

THE 'BREAK' SPACE

Psychological relief in architectural transitional spaces

Master Thesis Explanatory Document

MEGAN DONALDSON

A Research Project submitted in partial fulfillment of the requirements for the degree of Master of Architecture Professional.
Unitec Institute of Technology, 2014

ABSTRACT

With many cities worldwide plagued by issues from unsustainable urban sprawl, a common solution is to densify the existing urban tissue. The live-work typology provides one means for densification, where one would live and work in the same building, having less reliance on non-renewable resources for the commute between.

However, an issue of the live-work typology is the absence of the forced mental respite often provided by a commute between home and work. The focus of this research project is to investigate how the transition spaces of a building could be designed to provide opportunities for psychological respite – where occupants can, through moments of liminality, achieve some relief from typical pressures and vexation in their lives relating to the spheres of home life and work life. The project challenges scepticism towards the live-work typology by adapting the programme to current attitudes, and typical routines making it a more viable and attractive living situation.

This project deals with the reliance on forced respite as a result of commuting between home and work, acknowledging the role this break plays in the 21st century lifestyle. Research into the history of, and current attitudes toward, the live-work typology expose this reliance, suggesting the relevance for the ‘live-nearby’ scenario referring to the thread within the live-work typology where live and work are distanced by a space in-between.

Further research explores the idea of liminality as a seminal notion which could provide the means for psychological relief. Additionally the research draws on surrounding ideas and examples of the in-between space and the

relevant phrase ‘house as a tiny city, city as a huge house’. Concepts from architectural and urban design theory merge in order to develop a network of spatial experiences providing opportunities for psychological retreat.

The project applies relevant theory and analysis to the design of liminal space demonstrating the relevance for a ‘break space’ in architectural works. The project contributes a unique evaluation towards the concept of liminal spaces and psychological relief in live-work programmes.

ACKNOWLEDGEMENTS

I would like to sincerely thank the following people for their continued support:

I would firstly like to thank my parents for their unconditional support of my studies and ambitions. To my mother, Jan Donaldson, I would like to thank you for your input and advice throughout my studies. To my father, Grant Donaldson, I would like to thank for his continued belief in me to conquer my dreams.

I would like to thank Suella Quinn for editorial support and helping me find clarity out of the confusion of ideas swirling around my head.

Thank you to my architecture family; friends, fellow students and lecturers. Thank you for your continued interest and encouragement.

Lastly I would like to thank my extended family and friends, who were sometimes neglected during my architectural studies, for their patience and understanding.

CONTENTS

1.0 INTRODUCTION	9
1.1 Outline of the Project	10
1.2 Research Question	11
1.3 Aims and Objectives	12
1.4 Scope and Limitations	12
2.0 PROJECT DEFINITION	15
2.1 History of Live-Work Typology	16
2.2 Current Attitudes Towards Live-Work	20
2.3 Psychological Relief and Liminality	22
2.4 The In-between Realm	25
2.4.1 Sonsbeek Pavillion	26
2.5 Athfield House and Office	27
2.6 Comparison of Urban Layouts	32
2.7 The Free University, Berlin	35
2.8 The Picturesque	39
2.9 Basis for Design	40
2.9.1 Variety	40
2.9.2 The Poetics of the Encounter	41
3.0 THE BRIEF	43
3.1 Programme	44
3.1.1 Programme Analysis	44
3.2 Intended Occupants	45
3.3 Criteria for Site Selection	45
4.0 THE SITE	47
4.1 Site Location	48
4.2 Site Context and Character	50
4.3 Site Description: Flinders Gate	52
4.4 Laneway Circuit	54
4.5 Circulation and Access	54
4.6 Development Controls	56
4.7 Viewpoints	56
4.8 Sun Study	57
4.9 Climatic Conditions of Melbourne	58

5.0 FORMAL DESIGN CRITERIA	61
5.1 Liminality and Architecture	62
5.2 Organisation of the Living Spaces and the Working Spaces	63
5.3 Circulation	64
5.4 The Journey Between Live and Work	65
5.5 Place Identification	66
6.0 DESIGN RESPONSE	67
6.1 Space Requirements	68
6.2 Response to Site	68
6.2.1 Initial Massing	69
6.2.2 Internal Circulation	70
6.2.3 Access to Buildingv	73
6.3 The Issue of Privacy	74
6.4 Articulation of Routes	74
6.5 Development of Floor Plans	76
7.0 CONCLUSION	79
8.0 BIBLIOGRAPHY	83
9.0 LIST OF FIGURES	87
10.0 APPENDIX	91

1.0 INTRODUCTION

1.1 OUTLINE OF THE PROJECT

As cities around the world continue to grow, urban sprawl becomes a cumulative issue. One problem associated with urban sprawl is the increasing physical distance that many find themselves having to travel between work and home. Many city councils and local governments worldwide have already or are currently having to develop initiatives to densify urban centres to ease the strain on the infrastructure required for sprawling cities, and maintain sustainable living within the city. (Most initiatives centre around improving the ease of living in a city).

The live-work typology provides one possible solution to the issues of urban sprawl and is becoming an increasingly appropriate and viable way of living. The term 'live-work' refers to the situation where the inhabitants live and work within the same building. An attractive benefit of the live-work typology is the time and resources saved due to the elimination of the commute between the two activities. Continual advancements in communication technology also make this typology increasingly viable and practical.

An issue that arises from this typology however, is the elimination of the forced 'break' in daily life. This break refers to the opportunity for respite forced by the commute between live and work on a daily basis. In many situations psychological respite is achieved within this transition between work and home. Berman propounds the importance of having a psychological separation between the two activities as being very pertinent as the ability to switch off and 'refresh' one's mind will allow greater

productivity in the workplace, as well as a healthy, more balanced life in general.¹

Another issue commonly identified with the live-work typology is its tendency to instigate feelings of social isolation for inhabitants. The project proposes an intervention that caters for approximately fifty people to alleviate issues of social isolation. It is contended that the use of transition spaces as the separation between live and work creates a place for casual social interaction – where inhabitants can 'bump into each other' walking between their live spaces, and their work spaces.

This research explores the concept of liminal space, in which liminal refers to the transitional stage of a process. The movement from one activity to another activity with different behavior requirements and 'sets of rules', necessitates mental preparation. The transition from alternate activities requires the readjustment of attention and thoughts in a moment of liminality. The liminal state of mind is where one unwinds from a particular mental state and prepares for the next. It is, in this sense, the psychological transition.

In the liminal moment there are no set rules constricting how one is required to think, act or feel - freedom of thought is prevalent. In the case where there is abrupt movement from one activity to the next, the liminal moment will be rushed, resulting in poor mental preparation for the next activity, often causing stress and inefficiency. Preserving the liminal moment in daily life is a driving theory behind this project. The liminal moment is

¹ E. L. Berman, "Work/Life Balance," *Engineering Management Review*, IEEE 30, no. 4 (2002): 116.

essentially the ‘break’ for the mind from the psychological constraints of home life and work life. Provisions for the enhancement of this moment within daily routines aim to offer the time and space for this moment not only to occur but also to be savoured. The liminal moment is thus the freedom of thought which could provide the means for mental relief.

The history of the live-work typology as well as current attitudes to this way of living have been investigated to further inform this project. For the purposes of this exploration it has been identified that a physical separation is required between the live and the work to achieve a liminal moment within the intervention. The physical separation extends from a singular partition in order for a space to be created in-between the two functions of living and working.

Investigation of liminality and thresholds leads into the exploration of in-between theory, as examined by Dutch Architect Aldo van Eyck. A central theme in his research is the concept of ‘the house as a small city, the city as a large house.’ The idea of configuring buildings as small cities in themselves was originally conceived by Leon Batista Alberti in his seminal treatise ‘De re aedificatoria’.² Hundreds of years later Aldo van Eyck adopted, and expanded on this notion throughout his works.³

The research compares the street layouts of the medieval city, the highly regular urban grid, and the modernist zoned suburb. Analysis of these layouts is used to inform the articulation of the transition spaces within

² Herman Hertzberger, *Space and the Architect: Lessons in Architecture 2*, trans. John Kirkpatrick (Rotterdam: 010 Publishers, 2000), 172.

