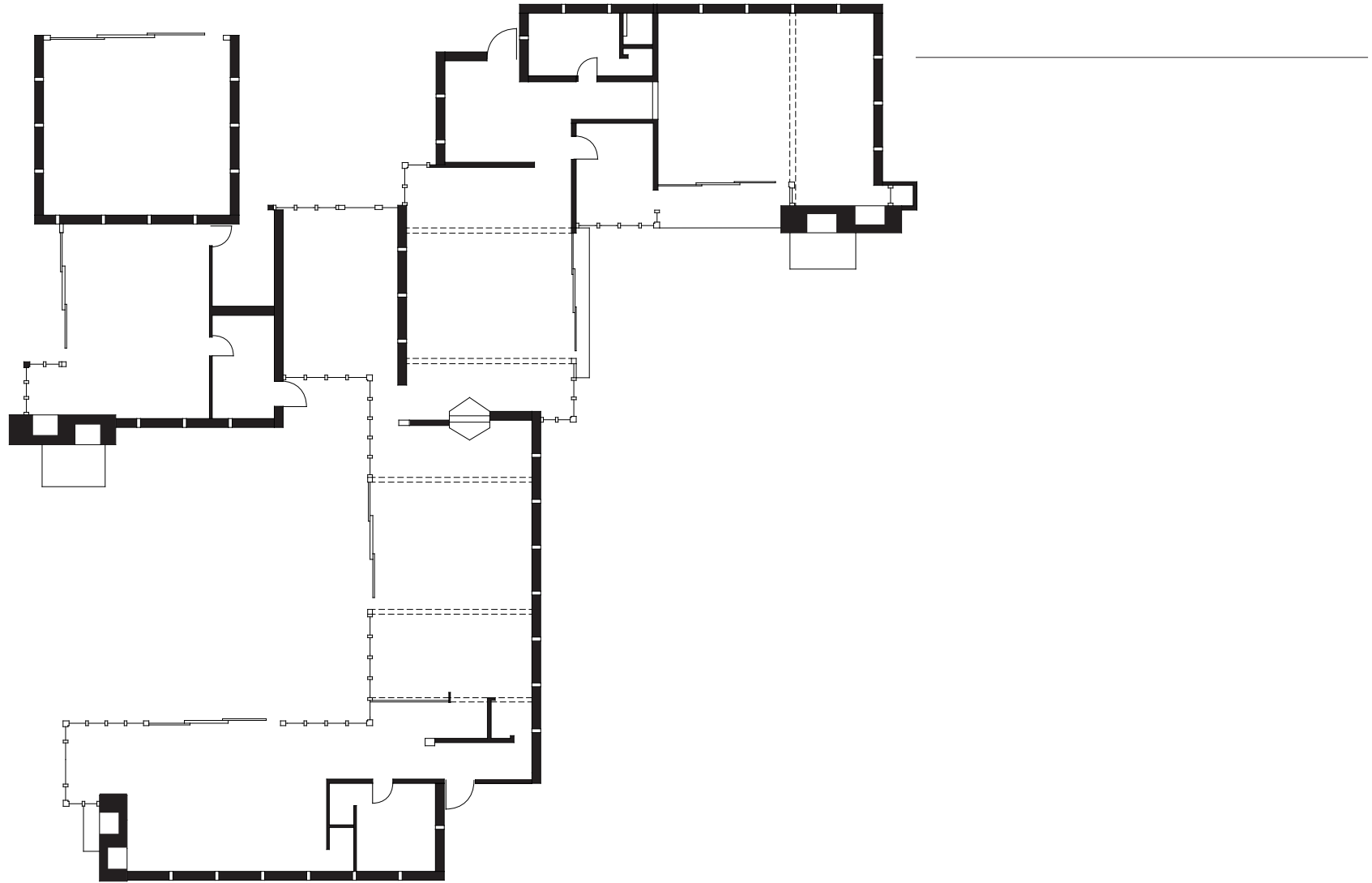
(2.4.5.1)



(2.4.5.2)



(2.4.5.5)



(2.4.5.6)

**MATERIALS AND GEOMETRY**

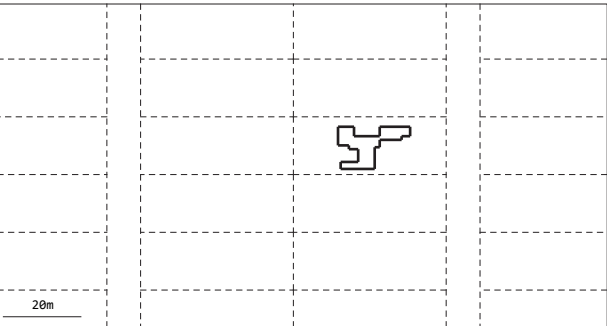
The massive, rendered concrete structure defines a low, cave-like structure of three arms as if it were a natural part of the land.

Each unit is within one arm, pivoting around a central lounge and kitchen. The sleeping baskets on the first floor form a light, skeletal layer covered in vegetation allowing dappled light and privacy

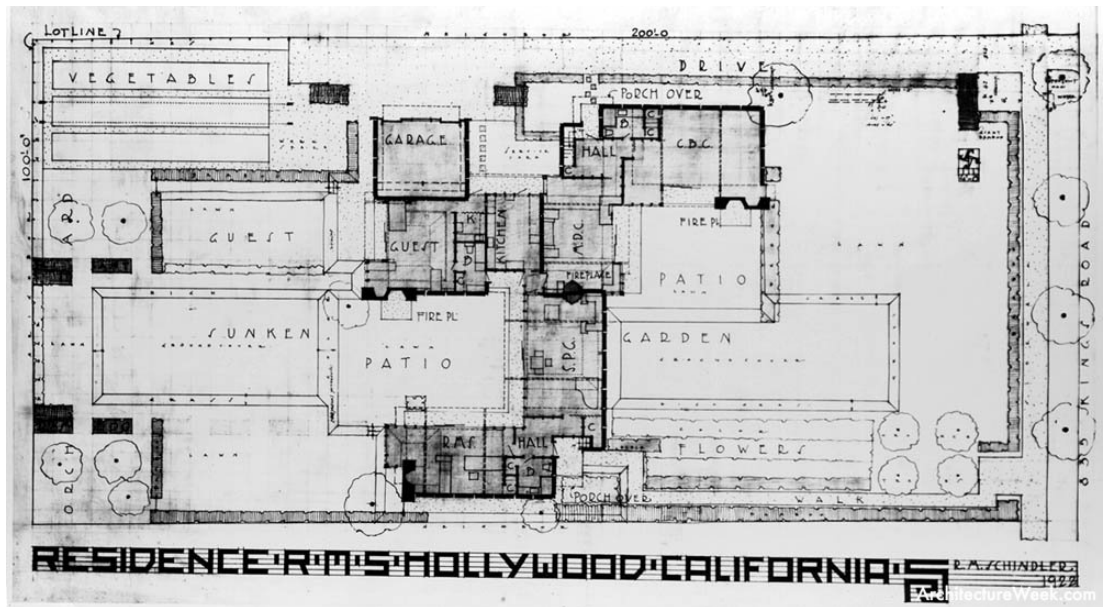
When first built, the house stood surrounded by a prairie landscape

**DENSITY**

For social benefits and reduced costs Schindler decided to build with his good friends the Chases - not for increased density



(2.4.5.7)



(2.4.5.6)

**Statistics**

Units on Site : 1 unit including three households on 1800m<sup>2</sup>

Site density : 1:1800m<sup>2</sup> per dwelling density

@ 6 people max. per dwelling : 1:300m<sup>2</sup> maximum

The households share 1020m<sup>2</sup> outdoor space for access and landscaped garden, vegetable garden and forested area



# Yokohama Apartments

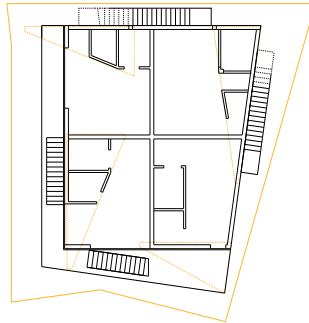
ONdesign, 2009 : Kanagawa

An open, communal-courtyard apartments which sits in a dense Japanese suburban area, where unusual boundaries for privacy and ownership have created: An environment where it is normal for neighbours to be cognizant of one another's activities has been formed<sup>30</sup>.

30. Kaltenbach, "Long Section: Free Space," 150

### ACCESS AND USER CIRCULATION

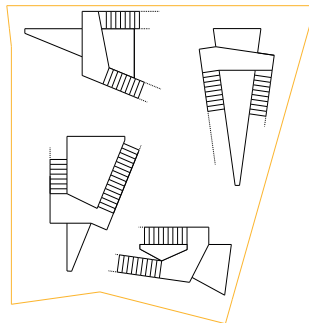
Each private apartment has private access from the communal ground floor, and these become both decorative and a place for personalization by the inhabitants. Offering a wide range of views of the city, they are pathways that frame the city and the house as a discrete form



second floor

### MASSING AND GEOMETRY

The 5m tall ground floor space is loosely organized into private areas and communal space through the placement of the triangular supports and different ground treatments



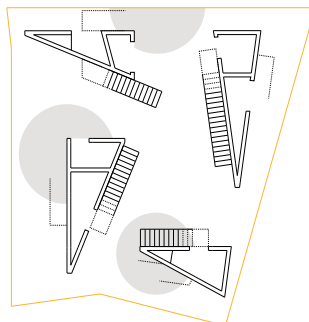
first floor

### DENSITY

Shared space on the ground floor with shared bathrooms, studio space, storage and main kitchen allows for minimal individual space on the upper floor

### INDIVIDUALITY

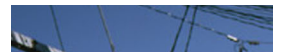
The table like structure with 4 legs as access to the houses above allows the private areas views of the city while the ground floor remains connected to the street, framing the street as an extension of the home and as a communal space



ground floor

(2.4.6.1)

infrastructural links, overhead cables



translucent and transparent blue glazing



angle-backed weatherboards



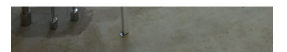
non-slip steel surfaces, white



circular section steel stringers and balustrades, white



fair-faced concrete, pale + infrastructural links uncovered



dark concrete and tarmac surfaces



(2.4.6.2)



(2.4.6.3)



(2.4.6.5)



(2.4.6.4)

**Statistics**

Units on Site : 4 unit including three households on 140m<sup>2</sup>

Site density : 1:35m<sup>2</sup> per dwelling density

@ 8 people max. per dwelling : 1:17.5m<sup>2</sup> maximum

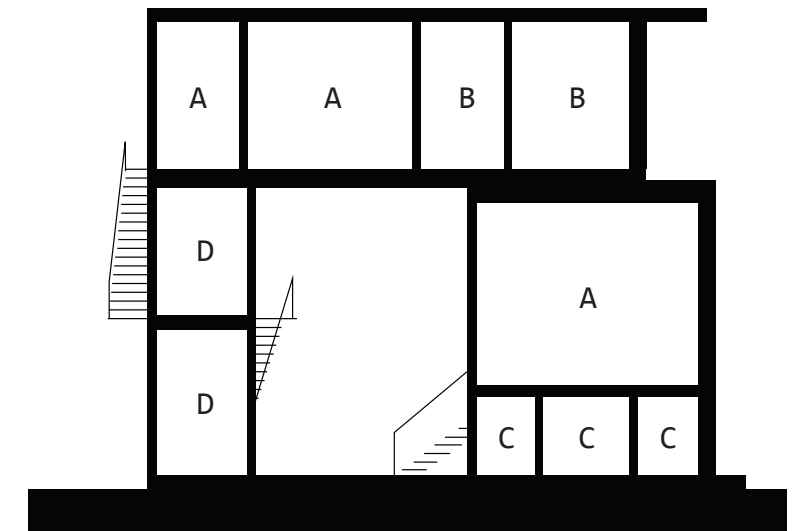
The households share the entire ground floor, using it for communal storage, amenity and gathering space

(2.4.6.6)

- \_A apartment a
- \_B apartment b
- \_C common space
- \_D apartment d

the staircases spiral from the central, open, communal courtyard / living / kitchen space into the privacy of the apartments, showcasing movement and making the staircase into a decorative element

images courtesy of koichi torimura and ONdesign



(2.4.7.0)

## Svartlamoen

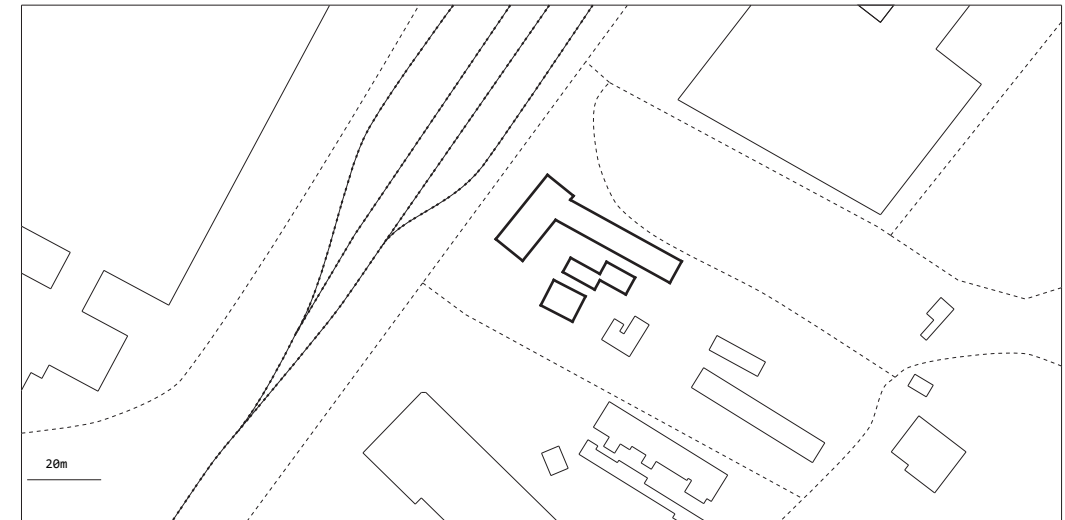
Brendeland & Kristoffesen, 2005

In an underused industrial area in Stavanger, Norway, a group of former squatters and local residents<sup>31</sup> engaged architects to create a different kind of shared dwelling - one with a flexible and infinitely editable interior.

31. Ferre & Salij, *Total Housing*, 46

The residential density is 22m<sup>2</sup> per person - a sharp contrast to the 50m<sup>2</sup> enjoyed by most Norwegians<sup>32</sup>.

32. Iddid, 47



(2.4.7.7)

(2.4.7.1)



darkly painted staircases and accessways



light, unfinished pine throughout allows the inhabitants to alter the form of the interior at-will; to attach, screw-to, add and detract material



service pipes and wires are left exposed for easy access and low cost



windows are punctured with deep ledges for sitting, storage and framing the views to the exterior

### STRUCTURE

The structure is heavy timber frame, and all the internal partitions are modifiable. This strategy allows maximum possible flexibility at the start of the building's life, but decreases as more modifications are made

Services are exposed for easy access, maintenance and upgrade

### GEOMETRY

The admittance of natural light is defined by the Symmetry and formal balance of windows; the individual spaces are given prominence with natural light, the thick walls allow a ledge for activity or storage;



(2.4.7.2)



(2.4.7.3)



(2.4.7.4)



ACCESS AND INDIVIDUALITY

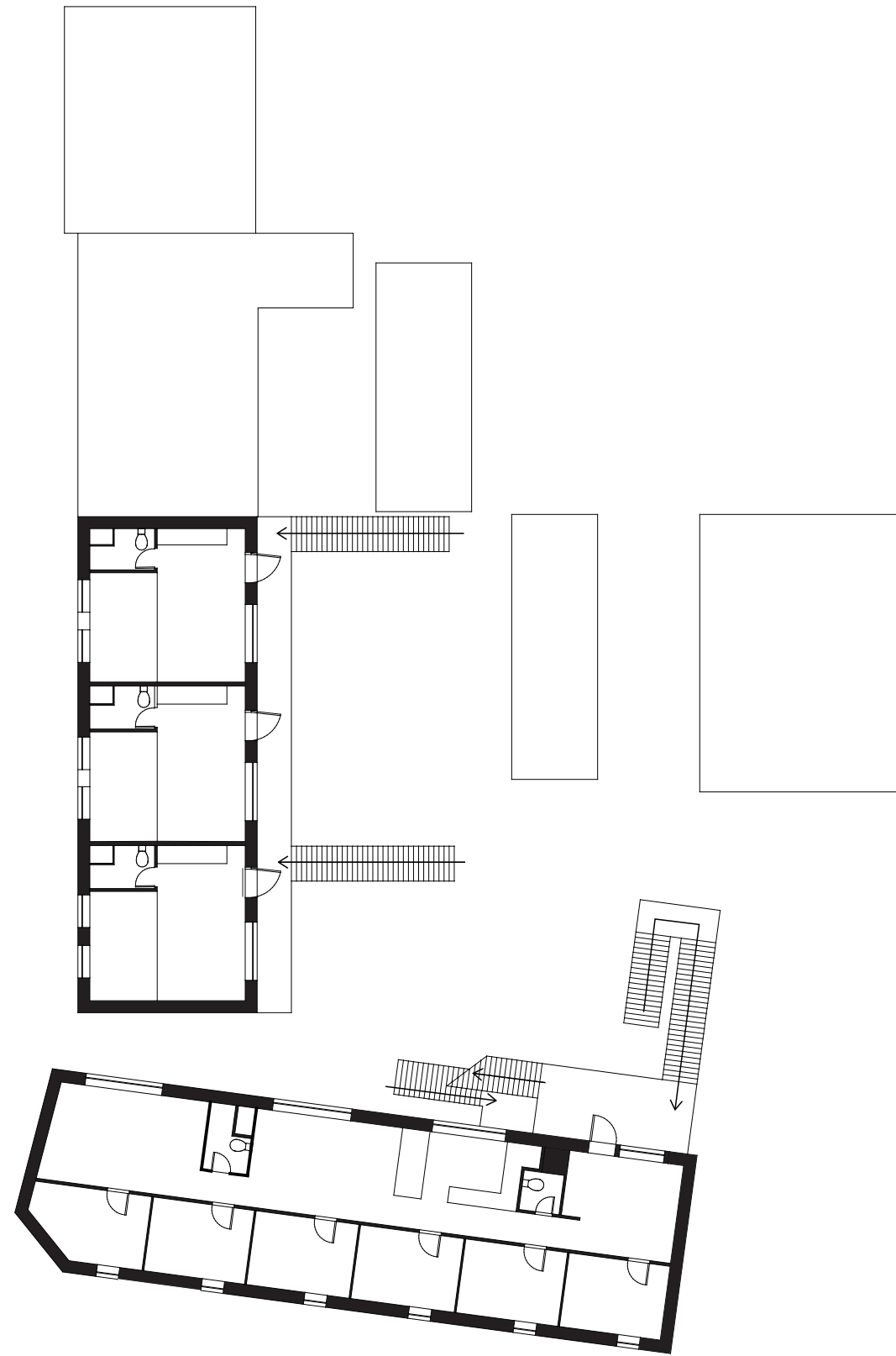
The shared spaces in the complex are directed towards the middle of the courtyard; belongings and access are visible and form part of the personalization of the architecture, access routes form the main shared spaces - including the stairs and balconies on the buildings' exterior

Statistics

Units on Site : 4 flats, each able to house six people, plus 6 single rooms

total floor area 1015m<sup>2</sup>

The households share amenities in the large house, but have more private arrangements in the studio-apartments building. Communal storage and outdoor space is found on the ground floor outside



(2.4.7.6)

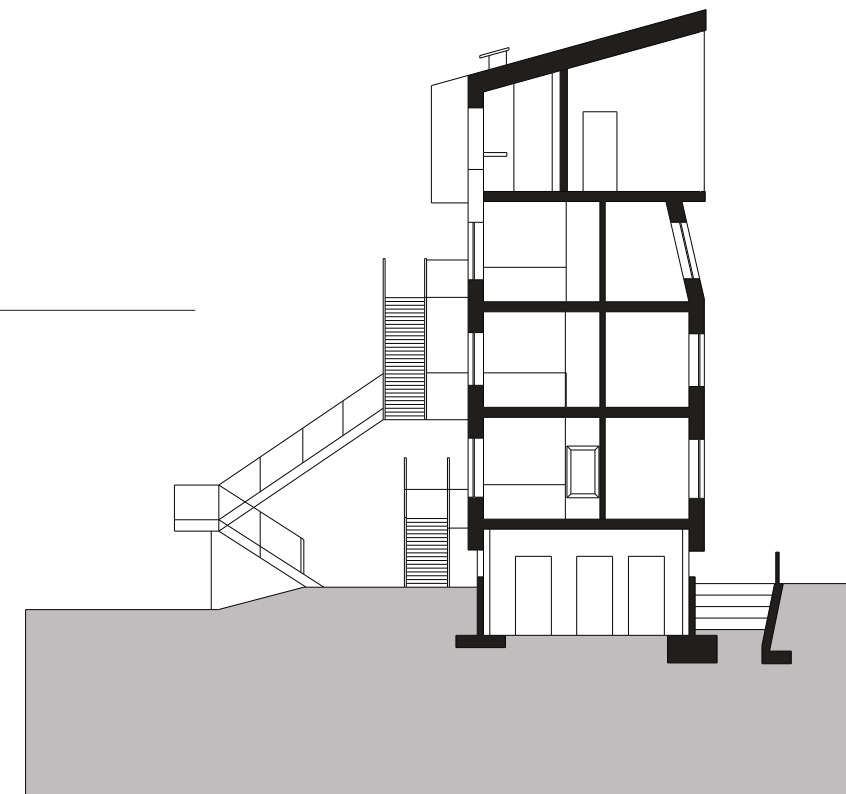
DENSITY

Increased density is achieved by significantly increasing the mass on site; the individual studio apartments share amenities such as bathrooms and kitchens

(2.4.7.5)

PLAN TO SECTION RELATIONSHIP

The central courtyard for belongings and shared use encourages interaction between the residents. The access on the outside of the building encourages a sense of vitality in the otherwise industrial area

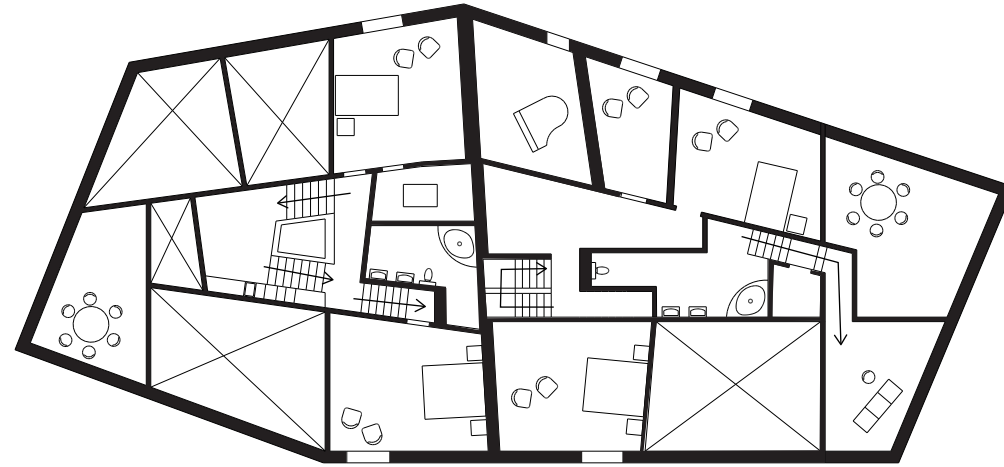


(2.4.8.0)

## Teufen Shared Dwellings

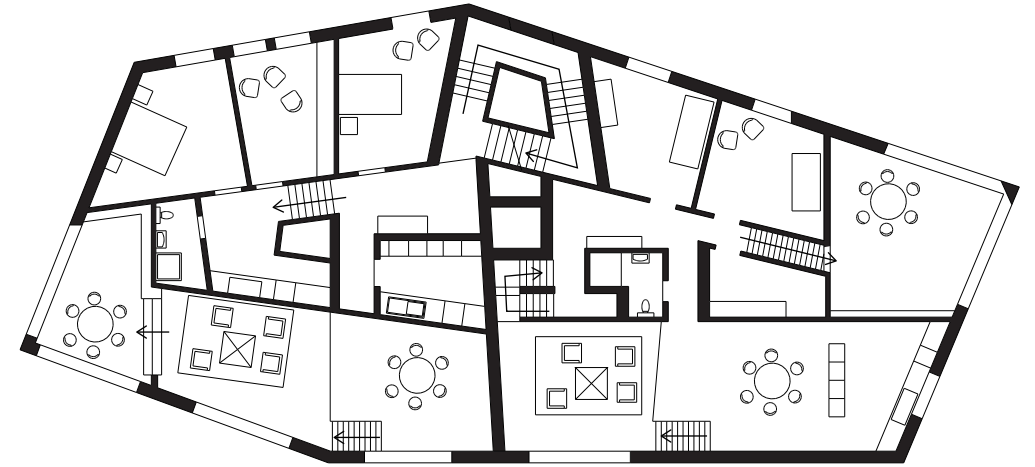
Covas Hunkeler Wyss, Teufen, Switzerland

In 2005 six apartments which can be amalgamated or separated into smaller units was built in suburban Teufen, Switzerland. Using similar materials and massing to the surroundings, but with a greater density, the building enables alternative living styles in an area with few housing choices<sup>33</sup>.



33. Idid, 31

(2.4.8.1)  
ground floor



(2.4.8.2)  
first floor

(2.4.8.5)

The angled walls and non-rectilinear geometry allows each room to read as a microcosm of the whole, adding to the sense of shared spatial ownership

(2.4.8.6)

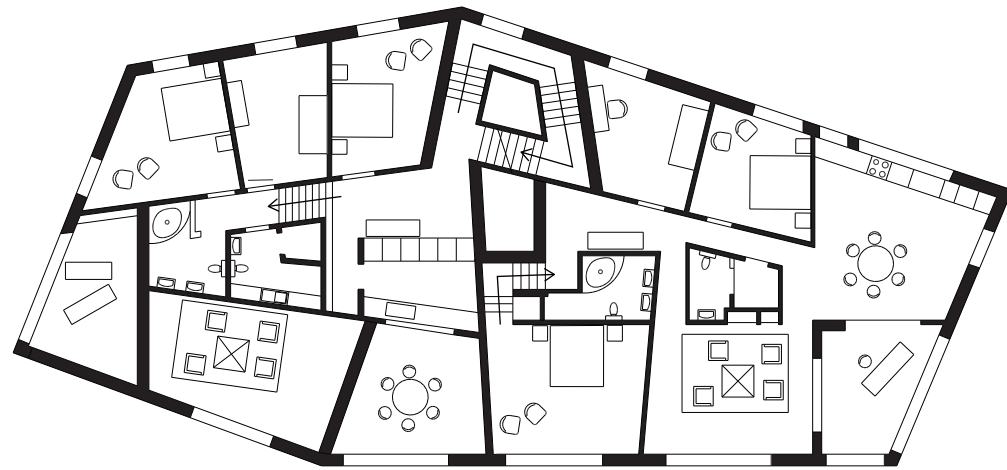
**MASSING**  
The crystalline mass with seemingly random apertures reflects the conglomeration of inhabitants, admitting natural light into the room-like areas

The STRUCTURE includes folded plates allowing for varied spaces throughout the building - this character shell gives flexibility of use and greater scope for personalization



(2.4.7.7)





(2.4.8.3)  
second floor

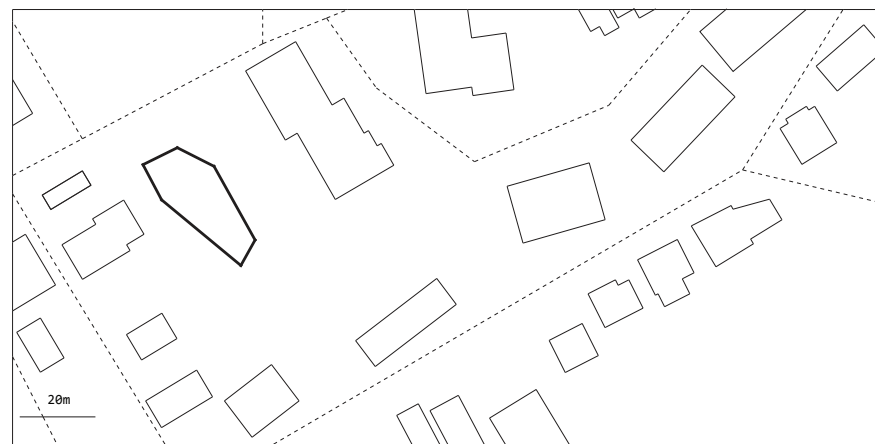


(2.4.8.4)  
third floor

(2.4.8.8)

DENSITY in the multi-family dwelling is much greater than the surrounding areas, achieved with a greater mass and shared living spaces between apartments

Amenities are shared on all floors and between all apartments - each floor becoming a unit with a flexible number of inhabitants depending on demand



(2.4.8.9)

CIRCULATION AND USER SPACE

The angled walls and non-rectilinear geometry allows each room to read as a microcosm of the whole leading to a flat hierarchy and unique character for each room

Statistics

Units on Site : 6 apartments, each 128-199m<sup>2</sup>  
1225m<sup>2</sup> housing in total



(2.4.9.0)

## Jystrup Savværk Cohousing Community vandkunsten architects

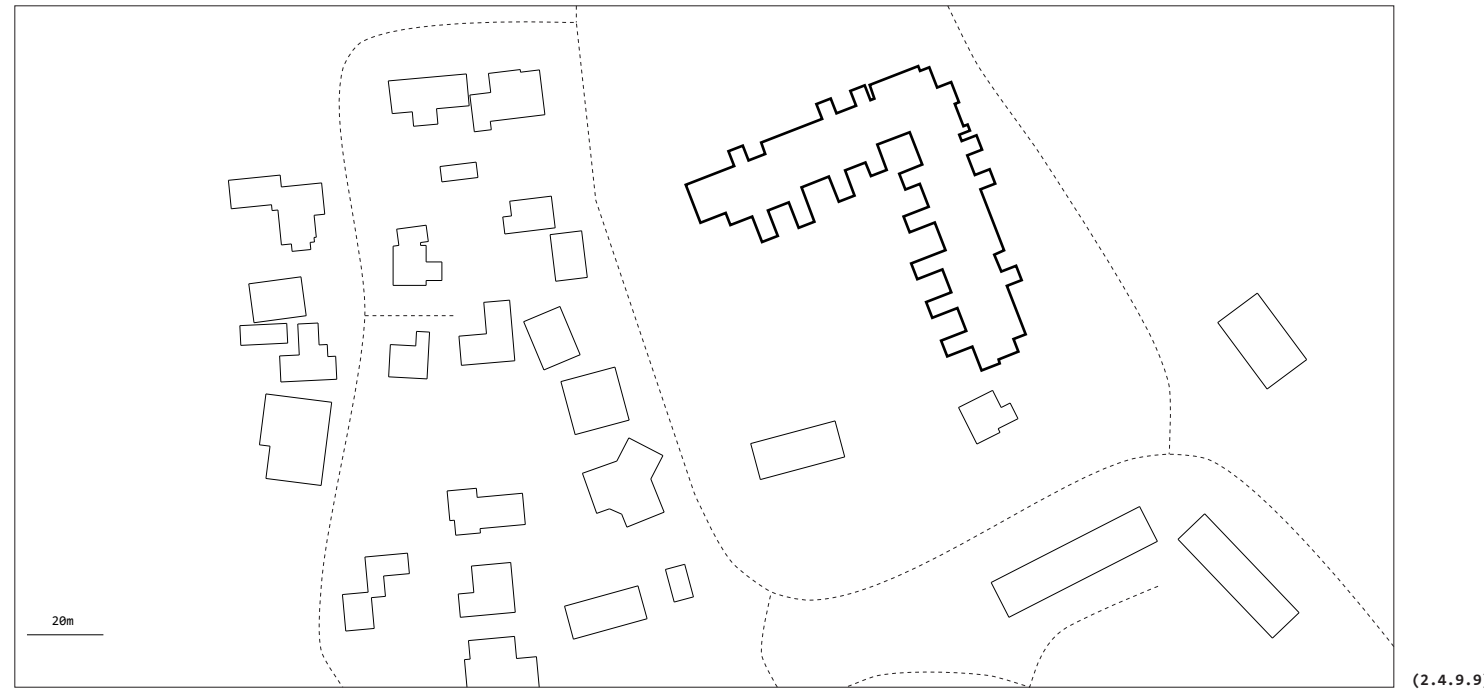
Built in 1984 from cheap and readily available building materials, this is a late example of Danish cohousing<sup>34,35</sup>. The residents share more than 40% of the building footprint, yet maintain independence with their own kitchenettes, bathrooms and private bedrooms.