³ Ibid.

the proposal. Investigation into the ‘Picturesque’ movement reinforces the importance of an enticement to explore within the liminal space. This historical evidence informs the project leading to a more in-depth analysis of the circulation spaces in the chosen precedents; Athfield House and Office in Wellington, New Zealand, and the Free University in Berlin, Germany. Through research and analysis of historical evidence and the precedents, it has been identified that the transitional space, taking the form of a network that is varied and evokes curiosity, can aid in the quest for psychological relief within an architectural work. The transition provides a variety of spatial experiences, akin to a city, giving the user flexibility as to which and when a particular space holds relevance to them.

This research project proposes a live-work solution, situated in central Melbourne, Australia, that focuses on the use of a network to provide the time and space for inhabitants to maximize the liminal moment as a possible means to achieving psychological relief.

1.2 RESEARCH QUESTION

In architecture how might transitional spaces be articulated to provide opportunities for psychological relief within a live-work scenario?

1.3 AIMS AND OBJECTIVES

The aim of this project is to explore how the transitional spaces support psychological relief in a live-work programme, and provide opportunities for the everyday respite necessary for a healthy, balanced lifestyle. The intention of the transitional space between the two activities is to allow the occupants a 'break' from the often stressful constraints that accompany work-life and home-life.

The live-work programme is by no means a new architectural typology. However, this project aims to explore how the traditional notion of live-work can be adapted to the 21st century lifestyle where stress, a common by-product in our lives, is relieved in the building instead of during an external commute. Transitional spaces are used to encapsulate liminality for periodic respite between the two spheres of home-life and work-life. The aim is to design a live-work building that sensitively deals with the reliance on the commute and the time and space that is given for periodic respite between living and working. The intent of this project is to produce a design which explores a space for, or spatial experience of, mental relief for the user.

1.4 SCOPE AND LIMITATIONS

The term 'live-work' is a broad term that is used to explain a range of live-work examples. The terms describe the particular degree of spatial separation within live-work buildings that is; 'live-with', 'live-adjacent', and 'live-nearby'.⁴ The project proposes that occupants will live and work within the same building, in close proximity and deals with the 'live-nearby' category of the live-work typology. Despite being a very old typology the term 'live-work' has only been used to classify this typology since the 1970's. As a consequence of the neglect of live-work through the industrial era there has been little detailed investigation into the history of this building type. This limits the project as "it is difficult to identify the advantages and disadvantages of the different design approaches embodied in these buildings without information on how they functioned in daily use."⁵

While the topic of psychological relief in architecture has not been widely written about, generalized knowledge of psychology has been used as a springboard to investigating architectural concepts such as liminal space and the 'in-between'. The author acknowledges throughout this research project that designing a space in which everyone who enters the space achieves psychological relief is not possible, due to individual differences. However, the scope of this research project is to explore the enhancement of the liminal moment through 'in-between spaces', which could provide the

4 Thomas Dolan, *Live-Work Planning and Design: Zero-Commute Housing*(Hoboken: John Wiley & Sons, 2012), 16.

5 Frances Holliss, "From Longhouse to Live/Work Unit: Parallel Histories and Absent Narratives," in *Built from Below: British Architecture and the Vernacular*, ed. Peter Guillery(New York, USA: Routledge, 2011), 202-03.

means for introspective reflection through alternative spatial experiences and thus the potential for psychological relief.

A busy urban scene has been identified as pertinent for the location of this project. The site located in a metropolitan area provides access to amenities, and reinforces the importance of reducing urban sprawl and resources used in commuting. The research and project definition largely specifies the requirement for a site located within a dense urban area in order for the intervention to sufficiently test the research question. The selected site, located in central Melbourne, Australia meets these criteria.

It is identified in the project that the likely user groups for the building will be small creative businesses. For occupants to be able to achieve psychological retreat but also have opportunities for social interaction it is conceived that the intervention host thirty apartment spaces and thirty small working units. The apartments will range from one to three bedrooms in size catering for approximately sixty people within the whole building. The requirement for the living spaces and the working spaces to be physically separated is significant to this project as this provides the space in-between, in which the 'retreat' can be experienced.

2.0 PROJECT DEFINITION

Live-work refers to; “a building, unit or compound in which residential and work activities are pursued on that same property by most, if not all of the occupants.”⁶ Live-work is a broad term, that describes several different living conditions. The traditional example is the living component and working component within the same unit/entity.

2.1 HISTORY OF LIVE-WORK

The architectural typology of live-work is by no means a new phenomenon. It has existed in many different forms for hundreds of years.⁷ Living next to, or near to work was extremely common practice before the Industrial Revolution. Prior to the development of industrial machinery most people lived in self-sufficient and self-reproducing communities where productive work and domestic work was undifferentiated and indistinguishable.⁸ Before the Industrial Revolution no specific name was given to this building type other than ‘a house’ as working within the home was normal practice. It was not until the 1970s that the term ‘live-work’ came to be used to classify this type of building.⁹

Mass production became popular during the Industrial Revolution, which necessitated the building of factories and led to the emergence of industrial

6 Dolan, *Live-Work Planning and Design: Zero-Commute Housing*, 11.

7 “A Brief History of the Workhome,” A Brief History of the Workhome, ‘last, ‘accessed’ 23 March 2014, <http://www.theworkhome.com/history-workhome/>

8 Holliss, “From Longhouse to Live/Work Unit: Parallel Histories and Absent Narratives,” 191.

9 “A Brief History of the Workhome”.

areas and consequently moved workplaces away from the home. The worker was required to commute between home and work everyday. During this same time period, social reformers decided that working from home was unhealthy and undesirable.¹⁰ This was particularly the case for jobs that created unhygienic environments such as ‘fur-pulling’. Living in close proximity to this type of work caused many inhabitants to become seriously ill and even die.¹¹ While many jobs did not have such detrimental effects on people’s health, zoning plans in the industrial and modernist eras continued to push the home further away from workplaces. Living close to these industrial areas was seen to be harmful to people’s health.



Figure 2.1: Blacksmith working adjacent to living quarters c. 1900



Figure 2.2: Early nineteenth century weavers’ workhome

10 Ibid.

11 Ibid.

Models such as Ebenezer Howard's Garden City were developed which further separated living from working. Garden cities were designed to address the lack of interaction with nature in industrial cities. The concept introduced a band of greenery between the municipal city and the garden city, which required people to commute between the two in order to get from home to work. The Garden City concept influenced modern town planning and separated-use zoning. The effect of the increased separation between living and working added to commuting time, and became an accepted routine in many people's lives.¹² By the mid-twentieth century the separation of living and working was not only a social aim but also a political objective, with many planning regulations and zoning laws having been enacted to keep the two activities apart.¹³ As a result for a brief period in the mid twentieth century live-work buildings almost disappeared from production in Westernised countries.¹⁴

From the 1960s onwards, the decline of the manufacturing sector meant many warehouses worldwide became redundant.¹⁵ It became popular for struggling artists to move into these warehouses as they were open, flexible spaces and cheap to rent. The best known example of this movement is the SoHo district in New York. Many developers and planning departments caught onto this trend and the live-work typology came to be a revitalization tool for derelict urban areas.¹⁶ The live-work typology has typically suited

12 Dolan, *Live-Work Planning and Design: Zero-Commute Housing*, 1.

13 Ibid., 2.

14 "A Brief History of the Workhome".

15 Cutting Edge Planning and Design, "Does Live/Work: Problems and Issues Concerning Live/Work Development in London,"(2005), 11.

16 Ibid., 12.

the lifestyles of artists due to the closeness and flexibility it offers as for many artists life and work is indistinguishable. Ozenfant House designed by Le Corbusier and built in Paris in 1922, during the Modernist era, is an example of an artist's studio and home. The house was commissioned during a time when live-work was not a prevalent typology however offered a desirable and practical way of living for the artist.

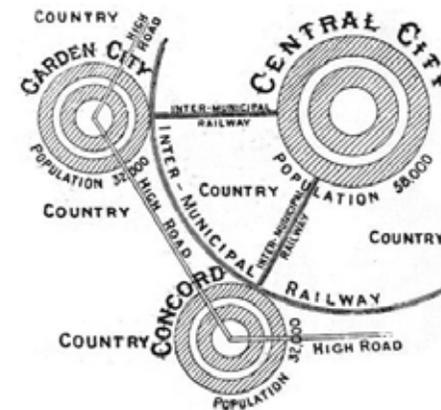


Figure 2.3: Conceptual diagram of Ebenezer Howard's Garden City.



Figure 2.4: Ozenfant house by Le Corbusier, 1922

Many different articulations of the live-work typology have emerged since this time and live-work has become a broad term for a range of living and working models under this title. Nowadays live-work can be further categorized to specify exactly the relationship between the live component and the work component within the building. The term ‘live-work’ covers not only a single open planned unit where living and working overflow into each other. It can also be used to describe a building consisting of commercial activity on the ground level and apartments above, in which the occupants of the work space, and the occupants of the apartments may be mutually exclusive.

To mitigate confusion between the different examples of live-work several terms have been coined to further define them into specific categories. The terms describe the degree of spatial separation within the live-work building in question that is; ‘live-with’, ‘live-adjacent’, and ‘live-nearby’.¹⁷ ‘Live-with’ refers to the open plan example where living and working flow into each other with little or no physical separation between the two. Both work and live are accessed through the same entry. The term ‘live-adjacent’ describes the condition where there is a single divider between the living aspect and the working aspect. One example of this type is the shop-house model where the living quarters are located above the workplace. Lastly ‘live-nearby’ characterizes the examples where the two functions are in separate buildings a short distance from each other. A typical example of this is the outbuilding located at the bottom of the garden. Within this research project the ‘live-nearby’ is the specific category of the live-work typology that will be explored.

¹⁷ Dolan, *Live-Work Planning and Design: Zero-Commute Housing*, 16.

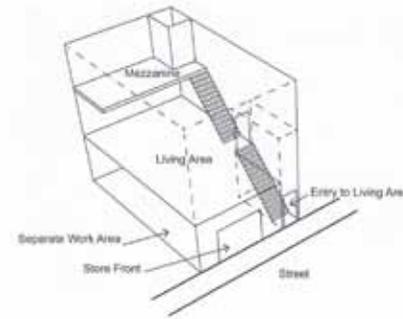


Figure 2.5: Diagram of ‘live-adjacent’ proximity type

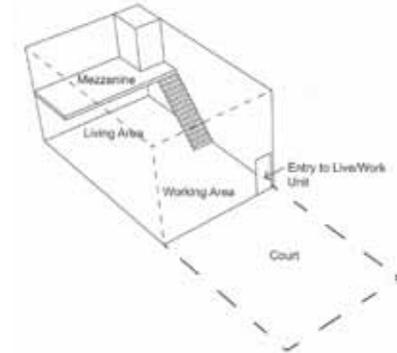


Figure 2.6: Diagram of ‘live-with’ proximity type

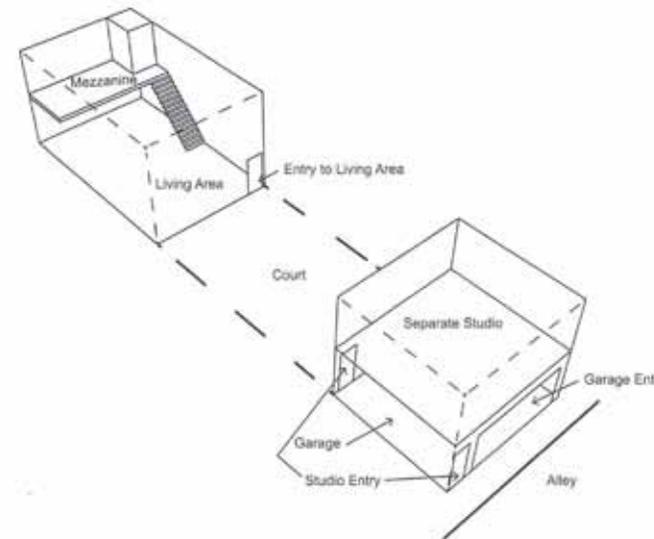


Figure 2.7: Diagram of ‘live-nearby’ proximity type

Throughout political, social and cultural trends, and through advancements in knowledge and technology the live-work typology has always suited the lifestyle of a range of people. Its relevance in human life dates back to medieval times and there are examples of it in most cultures worldwide. The live-work typology is a universal way of living that has been, and will continue to be, adapted to suit a multitude of people and occupations across varying contexts. Historic examples worldwide of live-work buildings include the Japanese Machiya, the Iranian Courtyard house, the Vietnamese Tube house, and the English Longhouse.



Figure 2.8: Plan of a Japanese Machiya

Machiya: Traditional house of merchants in Kyoto, Japan. A townhouse, which includes a shop space or a place for business, that connects to the street frontage. A garden separates the workspaces from the live spaces. The live space is located behind the work space. This is an example of 'live-nearby'.

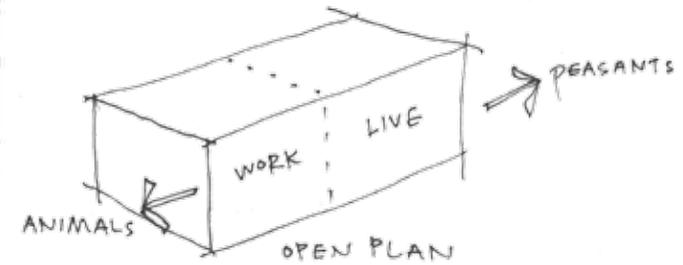


Figure 2.9: Spatial diagram of typical English Longhouse

The English Longhouse consisted of an open plan space which housed farm animals at one end and the farmer and family at the other. This is an example of 'live-with'



Figure 2.10: Row of Vietnamese Tube houses

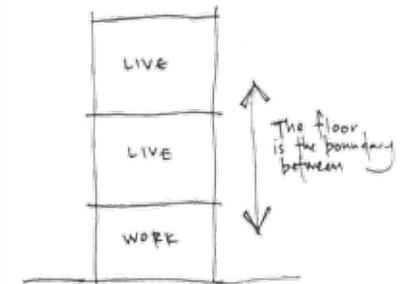


Figure 2.11: Vertical organisation of Vietnamese Tube houses

The Vietnamese Tube house example follows a 'live-adjacent' proximity type, with working (shop) spaces at ground level, opening to the street, and living spaces above.

2.2 CURRENT ATTITUDES TOWARDS LIVE-WORK

The live-work typology is ideally suited to the current technological era. Access to both a wide range of communication tools and unlimited information enables a diverse range of occupational groups the opportunity to work from home. Employers may find it increasingly attractive to have their employees working from home, incurring lower operating costs including office space rental. This is known as ‘teleworking’. Increasing reliance on the Internet to access business and personal needs and wants makes the live-work typology a viable option for a greater range of people.

Prior to and since the 1960s the live-work typology has been used largely by creative occupational groups including artists, fashion designers and architects. As a result of technological changes live-work is no longer limited to the creative industries. Frances Holliss, architect and academic who has completed extensive research in the field of live-work typology, believes that “this building type has considerable contemporary relevance and future potential.”¹⁸

Whilst the live-work typology is gaining greater relevance and interest in today’s world, it is still restricted to some extent by zoning laws established during the modernist era. Modern planning policies deem living and working as two separate uses: residential and commercial, usually prohibiting other/mixed uses. Since the 1960’s many cities have adopted ‘mixed-use’ zoning overlays often for downtown areas as a revitalization tool.¹⁹ The laws around segregated zoning are slowly being changed to enable the renaissance of the live-work typology in cities.

¹⁸ Frances Holliss, “Beyond Live/Work,” *Planning in London* Oct-Dec, no. 67 (2008): 28.

¹⁹ Dolan, *Live-Work Planning and Design: Zero-Commute Housing*, 168.

A central issue with the live-work typology is that inhabitants can “feel isolated and have few social outlets.”²⁰ For many people the separation of living and working provides the means for casual social interaction with others; either on the way to work, or at work. Casual social interaction is an unpredictable pleasantry of human life that is generally neglected in the live-work scenario. For some this aspect makes live-work an unacceptable compromise.