34. Durrett & McCamant, *Creating cohousing : building sustainable communities*

35. Kim, "A retrospective of Danish Cohousing"

Natural light illuminates the shared spaces, the central street being the main area for congregation and CIRCULATION, emphasizing the shared nature of the complex and giving greatest sectional depth to the double-height common space.

ACCESS to each individual household space becomes the main axis, the backbone of the complex, an internal street



OPEN SPACE is shaped by the exterior of the building, creating areas for individual privacy, and the complex as a whole acts like a cove, implying a large area as common outdoor space



(2.4.9.1)



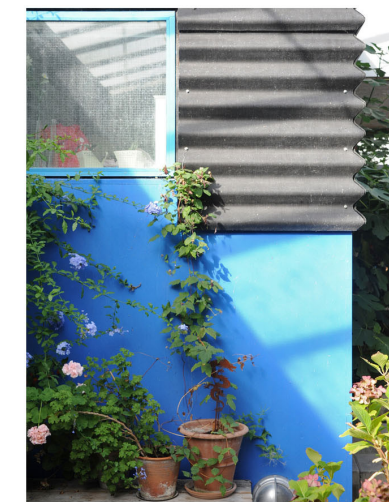
(2.4.9.2)



(2.4.9.4)



(2.4.9.5)



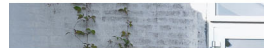
(2.4.9.6)

(2.4.9.3)

interior common spaces are paved with an exterior street-style paver



exterior brick is painted white in private garden areas



interior surfaces are clad with noise-reducing soft coverings, such as felt



asymmetrical roof structure allows for the integration of solar panels, skylights



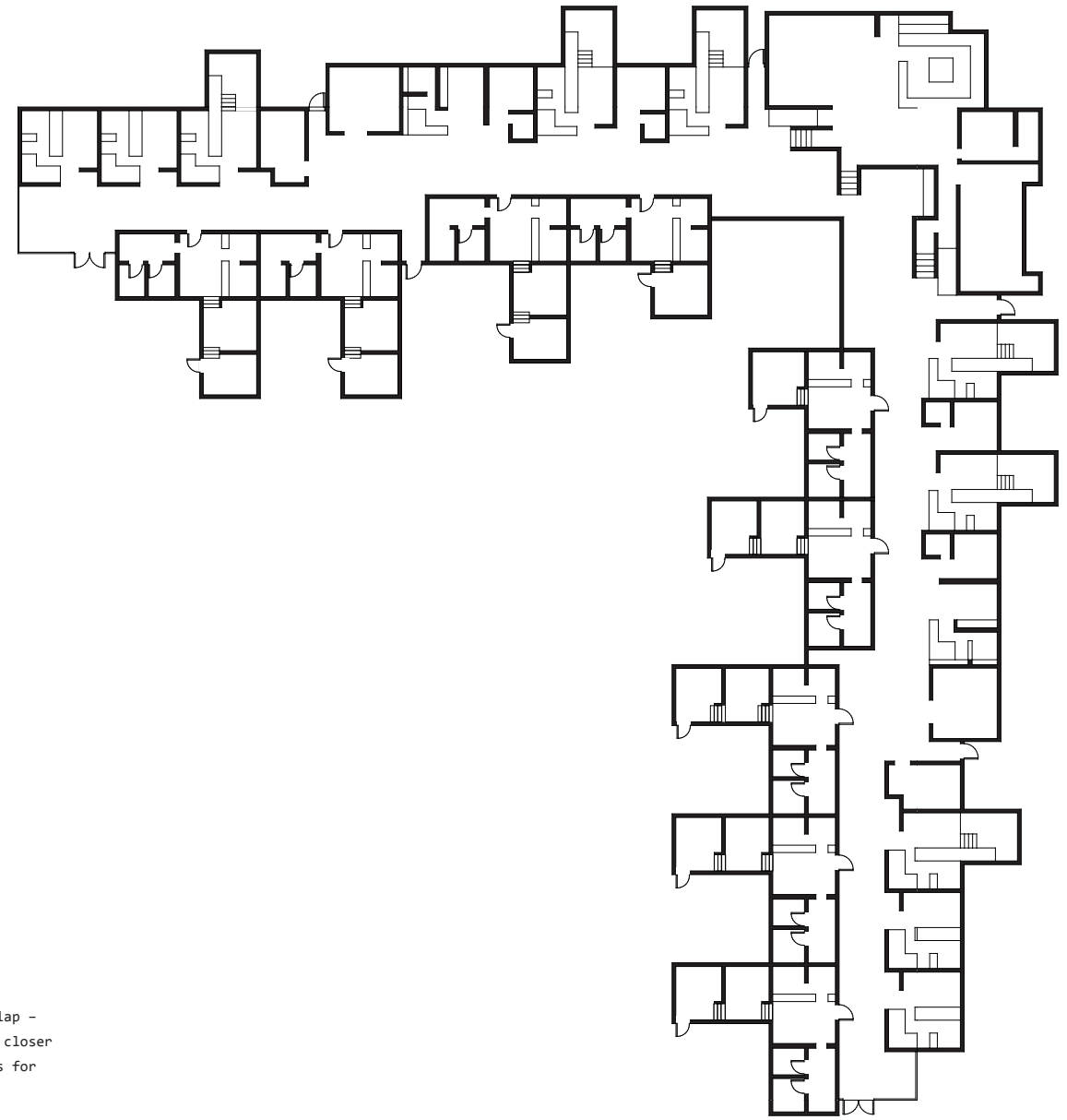
both the interior and exterior surfaces of the shared areas are covered in render and painted a brilliant blue



(2.4.9.8)

**MASSING**

The L-shaped Mass is an almost industrial form in the rural area, shed-like. The mass clearly displays the large group of inhabitants

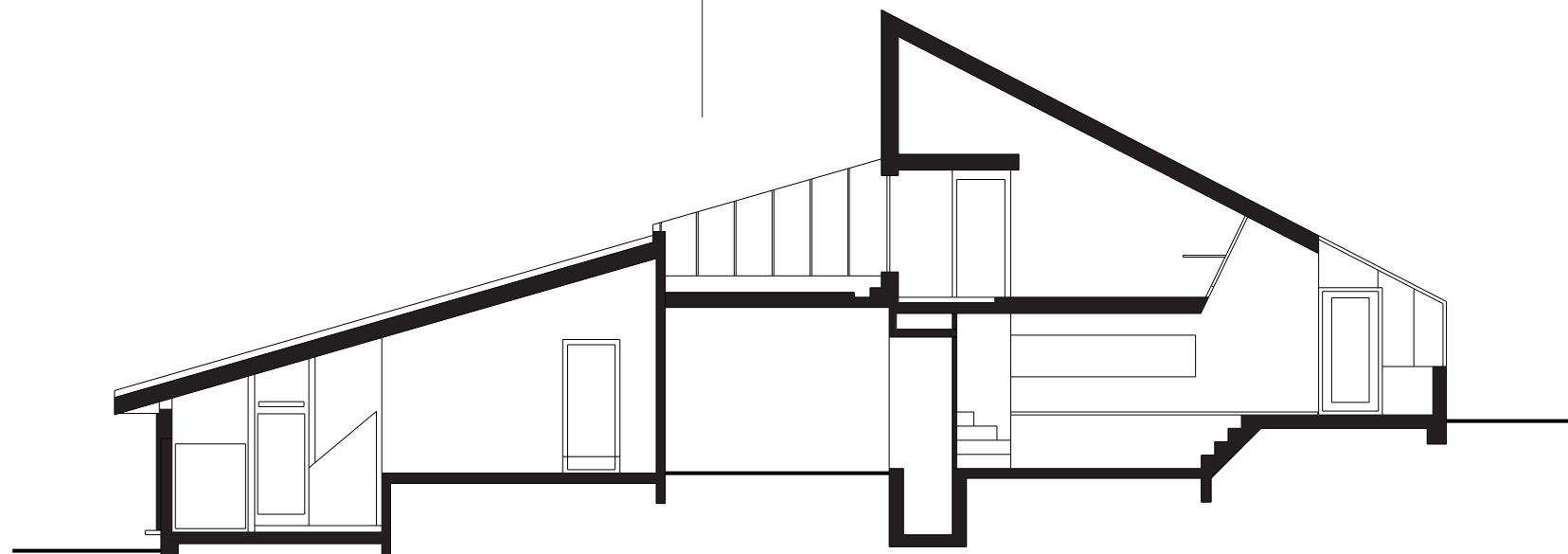


(2.4.9.7)

**PLAN TO SECTION RELATIONSHIP**

each transverse section shows all the areas that an individual of household would occupy privately, and the central core as shared space and communal activity as the centre of the home

Densification through overlap - sharing resources creates closer proximity and fewer places for individual ownership



**REPETITION**

Each household's individual apartment spaces are repeated along the length to form the whole through repetition



(2.4.10.0)

# Miss Sargfabrik

BKK-3, 2006: Vienna

A sister project to Sargfabrik less than 100m away, this second residential development by BKK-3 has developed a formal language that is related to both the traditional Viennese perimeter block typology as well as expressing an unusual irregularity of form for community uses and residences.<sup>36,37</sup>

The crystalline forms which extend to the gently sloped floors, walls and ceilings throughout the apartments allow it to become home to inhabitants from all demographics and for varied household types, leading to economic and community diversity.<sup>38</sup>

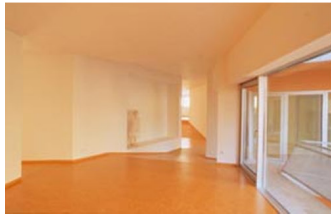
facade expresses the changes in height of the ceiling and floor, reflecting the themes of flexibility, openness and ambiguous boundaries

various apartments inside Miss Sargfabrik showing the variety of egress, access and possibilities for planning

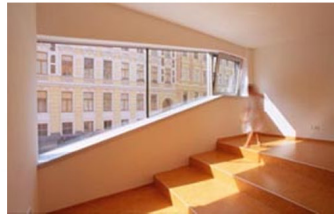
36. Frank Schilder, email message to Author, 15 October 2012

37. I visited both Miss Sargfabrik and Sargfabrik in 2010. The community spaces were well-used by both the residents and the wider community: A small cafe there becoming a hub of neighbourly interaction.

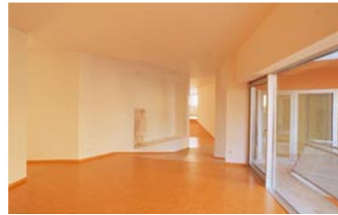
38." Wohnmodelle: Housing Models, Experimentation and Everyday Life"



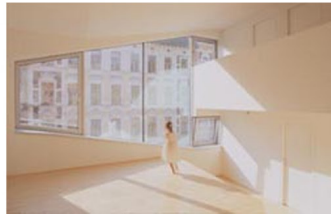
(2.4.10.1)



(2.4.10.2)



(2.4.10.3)



(2.4.10.4)



(2.4.10.5)



(2.4.10.6)

(2.4.10.7)

Each unit cannot be distinguished from the outside, although the window patterns make it possible to identify different areas; the facade shows the change in ceiling heights and the windows follow the interior contours

### STRUCTURE

Irregularly spaced structural members are integrated into the shell of the building, dividing spaces but not necessarily defining apartments

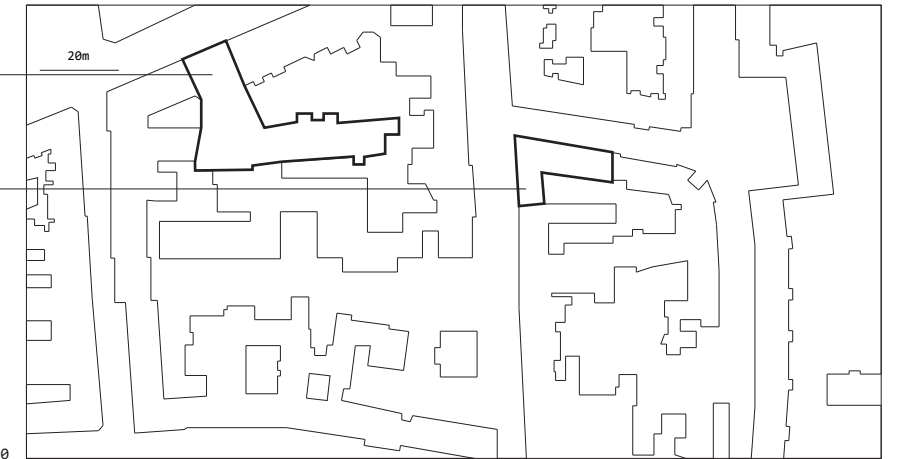




(2.4.10.8)

MASSING of the building follows the perimeter block typology, creating a contextually sensitive section similar surrounding Viennese residential area

sargfabrik : a renovated coffin factory 2000  
 miss sargfabrik : sister development 2006



(2.4.10.10)

urban plan 1:1000

(2.4.10.9)



exterior common spaces laid with stone pavers are aligned with the gardens and apartment entrances in a clashing pattern



exterior finish is a bright, solid, uniform orange



all surfaces - roof, wall, ceiling, balconies, are all given the same treatment, as if the mass is carved, shaped or eroded



all windows are treated with clear glass without blinds allowing light from the homes to illuminate the common areas and welcoming the gaze into the homes

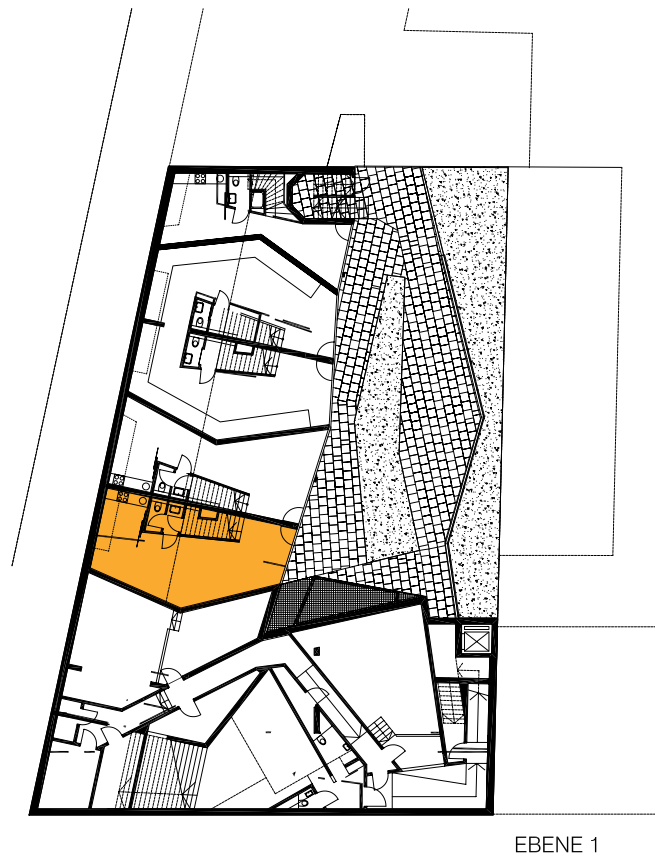


gallery-like white surfaces on the interior shape individual apartments with angular, crystalline forms which are echoed in the facade and circulation patterns



floor surface within the apartments continues the same colour from outside, but is a vinyl / plastic material, covering the stairs, ramps and sometimes cave-like rooms

Very flexible apartment layouts allow demand for apartments to affect the diversity and number of inhabitants, as many of them can be divided or separated into smaller dwellings



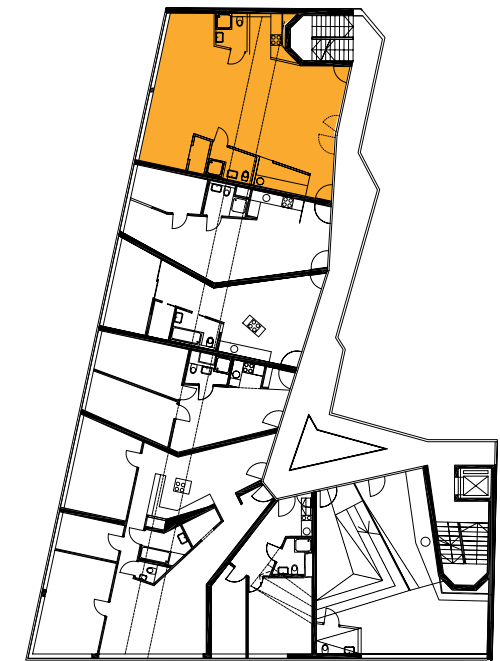
EBENE 1



EBENE 2



EBENE 3



EBENE 4

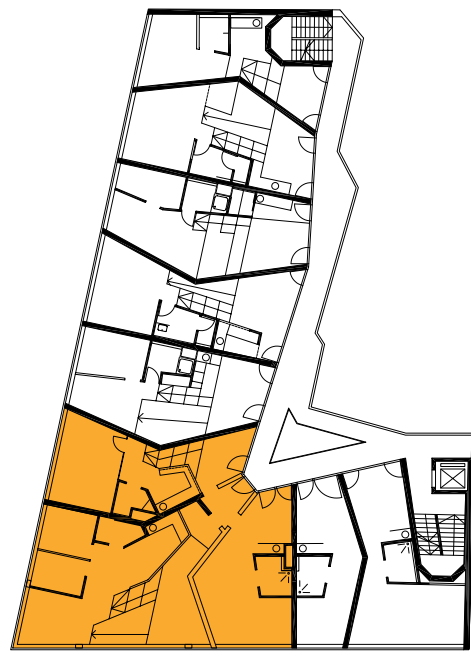
Shared entry, access, common facilities such as an exhibition area and café at the sister complex - there are also community facilities such as a gallery which draws people into a semi-public space within the residential complex

PLAN AND SECTION RELATIONSHIP

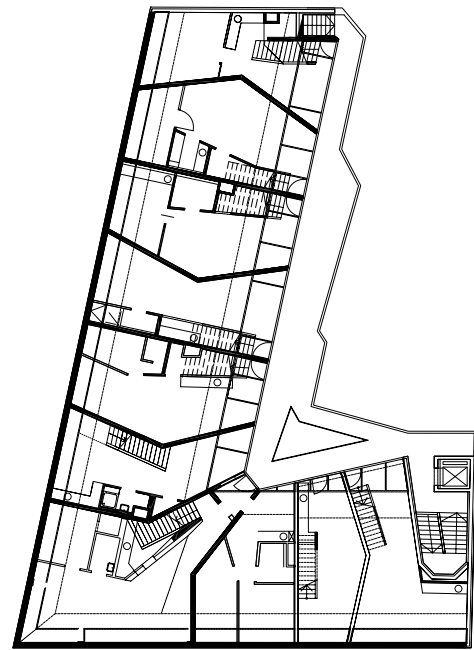
Diverse, oblique planes - walls, floors and ceilings give individual character to each of the dwellings, and ensures variety both within the apartments and throughout the complex



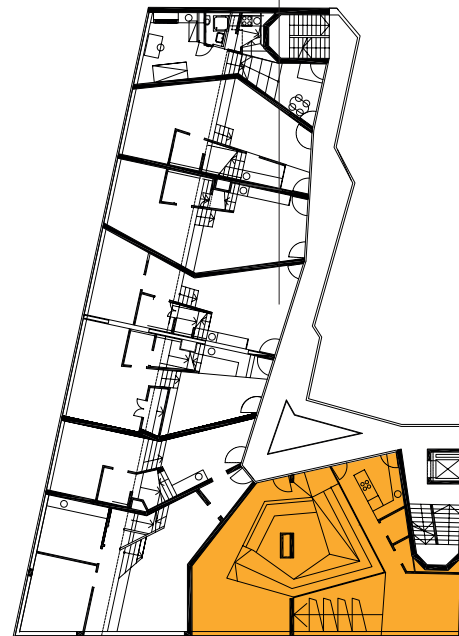
The apartments have large windows that open onto the shared access spaces and to the interior courtyard



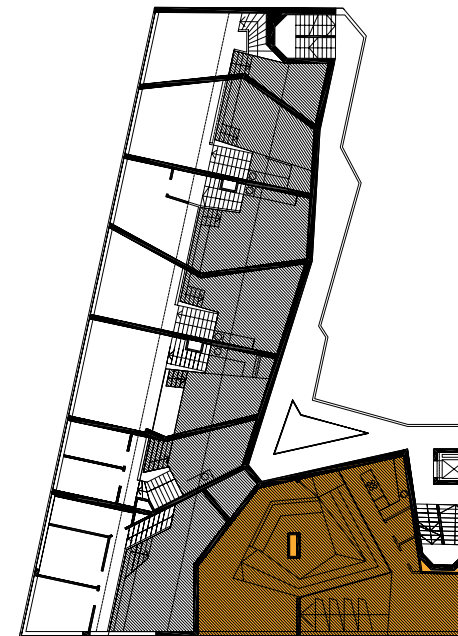
EBENE 7



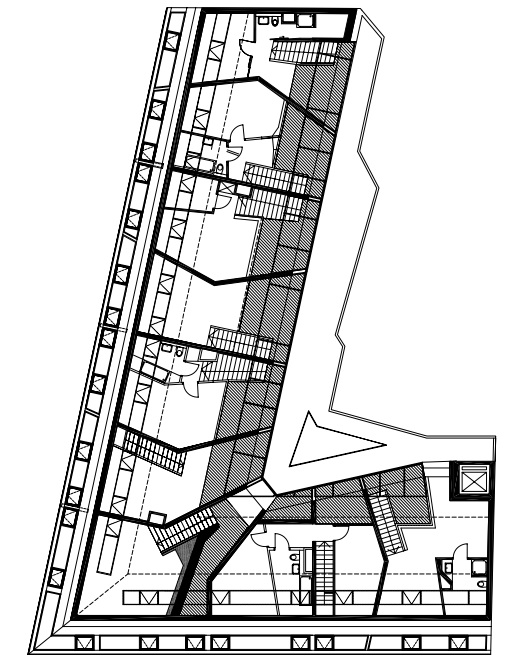
EBENE 8



EBENE 5



EBENE 6



EBENE 9

CIRCULATION between the flats is highly visible; a common entry and pathways that invite rest and personalization add variety and possibilities for inhabitants to mark proximate outdoor space

WITHIN THE INDIVIDUAL DWELLINGS the circulation path in every apartment is different, helping to define their character, often using combinations of stairs and ramps

(2.4.10.11)

(2.4.11.0)

## House in Okusawa

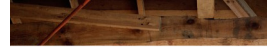
Schemata Architects, 2009 : Okusawa

This post-war, English-style brick home in suburban Okusawa has been renovated<sup>39</sup>, revealing the structure and ordering the space around activities rather than traditional rooms or functions. Stark white areas for eating, washing and sleeping are framed within the original character shell creating many ambiguous and flexible, liminal spaces.