Figure 2.12: *Diagram of Modernist zoning principles by Leon Krier*

Modernist planning tended to separate the two activities of living and working and consequently the commute between has become a normal activity in our daily lives. For the vast majority of the population the daily commute between work and home is the norm and is therefore not something that is able to be eliminated without considerable adjustment. It is not uncommon for people to resist changing the habits of a lifetime.

²⁰ Penny Gurstein, *Wired to the World, Chained to the Home: Telework in Daily Life*, (Vancouver, Canada: UBC Press, 2001). 50.

Thomas Dolan, an architect who specializes in the area of live-work, further acknowledges this issue when he states “many new residents of urban live work, often children of the suburbs, have never known an absence of commuting; they’re not quite sure how to handle this new situation. . . . Most soon find out that they feel isolated, which can lead to some level of dissatisfaction.”²¹

Whilst the transition to a live-work typology eliminates the need for the commute, it can also eliminate the potential for casual social interaction offered within the workplace or during the commute. However Dolan does go on to conclude that this is an issue that is able to be worked around by providing opportunities for public interaction within the live-work scheme.²²

Scepticism shown for the live-work typology demonstrates that, for many people, there still exists a desire to ‘go to work’. Researcher into housing prototypes, architect/professor, Avi Friedman suggests that it is important that differentiation is established between the living and working spaces in this typology, to avoid the distractions of each activity from the other. Without visual, spatial and acoustical separation this is unavoidable.²³

²¹ Dolan, *Live-Work Planning and Design: Zero-Commute Housing*, 4.

²² *Ibid.*, 8.

²³ Avi Friedman, *Inspired Homes: Architecture for Changing Times*(Victoria, Australia: The Images Publishing Group Pty Ltd, 2013), 49.

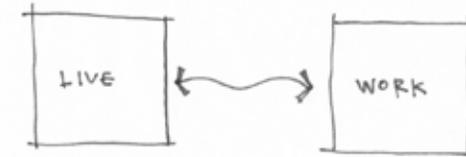


Figure 2.13: *Diagram of seperated live and work*

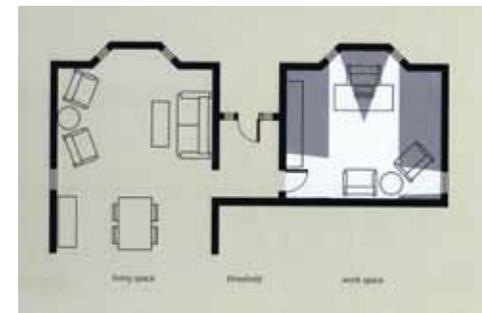


Figure 2.14: *Diagram illustrating the threshold as a space*

This project questions whether the single threshold, typically in the form of a door or staircase, allows the inhabitant enough time and space to psychologically adjust from living to working, and working to living. The solution that this research explores is the physical separation of the realms of living and working within the proposed building, to use the transition spaces as the boundary between. In this space the inhabitants break from one activity and mentally prepare for the next.

2.3 PSYCHOLOGICAL RELIEF AND LIMINALITY

For every time in stress, you need a recovering time in relaxation.
-Emmett E. Miller, M. D.

It is widely recognized that activities involved in people's work lives and home lives can cause stress. The tasks undertaken at work and the tasks undertaken at home require alternate states of mind. To suddenly switch between the two can be difficult to adjust to – leaving people feeling stressed and inert. It is between the two activities that an opportunity for respite can be found in everyday life. David Kundtz, author and psychotherapist, expresses that “to manage stress effectively, you cannot go directly from a stressful situation back to normal life without spending some time in stress-free relaxation.”²⁴ Neglecting the relaxation stage can allow the effects of stress to accumulate causing psychological as well as physical damage to oneself. Stress can be thought of as a poison that is prominent in the 21st century life, an antidote is thus required to maintain a healthy balanced lifestyle.

For a considerable number of people the journey to and from work provides a “buffer of time and space between home and the workplace that may give an opportunity for ‘cooling off’ and prevent the transfer of stress from one life sphere to the other.”²⁵ Regular respite allows the mind opportunity to

24 David Kundtz, *Quiet Mind: One-Minute Retreats from a Busy World*, (Cork: Red Wheel Weiser, 2003). 74.

25 Boas Shamir and Ilan Salomon, “Work-at-Home and the Quality of Working Life,” *Academy of Management Review* 10, no. 3 (1985): 459.

switch from its usual exterior concentration to focus inwardly in order to make sense of recent activity and resolve any mental tension.”²⁶

To allow a space of mental idleness, where the opportunity for calmness and reflection exists, could provide one possible solution for regular stress relief. “Currently the speed of life does not allow enough interstitial time for things to just kind of settle down.”²⁷ The threshold between the work and home can offer a break in people's daily lives. The lack of ‘rules’ or order within the threshold allows it to be a place of everyday escape, for psychological relief. The informality of the threshold encourages relaxation.

Many people require justification to pause during their seemingly busy lives; to have an excuse to take a break for respite. Kundtz also states “unnecessary self restrictions and false guilt burden many of us and keep us from the peaceful times we yearn for.”²⁸ He propounds that restful in-between moments are not just an optional nicety but a requirement for a balanced life.

Liminal refers to the transitional stage of a process. The word liminal is derived from the Latin word ‘limen’ meaning threshold. “A threshold is a point where the boundary between inside and outside can be opened; space loosens up, and a wide variety of perceptions, movements and social encounters become possible.”²⁹ It is the moment where you have moved on

26 Ferris Jabr, “Why Your Brain Needs More Downtime,” (2013), www.scientificamerican.com/article/mental-downtime/.

27 Ibid.

28 David Kundtz, *Moments in Between: The Art of the Quiet Mind*, (Cork: Red Wheel Weiser, 2006). 14.

29 Quentin Stevens, “Betwixt and Between: Building Thresholds, Liminality, and Public

from one experience but are not quite at the next. It is a stage that allows you freedom of thought. This can provide a sense of relief as in this space there are no specific constraints as to what you need to focus on. As Quentin Stevens notes “because of these in-between, both-and, inside-outside qualities, thresholds are always loose for playful possibilities.”³⁰ Threshold zones are passages between realms. They are both/neither zones that have their own qualities of space.³¹ They can “be manipulated as distinct settings and enjoyed for their unique behavioral opportunities.”³²

Liminal space refers to a space-between, a place of ambiguity and transition. It is a site of passage in which borders, boundaries and thresholds are crossed. It is an indeterminate zone of oppositions, interactions, and exchange. The liminal moment between living and working is of a temporal nature. For many this moment occurs in the form of a reasonable commute between the two activities. In the case of live-work buildings this moment often does not exist or is rushed.

These moments of liminality are important in people’s everyday lives as they allow people the time for unfocussed thinking. An interesting paradox of the liminal space is the ease of problem solving for many. ‘Eureka’ moments tend to strike when the mind is relaxed, as discussed by

Space,” in *Loose Space: Possibility and Diversity in Urban Life*, ed. Karen A. Franck and Quentin Stevens (New York, USA: Routledge, 2007), 73.

30 Ibid.

31 Jacky Bowring, “The Liminal, the Subliminal and the Sublime: Crossing between Landscape and Architecture,” in *Limits: Proceedings from the 21st Annual Conference of the Society of Architectural Historians Australia and New Zealand* (Melbourne, Australia: Society of Architectural Historians, Australia and New Zealand, 2004).

32 Stevens, “Betwixt and Between: Building Thresholds, Liminality, and Public Space,” 90.

neuroscientist Dr. Nancy Andreasen.³³ It is because the transition is a place for psychological respite that there is less pressure on the mind to solve the problem at hand. The mind can wander and search for inspiration outside the usual controls of work and home. This is further reinforced by Quentin Stevens who states that liminality “frames escape from social convention and the exploration of new possibilities.”³⁴

Building thresholds or liminal spaces can mediate between different behavioural settings. Within liminal spaces “people experience release from the limitations and order of spaces where they have defined roles and commit their attention to specific tasks.”³⁵ Home life is not always a sanctuary for the average worker. Home life requires many tasks and chores to be fitted in around work hours often creating a stressful environment. A space where the user can feel free from these everyday tasks, even for a brief moment, is pertinent for stress relief in modern life.

33 Nancy Andreasen, “Secrets of the Creative Brain,” (2014), <http://www.theatlantic.com/features/archive/2014/06/secrets-of-the-creative-brain/372299/>.

34 Stevens, “Betwixt and Between: Building Thresholds, Liminality, and Public Space,” 74.

35 Ibid.

The often conflicting demands of home life and work life mean that physical and/or temporal boundaries may be necessary to successfully cope with both.³⁶ It has been repeatedly discovered the need for people to separate home and work so their home life does not flow into their business life and vice versa. Within several contemporary examples explored across multiple professions, it was identified that some line of boundary exists between home life and work life.

The aim of this project is to draw out the liminal moment to allow the users the break required from stress associated with living and working. The idea of the liminal space in the transition is to offer a place of rest/retreat that places no requirements or external pressure on the inhabitants and assists to mitigate the anxiety caused by abrupt transition. If the transition is too direct then it will not allow the person the adequate ‘escape’ needed to reflect and thus de-stress. With this in mind the ‘live’ aspect and the ‘work’ aspect of this project are to be physically separated to create a space where the liminal moment can not only occur but also be enhanced.

It has been established that the live and work require a separation, creating a space in-between where the liminal moment can be savoured as a potential means to provide some mental relief through introspective reflection.

³⁶ Salomon, “Work-at-Home and the Quality of Working Life,” 460.

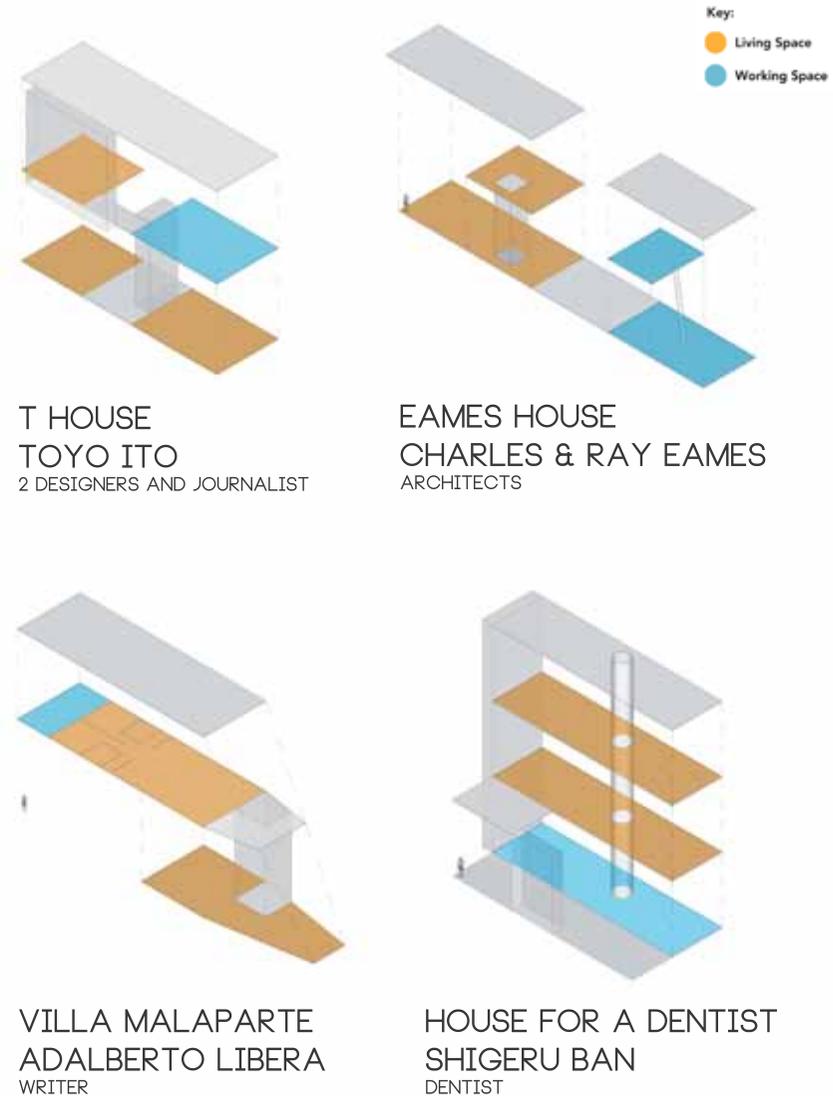


Figure 2.15: Analysis of the established boundaries between live and work in several prominent individual ‘houses’ signifying the relevance of separation of live and work

2.4 THE IN-BETWEEN REALM

The Dutch architect Aldo van Eyck's works were infused with the idea of the in-between space, which refers to the threshold that divides two realms. He believed that the threshold should become a place in itself and should be a built mirror of human nature, where people can recognize themselves. Van Eyck regarded the threshold as a metaphor for any 'in-between' in which the polarities could be reconciled, offering a place for 'imponderables of the mind'.

In his theory van Eyck also discusses the in-between as a place of, what he terms; dual phenomena. This is a simultaneous reconciliation of opposites, for example; open, closed, public and private. Van Eyck recalls spatial sensations inherent in humans that is having the feeling that one is safe in their environment but also free. This is the feeling that the in-between should evoke. He likens the sensations to those which make us envy birds in flight or recall the "sheltered enclosures of our origins."³⁷ The in-between space should simultaneously allow for both sensations – enclosed but not confined. The dual phenomena that van Eyck speaks of should form a "network of exhilarating ambivalences"³⁸ for the mind to feel at home.

Van Eyck's work suggests that there should be multiple 'in-between' spaces in buildings in which a network is formed between them in order to mitigate

37 Aldo van Eyck, "The Child, the City and the Artist: An Essay on Architecture; the in-between Realm," in *Aldo Van Eyck: Writings*, ed. Vincent Ligtelijn and Francis Strauven (The Netherlands: Sun Publishers, 2006), 77.

38 Francis Strauven, *Aldo Van Eyck: The Shape of Relativity* (Amsterdam, The Netherlands: Architectura & Natura, 1998), 370.

the in-between as a monotonous and un-stimulating space, "for a house is a tiny city, a city a huge house."³⁹ This statement refers to the wide range of interchange possibilities within a large city, outlining the requirement for the in-between to have a tangible form across all urban levels and articulations.



Figure 2.16: Child lingering on the threshold between spaces in Aldo van Eyck's Orphanage in Amsterdam

39 Ibid., 360.

2.4.1 SONSBEEK PAVILION

The design of van Eyck's Sonsbeek Pavilion provides one example of how the in-between can be articulated in form and space. The Sonsbeek Pavilion was initially designed as a temporary space to hold a series of sculptures for the fifth Sonsbeek exhibition in 1966.⁴⁰ The pavilion encompasses many of van Eyck's architectural theories and ideas, including 'the in-between' and 'the house as a small city'. The pavilion design is comprised of six solid walls which enclosed five narrow, parallel gallery spaces. The sculptural works were designed to be arranged seemingly informally. The design of the pavilion allowed the sculptures to be clustered in small groups in the open spaces of the plan or lurking behind curves in the walls to take on a life of their own, inhabiting this small city.

The placement of the sculptures imitates the nature of life within a city – spaces which provide for both and/or social or solitary activity. The cleverly designed passages and multi-directional lines of sight within the pavilion allowed the viewer to keep coming across the same sculptural piece from different directions, providing the feeling that one is continually stumbling across something new. The spatial structure of the pavilion was adjusted so it would provide for opportunities to appreciate the space from a new direction.⁴¹ The pavilion presented the visitor with a multitude of possible routes, inviting them to wander (as opposed to a typical unambiguous exhibition route). "A visitor who set his mind on following a systematic route, for example by taking one street at a time, would find himself continually diverted from this plan not only by the spatial twists and shifts,

⁴⁰ Ibid., 495.