39. "House in Okusawa"



(2.4.11.1)



warm timbers of existing structure provide character shell & structural envelope



interior finishes stripped away and necessary structure minimised; painted white



roof becomes vantage point. painted white, the house becomes both an object/platform - both a discrete, absolute architectural form and a frame to view the city



varied timber finishes on all surfaces separate the old from the new and subtly delineate smaller spaces within spaces



access points are multiplied; the signals for egress (doors, gaps, visible spaces beyond, stairs as a signifier of movement) are places alongside one another like separate objects



floor surface is lightly painted and reflective, creating an ambiguous ground upon which domestic activities and spaces overlap

(2.4.11.3)

(2.4.11.2)

The original mass and residential density has been maintained





(2.4.11.4)

**MATERIAL AND LIGHT**

Natural light is used to illuminate choice areas inside the house and new windows frame interesting views - as slithers of material sliced from the outer skin in an opportunistic manner; the original permutations have been retained, having been placed compositional balance in the facades



(2.4.11.5)

The technique of revealing and reframing is repeated throughout the house;

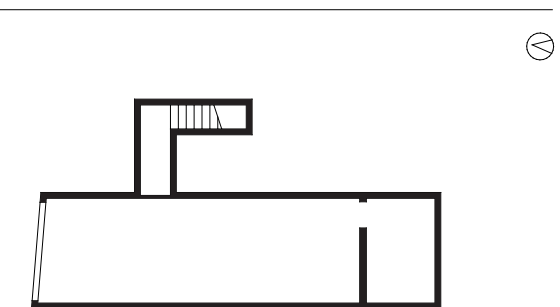
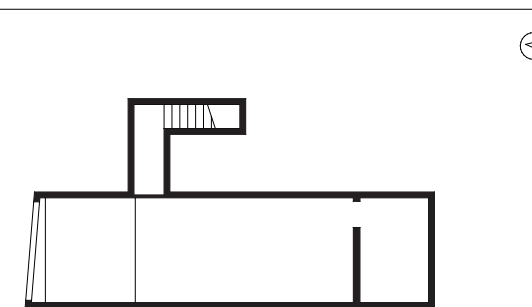
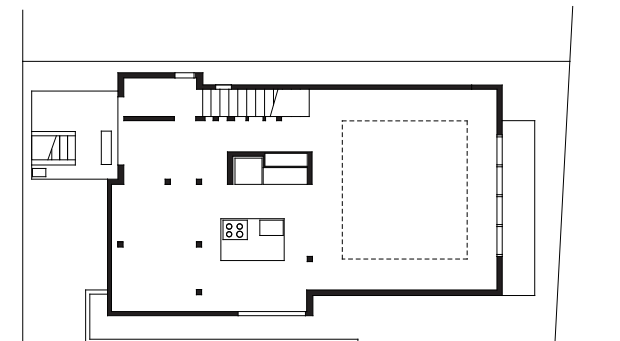
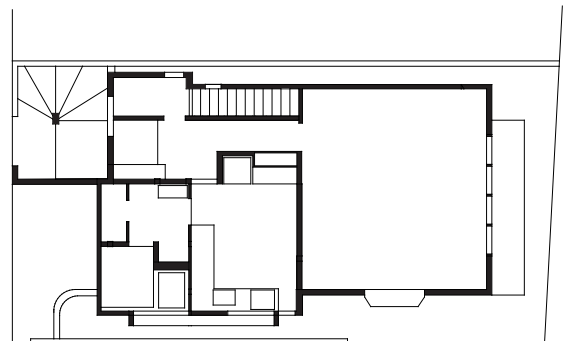
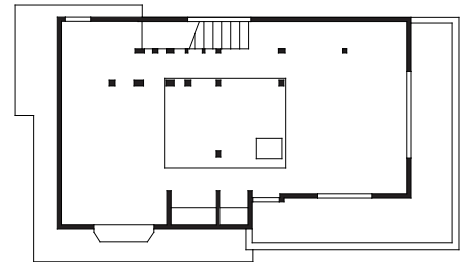
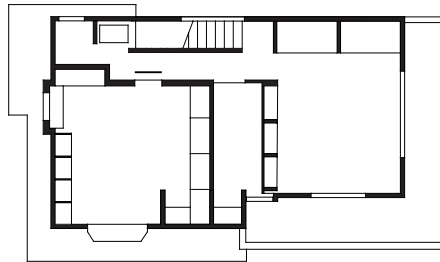
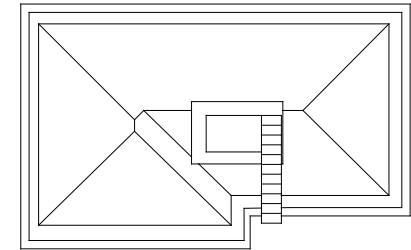
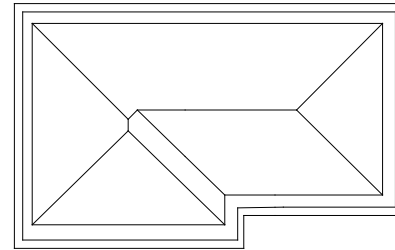
The renovation has mainly employed SUBTRACTIVE techniques; removing linings, subduing materials, carving out permutations



(2.4.11.6)

The house, as a white object, stands as a discrete form on the street, and as an alien frame from which to view the rest of the city - this is frame is demonstrated most prominently at the new roof terrace

The plan has been completely altered by removing most of the walls in the house and leaving bare structural columns (formerly studs in the walls); there are no longer defined circulation spaces, rather pathways through the house are spontaneous and loosely defined



(2.4.11.7)

(2.4.11.8)

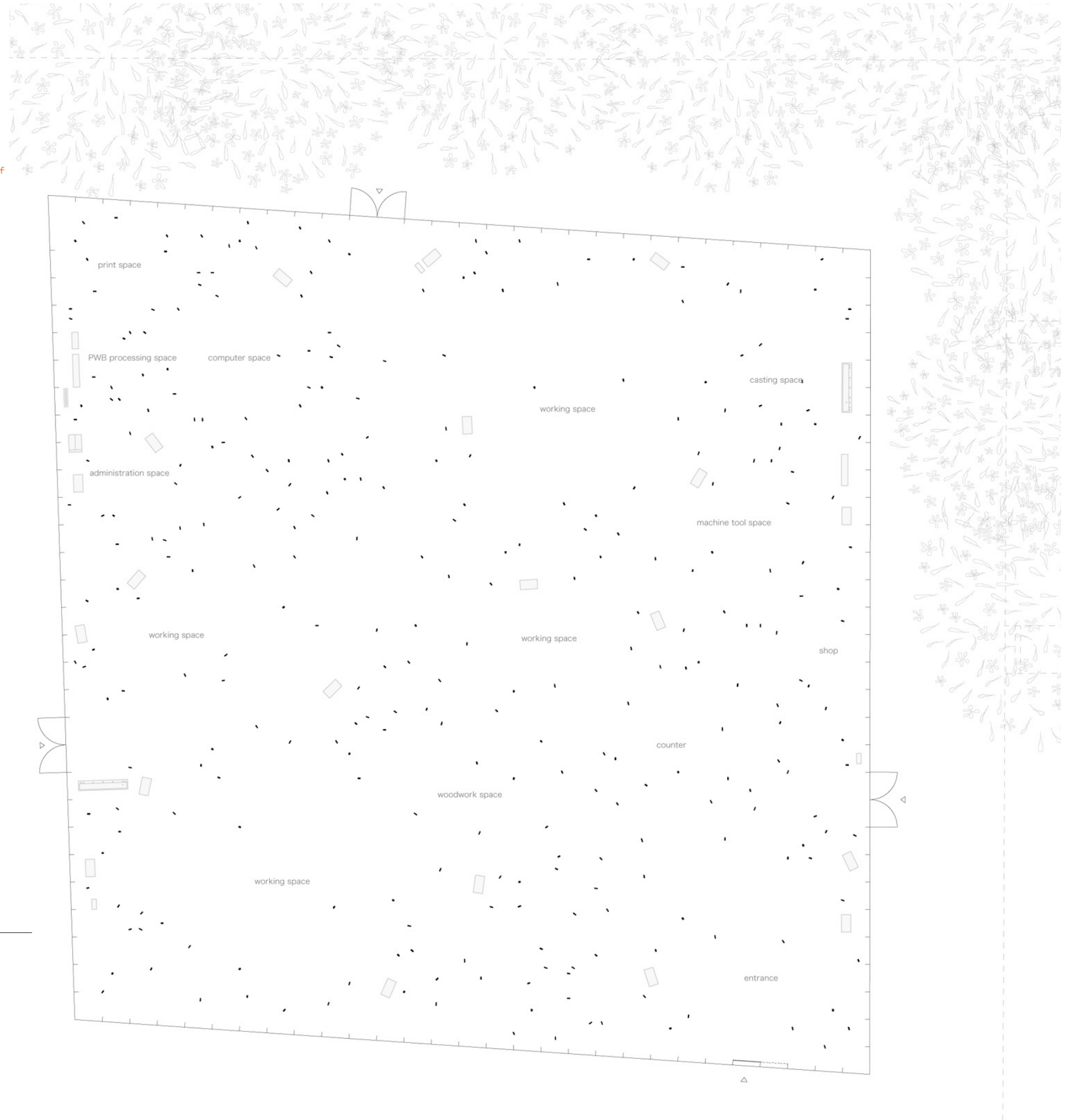
# KAIT

Junja Ishigami Architects, 2008 : Atsugi

Not a residential building, but a further investigation into the way activities can be framed and privacies constructed, this transparent studio space in Kasagawa suggests an interesting approach.

305 columns of different sizes, orientations and in a scattered layout hint towards boundaries but also create open zones for activity like clearings in a forest<sup>40</sup>. As a grande open space, transparent to the outside, the studio becomes a place where creative activities merge and overlap, but small pockets of temporary privacy are invited through furniture placement and activities themselves<sup>41</sup>, giving the interior furnishings prominence in defining space, while remaining wholly flexible.

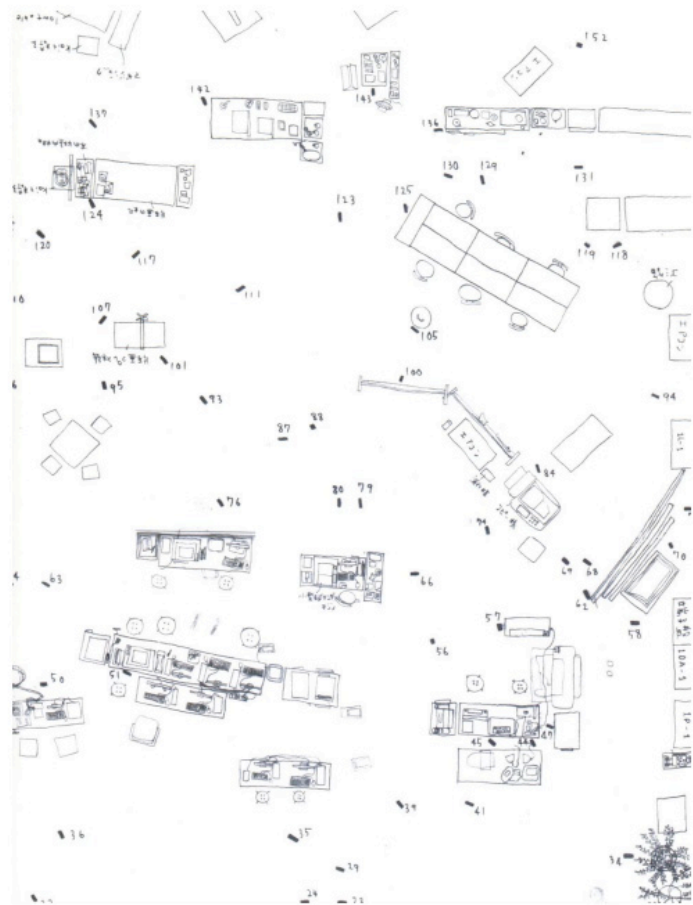
40. unknown, "Kanagawa Institute of Technology Workshop," 29  
41. Ibid, 33



(2.4.12.1)

spaces are loosely defined in as clearings in the structural columns. Few furnishings are permanent; but those which are give definition and function to the spaces





(2.4.12.3)



(2.4.12.4)



(2.4.12.5)

**MASS AND MATERIALS**  
 The crisp, white, rectilinear form seems to hover above the dark pavement below, becoming both a kind of display space as well as, conversely, a viewing platform from which the rest of the complex of buildings on the campus are framed.

(2.4.12.2)

sketches from the architects show the development of the spatial layout to be dependant on an idea of the space operating like a network with innumerable paths between the functional spaces

(2.4.12.6)



(2.4.12.7)





(2.4.13.0)  
Daniell Street Townhouses

(2.4.13.1)

The rooms have been layered into the house, digging below the existing floor level to create a warm, cave-like library and lounge area and spare bedroom connected to the main living space

(2.4.13.3)

The boundaries of the former villa have been removed and re-imagined, giving rise to a more modern, open plan living area with a central kitchen

(2.4.13.5)

**MATERIALS**  
The former villa's timber and structure has been revealed throughout, and with the newer sections appears like a collage of forms and details

In Newtown, Architect Martin Handley and his partner Anna have started to engage in shared dwelling situation with their neighbours. They are currently sharing a back garden with the neighbouring properties. Since renovating their house, they have taken on the renovations of the neighbouring properties and, together with neighbours, bought the property at 125 Daniell Street<sup>42</sup>.

While none of the internal spaces are shared as such, since living at 123 their son and Marin's father have lived in several different spots in the dwellings. their son, Humphrey, flatted next door after moving out of the family home. The flexible culture of the shared dwellings is exemplified here, the boundaries of the homes becoming secondary to the relationships between the people within them<sup>43</sup>.

Regarding their lounge and kitchen as the most open and spacious in the amalgamation, they often invite the neighbours into their house which becomes, in effect, a shared space for the small neighbourhood. Connected by the green space at the rear and opportunities for further investment, the houses, landscape and residents are intimately joined.

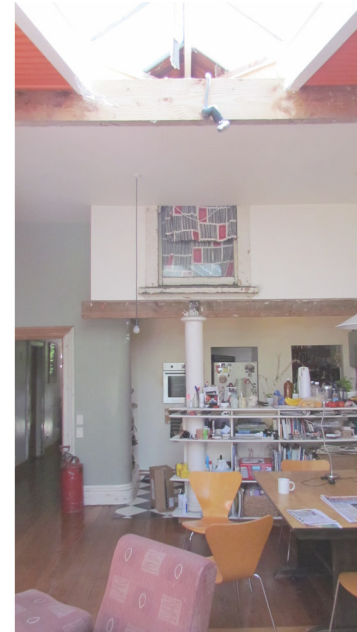
42. Personal communication with Martin Handley in the appendix, along with details of the trip. All the photos on this page are taken by the author.

43. Shared dwellings are most often linked by environmental or religious goals. Though the Hanleys see themselves as community-minded, they would welcome people to join them from any way of life.

(2.4.13.2)



(2.4.13.4)



(2.4.12.6)

Doorstep detail admitting light into the lower storey

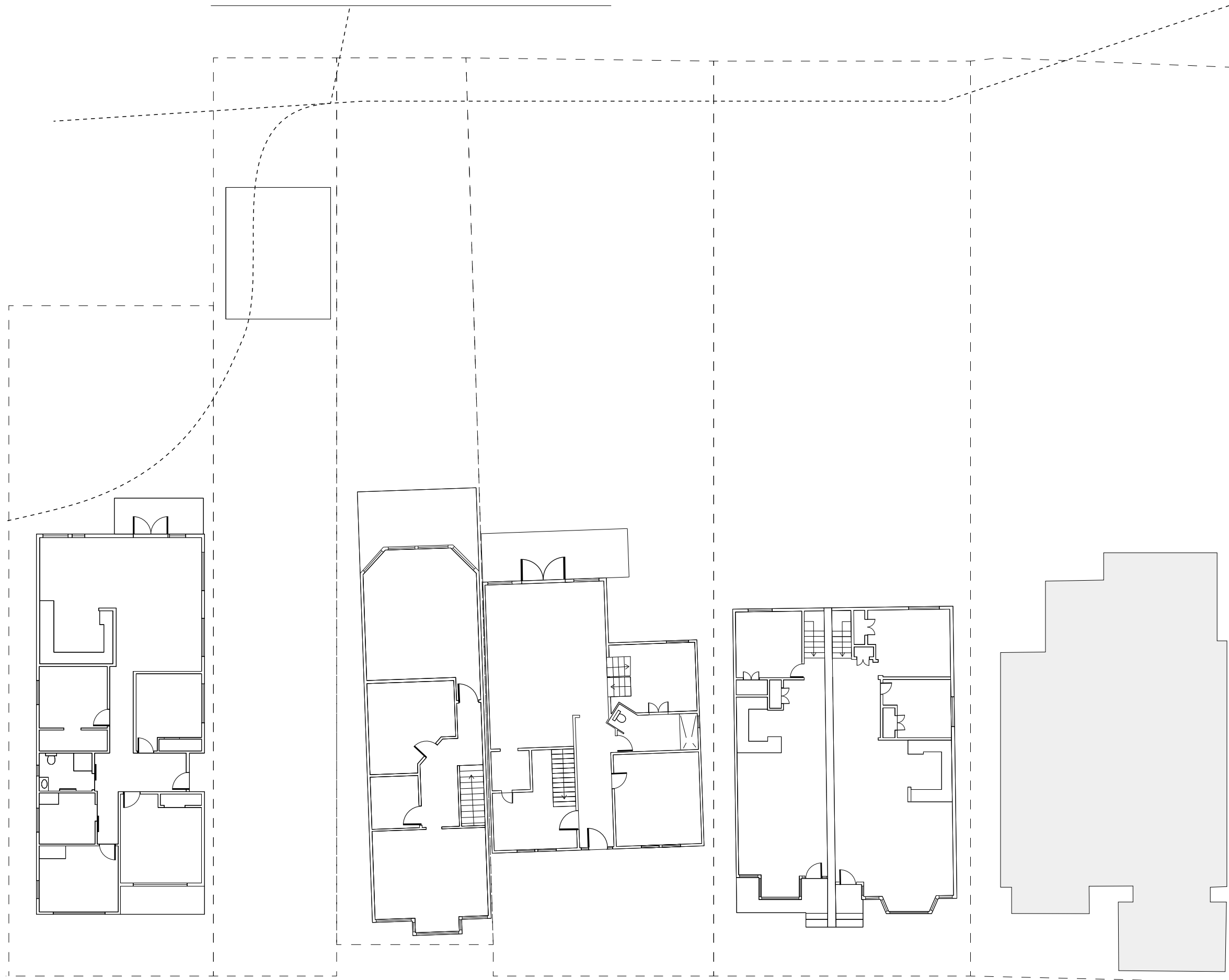


(2.4.12.7)



(2.4.12.8)

The shared outdoor area is used to gain access to the other houses rather than using the street. The familiarity that this circulation reinforces the social bond between the households



(2.4.13.9)

**AN ABSOLUTE,  
LIBERAL MONUMENT**

### 3.1 Towards a Theory of Meaning and Form

This discussion reviews the issues outlined by infamous post-modern Architect Denise Scott-Brown in the essay 'On Architectural Formalism and Social concern: A Discourse for Social Planners and Radical Chic Architects' published in *Oppositions* in 1975. Scott-Brown notes a disconnection between socially-minded Urban Designers and formally-minded Architects,<sup>44</sup> undermining the importance of form to solve problems in the urban environment. When designing for a group of inhabitants or households in shared dwellings, urban and social considerations – those which relate design to people and their interaction on an urban scale – must enter into the usual process of architectural form-making.

To ameliorate the division between formally-minded Architects and socially-minded urban planners in the creation of urban form, Scott-Brown suggested a 'theory of meaning and form' which would allow designers of both the urban and the architectural realms to understand one other's roles and contributions to the built environment, paving the way for culturally pluralistic design solutions. This essay narrows the scope of Scott-Brown's desire for a comprehensive study of 'meaning and form' to focus on the *production* of meaning and form with respect to shared dwelling.

Complimentary design mechanisms outlined and employed by Pier Vittorio Aureli and Alexander D'Hooghe to create form in suburbia – in both the architectural and urban design fields respectively – are described as kinds of framing mechanisms: These concurrent mechanisms used by both designers to define privacy and territory suggests an approach to creating libertarian domestic space and will be extrapolated for use in shared-dwelling design in the following section, [4.0: design study](#). By defining these complimentary formal mechanisms and discussing their potential for creating a place for alternative dwelling practices such as conjoined dwelling, a possible trajectory to unite the production of meaning and form that Scott-Brown called for can be outlined for the shared dwelling design in a contemporary, inner-city suburban context, using the available built fabric as both a context and point of departure for form generation.

44. Throughout her career, Scott-Brown tried to find logic and sense in the forms and symbols that she found in the modern city. Learning from Las Vegas as a famous example, she set out to find and map the ordinary city scene through an understanding of how design happened in the urban realm without planning or architects. The amelioration of this condition, and conclusions she drew about the separation of the built design professions is explained in detail in her article in *Oppositions*. Scott-Brown, 1975, 99-112

### 3.2 Contemporary Lenses: Aureli and D'Hooghe

For quite some time architectural criticism – indeed the entire field of architecture – has insisted upon ignoring the most important question of this “new” scale of the urban project: its architectural form.

Aureli, “Who is afraid of the Form-Object?” 29

The work of contemporary supermodernist designers Pier Vittorio Aureli and Alexander D'Hooghe infers that the division that Scott-Brown identified in 1975 still exists between urban and architectural praxis today. The understanding of key terms used by both designers such as *limit*, *Group* and *frame* suggests there are instances when mechanisms used to inform the design of architecture and the urban realm are concurrent in their logic and therefore can be mutually reinforcing, producing a coherent, yet democratic, design vision. From these similarities we can propose contextually-specific mechanisms which assist in the production of form and hold meaning which is particularly pertinent for the design of shared dwellings.

How we understand dwellings as democratic space, and how we imbue that with a wider meaning as being part of a democratic 'idea of the city' can fuel form generation for Aureli and D'Hooghe. Both designers warn against architecture becoming dull, generic or commodified through repetitious, expansive architectural mechanisms: Instead, they advocate for housing particularly to be discrete, “clearly formalized city parts, as finite artifacts that, in their internal formal composition [are] evocative of the idea of the city”<sup>45, 46</sup>. Placing the supermodernist architectural object at the centre of his thesis, Aureli proposes intervening on typologies to create contemporary forms by manipulating their *limits* rather than using quotidian form<sup>47</sup>.

45. Maymind, “ARCHIPELAGOS”

46. Form, for by Aureli, is described as “the strategizing of architecture's being” - which necessarily includes its wider socio-political and cultural context. Aureli, “The Possibility of an Absolute Architecture,” 1

47. Aureli, “The Possibility of an Absolute Architecture,” 182



### 3.3 Redrawing the *limit* : Aureli's Typologies

The formal can be defined as the experience of limit, as the relationship between the "inside" and the "outside." By inside, I mean the position assumed by the acting subject; by the outside I mean the datum, the situation, the state of things in which the subject acts. Action versus situation or subject versus datum: these are the poles through which the notion of the formal materialises.<sup>52</sup>

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52. This antithesis should not be understood "visually" as a figure-ground relationship, but in a much broader, conceptual and existential sense. Eventually figure-ground can be one possibility of this distinction, but it is not the only one (and not even the most interesting)

Ibid, 30

Aureli's definition of *limit* is useful for the designer; it proposes that there is a structuralist logic underpinning all typologies; that there are underlying reasons which hold forms as manifestations of cultural norms. Specifically, these cultural norms are a set of *limits* which maintain the same pattern of privacies, territories and identities. In domestic architecture this results in the traditional single family dwelling as a reflection of the cultural norms at the time of building. It is on these *limits* rather than on the form itself which is marked for typological intervention by Aureli and by manipulation, we can produce appropriate forms for shared dwelling typologies which are contextually coherent but formally dissimilar<sup>49</sup>.

49. Jencks, "Contextual Counterpoint"

Typology refers to the distillation and classification of existing building types and urban forms in terms of social function and spatial efficacy.

Law, "Emerging Typologies", 59

50. Kent, "Domestic Architecture and the Use of Space", 77

51. The anti-utopian project or disutopian projects that have explored this topic of majoritarianism and homogeneity from various perspectives are numerous and have a long, rich history. For more on this, see Deamer, "The Everyday and the Utopian", together with 'The City of the Captive Globe' project by Rem Koolhaas and the projects of Archizoom such as 'No-Stop-City'.

52. McIntosh, Gray, & Maher, "In Praise of Sharing as a Strategy for Sustainable Housing"

53. McIntosh & Maher, "Density and Identity"

This wide definition of typology describes that it is through the social functions of a space that typologies become established. The nature of a shared dwelling as a home for potentially diverse inhabitants creates the need for a culturally pluralistic design solution. This extends not only through the architecture, but should be demonstrated in the placement on the site and the position of that site relative to others. For example, the relationship between a traditional family dwelling to the garden, access and amenities follow particular trends which cement typology as both architectural and urban. Physical Barriers, symbolic markers, judicial borders and administrative *limits* are present at the urban scale, that is to say, the formal, social, cultural and political attributes that create urban grains and typology<sup>50</sup>. This urban element to typological study is often overlooked as an extension of architectural decisions, but is mentioned in this essay as the siting of the building is an essential ingredient for sprawl and the manifestation of homogeneity<sup>51</sup>.

### 3.7 Culturally Other? Locating the Shared Dwelling and Suburban Counterparts

Suburban sprawl is a product of the dominant cultural desire for one's own spacious, private house and land. This 'culture of maxima' is often a colonial hangover; gridded urban plans and discrete parcels of private property, of equal size and access to amenities, constitutes 'bad infinity' in Aureli's terms. Shared dwellings offer an alternative to this condition, and have been discussed in depth for their sustainable potential by Maher & McIntosh.

Elaborating on this, Gray and McIntosh describe the cultural practice of living in single-household, secluded housing "malleable"<sup>52</sup> and that the negotiated privacy, territory, identity and the social contract created by shared dwelling can be culturally and politically overcome through design. In the essay 'Density and Identity', Maher and McIntosh argue that "models of *modified* conventional single family houses are essential<sup>53</sup>.

Different approaches to designing and defining privacies, territories, identities and social contracts defines compound- or shared-dwelling typologies as politically and culturally 'other', inasmuch as they have a political and cultural definitions that oppose 'bad infinity'. If we view shared dwelling (sometimes called compound or conjoined housing) as an urban intervention; as a dissimilar node in a smooth urban field of regularity, then we can propose that a shared dwelling as a designed agglomeration forms created from shifting existing typological limits can become an example of a Group.



### 3.4 D’Hooghe’s Complimentary Definitions and the Underlying Urbs

54. D’Hooghe, “The Liberal Monument”, 27

Both Aureli and D’Hooghe acknowledge the city as primarily a political space which implicates many bodies and relationships, interacting and constantly conflicting. Both authors adopt Hannah Arendt’s definition of the political as ‘essentially based on judgment’, and in the two texts both authors argue that the space of the repetitious, homogenous suburban sprawl ‘consists of a singular logic of the statistical middle ground... that sprawl is a material, spatial manifestation of majoritarian rule’<sup>54,55</sup>.

55. The term archipelago is often used to describe this condition - and is also used by D’Hooghe and Aureli - however, it often denotes a public / civic function which has unwelcome associations as the essay focuses on mechanisms for the domestic realm.

[The political in the city] cannot be reduced to conflict per se [...] the political realises the solution of conflict not by a synthesis of the confronting parts, but by recognising the opposition as a *composition* of parts. This suggests that it is possible to theorize a phenomenological and symbolic coincidence between political action and the making of the form of an object

Aureli, “The Possibility [...]”, 29

As a descendant of the Roman *urbs*, suburbia is defined as the material constitution of the city, whereas *polis* (from which we get policy and politic) is the city founded upon and encouraging a sense of community. The *urbs*, Aureli observes, could be formed from a tabula rasa condition<sup>56</sup> - and relates to the processes of relentless and contextless expansion, uniformity and control. A liberal, democratic approach to form making for shared dwelling would include form ‘recognisable as a composition of parts’<sup>53</sup>. Aureli’s solution to the homogenising forces of urbanisation is to create ‘Absolute Architecture’ which is formally object-like, separated from the ‘bad infinity’ of suburbia.

56. Aureli, “The Theology Of Tabula Rasa”

57. “Organisation for Permanent Modernity”

Urbanist D’Hooghe also argues for a need for a particular kind of finitude in suburban form<sup>57</sup> which inspires an image of juxtaposing Rossian Monuments called the Group<sup>58</sup>, which he defined as:

58. The definition of D’Hooghe’s Group is a type of archipelago, yet it’s finitude as a designed work with pedestrianism and user-spaces to be defined removes it from an abstract proposition, it’s definition not a prescription for good city space but rather a and becomes an invitation for designers to create form.

1. Finite: It is a constructed monumental assemblage as opposed to a continuous, ever-growing, unconscious field of parcels and singular statements.
2. Symbolic: It asserts, through architecture, a series of ideals and visions not represented in the sprawling field.
3. Public: It is accessible to all and entices different groups. It does not have to be entirely constructed by government to do this.
4. Prescribed: It is itself a figure, composed of at least three elements: a platform and at least two opposing monuments in tight juxtaposition, allowing for a pedestrian experience of the group as a single space.
5. Ordering: Set in sprawl, the Group has the capacity to reorder it without destroying it. The Group is a haven. It introduces a structure into what was previously just a field.

D’Hooghe, “The Liberal Monument,” 9

59. "...the formalism contained in the liberal conception of the public aligns itself with the formalist device of the tight grouping of opposing monumental symbols. The latter is nothing but an ideogram of the former. The public is constructed as a grouping of difference. Liberalism's desire to institutionalise the coexistence of the incompatible entities is articulated as a political aesthetic through the device of the Group."  
D'Hooghe, Liberalism as Formalism, 17

60. A liberal political philosophy rejects majoritarianism: a direct democracy following the rationale of one citizen / one vote - a logic which results in the legitimacy of majority rule. Creating a culture with a kind of liberal political environment in a shared dwelling is crucial to ensure all opinions are heard and taken into account. There is a vast body of literature on the management of shared dwelling arrangements which adhere to variations of this broad political framework.

61. Fowler, "Agonism, Consensus, and the Exception"

It is possible, then, to read D'Hooghe's Group as the urban site of Aureli's Absolute Architecture.

To intervene in this urban field and produce a Group which is both politically libertarian<sup>59</sup> and a domestic space (that is to say set apart from the suburban space of space of sprawl and majoritarianism<sup>60,61</sup>), as an intervention that reflects cultural plurality, is to extend this separatist logic of the Group and Aureli's Absolute Architecture to the interior scale.

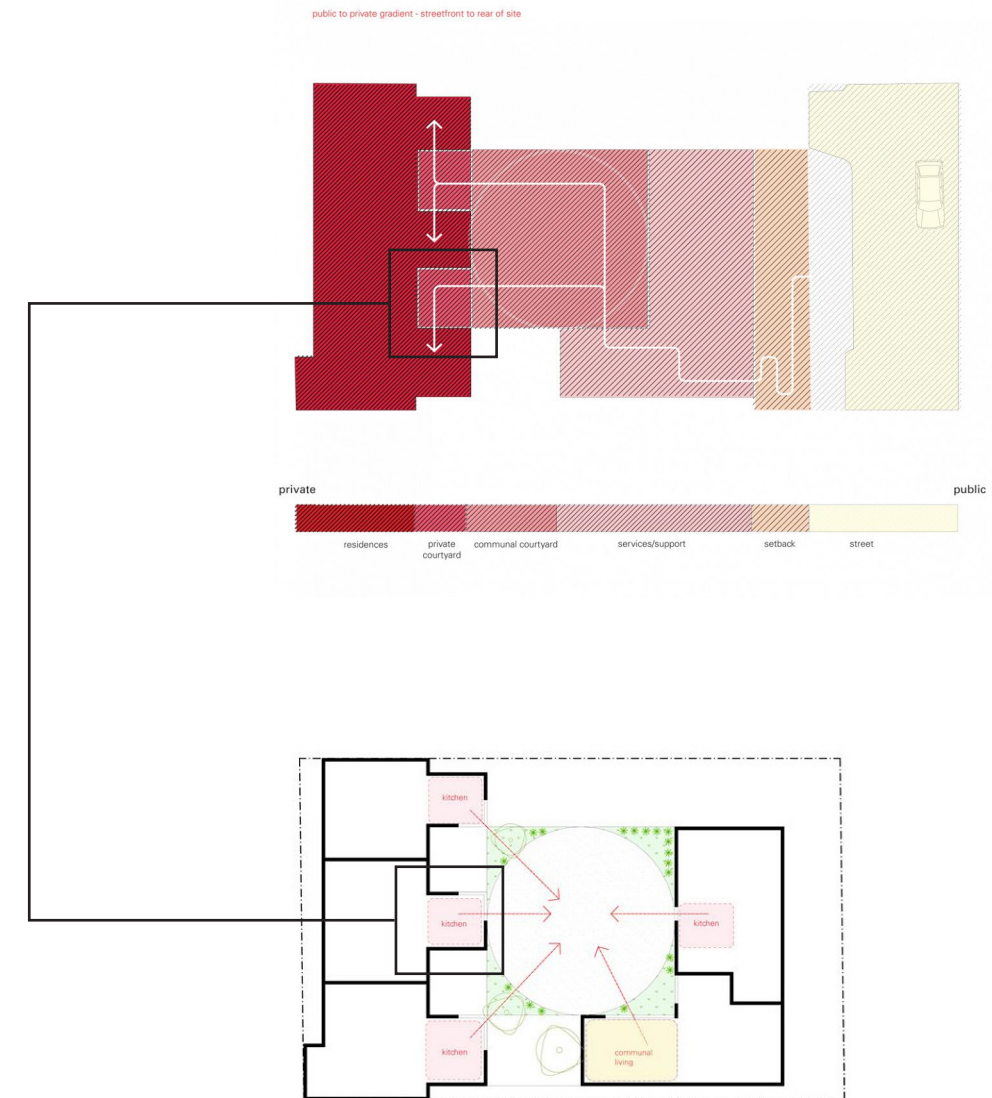
It must be an Absolute Architecture which holds the different bodies, relationships and conflicts in a non-reductable composition, not just as an object perceptible from the exterior, but absolute in its definition as an amalgamation of dissimilar cultural entities. A shared dwelling, by being a repository for diverse inhabitants, is therefore theorised as a discrete, absolute form as well an amalgamation of dissimilar symbolic and public content forming a kind of Group on the interior, architectural and urban scales.

Possible contradictions are clear: to create a form which is both Absolute while containing a symbolic multiplicity of spaces and limits; a formal object which that acts as an action on the datum that is the given the suburban situation; and as a single dwelling to hold a variety of inhabitants.

To create this is a distinct kind of pluralistic space that is synonymous with the "idea of the city" as a politically liberal space, several mechanisms employed by Aureli and D'Hooghe need to be explored – and only through design can these seemingly disparate requirements of the urban, architectural and interior scale be united.

(3.5.1)

overlapping publicity to privacy diagram by kta, showing the kitchen as the public-most place inside the individual dwelling



(3.5.2)

the kitchen as the public-most place inside the individual dwelling has access and visual link to the interior courtyard, defining its publicity. The street as a place of publicity has been removed from the diagram, leaving an inwards-looking architecture

### 3.5 Creating Multiple Privacities: Sharing

Sharing as a concept and practice is inextricably tied to other spatially expressed cultural notions, such as territory and privacy. In Anglo-Saxon cultures, sharing remains heavily stigmatised; laden with nineteenth images of slums, over-crowding and low income families in tenement blocks. Further still, sharing connotes images of 1960s and 70s communes where often individuals lacked personal space, autonomy and privacy. But divested of these political representations, sharing can be seen as a pragmatic solution to sustainable issues.

Maier & McIntosh, "Density and Identity"

New Zealand academics and architects Maier and McIntosh address both the need for privacy and the cultural importance of defining alternative privacities if shared dwelling is to become a sustainable typology. Without space for relaxation, concentration, contemplation and introspection<sup>62</sup>, the cultural worth of a shared dwelling disintegrates.

62. Chermayeff & Alexander, *Community and Privacy*

Rather than a complete dissolution of private spaces or creating a multiplicity of homogenous individual spaces, a range of privacities for the individual, household and communal areas need to be defined using a range of architectural frames, sought from an investigation of culturally-sensitive *limits*. These privacities need to be formed in relation to the changing nature of the shared household – a culture which can change over years or over the course of an afternoon<sup>63,64</sup>.

63. Georgiou, "Diaspora, identity, and the media"

64. Jarvis, *Sharing Space and Saving Time*

65. Douglas, "The Idea of Home," 287

66. Robinson, "Institutional Space, Domestic Space, and Power Relations"

In 2010, Chuck Durrett, an American architect who has created and written extensively on cohousing and shared dwelling since the 1980s, related an experience at a participatory planning meeting for a cohousing complex in the USA, where:

[...] he asks prospective home-owners to physically stand where their front doors would be on a conventional plot and then to adjust this position over the course of the cohousing co-design process. Repeating this exercise over the course of many months he witnesses a progressive lowering of privacy buffers until distances between front doors are reduced to 15 – 18 feet – very small by US standards

Ibid, 4

This literal coming-together of a 'community-in formation' demonstrates the 'malleable' nature of privacy as a cultural norm<sup>65</sup>. In reference to single-household dwellings, Julia Robinson, American architect and theorist on space syntax, describes that "a series of spaces with different degrees of privacy" allows the resident "autonomy within a social group"<sup>66</sup>. Creating areas that are appropriate for sharing therefore depends on residents' ability to find seclusion within shared spaces if they desire it.

Privacy and publicity are not static, dichomatic states that are wholly determined by built structure, but rather, privacy and publicity are achieved performatively. An overly-simplistic model of publicity and privacy with discrete thresholds is often assumed, where, for example, the kitchen, living room and dining room are posited as public and the bathroom, bedroom and other upstairs spaces private. Evidence of this prevalent attitude of to privacy in housing can be seen in the KTA's community housing project (Figs 3.5.1 and 3.5.2).

### 3.6 Creating Multiple Privacies: Ways of Separating and Framing

The creation of degrees of privacy depends on how much one is insulated from intrusion on the senses. What one considers intrusive and to what degree differs between people, but it is clear that through familiarity and habit – actions repeated through time – that the feeling of intrusion may change. Rather than simply having a static, definite boundaries defined by physical architectural thresholds. The experience of privacy is something which is interpersonal, guided by the frame of architecture but not wholly defined by it<sup>67</sup>.

67. Hirsch, "On Boundaries," 93

Architect and theorist Bernard Cache declares in 'Earth Moves' that Architects in essence design frames – intervals which separate the form from its content or its function<sup>68</sup>. Frames are therefore expressions the principles of a building's formal autonomy. These architectural frames prescribe vantage points for the residents and users in space, from which we can appreciate what they frame as spaces for varied temporal privacies. Using Aureli and D'Hooghe's mechanisms for defining limits to be acted on and frames with which to make architectural formally discrete, we are in creating multiple privacies which react to a social, cultural and political requirement for shared dwelling design.

68. Cache, "Earth Moves," 21

The mechanisms that Aureli and D'Hooghe are all articulated through the formation of frames - each defined through the recognition and manipulation of Aureli's particular definition of *limit* - these determine political, social and cultural privacies in the urban and architectural realms.

#### 1. ///

The first mechanism Aureli uses to make the architectural object discrete involves marking edges with built form and thereby creating discrete frames. The first example of edge-making can be found clearly in DOGMA's anti-utopian project 'Stop City'. By wholly separating the landscape from the housing, Aureli defines urbanisation as separate from non-urbanisation, i.e., from repetitive, blurred urban boundaries to a strict definition allowing each area to be true to purpose.

#### 2. ///

The second kind of frame is created through a reflexive contextual sensitivity. By separating the architecture formally from the site framing a singular place in a particular geographic location is possible - this mechanism is exemplified by the Miesian plinth.

#### 3. ///

The third mechanism frames to recognise an 'absent center' around which all parts of the group are visually anchored to, holding the dissimilar elements together.

#### 4. ///

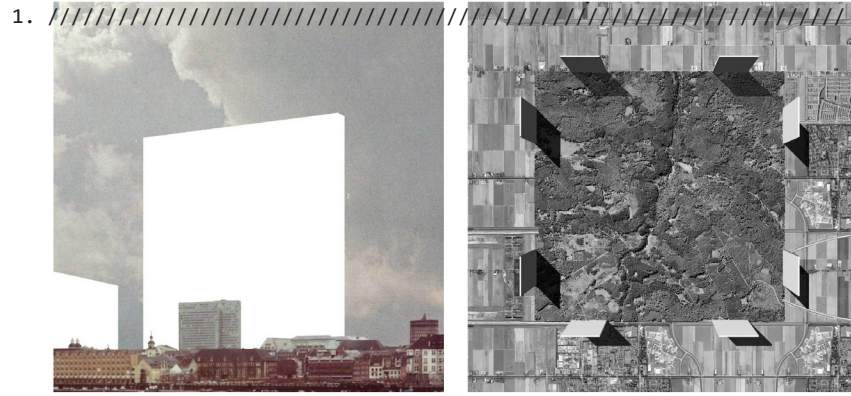
69. D'Hooghe & Peeters, "Suburban Formology"

D'Hooghe uses infrastructure - services which have traditionally been used to expand in a homogenous sense - as a point of departure for new suburban forms. By emphasising the discrete nature of infrastructural links, moments of closure and place are reinforced<sup>69</sup>.

It is my contention that the 'absent centre' in shared space dwellings is created by the performative inhabitation of multiple, temporal privacies in combination with the formal arrangement of the dwelling.



(3.6.1)



As a counter-thesis to ArchiZoom's 'No Stop City', "Stop City is the hypothesis for a non-figurative architectural language for the city. By assuming the form of the border that separates urbanization from empty space, Stop City is proposed as the absolute limit, and thus, as the very form of the city"

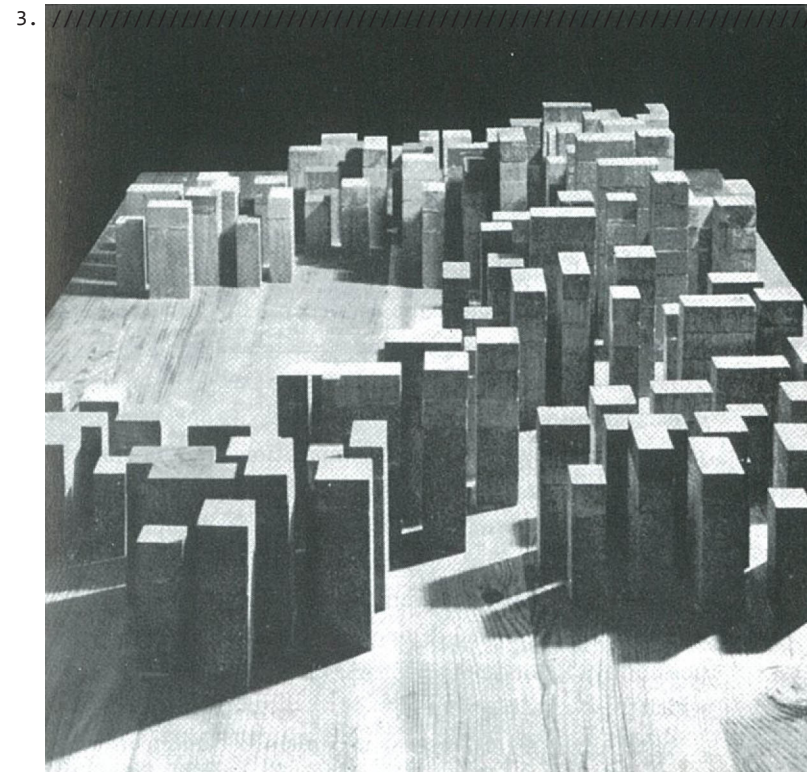
Aureli & Tattara, "STOP-CITY"

(3.6.2)



"[...] by putting emphasis on the building site, the plinth inevitably becomes a limit for what it contains... the way the plinth reorganises the connection between building and site affects not only one's experience of what is placed on the plinth, but also - and especially - one's experience of the city that is outside the plinth. In this way Mies' plinths reinvent urban space as an archipelago of limited urban artefacts"

(3.6.3)



Aureli uses Ungers' speculative projects as articulations of the limits and finitude of architectural form, articulating the idea of the absent centre as a place which visually unites the forms, and around which people move. It is visual and performative.

(3.6.4)



D'Hooghe's practice Organisation for Permanent Modernity's, which empathises finitude of an object, a discrete entity, rather than the experience of endless connectivity and characterless expanse.

The four types of frames between the object and the setting, the action and the datum are circumscribed by *limits*. Aureli's desire to separate Architecture from the suburban field can be achieved not only with wholly new architectures, but possibly by renovating existing suburban fabric – that is to say, by redefining existing *limits*, and reframing built forms which were once part of homogenous suburbia.

By redrawing social limits of old, often-repeated typologies through renovation, and by incorporating this aged fabric in new, discrete dwellings, a different kind of 'finite artifact' which fulfills the third criteria of being reactive to a particular place can be created.

### 3.7 Intervening on Typology: Renovations, Reframing, Relimiting

Intervening on existing typology is a method used by Aureli and D'Hooghe to arrive at contemporary forms for the modern suburban housing situation. An awareness of the limits of the existing buildings and city space - as well as the social needs driving change are integral to the process. Preservation, restoration, renovation, and remodeling each involve differing degrees of intervention on existing built form, each redrawing the limits of the old buildings through material change, additions or subtractions. By reframing existing housing by manipulating its limits in particular we can create new typologies that deviate from their native contextual forms and which are related to them.

'In a more general sense: it is the unchangeable [frames] that create the conditions for changeability, the permanent that frees the temporary'

Leupen, Frame and Generic Space, 23

Conjoined housing, shared dwellings and places of temporal privacies, when inserted into old buildings, necessarily manipulate the *limits* of the old typology. It is through this re-framing that flexible, generic or free space is opened for ongoing use and interpretation by the dwellers.

### 3.8 Shared Domestic Space: Creating Multiplicities, Defining Frames

Shared dwelling requires the creation of multiple, temporal privacies that are constantly negotiated formally, politically and culturally. To create meaningful research on this topic will require further investigation into shared spaces, their uses, limits and mechanisms. The frames created by Aureli, D'Hooghe at the urban and architectural scales provide useful templates suggesting how this could be achieved on the interior to produce a culturally pluralistic 'idea of the city' – both a formal and political, architectural and urban endeavor. A concurrent and contemporary trajectory for the production of meaning and form for shared-dwellings is opened for investigation by design.







#### 4.0 mechanisms to be explored through design

##### 4.0.1 Mechanism 1 – En-masse Renovation of Building Fabric

Densification of an existing inner-suburban area must subsume the existing limits of the suburban area, rather than replacing or quoting it

##### 4.0.2 Mechanism 2 – Introducing Multiple Privacies

Through sharing amenities for households to use collectively or individually, which are intermittently both public and private

##### 4.0.3 Mechanism 3– Drawing New Limits

Reorganise the typical villa by redrawing the limits of publicity and privacy, manipulating the typology to create a dwelling of multiple privacies





4.1

Shared Dwelling Design. An exercise in creating an Absolute, Liberal Monument

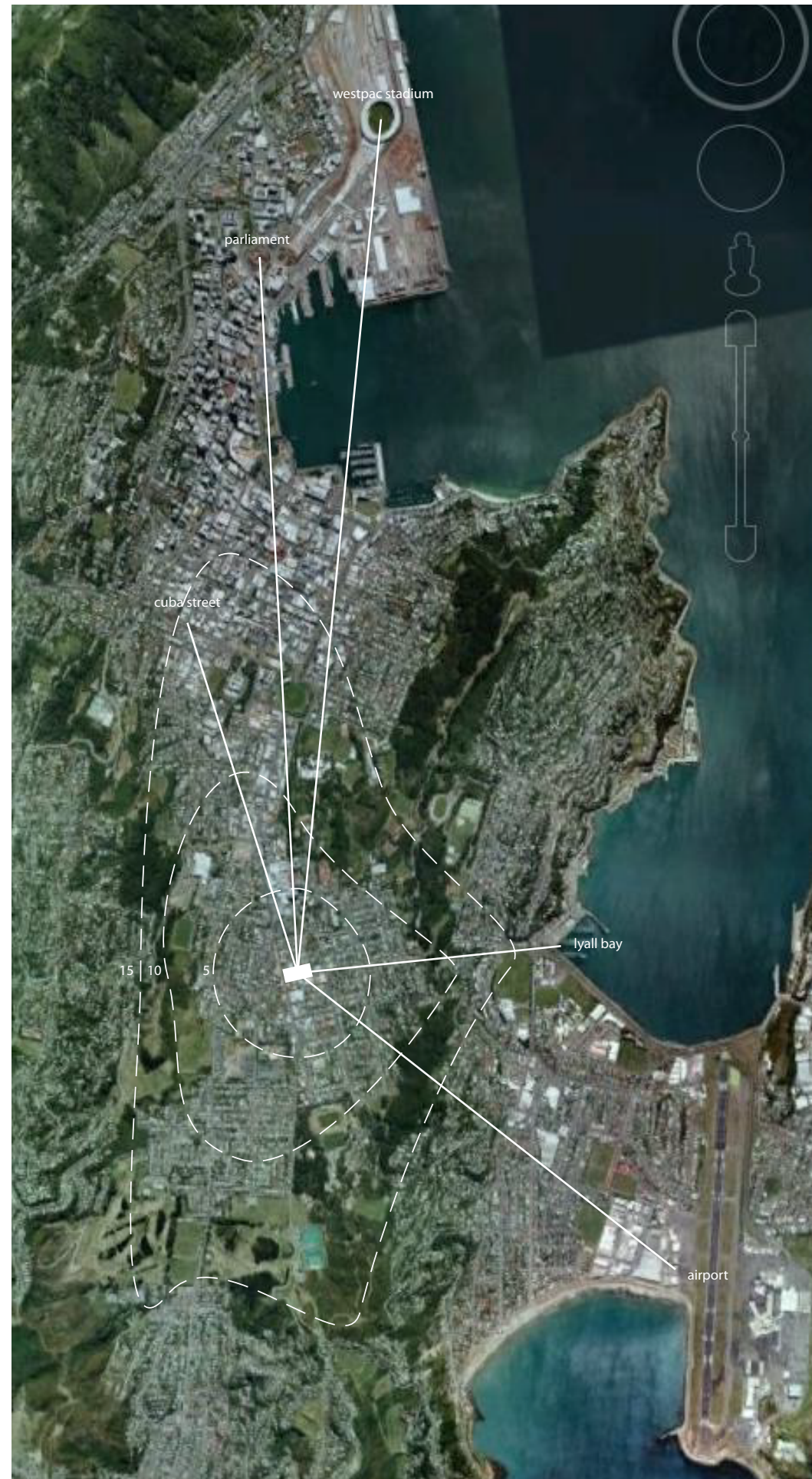
4.1.1 Newtown as Prototypical site

The natural amphitheatre has restrained Wellington's inner-city growth and has given rise to two distinct residential settlement morphologies. The city grid that was designed for Wellington in the 1890s, as in other Australian cities such as Adelaide, became distorted to accommodate for steep topography.

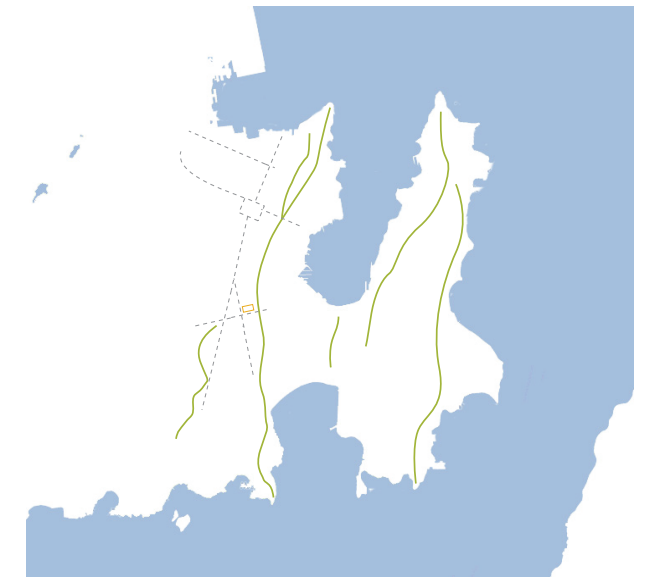
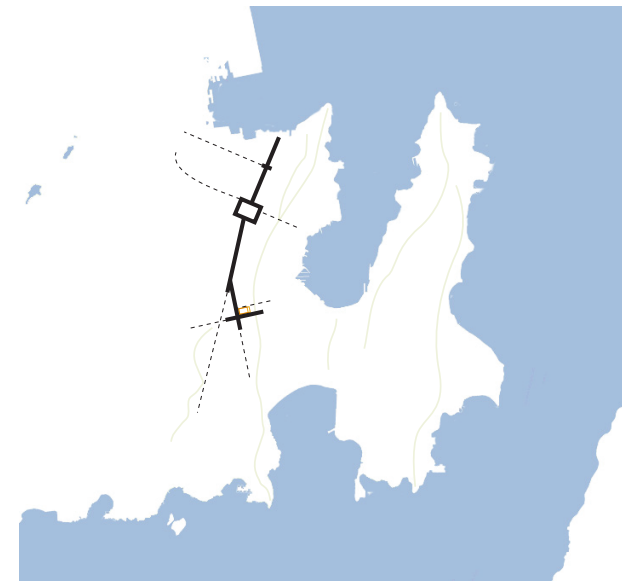
The winding streets in the hills are categorised by the houses oriented towards the gulleys or the sea (natural features), while the gridded pattern was retained on flat land are characterised by the houses having facades to the street in rectilinear, quarter-acre properties.

(4.1.1.1)  
1888 map of Wellington's roads and subdivisions





(4.1.1.2)  
Walking distances from the chosen site, a block in the inner-city suburban grid

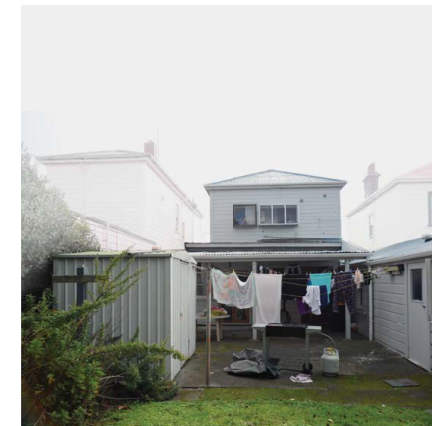
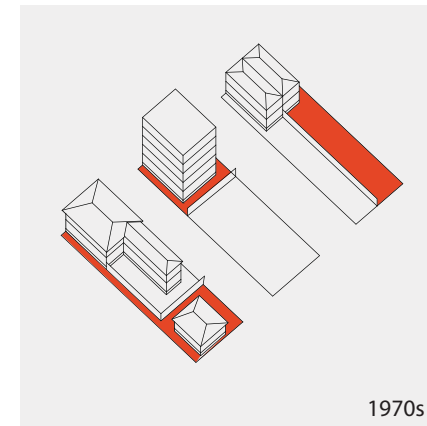
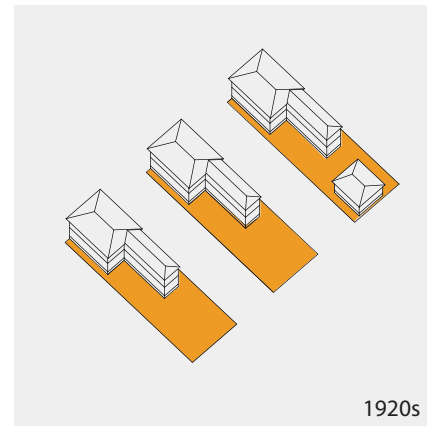
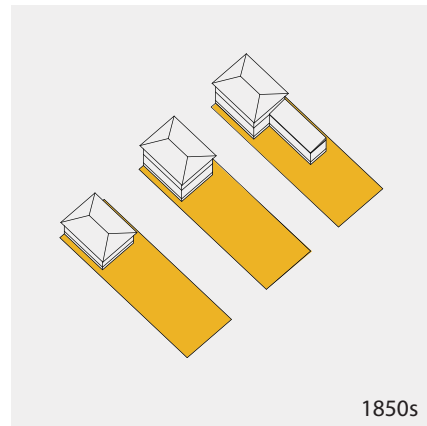


(4.1.1.3,4)  
Wellington's roading network adapted to the topography; axes angled to suit the terrain

#### 4.1.2 Tending Toward Intensification

Intensification of existing building fabric can be most easily achieved when there is a pattern of regular rhythm, orientation, form and density. The site in Newtown has been selected for its proximity to public transport links and ability to sustain further growth, as well as being the suburb that anticipates the highest population growth over the next 15 years. The status of the existing houses as in obvious need of renovation and repair gives the opportunity for a site-specific investigation of the redeeming characteristics of the houses, as well as their idiosyncratic opportunities for design.

# TRADITIONAL DENSIFICATION

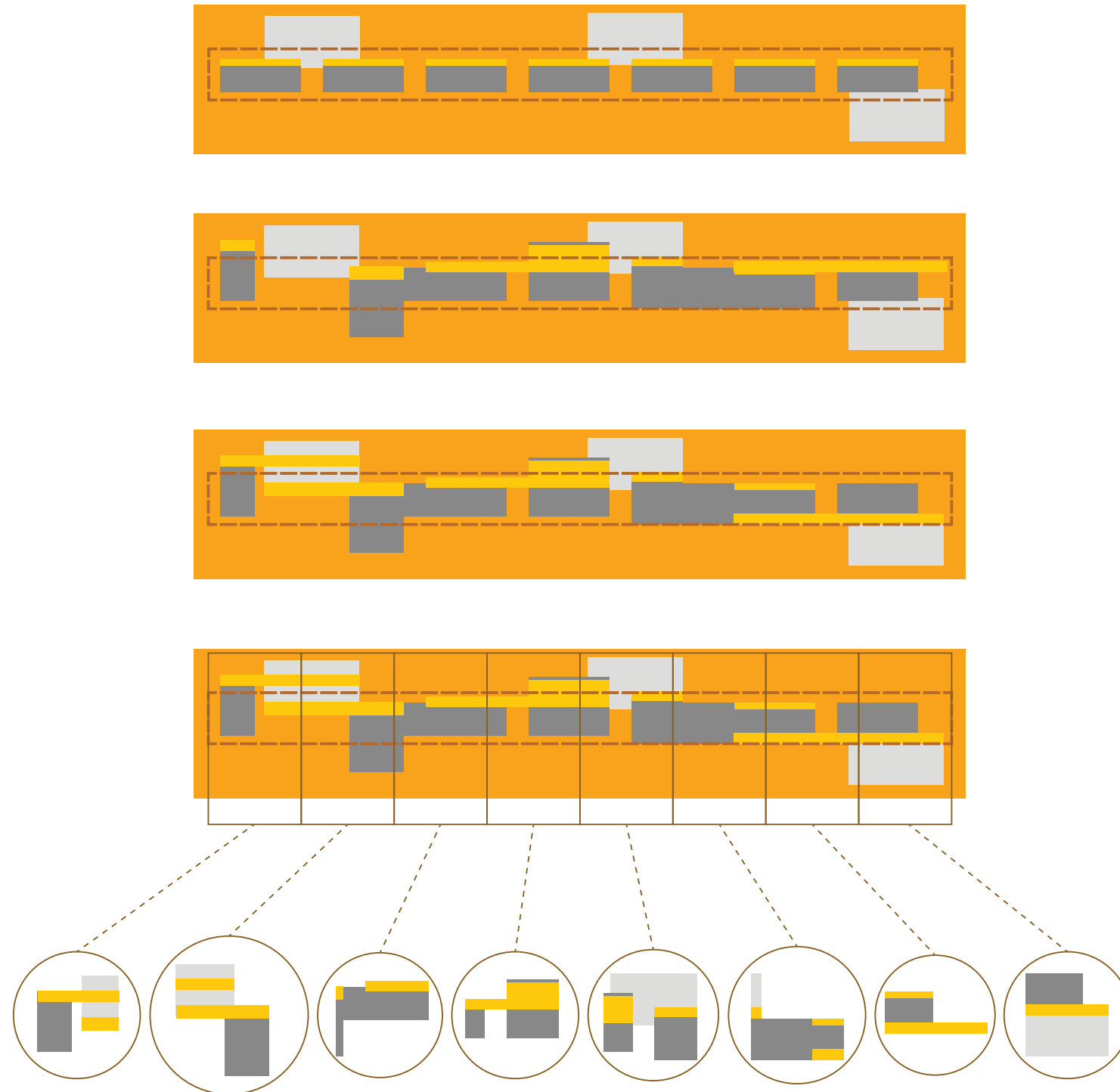


(4.1.2.1)  
traditional model of  
densification asserts property  
boundaries and divides space,  
resulting in poor quality  
indoor and outdoor space

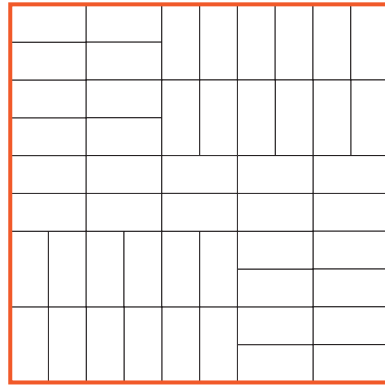
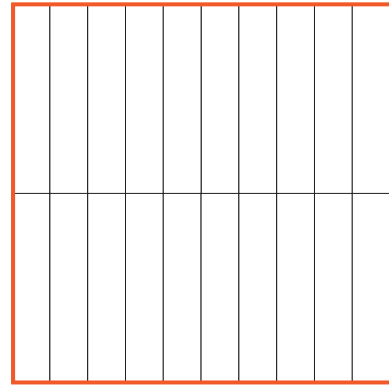
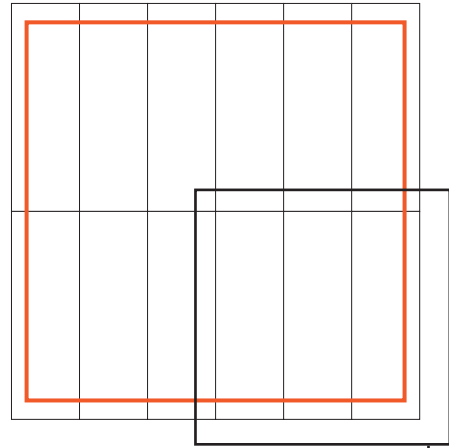
(4.1.2.2)  
An alternative to this model  
could include installing  
smaller, flexible buildings  
between existing character  
homes, and through the  
reinstallation of amenities  
(yellow) and shared spaces, a  
diverse range of housing could  
result



# ALTERNATIVE DENSIFICATION



1 hectare



QUARTER - ACRE DENSITY

1.2000

= Net Site Density average  
= 12 dwellings per hectare (max)

'INTENSIFICATION' DENSITY

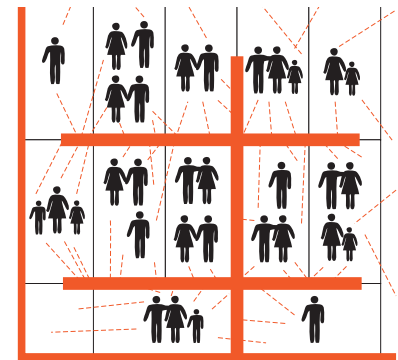
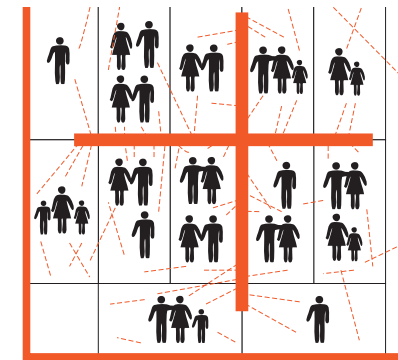
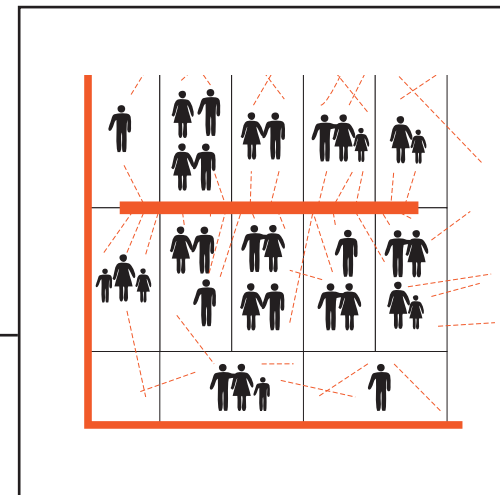
1.2000

= Net Site Density of 500m<sup>2</sup>

MEDIUM DENSITY

1.2000

= Net Site Density of 200m<sup>2</sup>  
= 54 dwellings per hectare (max)

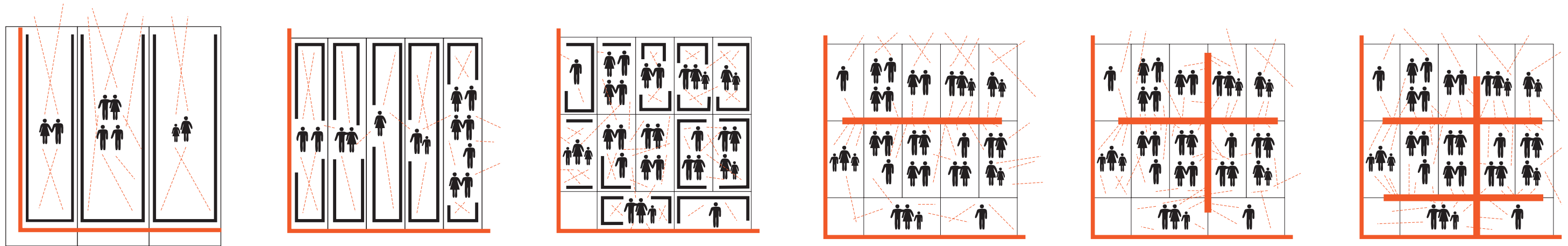


SCHEMATIC SHOWING OVERLOOKING AND OVERCROWDING

1.1000

- = Each dweller looking into their own site, and towards boundaries
- = if shared facilities are used that also act as boundaries, a different approach to privacy achieved
- = The gaze and attention of the dweller is attracted, but the shared sense of ownership allows membrane-like divisions
- = This schematic of shared amenities supports the goal for varied privacies and a deliberate confusion between the dwellings & households, households & individuals.