⁴¹ Ibid., 496.

but also by the sculpture itself, which occupied intersections and repeatedly pointed the visitor in a new direction."⁴²

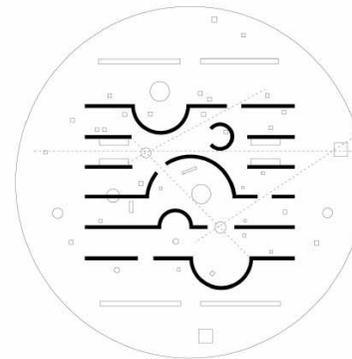


Figure 2.17: Plan of Sonsbeek Pavilion



Figure 2.18: Children playing within the 'streets' of the Sonsbeek Pavilion

The straight parallel walls are said to embody the characteristics of streets and laneways within a city, and the circular spaces to be the open town square.

Francis Strauven described the pavilion as "an exuberant space that unfolded inwards into a swirl of streets, open places, corners, alleys, gateways and towers; a maze of straight and round, convex and concave, intersected by bends and diagonal avenues."⁴³

⁴² Ibid., 499.

⁴³ Ibid., 495.

2.5 ATHFIELD HOUSE AND OFFICE

Athfield House and Office in Khandallah, Wellington, is the office base of for Athfield Architects and is the home of Ian Athfield, his family, co-workers and friends. Ian Athfield began the house and office as a marketing tool for his practice to express his architectural visions. The building began as the dwelling for Ian Athfield and his immediate family and has grown to be the home to twenty five people, and the workplace of forty people. Construction of the house began in 1965, and has been constantly added to until the present date.

Ian Athfield, influenced by Aldo van Eyck's investigations of the space in-between the public and private realms of the human, designed his house and office with the notion of 'the house as a tiny city'.⁴⁴ Athfield's architectural philosophy is formed from an interest to create an alternative to, and challenge the validity of, detached suburban dwellings.⁴⁵

Athfield states that "our society is trying to find ways to reconcile people's need for privacy with their relationship with others", (in which) Athfield house and office shows one way that this might work.⁴⁶ Athfield House and Office is neither a commune, nor unattached, isolated residences. The house offers several communal living facilities such as laundries, vegetable gardens and a swimming pool. Whilst many people live and work within the same complex, the building offers opportunities for privacy for the residents.

44 Diana Wichtel, "Interview: Architect Ian Athfield," <http://www.listener.co.nz/culture/interview-architect-ian-athfield/>.

45 Julia Gatley, *Athfield Architects* (Auckland: Auckland University Press 2012), 27.

46 John Walsh and Patrick Reynolds, *Home Work: Leading New Zealand Architects' Own Houses* (Auckland, NZ: Godwit, 2010), 22.



Figure 2.19: Axonometric view of Athfield House and Office showing the relationship of living to working

Athfield House and Office is likened to a Greek village not only for the stark white plastered finish but for how the whole complex ‘falls’ down the hillside with the natural contour of the site. Its terraced formation provides many courtyards and rooftop spaces which offer opportunities for retreat for all inhabitants. Some, primarily the rooftop spaces, are spaces created for an intentional retreat. Other spaces such as the courtyards are between buildings, stairways and passages. In these spaces one is forced to move through them to access other spaces in the complex. These spaces act as an unconscious ‘refresher space’ for the users. Within the complex the discrete spaces meet up with sociable areas. The balance of enclosed spaces to exposed, gives a variety of experiences and allows many choices for the user.

One of the most identifiable ‘retreat’ spaces in the complex is the tower’s portholes. The portholes are large enough to allow an adult to curl up and muse at the spectacular view of Wellington Harbour. The tower offers a sheltered nook to the house that has opportunity for tranquil reflection.

Glimpses are given in every space to another pathway or space, which encourages exploration of the building and its surrounding spaces. There is constant invitation into new spaces and directions through transition spaces. Each pathway and space offers more than one, often more than two, possible directions in which to move through the house and office. The multiple possibilities of routes available create an exciting adventure akin to a child running through a maze.



Figure 2.20: Tower used for private respite



Figure 2.21: Tower porthole overlooking Wellington Harbour



Figure 2.22: Within the external circulation space, overlooking a communal space



Figure 2.23: Staircase leading to a communal ‘break’ space



Figure 2.24: Communal enclosed courtyard located between working spaces



Figure 2.25: Stairs leading to small exposed rooftop space above offices

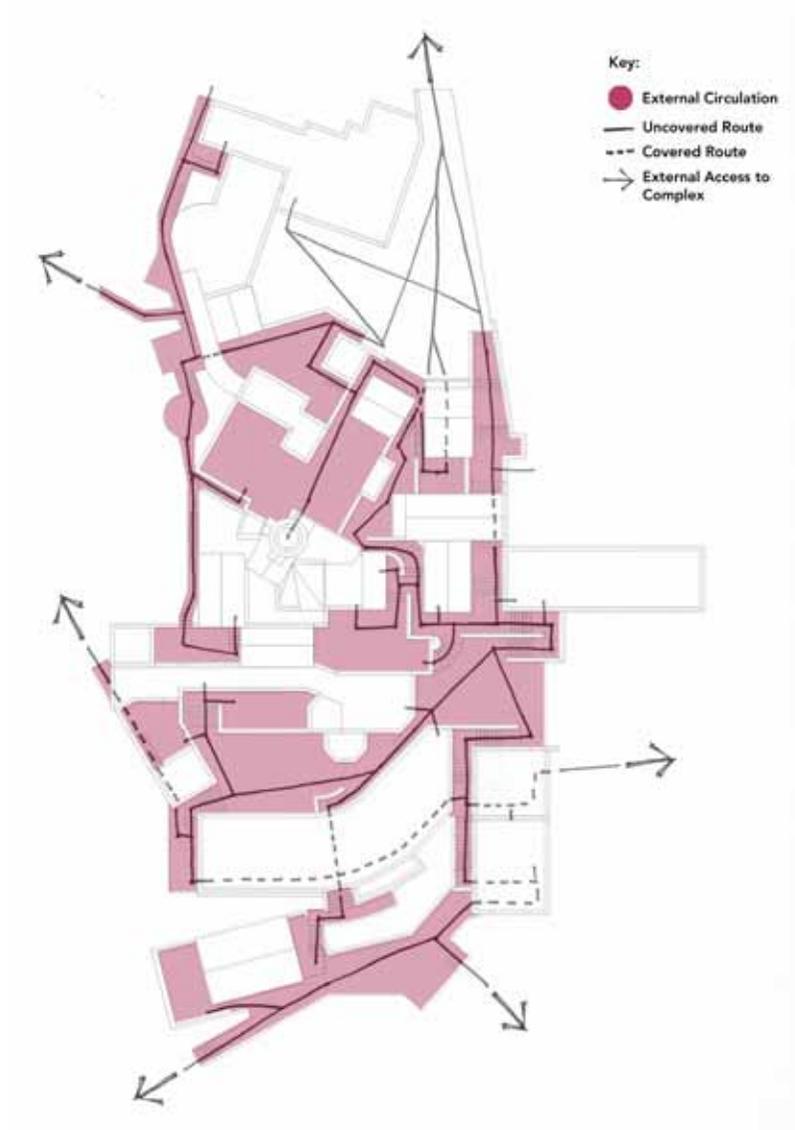


Figure 2.26: Analysis of external circulation routes

Athfield House and Office offers the occupants a variety of different pathways to get from point A to point B within the built form. The entire house is accessible and “the user-permutations are almost endless.”⁴⁷ The building allows the occupants to vary their transition, providing stimulation in the process. The varied transitions allow for unexpected encounters.⁴⁸ It is unknown who is going to be using a particular pathway at any particular time. This opposes the typical monotonous experience of a ‘one way in, one way out’ journey where one would expect to bump into certain people at specific times, and only ever view the same scenery on every journey. Ian Athfield believes that one of the most important things within an architectural work is the ability to meet people by accident as opposed to by design, which can be seen in the design of his own house and office.



Figure 2.27: Axonometric view of external circulation routes

47 Gerald Melling, *Joyful Architecture: The Genius of New Zealand’s Ian Athfield*(Dunedin, NZ: Caveman Press, 1980), 31.