(4.1.2.3)  
 Intensification not only stresses infrastructures, but can result in the feeling of overcrowding. An altered sense of privacy and carefully considered boundaries will assist in the creation of higher density housing



SCHEMATIC SHOWING OVERLOOKING AND OVERCROWDING

1.1000

- = Each dweller looking into their own site, and towards boundaries
- = Quarter acre section on far left shows traditional boundaries on at least 3 sides
- = As density increases, we can see the possibility for the perception of overcrowding and lack of boundaries

SCHEMATIC SHOWING OVERLOOKING AND OVERCROWDING

1.1000

- = Each dweller looking into their own site, and towards boundaries
- = if shared facilities are used that also act as boundaries, a different approach to privacy achieved
- = The gaze and attention of the dweller is attracted, but the shared sense of ownership allows membrane-like divisions
- = This schematic of shared amenities supports the goal for varied privacies and a deliberate confusion between the dwellings & households, households & individuals.



#### 4.1.3 The Urban Settlement Pattern and Underuse of Green Space

In this colonial urban environment, the prototypical timber villa became the dominant typology as developed neatly within the limits of the available property and conformed with Victorian ideals of diametrically opposed privacy and publicity: The front of the house being a formal and public, while the rear, private entrance became informal, familiar and most often-used for visitors and the household members.



(4.1.3.1)  
The chosen Riddiford St - Constable St  
- Wilson St - Daniell St block as drawn  
by Thomas Ward





(4.1.3.2,3)  
 The same parcel of land at the time of writing. The light industrial grain in the southern fringes and along constable street meets the traditional inner-suburban housing grain, leaving fenced-off, fragmented and underused green spaces in the centre of the block and dark, damp passageways between the houses

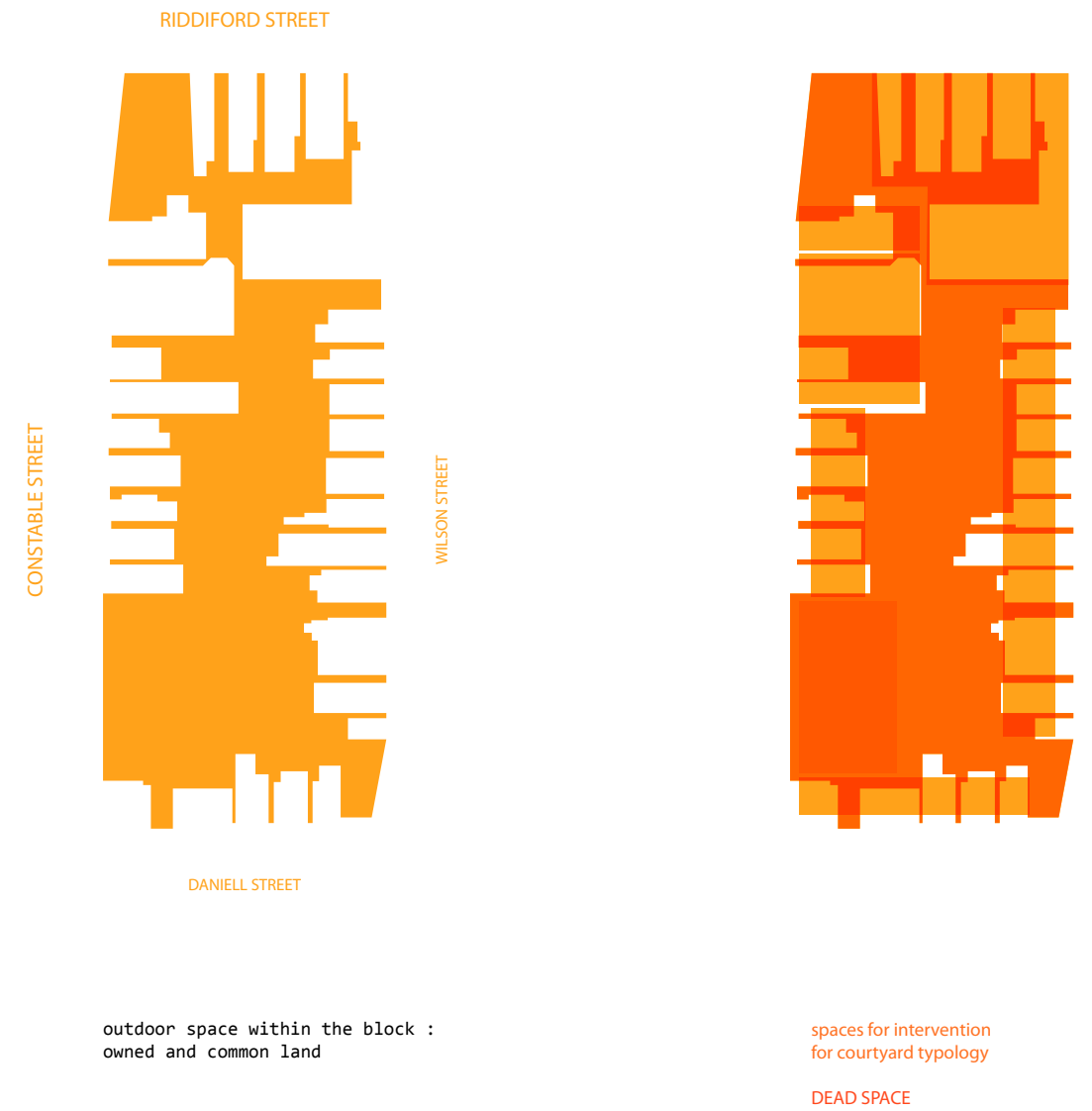


(4.1.3.4)  
 Outdoor areas set aside for children's play, communal garden and open, vacant land



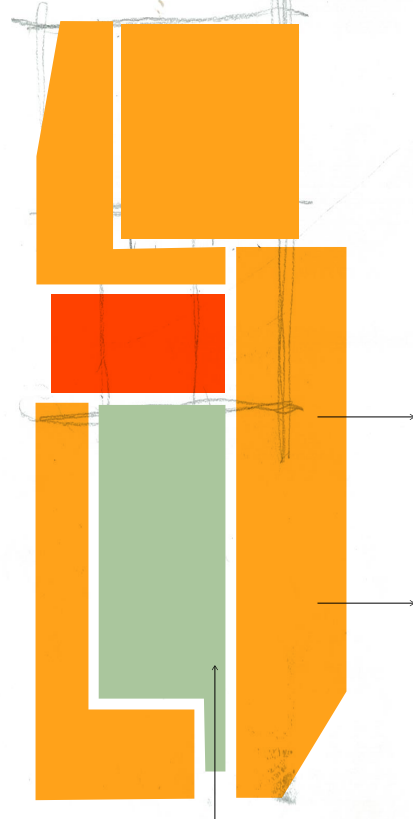
#### 4.1.4 The Urban Settlement Pattern Underused Spaces Between Programs

(4.1.4.1)  
 The relationship between the different  
 land uses, and their resultant  
 underused space





sketch concept 1



sketch concept 2



sketch concept 3



extending transport area

extending the open space to take advantage of the light and sun; reducing carparks and encouraging a naked street on wilson street

no differentiation in building mass for community functions



(4.1.4.2)  
The houses in their current condition







## 4.2 Developing a Site-Specific Response

(4.2.1)  
The houses in their current  
condition:

Access and traditionally public  
spaces in the houses



This house is undergoing a major renovation, creating an open-plan kitchen, lounge and dining area within the original building shell. This open space contrasts the open, modern living style with the patina of the house.

10 Wilson Street;  
This house has been a flat for many years. The social / public space of the house, the lounge, is used by all the flatmates and the kitchen is still at the back of the house. The kitchen is used as a social space more than the living room area, and guests are invited here.

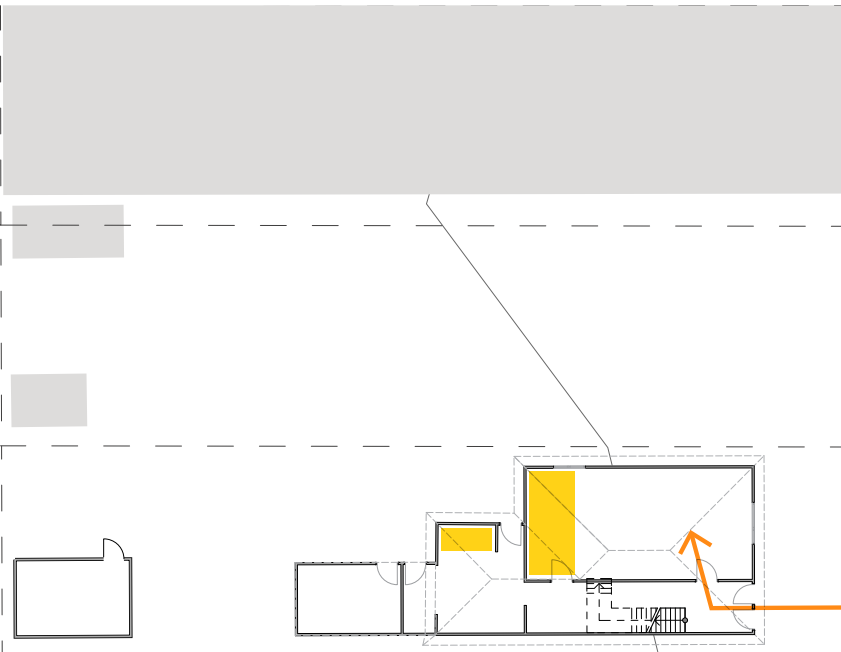
non-traditional villa arrangement;  
this house has had additions at the rear, and has been divided into two flats; upper and lower. Inhabited by a group of flatmates in their 20s. All the rooms are private except for the shared bathroom, hallway and small open-plan lounge / kitchen area

traditional villa arrangement;  
the facade and entry of the house are the most public aspects  
The front room is for entertaining guests, keeping objects of value for display and used as a family room.

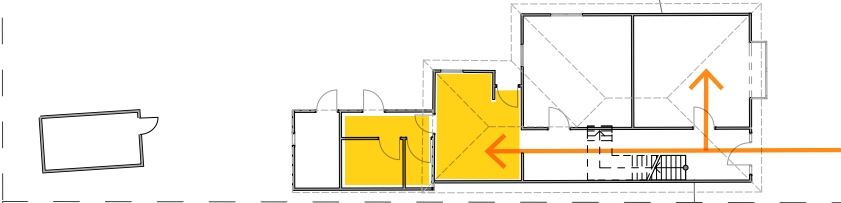


(4.2.2)  
The houses in their current  
condition:

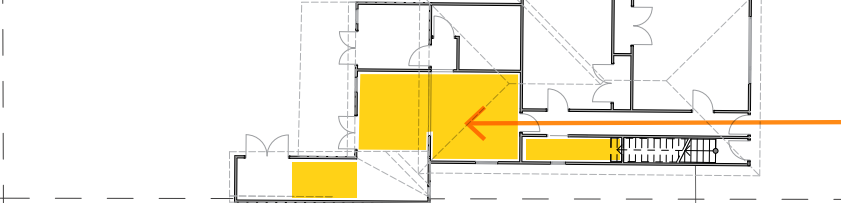
Access and amenities. In the  
shared houses, these two functions  
overlap - the shared space  
becoming vital part in everyday  
life



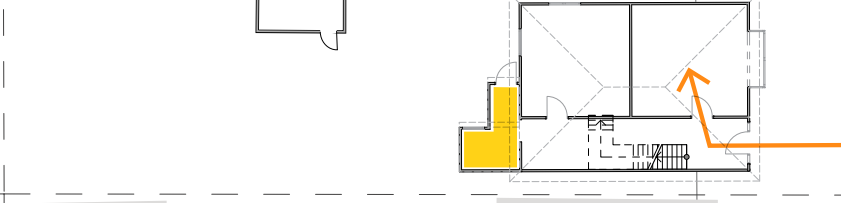
The original plans show the  
kitchen and a small washroom in  
the locations shown. As access  
was not possible, I can only  
assume that the amenity spaces  
and the more public areas of the  
house are connected.



10 Wilson Street;  
There are two kinds of public  
space in the house, one which  
centres around the amenity spaces  
and one which is used mainly by  
the flatmates as a soft hangout/  
messy space. Instruments, books,  
and other possessions which are  
shared belong here.



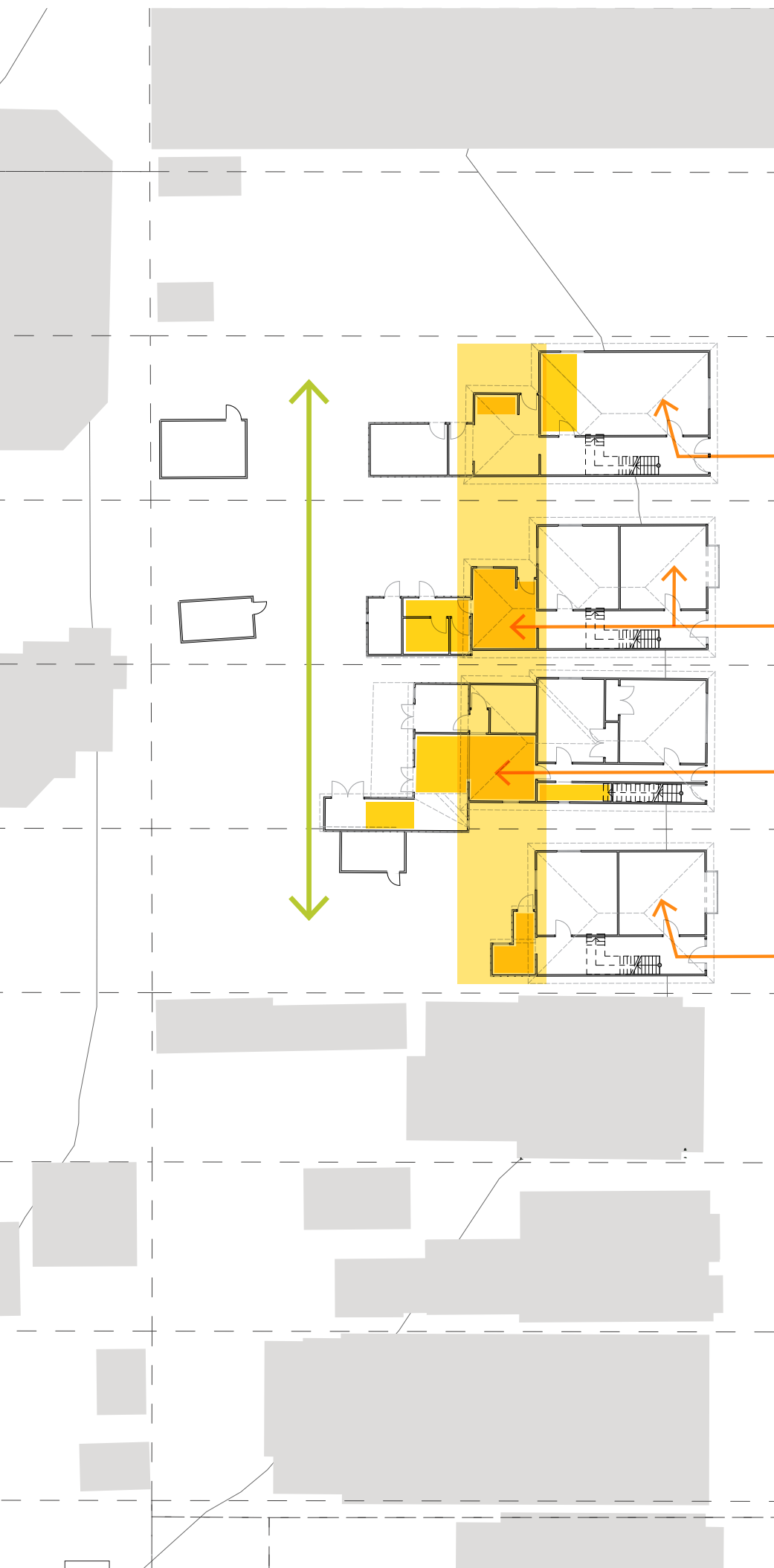
non-traditional villa  
arrangement;  
the modern, open-plan renovations  
have left the old front-room as a  
bedroom, and the amenity spaces  
are clustered in the centre of  
the house. The social, public  
space of the house and the  
amenities overlap.



traditional villa arrangement;  
the amenities are at the back of  
the house, separated from the  
rituals of eating, washing and  
food preparation.

(4.2.3)  
The houses in their current condition:

Access and amenities follow patterns in every house, shared or discrete. A band of amenity spaces at the rear is disconnected from the green spaces, the connection between these severed.



The green space is the most private of all on these plans; there is no connection between the social or open spaces of the house and the outdoor areas

10 Wilson Street;  
The social and amenity hub of the house has a poor connection to the exterior. There are no windows to the garden; and the furniture prevents the kitchen door opening.

non-traditional villa arrangement;  
There are large double-doors opening onto the garden space, creating a sense of lightness on the interior and a connection between the house and the land.

traditional villa arrangement;  
With few plans available, one can only assume the lean-to at the rear of the house contains the services - the interior amenities such as the kitchen are separated from the outdoor space and the more public areas of the house.



(4.2.4)  
The houses in their current condition:

The opportunity to make the dwelling(s) two-faced is envisioned. A facade to address the communal shared space using similar devices as the existing villas use to address the street will give a contemporary articulation of shifted limits in the house.

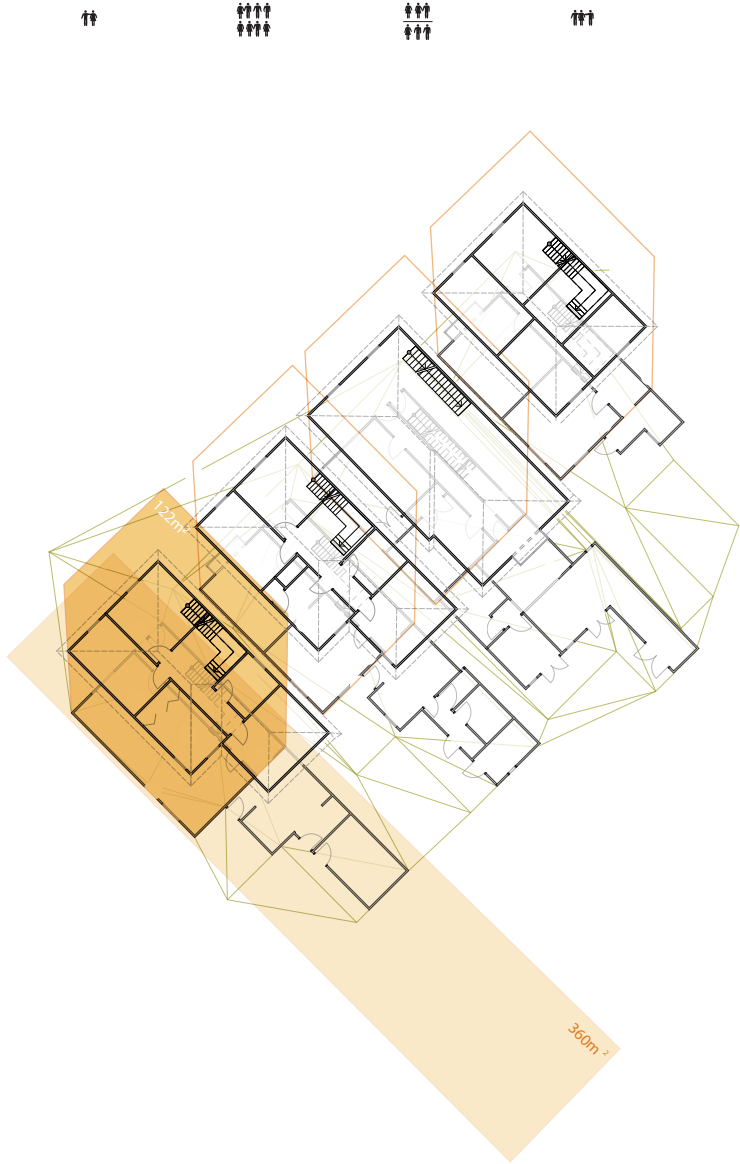
Using the amenity spaces as a place to gather people and make their paths cross in a vital way, the en-masse renovation will focus on this central strip; between the public face of the house and the landscape.

Using the organisation and dwelling style at 10 Wilson Street as a template, the en-masse renovation will enhance and develop upon this re-conditioning of the existing villas

separating the houses into smaller households, and joining them with the shared amenities into one large household will allow for multiple privacies and publicities.

Some of the spaces in the house will be shared between all residents, others will be used by only a few. Rooms such as this one will be used as a studio room, adjacent to a working space which the whole dwelling - inhabitants of all 4 original houses - can utilise.

4.3 Developing a Site-Specific Response: The Courtyard Block



(4.3.1)  
The houses in their current condition:

The dwellings currently house 19 people in four separate households.



(4.3.2)  
The urban block in its current condition; numbers 8-14 Wilson Street are highlighted for intervention





(4.3.3)  
Proposed development: removing the existing underperforming outbuildings and poorly-constructed additions



(4.3.4)  
Joining the existing villas together through architectural intervention; shifting the limits of the single-family dwellings to a shared living arrangement.

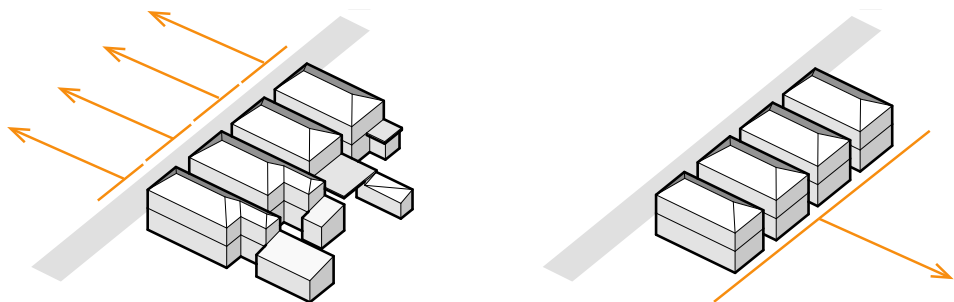
The remaining images and design focus on this point as a conclusion to the design problem.



(4.3.5)  
The possibility of future growth.

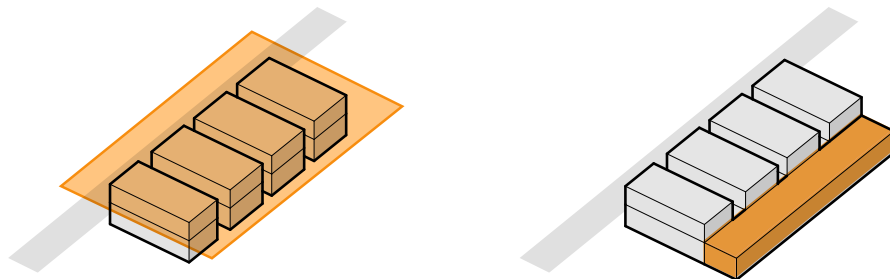


STREET-SIDE FACADE AS THE PRIMARY IDENTITY-GIVING FACADE



removal of existing amenities, poorly constructed outhouses and sheds to create a finite line to address the community green space. In preparation for new facade

EXPRESSION OF SINGLE FAMILIES AS SINGLE DWELLINGS

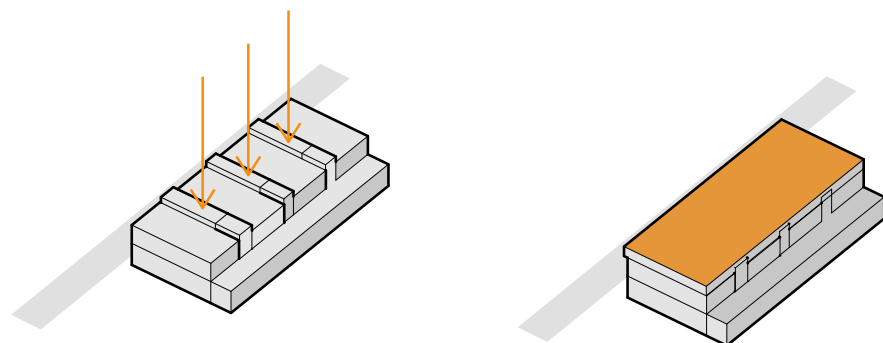


roof structures removed as these denote separate living structures, each pitch a different dwelling

new amenities added in a single, stitch-like gesture creating a single facade to the green space on the interior

This has the effect of making the combined villas have two facades; nether one primary, but both able to address different public conditions on each side of the building (green communal space / street access)

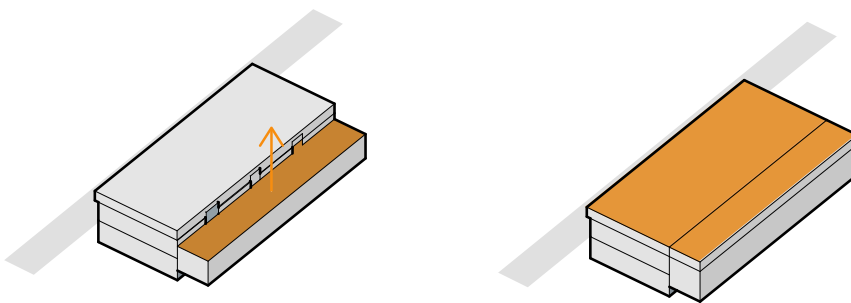
THE BETWEEN-SPACE AS LEGAL AND SOCIAL SEPERATOR



wasted space between the houses filled with new timber structure: weaterboards and claddings remain from the old houses, creating an interesting interior finish, allowing the history of the place as a villa to endure

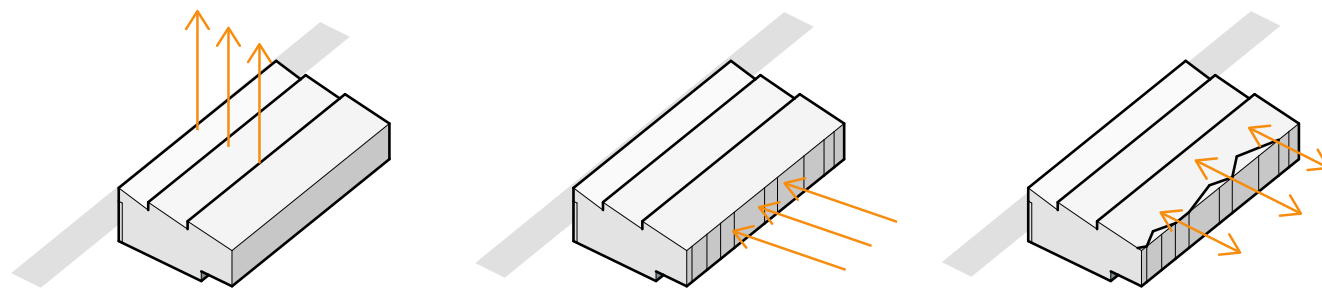
the dwelling is re-roofed, creating the impression of a whole. roof as frame, with which we view the houses as a discrete entity

AMENITIES / SPACES OF RITUAL AS INDIVIDUAL, PRIVATE SPACE



the roof is extended over the new shared areas, to unite the dwelling as a perceptable whole, discrete form; incorporating teh shared amenities as a visually and experientially connected part the house - not a haphazard addition

THE BAY WINDOW AS DISPLAY SPACE, ORNAMENT AND CONNECTION TO THE STREET



the bay window, a feature of the traditional villa as a space of display as well as a space of relaxation, is reinterpreted as a space to travel through, marking the boundary of the house on a single line but opening the space between the inside and outside for inhabitation

#### 4.4 Pushing the Limits of the Villa Typology : A New Shared Dwelling

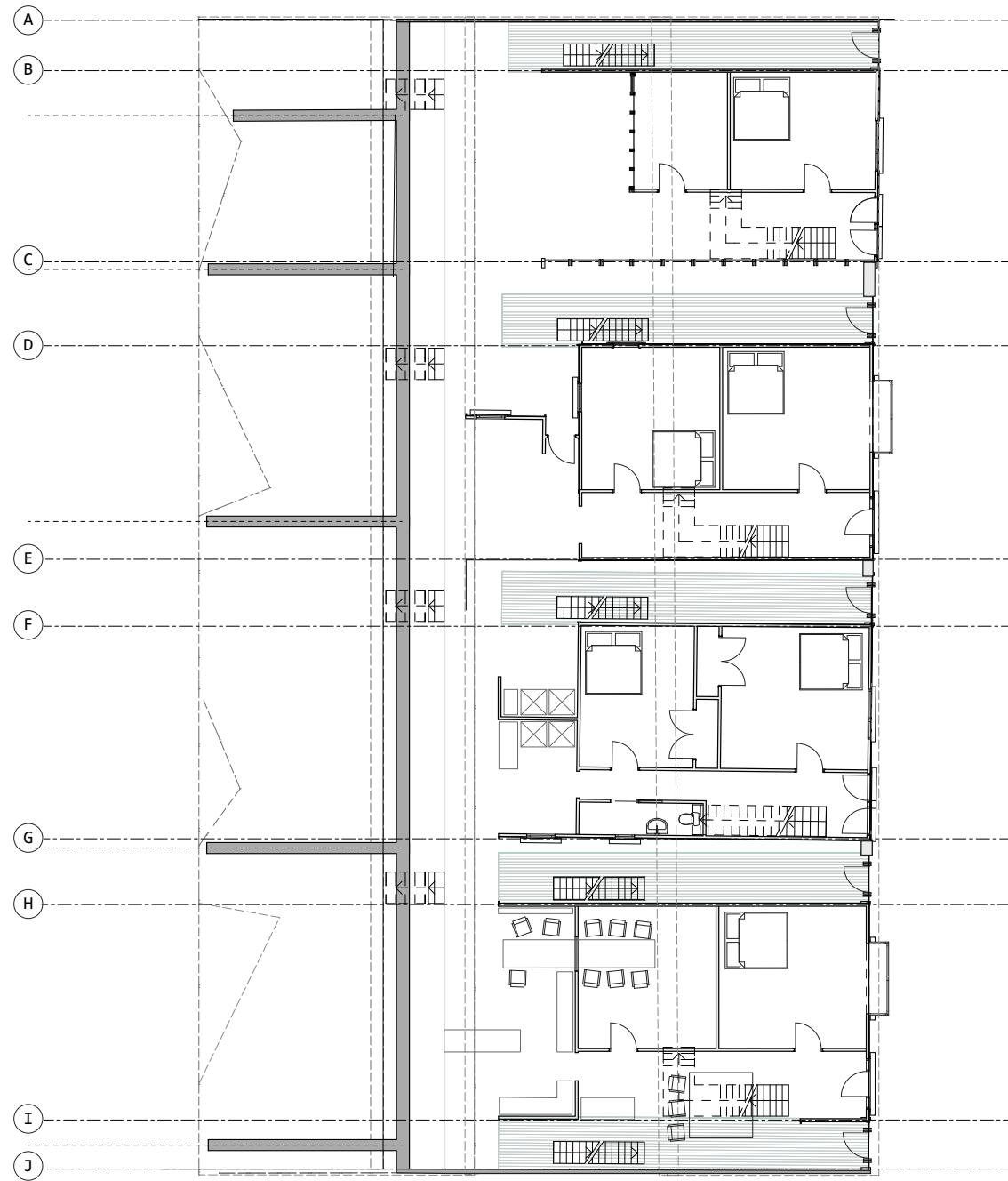
(4.4.1)  
Existing limits of the villas  
inform the design mechanisms to  
create new form



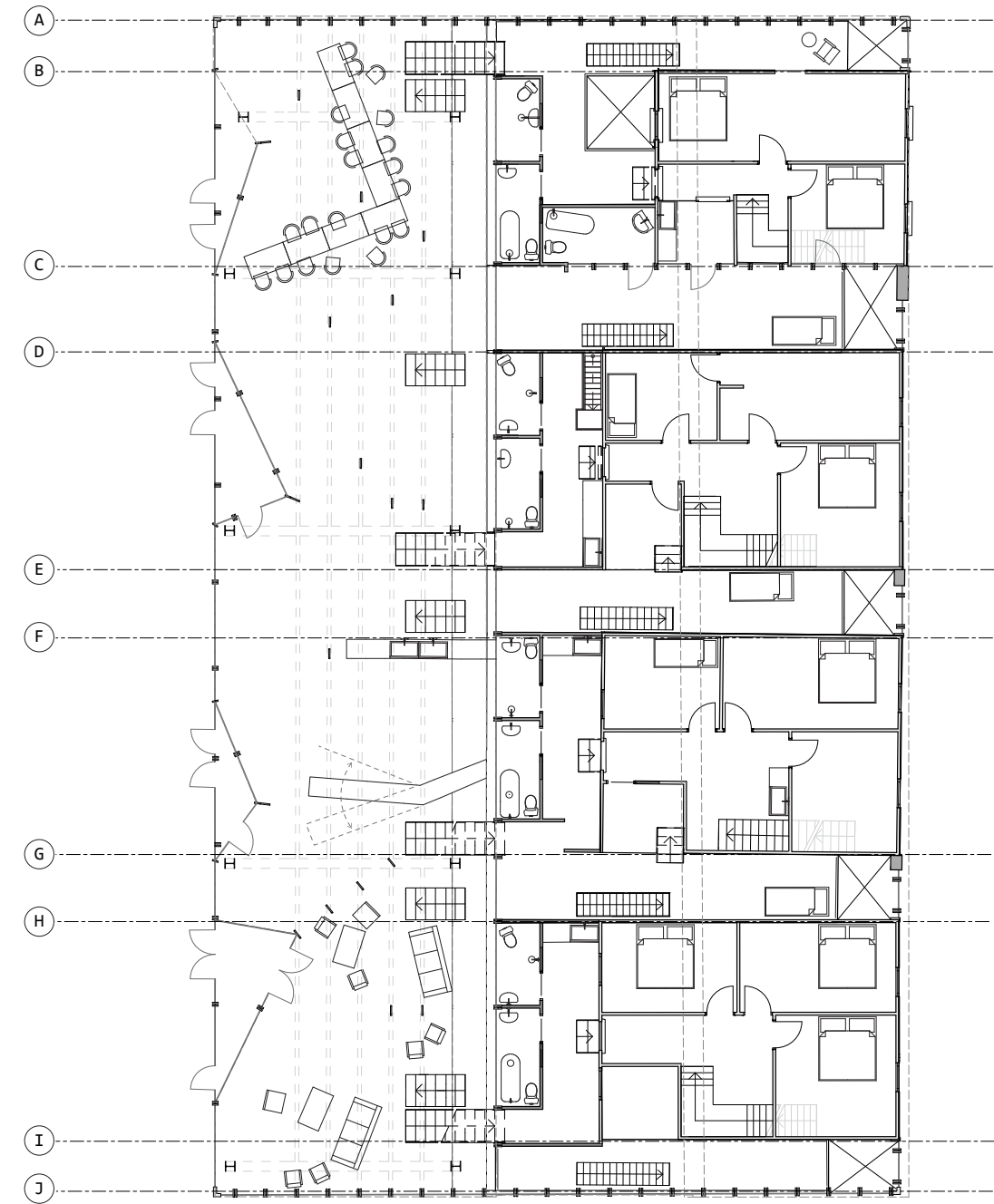
(4.4.2)  
New facade to Wilson street.

The front gardens are used to grow vegetables; the bay windows remain by the porches are removed to form a clear, singular identity for the dwelling





ground



raised ground + first

(4.4.3)  
Plans @ 1:200

The glazed facade is pried open to give the spaces inside the large, open part of the house definition and to temper the climate inside. This reinterpretation of the bay window is both a place for display and connection to the outside.

The movable kitchen bench allows a larger or smaller kitchen workspace, to allow for flexibility of use, and is an additional facility to the kitchenette in each small house. The bathrooms are all on a single line, allowing the plumbing and amenity connections to be visible from the shared space. The bedrooms are arranged non-hierarchially, allowing residents with family to move in close proximity, and a fluidity to the residential arrangement.



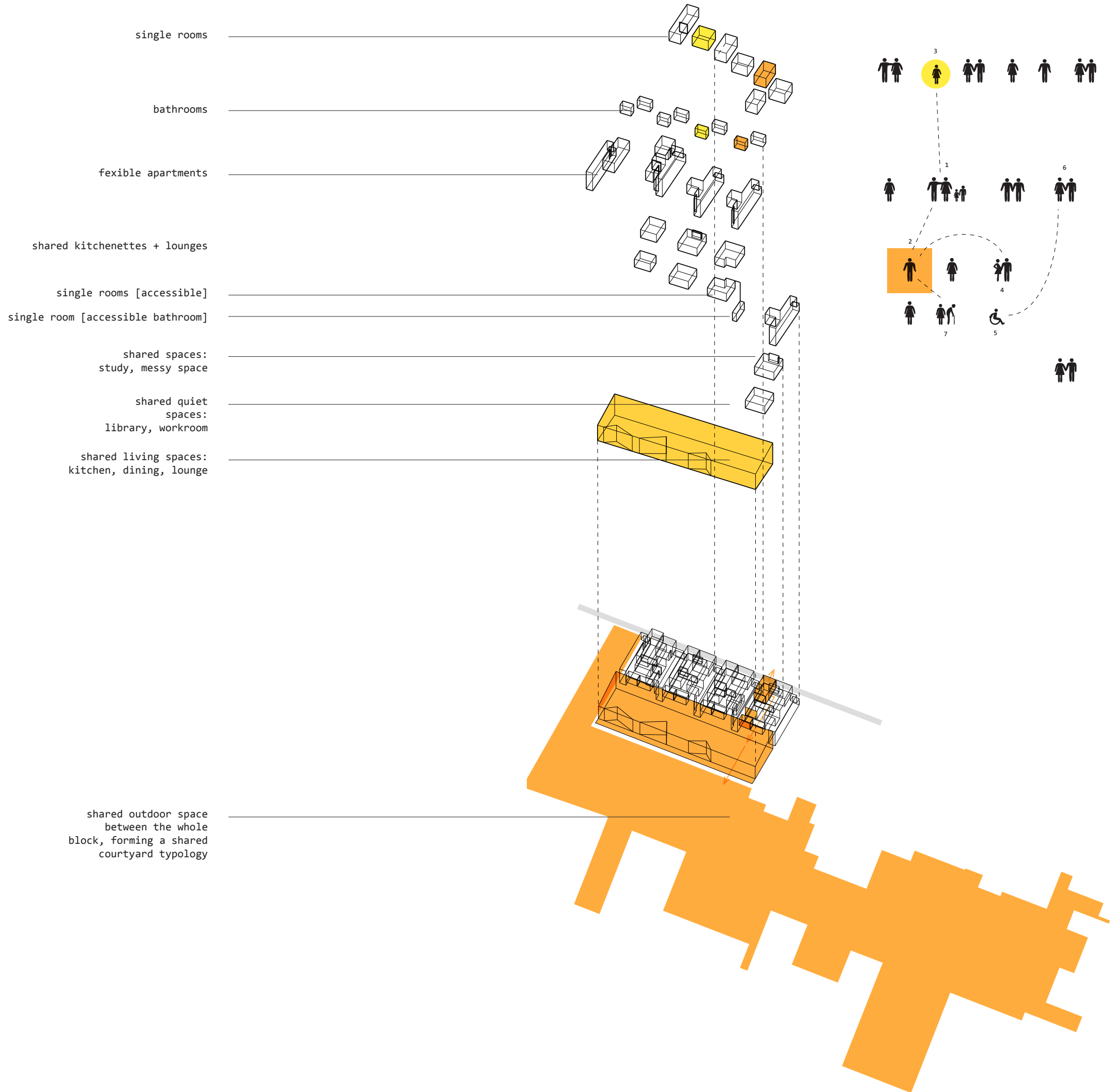


(4.4.4)  
New entry between the buildings

The glazed section sits between the character facades, providing a light structure between the houses. The chunky, angled window relief creates diffuse and directional light into the liminal living spaces. The doorways are a standard size and arrangement; the chunky light-diffusing wall can be tailored to fit between.



(4.4.5)  
Elevation to Wilson Street @ 1:100



single rooms

bathrooms

flexible apartments

shared kitchenettes + lounges

single rooms [accessible]

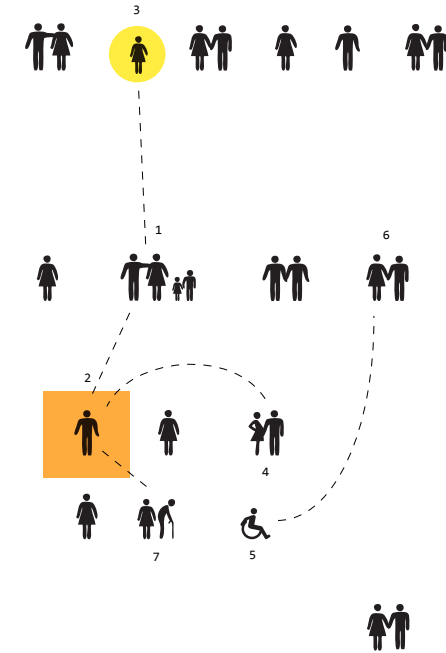
single room [accessible bathroom]

shared spaces:  
study, messy space

shared quiet  
spaces:  
library, workroom

shared living spaces:  
kitchen, dining, lounge

shared outdoor space  
between the whole  
block, forming a shared  
courtyard typology



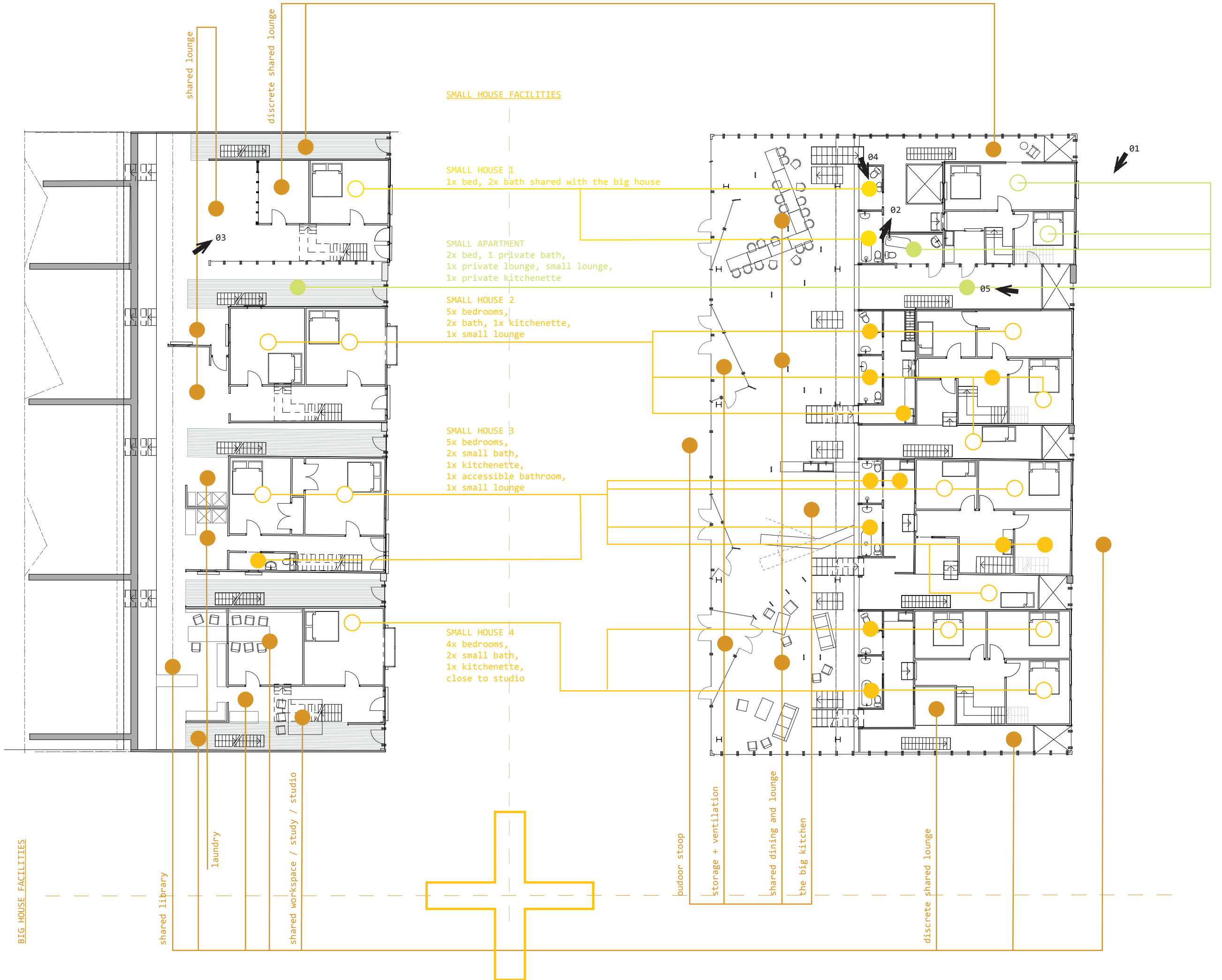
- 1 Young family with three children aged 9, 4 and 3...
- 2 ...The oldest child has just been given her own room.
- 3 This man owns his own business, usually working from home. He knows the father of the family above as they both went to university together. They flatted together before.
- 4 This is the man's twin brother. He has recently moved in with his pregnant girlfriend.
- 5 This man needs a live-at-home caregiver since a car accident 3 years ago.
- 6 She is an at-home caregiver, and he works at a local IT company
- 7 This elderly couple live in the accessible apartment. They are the 3rd man's father and step-mother.

(4.4.6)  
Expanded axonometric diagram of the new dwelling,  
with suggested inhabitation.

The dwelling can accommodate a diverse range of demographics and a vast range of household types. Neither the rooms nor the original houses can the number of households, as this is envisioned as a flexible, changing definition of the groups of inhabitants.

(4.4.7)  
The big house + the small houses

Each with soft boundaries to the common spaces. The opportunity for spaces that could not be accommodated in the single family dwellings such as a library and studio are included.



SMALL HOUSE FACILITIES

SMALL HOUSE 1  
1x bed, 2x bath shared with the big house

SMALL APARTMENT  
2x bed, 1 private bath,  
1x private lounge, small lounge,  
1x private kitchenette

SMALL HOUSE 2  
5x bedrooms,  
2x bath, 1x kitchenette,  
1x small lounge

SMALL HOUSE 3  
5x bedrooms,  
2x small bath,  
1x kitchenette,  
1x accessible bathroom,  
1x small lounge

SMALL HOUSE 4  
4x bedrooms,  
2x small bath,  
1x kitchenette,  
close to studio

BIG HOUSE FACILITIES

shared library

laundry

shared workspace / study / studio

pudoor stoop

storage + ventilation

shared dining and lounge

the big kitchen

discrete shared lounge

shared lounge

discrete shared lounge

03

04

02

05

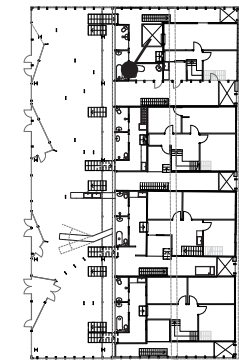
01



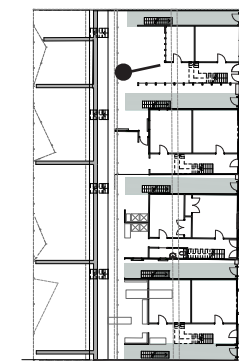


(4.4.8)  
Shared space between the original  
houses and the bathrooms.

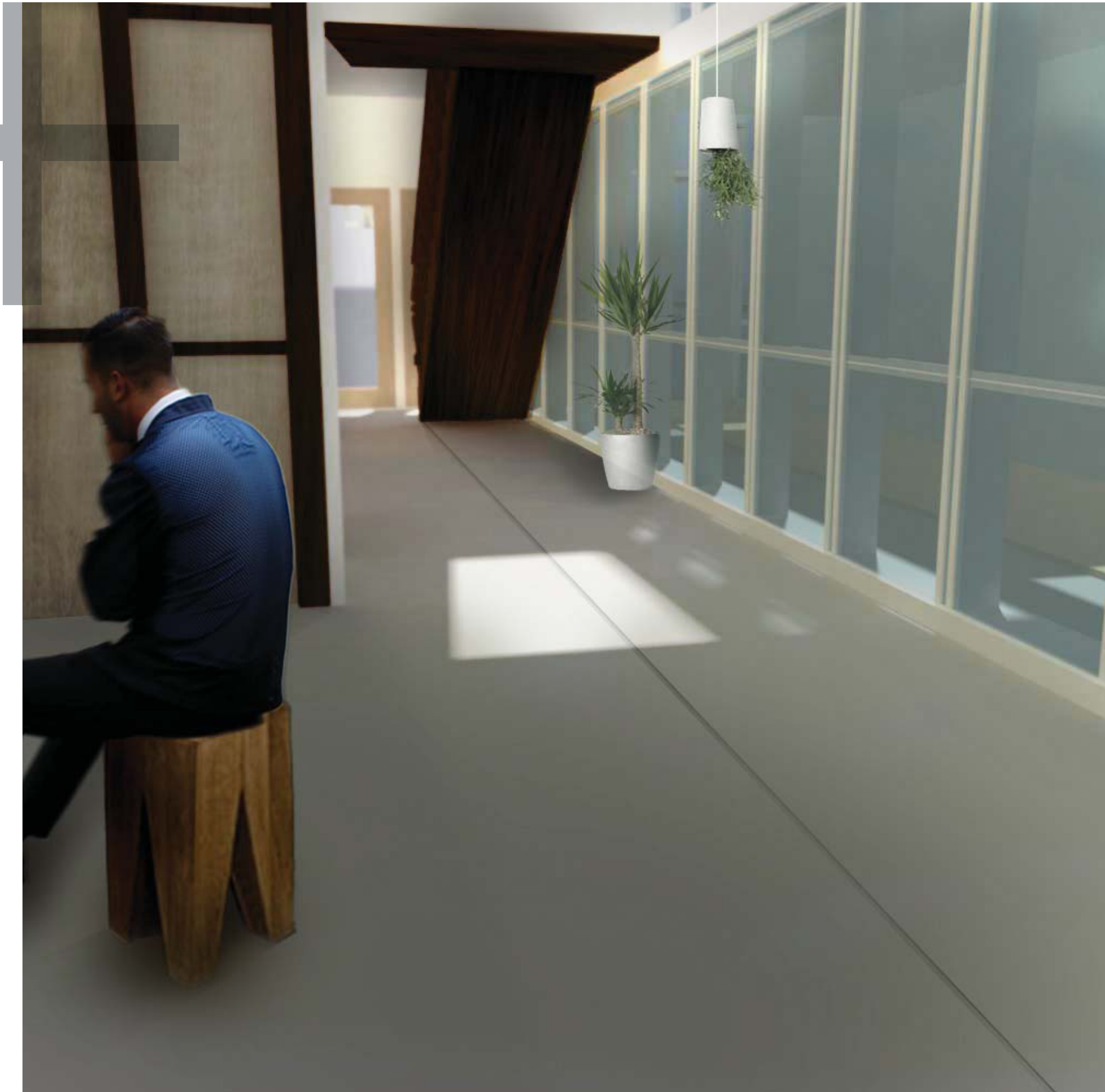
Light enters from the clearstorey  
above, highlighting perspex sections  
that carry wiring and necessary  
services, separated from the walls. The  
original joinery and aged weatherboards  
are kept for their patina, contrasted  
against the slim, light, delicate steel  
balconies and soft, white interior. The  
new addition acts as a light frame for  
the character fabric.



first

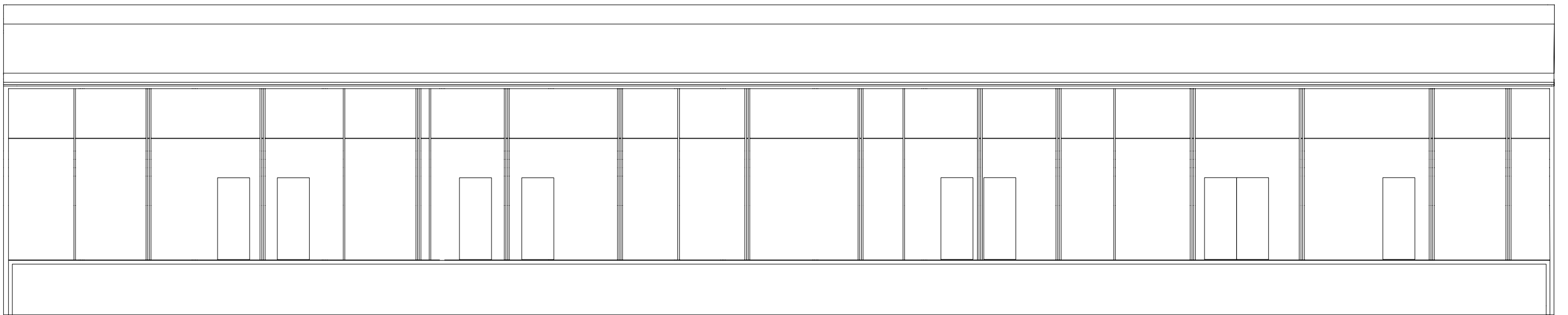


ground



(4.4.9)  
A shared lounge on the lower floor has scratched the surface of the original building a further; a damaged wall of the villa has been replaced with curtain glazing to allow light into the dark corridor. The original staircase is retained, and the studs in the original house are revealed.

Areas for repose and temporary quietness and privacy can be negotiated in this new, wider, shared hallway.





(4.4.10)

Elevation to the shared green space @ 1:100

The rhythm of the facade describes the structure from the original villas and the resulting divisions of space. Multiple access points allow for stoop-style inhabitation of the facade

(4.4.11)

View inside the 'big house' space.

The shared dining, kitchen and lounge space are loosely defined by flat columns, allowing small gatherings or large ones to take place





(4.4.12)

A shared bathroom

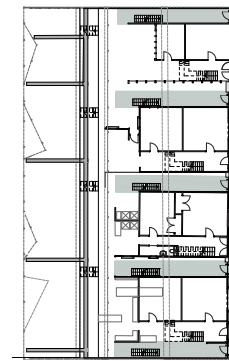
The plumbing inside the bathrooms and the kitchen spaces is visually linked. The plumbing becomes a visual connector to the other inhabitants and the communal nature of the dwelling

(4.4.13)

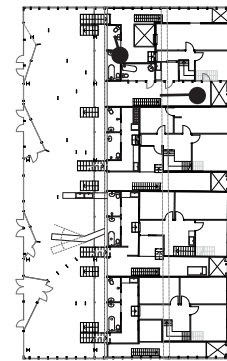
Upstairs in the between-house apartment

The rooms between the original houses become light, airy extensions to the dark villa houses. An intimate space for one or a couple, the upstairs looks over the communal space, with access to a kitchenette on the upper level and shared bathrooms with baths.