48 Gatley, *Athfield Architects*, 33.

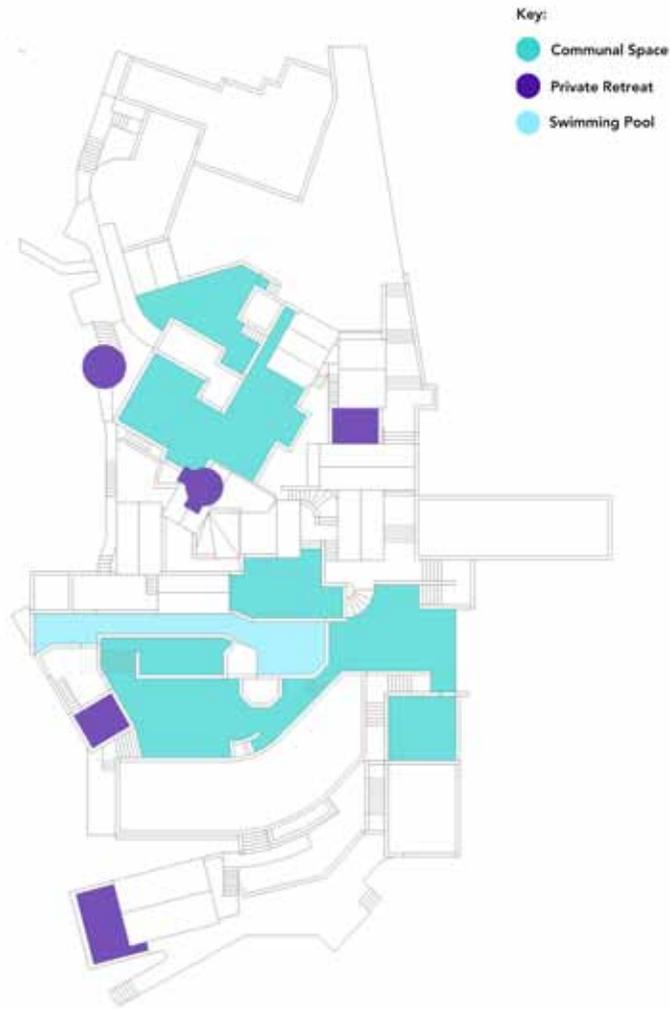


Figure 2.28: Analysis of communal and private respite spaces within Athfield House and Office

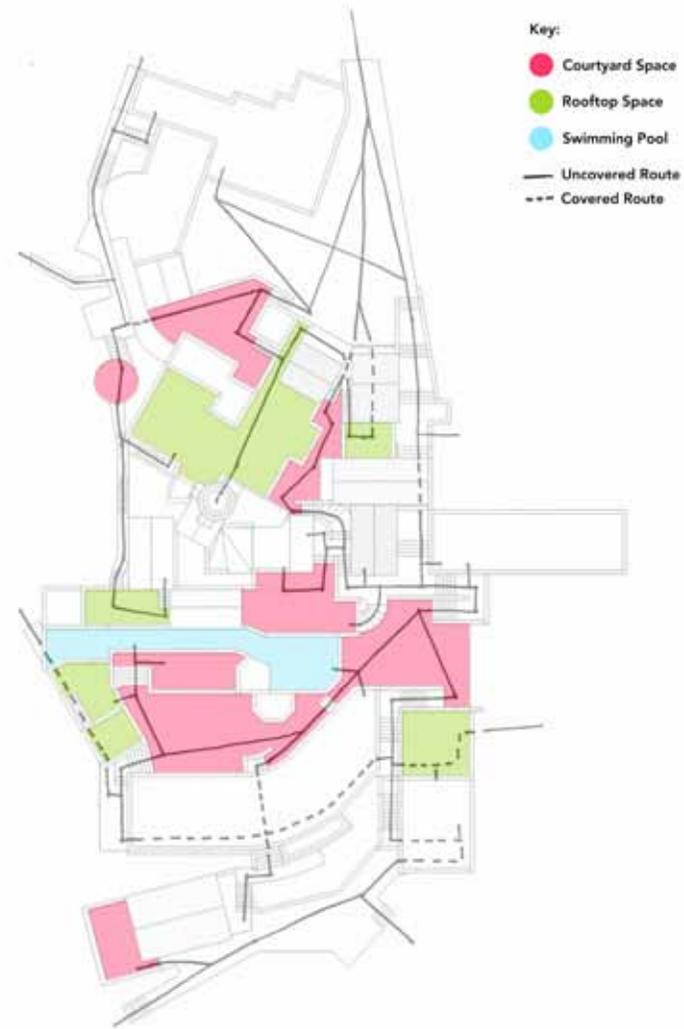


Figure 2.29: Analysis of enclosure within the respite spaces of Athfield House and Office

The form of the pathways lead into ‘liminal’ spaces. Several of these are communal to congregate with people, others are for more private, intimate experiences. The external transition spaces offer these experiences upon movement through them. One is not forced but merely invited. Julia Gatley describes the complex as ”a place to play, to work, to be alone, or together.”⁴⁹ The choice of spaces allows physical and mental freedom as one is not constrained to any particular space as is so often the case in many apartment blocks and office buildings. “There is no clear beginning or end, no abrupt friction between ‘house’ and ‘garden’. The network of spaces is complex and diverse, and as naturally includes external as internal areas.”⁵⁰

At many thresholds of the building, the inside blurs with the outside and the adjacent spaces naturally flow into each other (the staff room and courtyard, the spaces adjacent to the pool). “Chaos is however avoided as the walls, ceilings, roofs are smoothly plastered inside and out and the floor, covered by red brick, has the same internal and external finish. This unifies the widespread entities of the house into one flowing and organic whole.”⁵¹

In this example the work spaces are split up from one another requiring movement at many times throughout the day to access amenities such as the printer, archives or meeting room. The splitting of the workspaces forces periodical movement between inside and outside, up and down stairs, through courtyards which allows a small break for the worker to refresh briefly whilst performing their daily tasks.

49 Ibid., 28.

50 Melling, *Joyful Architecture: The Genius of New Zealand's Ian Athfield*, 29.

51 Ibid., 30.

“Spaces left over are always as important as the spaces you do build.”
-Ian Athfield

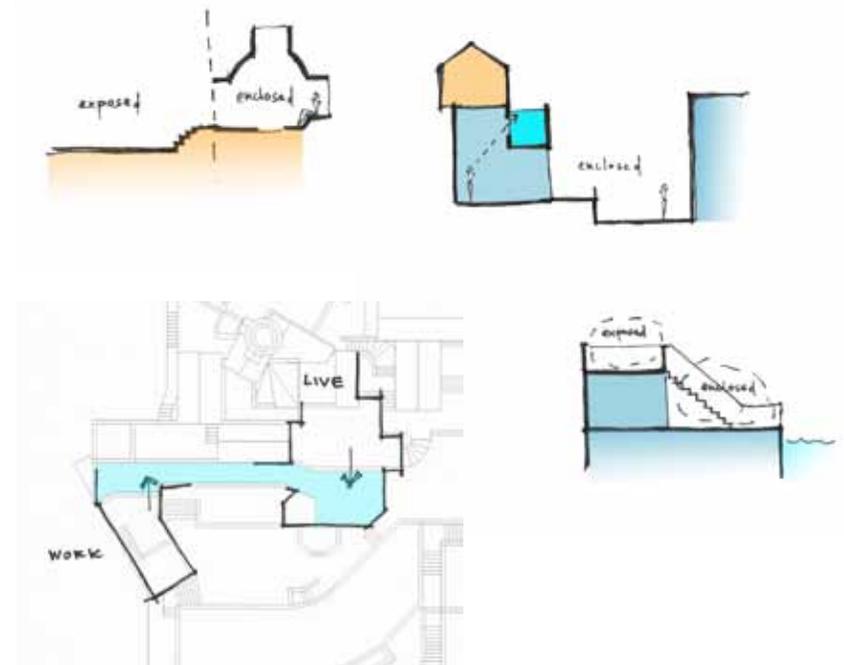


Figure 2.30: Analysis of relationship between respite spaces and live/work

2.6 COMPARISON OF URBAN LAYOUTS

For many centuries traditional towns and cities were constructed around urban ‘squares’ in which the open ‘square’ acted as the ‘break’ space for the townspeople. In his seminal book *The Concepts of Dwelling*, Christian Norberg-Schulz cites the metaphor Paul Zucker uses for the ‘square’ as a “psychological parking place within the civic landscape”⁵². As the metaphor suggests the ‘square’ is a place where movement has stopped, in which we find time to rest and meditate. This ideology strongly lends itself to the notion of the psychological ‘break’ space within one single building.