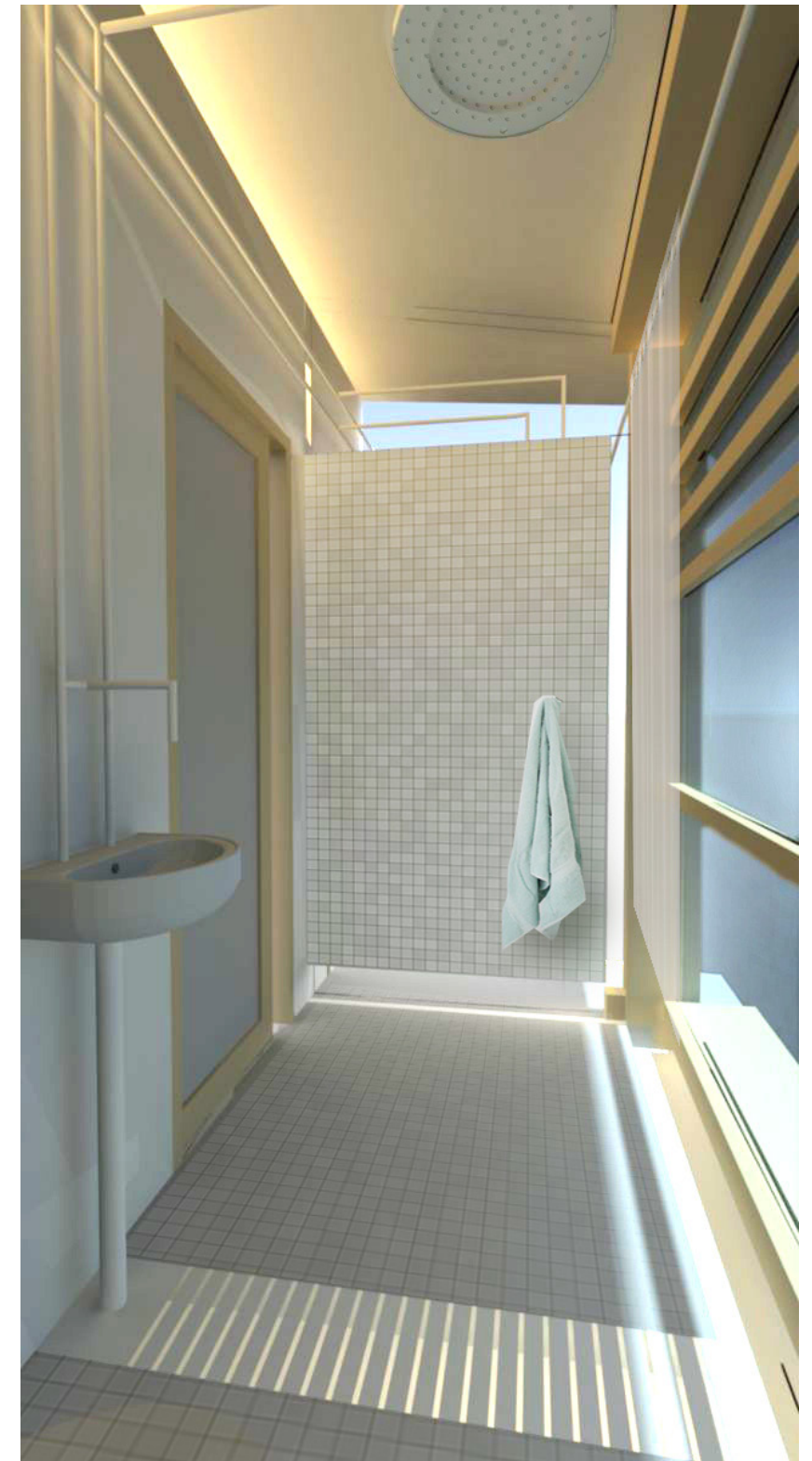
Living between the old houses is not hidden with new texture and materials; the patina of the weatherboards frames the new interior space.



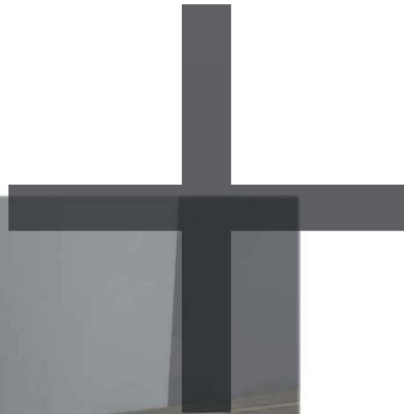
ground



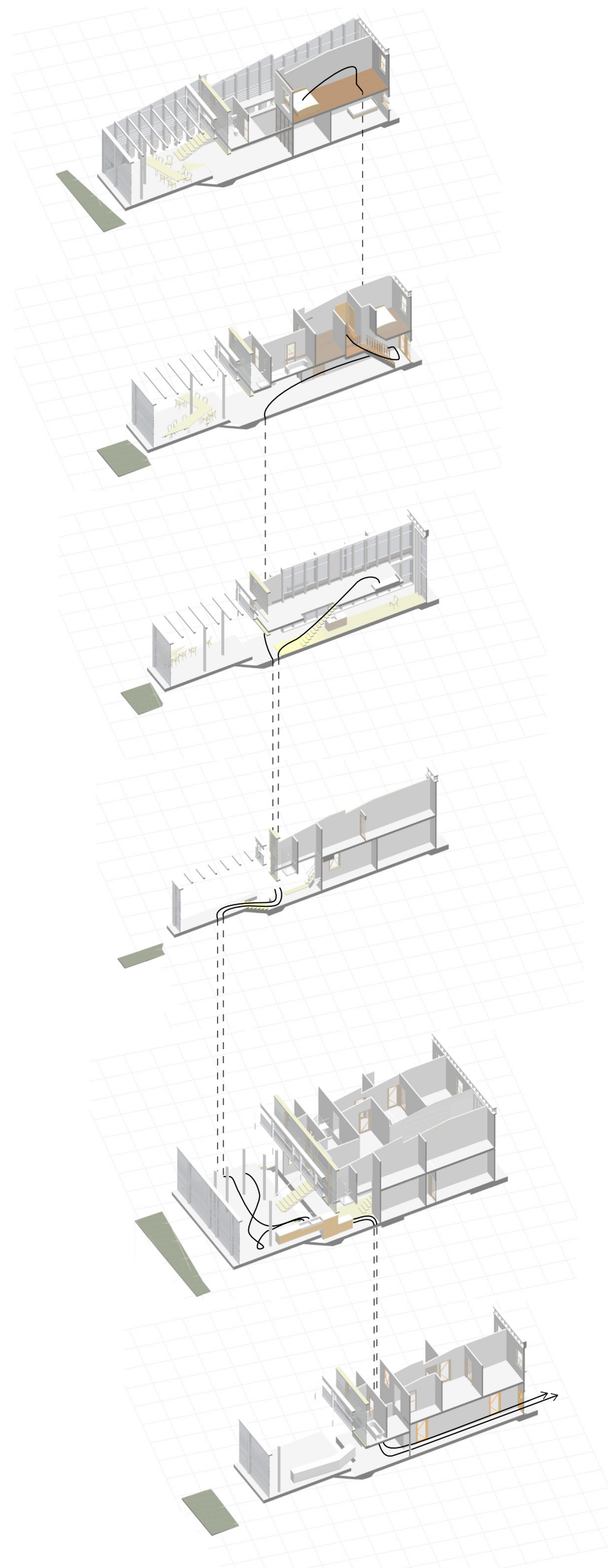
first











+ wake up in villa bedroom

+ descend villa staircase

+ guests wake up in spare bedroom

+ both people make their way to the big kitchen

+ breakfast is shared with others in the house

+ both people leave together to go to work

(4.4.15)

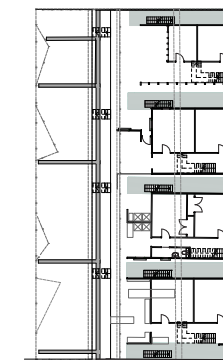
The big house

The shared kitchen, dining and connected living / amenity spaces connect the original houses together while allowing for temporary privacy and soft thresholds to define spaces. The split kitchen level allows for several groups to cook at once or for inhabitants to cook alone;. The bathroom spaces are above with frosted glass and exposed services at the boundary between the bedrooms and the common space.

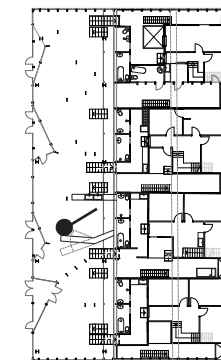
(4.4.16)

Journey through the house

This set of exploded axonometrics shows the morning routine of two inhabitants



ground



first



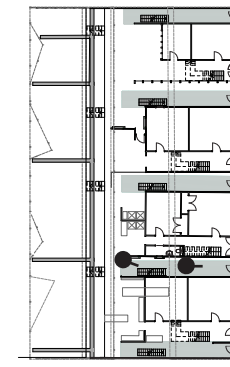




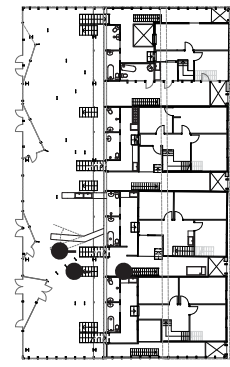
(4.4.17)

The between-rooms in the small house

Showing the spaces that are created between the villas, travelling from the common space and the big house into the secluded, light space which could be used as a bedroom, study space or studio for inhabitants. These flexible, negotiable spaces suit a variety of uses in a character shell.



ground

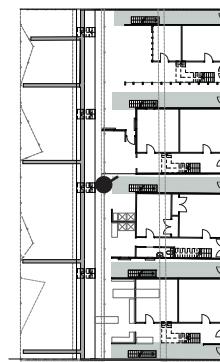


first

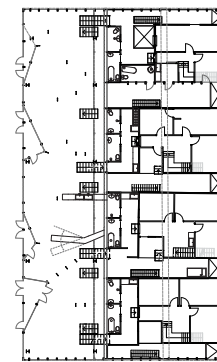
(4.4.18)

The between-rooms in the small house

The small lounges that are created between the open, communal big house and the small houses are for use by all the inhabitants. A more intimate place to relax, a quiet space away from the formality of the open space, this could be a place to invite guests, or act as a family rooms.



ground



first





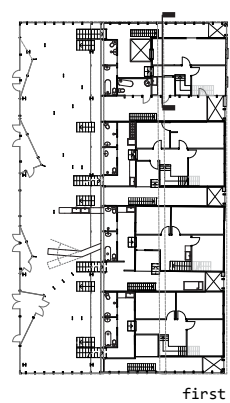
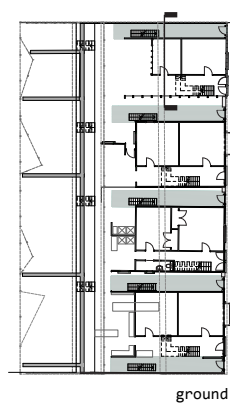




(4.4.19)

Longitudinal section through the apartment

The northernmost rooms form a small apartment, which is envisioned for a larger family or long-term dwellers. including the light between-room and both and up-and down-stairs bedroom and a bathroom (see 4.1.2.30), this apartment is flexible enough for a family or a close group of friends; or could be deconstructed again through use if the inhabitants needed more single bedrooms



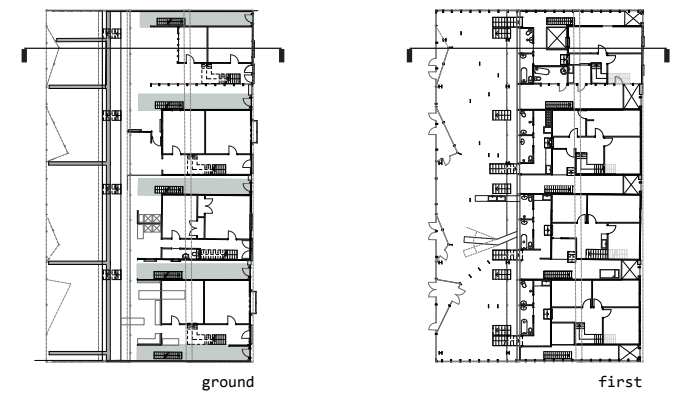
(4.4.20)

Transverse section through the apartment

The connection of the amenities with the perspex lines through the house interrupt the walls of the old houses, contrasting the hidden connections of the villas with a new, exposed connections between the inhabitants. Being exposed in this way, they are easily altered.

The sawtooth roof allows light into the dark bedrooms of the original villas, but also connects both the old and the new spaces, reinforcing a single form.

Raising the floor level of the big house draws a hard line against the communal space and the small intimate lounges. The big house acts as a third condition at the boundary between communality and single family dwellings in the wider inner-suburban landscape.













(4.4.21)

New facade to the communal green space

By taking away the fences and creating an open shared space for the inhabitants on the block and the wider community, a space that could be used for markets, growing vegetables or playing sport is imagined. By separating and framing the house, the green space can be used by all, taking the role of a park rather than a private garden.

#### 4.5 Design conclusion

The existing limits of the single-family, villa typology have been manipulated to form an extension which allows for shared dwelling. By challenging the traditional methods of densification at the material, architectural and urban scale, an alternative way to create higher-density living has been proposed.

Informed by D'Hooghe and Aureli's framing techniques there are many spaces in the house that can adapt to permanent or temporary privacies; allowing the culture of the house to develop around character fabric as well as supermodernist form.

The new dwelling in total is a whole, bounded form - visually perceived as a discrete, monumental entity, and knitted together through patterns of use. It is both old and modern, an object in the suburban landscape and simultaneously an original part of it; a counter-action upon the sprawling nature of single-dwelling suburbia while accommodating the suburbanite's desire for open space.

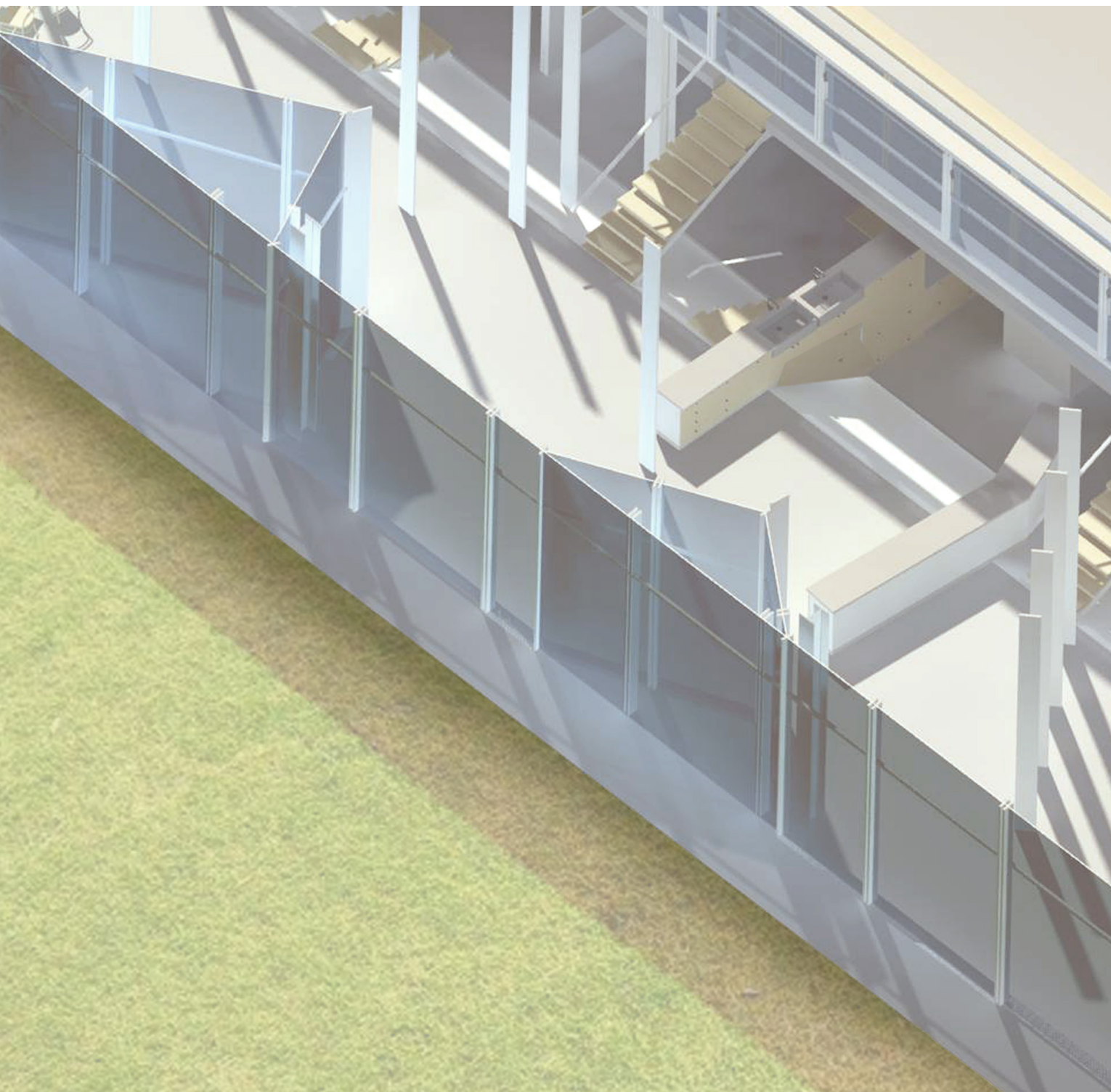
By contrasting the characterful, aged, dark, hidden permanently private spaces of the small houses with the open, light, temporarily and reactive privacies of the big house, multiple privacies which respond to the changing culture in the dwelling are envisioned.

The discussion that Denise Scott-Brown initiated in 1975 can only be addressed through the continued investigation and testing of form in relation to social, political and cultural desires. This thesis maps one such trajectory, proposing a discrete architectural and urban object which accommodates and exemplifies this pluralist, ongoing negotiation.



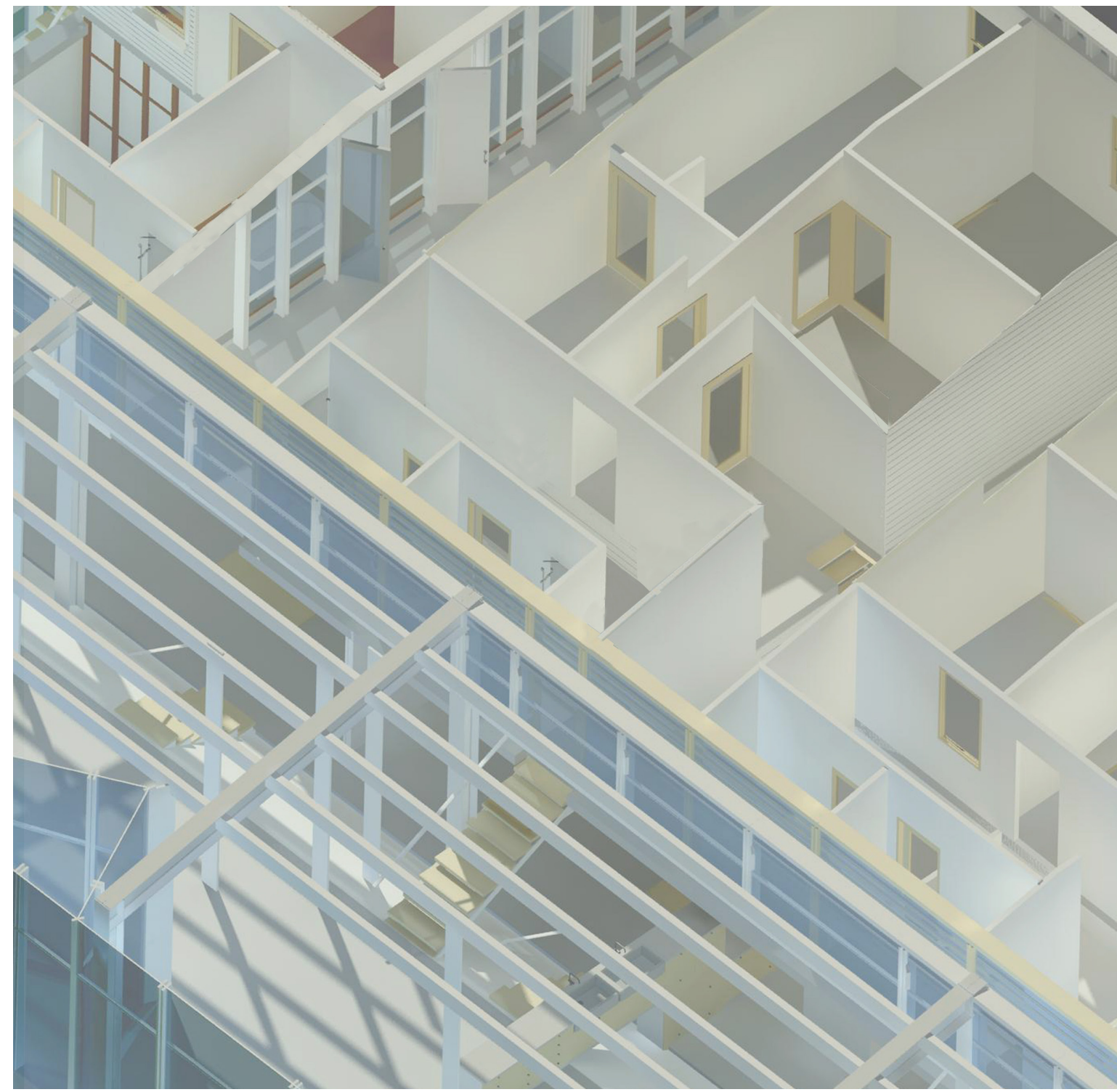
(4.5.1)

Axometric showing the interior  
of the big house without roof



(4.5.2)

Axometric of the cellular small  
houses, contrasting with the open  
big house





2	(1.1.1) expected number of shared dwellings needed by 2030 image by author source material: Page, I. "Branz Study Report: Changing Housing Need." BRANZ, 2007.	14	(2.4.4.3) Elizabeth St townhouses facade source: google streetview, November 2012 <google.com>	26	(2.4.10.8) Exterior view of the Sargfabrik apartments photographer unknown for BKK-3 Architects source: BKK-3, 2005, <www.bkk-3.com/>, accessed Feb 8 2012
1	(1.1.2) 'the shire' as envisioned by Frame, Taylor and Delaney as a viable landcare-future for NZ source material: Page, I. "Branz Study Report: Changing Housing Need." BRANZ, 2007.	15	(2.4.5.1,2,5) Kings Rd House interior source: unknown photographer for visit hollywood. November 2012. <http://www.visit westhollywood.com/arts-culture/mak-center-for-art-architecture/>	26	(2.4.10.9) Sargfabrik Material Palette image by author
3	(1.3.1) typical housing career image by author source material: Page, I. "Branz Study Report: Changing Housing Need." BRANZ, 2007.	15	(2.4.5.1,2,5) Kings Rd House material palette image by author	26	(2.4.10.10) Sargfabrik Urban plan @ 1:1000 image by author
4	(1.5.1) changing household types in New Zealand image by author source material: Statistics_NZ. "Housing Statistics for the Greater Wellington Region." <a href="http://www.stats.govt.nz/housing">http://www. stats.govt.nz/housing</a>	15	(2.4.5.4) services and amenity details source: unknown photographer for MAK centre for Art and Architecture. November 2012. <a href="http://www.myarchn.com/photo/672283:Photo:50024">http://www.myarchn.com/photo/672283:Photo:50024</a>	27-8	(2.4.10.11) Sargfabrik full plans @ 1:400 image by author source: BKK-3, 2005, <www.bkk-3.com/>, accessed Feb 8 2012
5	(1.5.2) confusion of terms [...] in the design profession image by author source: various sources	16	(2.4.6.5) Kings Rd House plans @ 1:200 image by author	29	(2.4.11.1,2) House in Okusawa: Before and After Renovation photographs. photographer for schemata architects, Japan source: schemata architects, 2009. <http://schemata.jp/house-in-okusawa/> accessed July 12 2012
7	(2.0.1) renovated typology, shared dwelling and boundary studies image by author methodological explanation	16	(2.4.6.6) Kings Rd House original drawing R. M Schindler, 1922. Source: <mak.at>, November 2012	29	(2.4.11.3) House in Okusawa: Before and After Renovation image by Author
9	(2.4.1) precedent timeline image by author all case study urban figure/ground studies various sources	16	(2.4.6.7) Kings Rd House urban plan @ 1:1000 image by author source: google streetview, November 2012 <google.com>	30	(2.4.11.4,5,6) Renovated interior of Okusawa house photographs. photographer for schemata architects, Japan source: schemata architects, 2009. <http://schemata.jp/house-in-okusawa/> accessed July 12 2012
11	(2.4.1.1) Altair Development @ 1:1000 Image by author source: Ferreira, Renata. Medium-Density Housing Case Study. January 2012. Ministry for the Environment (NZ). 15 November 2012. <http://www. mfe.govt.nz/publications/urban/medium-density-housing-case-stud ies/medium-density-housing-case-study-wellington.pdf>	17	(2.4.6.1) Yokohama Apartments plans (nts) image by author source: Kaltenbach, Christopher. "Long Section: Free Space." MARK, 2012.	30	(2.4.11.7) House in Okusawa: Before Renovation image by author. source: schemata architects, 2009. <http://schemata.jp/house-in-okusawa/> accessed July 12 2012
11	(2.4.1.2) Altair Development @ 1:200 Image by author source: Ferreira, Renata. Medium-Density Housing Case Study. January 2012. Ministry for the Environment (NZ). 15 November 2012. <http://www. mfe.govt.nz/publications/urban/medium-density-housing-case-stud ies/medium-density-housing-case-study-wellington.pdf>	17	(2.4.6.2) Yokohama Apartments material palette image by author source: Kaltenbach, Christopher. "Long Section: Free Space." MARK, 2012	30	(2.4.11.8) House in Okusawa: After Renovation image by author. source: schemata architects, 2009. <http://schemata.jp/house-in-okusawa/> accessed July 12 2012
11	(2.4.1.3,4,5) photos of the Altair development unknown photographer for tommys.co.nz. Altair your life. trademe, NZ. trademe. Web. 15 November 2012. <http://www.trademe.co.nz/property/residential- property-for-sale/auction-568217378.htm>	18	(2.4.6.3,4,5) Yokohama Apartments Photographs. photographer unknown, for MARK magazine. "Long Section: Free Space." MARK, 2012	31	(2.4.12.1) 1:100 plan of KAIT Drawing. source: Kanagawa Institute of Technology Workshop, Lotus International, 138 June 2009. 27.
11	(2.4.1.6,7) photos of the Altair development unknown photographer for Architecture+. Altair. Architecture+, NZ. Architecture+. Web. 15 November 2012. <http://www.architecture plus.co.nz/multi/altair/>	18	(2.4.6.6) Yokohama Apartments section (nts) source: Kaltenbach, Christopher. "Long Section: Free Space." MARK, 2012	31	(2.4.12.2) sketches from the design of KAIT Drawing. source: Kanagawa Institute of Technology Workshop, Lotus International, 138 June 2009. 27.
12	(2.4.2.1,2,3,4) renders of the nouvo development renders created for nouvo. The Kitchen, Courtyard, Parking area, Apartment building. Web. November 2012. <http://nouvo.co.nz/>	19	(2.4.7.1) Svartlamoen material palette image by author source: <http://www.bkark.no/projects/svartlamoen-housing/> November 2012	32	(2.4.12.3,4,5) Views into the KAIT building Photographs. Iwan Baan. source: Kanagawa Institute of Technology Workshop, Lotus International, 138 June 2009. 27.
12	(2.4.2.5) First Floor of Nouvo townhouses image by Author source: <http://nouvo.co.nz/>	19	(2.4.7.2,3,4) Svartlamoen interior and exterior views Photographs, photographer unknown. For bkark Architects. source: <http://www.bkark.no/projects/svartlamoen-housing/> November 2012	32	(2.4.12.6,7) Views into the KAIT building Sketches by Junya Ishigami and design team. source: Update on KAIT. archdaily. <http://www.archdaily.com/67294/update- kanagawainstitute-of-technology-workshop-junya-ishigami/> accessed 10 Dec 2012
13	(2.4.3.1) Street view of Mien Street townhouses image by author source: google streetview, November 2012 <google.com>	20	(2.4.7.5,6) Svartlamoen plan @ 1:200, section @ 1:200 images by author source: Ferré, Albert & Tihamér Hazarja Salij (eds) Total Housing. ACTAR 2010.	33	(2.4.13.1,2,3,4,5,6,7,8) Views inside 123 Daniell Street Photographs. All taken by the author. 22 Jan 2013.
13	(2.4.3.2) Urban fabric surrounding Mien Street townhouses @ 1:1000 image by author source: google streetview, November 2012 <google.com>	20	(2.4.7.7) Svartlamoen urban plan @ 1:1000 images by author source: Ferré, Albert & Tihamér Hazarja Salij (eds) Total Housing. ACTAR 2010.	34	(2.4.13.9) plans of the Daniell Street townhouses, (nts) various sources. Wellington City Archives
13	(2.4.3.3,4) plans of Mien Street houses @ 1:200 image by author source: Wellington City Archives	21	(2.4.8.1,2,3,4) Teufen shared dwellings plan @ 1:200 images by author source: Ferré, Albert & Tihamér Hazarja Salij (eds) Total Housing. ACTAR 2010.	39	(3.5.1) public to private gradient Diagram by KTA source: kta. Community housing project, Melbourne. <http://kerstinthompson.com/ index.php?id=72>, accessed 29 Jan 2013
14	(2.4.4.1) elizabeth st townhouses urban plan @ 1:1000 image by author source: google streetview, November 2012 <google.com>	21	(2.4.8.5,6,7) Photographs of Teufen shared dwelling photographs. unknown photographer for c.h.w. unknown. "Covas Hunkeler Wyss " <a href="http://www.chw-arch.ch">www.chw-arch.ch</a> , accessed Feb 12 2012	39	(3.5.2) kitchen as public-most space Diagram by KTA source: kta. Community housing project, Melbourne. <http://kerstinthompson.com/ index.php?id=72>, accessed 29 Jan 2013
14	(2.4.4.2) elizabeth st townhouses plans @ 1:200 image by author source: Wellington City Archives	22	(2.4.8.8) Urban plan of Teufen Shared dwelling @ 1:1000 images by author source: Ferré, Albert & Tihamér Hazarja Salij (eds) Total Housing. ACTAR 2010.	42	(3.6.1) Non-figural language source: "Stop City - Imposing the Limit." <a href="http://www.collagelab.org/stop-city-&lt;br/&gt;imposing-the-limit/">http://www.collagelab.org/stop-city- imposing-the-limit/</a> . 2010. 12 May 2011
		22	(2.4.8.8) Transverse section through Teufen Shared dwelling (nts) images by author source: Ferré, Albert & Tihamér Hazarja Salij (eds) Total Housing. ACTAR 2010.	42	(3.6.2) Building site emphasis source: Aureli, Pier Vittorio. The Possibility of an Absolute Architecture. Writing Architecture Series. edited by Cynthia Davidson Cambridge, Matt & London, England: Anyone Corp., 2011.
		23	(2.4.9.1,2,4,5,6) Jystrup Savvaerk interior and exterior photographs photographs. Photographer: 'seier+seier' source: seier+seier, <http://www.flickr.com/photos/seier/>,accessed Jan. 2012	42	(3.6.3) The absent centre source: Aureli, Pier Vittorio. The Possibility of an Absolute Architecture. Writing Architecture Series. edited by Cynthia Davidson Cambridge, Matt & London, England: Anyone Corp., 2011.
		24	(2.4.9.3) Jystrup Savvaerk material palette image by author	42	(3.6.2) infrastructure as object (/monument) screen-shot. source: unknown designer for Organisation for permanent modernity. DVDP project, <ongpermod.com>, 15 May 2011
		24	(2.4.9.7) Jystrup Savvaerk Section image by author source: seier+seier, flickr. <http://www.flickr.com/photos/seier/>,accessed Jan 2 2012		
		24	(2.4.9.8) Jystrup Savvaerk ground floor plan @ 1:400 image by author source: vankunsten archchitects, 1983. <www.vandkunsten.com/>, accessed Jan 2 2012		
		25	(2.4.10.1,2,3,4,5,6) Interior views of the Sargfabrik apartments photographer unknown for BKK-3 Architects source: BKK-3, 2005, <www.bkk-3.com/>, accessed Feb 8 2012		
		25	(2.4.10.7) Exterior view of the Sargfabrik apartments photographer unknown for BKK-3 Architects source: BKK-3, 2005, <www.bkk-3.com/>, accessed Feb 8 2012		

47	(4.1.1.1) 1888 map of Wellington's roads and subdivisions source: 1888. From: Wellington [N.Z.] : F.H. Tronson, 1888. By: Tronson, F. Harold (Fairlie Harold), < <a href="http://natlib.govt.nz/records/">http://natlib.govt.nz/records/</a> > accessed 22 April 2013	80	(4.4.16) Journey through the house : Morning routine image by author
48	(4.1.1.2) Walking distances as urban location of site map (nts) image by author source : Google maps	81	(4.4.17) The between-rooms in the small house : moving to privacy image by author
48	(4.1.1.3,4) Wellington's roading network and topological ridges (nts) image by author	83	(4.4.18) the between-rooms in the small house : the small lounge image by author
49	(4.1.2.1) Traditional densification image by author	85	(4.4.19) Longitudinal section through the apartment image by author
50	(4.1.2.2) Alternative Densification image by author	88	(4.4.20) Transverse section through the apartment image by author
52	(4.1.2.3) Intensification and overcrowding image by author	89	(4.4.21) New facade to the communal garden space image by author
53	(4.1.3.1) Urban settlement patterns: Thomas Ward Map Ward, Thomas. Wellington city archives. < <a href="http://wellington.govt.nz/your-council/archives/whats-in-the-archives/historic-thomas-ward-maps">http://wellington.govt.nz/your-council/archives/whats-in-the-archives/historic-thomas-ward-maps</a> > accessed 18 march 2012	92	(4.5.1) Axonometric view showing the extension without the roof image by author
53	(4.1.3.2) Urban Settlement patterns: Current Site Google earth image. nts.	92	(4.5.2) Axonometric of the cellular, small-grained small house contrasted with the big house image by author
54	(4.1.3.3,4) Open spaces and public open spaces image by author, nts.	98	(6.1.1) September review image by author
55	(4.1.4.1) development of land uses and resultant underused spaces image by author, nts	99	(6.1.2) Development of the small houses : testing limits image by author
57	(4.1.4.2) The houses in their current condition. Plans, nts. images and photographs by author	100	(6.1.3) Development of the big house : testing limits image by author
59	(4.2.1) The houses in their current condition: Access and public spaces images by author	101	(6.1.4) investigation into light as limit image by author
60	(4.2.2) The houses in their current condition: Access and amenity spaces images by author	102	(6.1.5) two faces: the removal of the facade image by author
61	(4.2.3) The houses in their current condition: Access and amenity patterns images by the author		
62	(4.2.4) The houses in their current condition: Opportunities to join dwellings images by the author		
63	(4.3.1) The houses in their current condition: 19 dwellers images by the author		
63	(4.3.2,3,4,5) Urban Development of typology (2013-2060) images by the author		
66	(4.4.1) Existing limits of the villas inform new design mechanisms image by the author		
67	(4.4.2) New facade to Wilson Street image by the author		
68	(4.4.3) Plans at 1:200 image by the author		
69	(4.4.4) Material study: New entry between the buildings image by the author		
70	(4.4.5) Elevation to Wilson Street @ 1:100 image by the author		
71	(4.4.6) Expanded axonometric diagram of the new building image by the author		
72	(4.4.7) the big house + the small houses image by the author		
73	(4.4.8) Shared space between the original houses and the bathrooms image by the author		
74	(4.4.9) Shared lounge on the lower floor image by the author		
75	(4.4.10) facade to the communal green space @1:100 image by author		
76	(4.4.11) view inside the big house image by author		
77	(4.4.12) A shared bathroom image by author		
78	(4.4.13) Upstairs in the between-house apartment image by author		
79	(4.4.15) The big house image by author		

ArchDaily. "House in Okusawa / Schemata Architects." <http://www.archdaily.com/271350/house-in-okusawa-schemata-architects/>.

architecture+. "Projects: The Altair." <http://www.architectureplus.co.nz/multi/altair/>.

ArchPlus. "Arch+ 158: Houses on Demand." <http://www.archplus.net/home/archiv/ausgabe/46,158,1,0.html>.

Augé, Marc. *Non-Places : Introduction to an Anthropology of Supermodernity* Translated by John Howe. London, New York: Verso, 1995.

Aureli, Pier Vittorio. *The Possibility of an Absolute Architecture*. Writing Architecture Series. edited by Cynthia Davidson Cambridge, MA & London, England: Anyone Corp., 2011.

———. "The Theology of Tabula Rasa: Walter Benjamin and Architecture in the Age of Precarity." *Log* 27 (2013).

———. "Who Is Afraid of the Form / Object? : Architecture and Content." *Log* 3 (2004).

Aureli, Pier Vittorio & Martino Tattara. "Dogma."

———. "Stop City – Imposing the Limit." <http://www.collagelab.org/stop-city-imposing-the-limit/> (2010)

Brooker, G & Sally Stone. *Rereadings: Interior Architecture and the Design Principles of Remodelling Existing Buildings*. RIBA Enterprises, 2004.

center, MAK. "Mak Center for Art and Architecture." <http://www.makcenter.org>.

Chermayeff, Serge & Christopher Alexander. *Community and Privacy : Toward a New Architecture of Humanism*. Garden City, N.Y: Doubleday Anchor book, 1965.

Clark, Roger & Michael Pause. *Precedents in Architecture: Analytic Diagrams, Formative Ideas and Partis*. 3 ed. Hoboken, New Jersey: John Wiley & Sons, 2005.

consumerbuild.co.nz. "Land Titles." Ministry of Business, Innovation & Employment and Consumer NZ, <http://www.consumerbuild.org.nz/publish/legal/legal-other-pimsland.php>.

D'Hooghe, Alexander. *The Liberal Monument: Urban Design and the Late Modern Project*. New York: Princeton Architectural Press, 2010.

D'Hooghe, Alexander & Luke Peeters. *Suburban Formology: Forms to Organise Infrastructural Logistics*. London: Architectural Association 2012.

David Turner, John Hewitt, Cesar Wagner, Bin Su, Kathryn Davies. "A Report on Best Practice in Medium Density Housing Design." 2004.

Deamer, Peggy. "The Everyday and the Utopian." In *Architecture and the Everyday*, edited by Deborah & Steven Harris Berke. San Francisco: Chronicle Books, 1997.

Dehli\_Village\_Community. "Dehli Village: Legal." <http://delhivillage.org.nz/legal/>.

Douglas, Mary. "The Idea of a Home: A Kind of Space." *Social Research* 58, no. 1 (1991): 287-307.

Ferre, Albert & Tihamer Salij, ed. *Total Housing*: Actar, 2010.

Ferreira, Renata. "Medium-Density Housing Case Study: The Altair, Wellington." Ministry for the Environment, 2012.

Fitz, Angelika "Wohnmodelle: Housing Models, Experimentation and Everyday Life." <http://www.wohnmodelle.at/index.php?id=90,81,0,0,1,0>.

Foucault, Michel. "Discourse on Language." Translated by A.M. Sheridan Smith. In *The Archaeology of Knowledge and the Discourse on Language*. New York: Pantheon Books, 1972.

Fowler, Justin. "Agonism, Consensus, and the Exception: On the Newest Monumentalists." In *The New Urban Question: Urbanism beyond Neo-Liberalism*. Delft, Netherlands, 2009.

Fromm, Dorit. *Collaborative Communities: Cohousing, Central Living and Other New Forms of Housing*. New York: Van Nostrand Reinhold, 1991.

Georgiou, Michael. "Architectural Privacy: A Topological Approach to Relational Design Problems." UCL, 2006.

Georgiou, Myria. *Diaspora, Identity, and the Media : Diasporic Transnationalism and Mediated Spatialities* Cresskill, N.J., USA: Hampton Press, 2006.

Gibson, Eloise. "You're Never Too Old to Go Flatting." [stuff.co.nz](http://stuff.co.nz), 27/04/20z13 2013.

Gilles, Abby "Flexibility, Perseverance Home Hunters Friends." *NZ Herald*, 2012.

Hajer, Maarten & Arnold Reijndorp. *In Search of New Public Domain*. Rotterdam: NAI Publishers, 2001.

Hays, Michael. "Introduction to 'on Architectural Formalism and Social Concern: A Discourse for Social Planners and Radical Chic Architects'" In *Oppositions Reader: Selected Essays 1973-1984*, edited by Michael Hays: Princeton Architectural Press, 1999.

Hirsch, Nicholas. *On Boundaries*. New York: Lukas & Sternberg, 2007.

Hurnaus, Hertha. "Miss Sargfabrik." 10/07/12.

Inner\_City\_Association. "Ica Submission to Mbie's Building Seismic Performance Consultation." <http://ica.org.nz/tag/earthquake-prone-buildings/>.

Jarvis, Helen. "Saving Space, Sharing Time: Integrated Infrastructures of Daily Life in Cohousing." *Environment and Planning* 43 (2010): 560-77.

Kaltenbach, Christopher. "Long Section: Free Space." MARK, 2012.

Kent, Susan. *Domestic Architecture and the Use of Space: An Interdisciplinary Cross-Cultural Study*. Cambridge University Press, 1993.

Kim, Grace. "Designing the Cohousing Common House." University of Washington, 2006.

———. "A Retrospective of Danish Cohousing: Schemata Workshop." In *National Cohousing Conference*. USA, 2008.

Kim, Ransoo. "The Tectonically Defining Space of Mies Van Der Rohe." *arq* 13, no. 3-4 (2009): 251-60.

hta. "Community Housing." 2012. [www.kerstinthompson.com](http://www.kerstinthompson.com), 03/02/12

Law, David. "Boundaries, Privacy and Community." In *Emerging Typologies*, edited London School of Economics, 2011. [http://www2.lse.ac.uk/LSECities/citiesProgramme/pdf/housingAndTheCity/3\\_emerging\\_typologies.pdf](http://www2.lse.ac.uk/LSECities/citiesProgramme/pdf/housingAndTheCity/3_emerging_typologies.pdf).

Leupen, Bernard. *Frame and Generic Space: A Study into the Changable Dwelling*. Rotterdam: 010 Publishers, 2006.

Maher, S L., & McIntosh, J. "Density and Identity: The Place of Sharing and Privacy in Sustainable Housing." In *Sustainable Building Conference - Transforming Our Built Environment*. Auckland, NZ, 2007.

———. "A Shared Sense of Belonging: The Politics of Defining in Sustainable Community Housing Typologies." In *2nd International Conference on Sustainability Engineering and Science*, 1-10. Auckland, New Zealand, 2007.

Maymind, Alex. "Archipelagos: Ungers Vs. Rowe." <http://archinect.com/features/article/58887387/archipelagos-ungers-vs-rowe>, 14/05/12

McCamant, Kathryn & Charles Durrett. *Creating Cohousing : Building Sustainable Communities*. Gabriola Island, BC, USA: New Society Publishers, 2011.

McIntosh, J., Gray, J., & Maher, S. "In Praise of Sharing as a Strategy for Sustainable Housing." *Journal of Green Building* 5, no. 2 (2010).

Middleton-Lajudie, Elina. "Transit: From Postmodernity to Supermodernity." *Rice Paper Winter*, no. 8.1 (2002).

N Bucket, M Jones & N Marston. "Branz 2010 House Condition Survey: Condition Comparison by Tenure." 9, 2010.

Noever, Peter, ed. *Schindler by Mak* Prestel Publishing, 2005.

Page, I. "Branz Study Report: Changing Housing Need." BRANZ, 2007.

Radio\_NZ. "Ideas: Cohousing." Robin Allison. 29/10/10

Remell, Jane, ed. *Taking Place, but Only for So Long*. edited by Doina Petrescu, *Altering Practices*. London: Routledge, 2006.

Robinson, Julia. "Institutional Space, Domestic Space, and Power Relations: Revisiting Territoriality with Space Syntax." Paper presented at the 3rd International Space Syntax Symposium, Atlanta, USA, 2001.

Sargisson, Lucy. *Living in Utopia: New Zealand's Intentional Communities*. Ashgate Publishing, 2004.

Schemata\_Architects. "House in Okusawa." <http://schemata.jp/house-in-okusawa/>.

Scott-Brown, Denis. "On Formalism and Social Concern: A Discourse for Social Planners and Radical Chic Architects." *Oppositions* 5 (1975): 99-112.

Scott-Brown, Denise. "On Architectural Formalism and Social Concern: A Discourse for Social Planners and Radical Chic Architects." In *Oppositions Reader: Selected Essays 1973-1984*, edited by Michael Hays, 320. New York: Princeton Architectural Press, 1998.

Statistics, New Zealand. "About the Census." <http://www.stats.govt.nz/Census/about-2006-census.aspx>, 25/10/11

Statistics\_NZ. "Housing Statistics for the Greater Wellington Region." <http://www.stats.govt.nz/searchresults.aspx?q=wellington%20housing>.

Toomath, W. *Built in New Zealand : The Houses We Live In*. Auckland: Harper Collins Publishers, 1996.

unknown. "Covas Hunkeler Wyss." [www.chw-arch.ch](http://www.chw-arch.ch), 12/02/13

———. "Kanagawa Institute of Technology Workshop, Kanagawa Japan: Junya Ishigami + Associates." *Lotus International* 138 (2009): 27-34.

Virilio, Paul. *The Aesthetics of Disappearance*. Translated by Philip Beitchman. Semiotext(e) Books, 1991.

Williamson, Rebecca. "Flattening Futures : Negotiating Domesticity, Home and Individuality in the New Zealand Flat." Victoria University, 2006.



## 5.1 Some Design Iterations

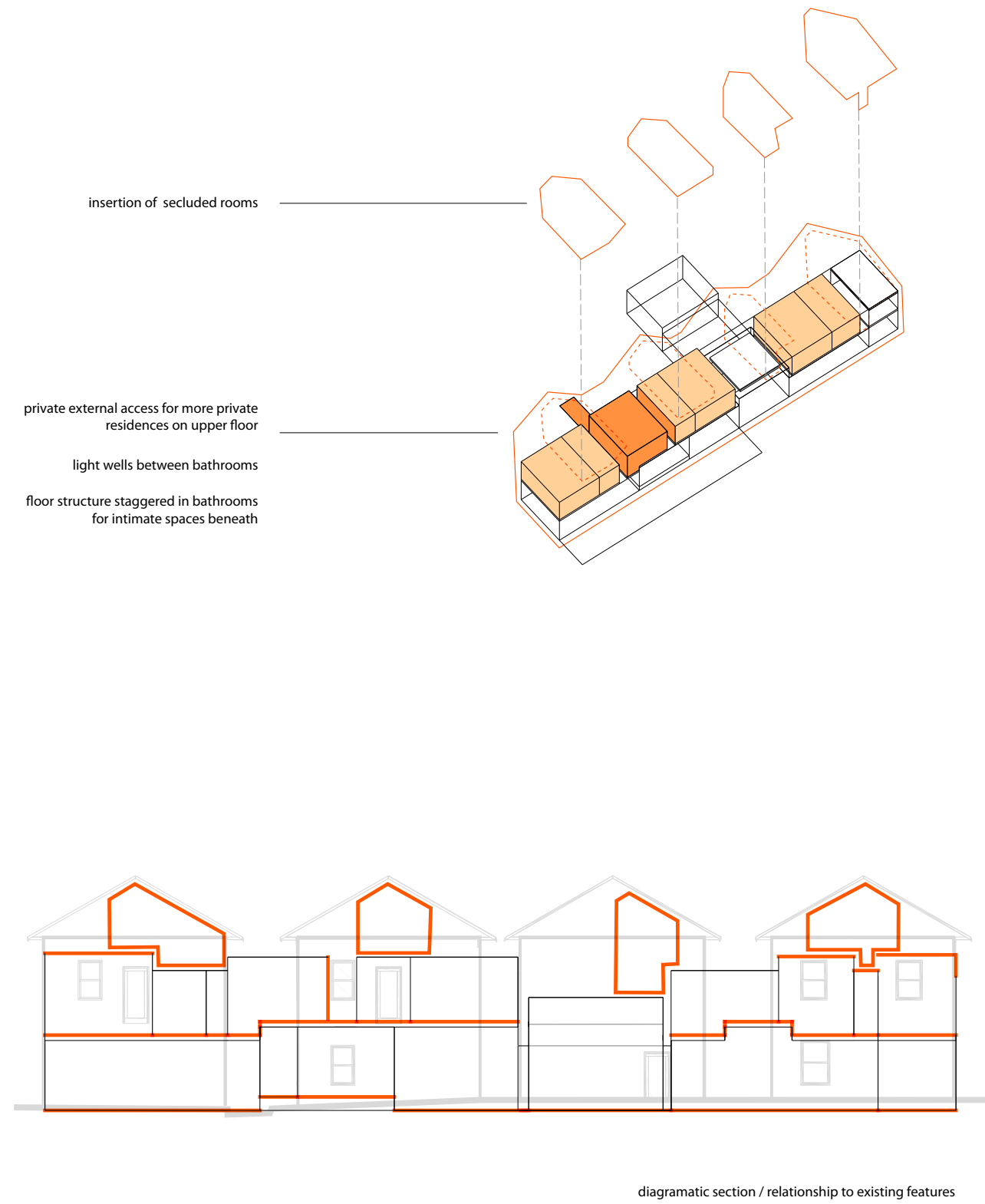
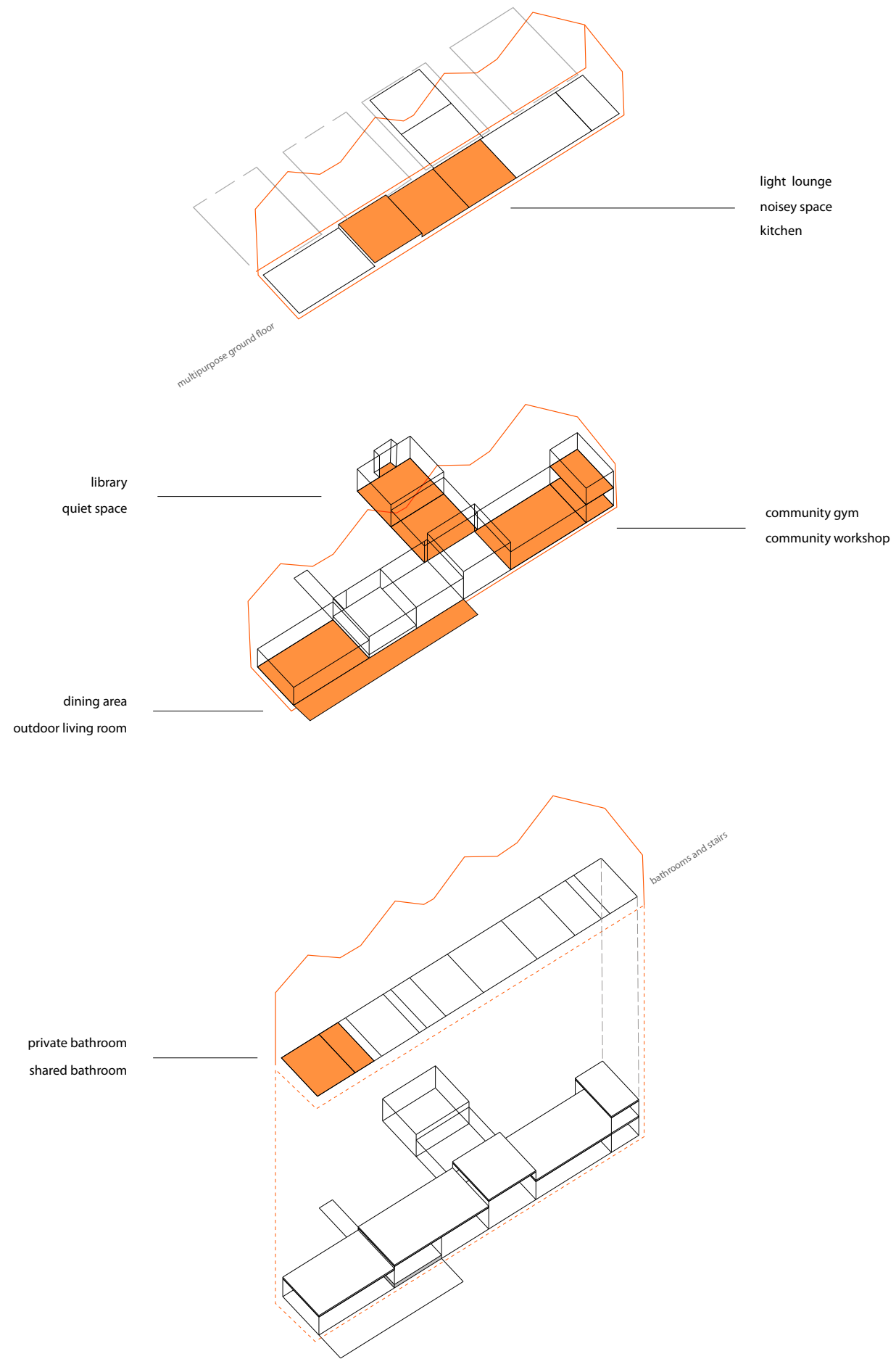
### (5.1.1) September review

Considerations of noise / openness were driving the arrangement of spaces between and behind the existing houses.

The extension of the rear was considered as a common space attached to the house, rather than a formal counterpoint.

The possibility of extension over time into a shared courtyard was also incomplete at this point, meaning the design lacked wider implications for the design problem.

Piecemeal and segmented, the addition seemed to react haphazardly to the existing condition of the houses.







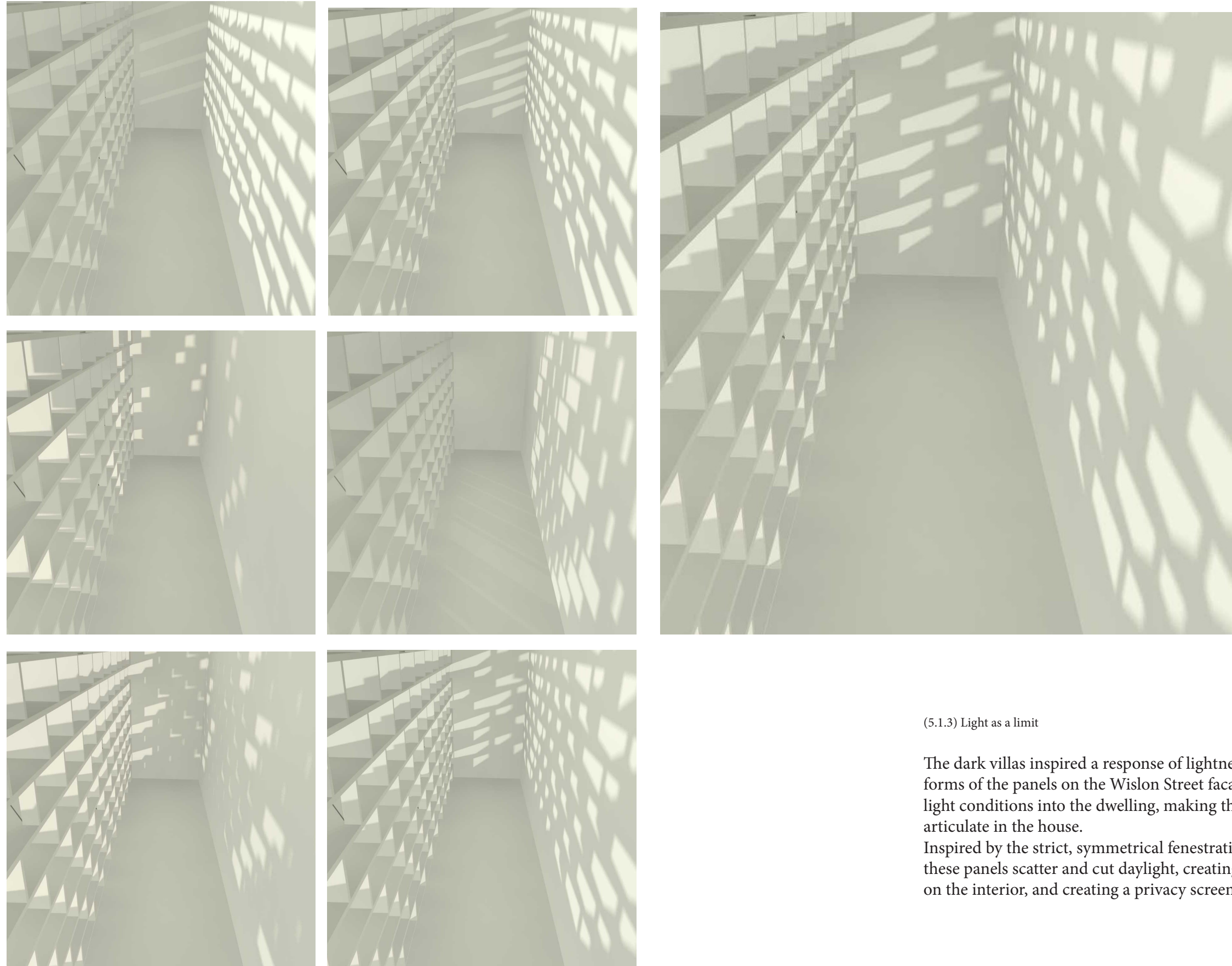
(5.1.2) Developing an alternative language

At this design juncture, ideas of material and space-planning were combining to produce a good counterpoint to the existing villas.

Still proposed in timber, the strong verticals in the louvres and the thin strips between the existing houses were still piecemeal infill rather than coherent formal response.

A deeper investigation into the entryway, the rooflines and the fenestration patterns at both the front and the rear, as well as the decision to follow Aureli and D'Hooghe's ideas of finitude and limit propelled the design on from this stage.





(5.1.3) Light as a limit

The dark villas inspired a response of lightness but delicacy. the strong forms of the panels on the Wislon Street facade invite many different light conditions into the dwelling, making the passing of the day clearly articulate in the house.

Inspired by the strict, symmetrical fenestration patterns of the facades, these panels scatter and cut daylight, creating a wholly different pattern on the interior, and creating a privacy screen for the inhabitants at night.



(5.1.4) Two faces: disappearing facades

This concept involved wrapping all the buildings under a kind of glass case as a museum piece, undermining the facade by adding another; albeit transparent. The slight curve would blur the line between the building and the sky; relegating the old villa image to an apparition.

The consequences for the between-spaces now included a stoop-like space between the new and old facades, but very few other interesting opportunities in terms of negotiating new ways of dwelling inside the original houses.