The characteristics of the medieval township evoke a sense of mystery due to their winding streets and hidden spaces. The winding medieval street often has a sense of mystery due to the tightness of the space and the inability to see directly to the end of it.⁵³ Curiosity is developed for what is beyond the bend, inducing an instant interest for discovery and exploration. “The human mind reacts to a contrast, to the difference between things.”⁵⁴ The unknown of what is at the end of the path stimulates people’s minds, exciting them that there is something new for them to explore. This is in contrast to the feelings associated with a straight pathway where the end point can be instantly seen and understood. Gordon Cullen propounds that “a long straight road has little impact because the initial view is soon digested and becomes monotonous.”⁵⁵

52 Paul Zucker, *Town and Square* (New York: 1959), 1, in Christian Norberg-Schulz, *The Concept of dwelling: On the way to figurative architecture*, (New York: Rizzoli International Publications Inc., 1985), 60

53 Allan B. Jacobs, *Great Streets*, Fifth ed.(Cambridge, Massachusetts MIT Press, 1999), 21.

54 Gordon Cullen, *The Concise Townscape*(Oxford; Boston: Butterworth-Heinemann, 1995), 9.

55 Ibid.

When comparing the layout of Rome, which follows a medieval model; and New York City, which follows a regular grid model; and Walnut Creek in America a typical modern planned suburb, the effects of movement and stimulation are clear.

The New York grid has very clear and efficient routes. The logic of the grid allows it to be instantly understood, and mitigates the chances of getting physically lost. Due to the heavily regular nature of the grid the movement within it is direct and fast paced. This evokes little curiosity for further exploration within the grid due to its immediately comprehensible nature.

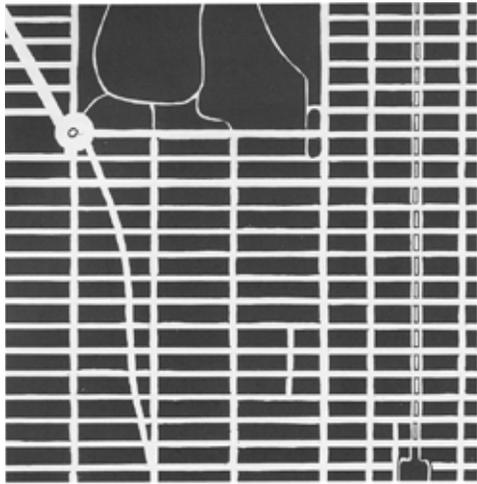
Whilst the typical modern suburb does contain winding streets, many of the streets are cul-de-sacs that terminate with an abrupt ending. The cul-de-sac evokes monotony, making the experience of movement within this grid unexciting and predictable. The lack of connection between streets in this model mitigates the chance to encounter different people or places. It excludes through-traffic deterring further exploration; there is only one way in, and one way out. Consequently the journey is severed and becomes a less desirable experience.

NEW YORK

WALNUT CREEK

ROME

Figure-ground analysis



Circulation analysis

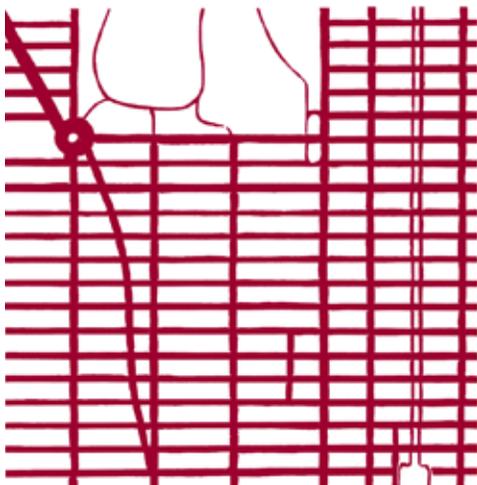


Figure 2.31: Comparison of built form and circulation of several models of urban street layouts

The medieval village layout has relevance to this project due to its network of public open spaces, all connected by streets and lanes. The network within the medieval town comprises of varied routes which all interconnect to various public squares. When moving along a winding street or pathway, one is only given small glimpses of what is ahead, inviting them to explore further due to the curiosity developed inside them. The network allows various routes to be taken to move from point A to point B, as well as offering the opportunity for slower paced movement through the town squares. The overall pace in this model is much slower than that of the regular urban grid, due to the winding nature of the streets and lanes. The medieval street layout has a greater sense of discovery and drama encompassed within it. These layouts were designed for the pedestrian experience and have relevance to this project in terms of circulation.

As well as pace being a pivotal/key determinant to enhance the liminal moment, the analysis of urban grid models has led to the identification of other notions that could impact on design. These include notions around variety and opportunities for encounter.

ROME



Figure 2.32: Analysis of street layout of Rome indicating places of rest within the circulatory system

2.7 THE FREE UNIVERSITY, BERLIN

The Free University in Berlin provides a useful precedent that informs the circulation system. A web-based structure was designed to weave together a variety of different programmes and practices. The circulation system was designed to integrate into its context yet form a city in its own right.

The competition for the Free University in Berlin was launched in 1963, and was won by the collaborative design of Shadrach Woods, George Candilis, Alexis Josic and Manfred Schiedhelm.⁵⁶ The university is located in the suburb of Dahlem in West Berlin, Germany. The brief required the design to comprise multiple departments including literature, history, humanity studies and sciences, to cater for 3600 students. In 1973 the first, and only, stage of the Berlin Free University was completed.⁵⁷

The Berlin Free University provides a precedent for the intersection of architecture and urbanism, in line with the notion of ‘house as a tiny city, city as a huge house’. In this example the university transgresses distinct boundaries between architecture and urbanism. Designed to function as a piece of the city, the Free University was to adapt to the needs of its users and generate opportunities for social interaction. This was to be achieved through an organization system referred to as the ‘web’.

The partnership of Candilis, Josic and Woods, formed a part of Team 10, with which Aldo van Eyck, as previously referred to was also associated. Team 10, a small circle of European architects, was created as a ‘think-tank’ to exchange ideas in order to strive toward the enhancement of post-war architectural thought. The works of the individual members of Team 10 had affinities to one another, largely concerning the ideas of movement as a mechanism to enhance and sustain community, social interaction and maximization of choice within architecture.⁵⁸

⁵⁶ Mohsen Mostafavi Gabriel Feld, Manfred Schiedhelm, Peter Smithson, Alexander Tzonis, Liane Lefaivre and George Wagner, *Exemplary Projects 3: Berlin Free University*(London: AA Publications, 1999), 15.

⁵⁷ *Ibid.*, 11.

⁵⁸ *Ibid.*, 126-27.



Figure 2.33: Courtyard space with interconnecting circulation



Figure 2.34: Aerial view of Berlin Free University



Figure 2.35: Ramp vertically connecting the main, parallel ‘streets’

There are many parallels between the works and theories of Aldo van Eyck and those of Shadrach Woods. Woods believed that architects should address the ‘creation of environment at every scale’ which relates to van Eyck’s arguments for the house as a tiny city, and city as a huge house.⁵⁹ This principle heavily guided the design for both van Eyck’s Orphanage in Amsterdam and Woods’ Free University.

The Berlin Free University project was a genuine experiment where Candilis-Josic-Woods could further explore the structuring concept of the ‘web’, a concept conceived through earlier works of the partnership.⁶⁰ Candilis-Josic-Woods had previously identified in their work that a university could be considered a small city. The concept of the ‘web’ was an investigation to design a system allowing for different programmes and practices to be woven into a continuous area of urban tissue.⁶¹ The ‘web’ notion was of poly-centric organization. “A university or a city consists of ‘places for individual – places for group, tranquility and activity, isolation and exchange.’”⁶²

The concept of the ‘web’, as theorized by Shadrach Woods and other Team 10 members, was implemented in the design of the university as an organization system. Woods states, “this scheme is an attempt to discover structuring principles which might be applicable to the organization of

59 Ibid., 133.

60 Tom Avermaete, *Another Modern: The Post-War Architecture and Urbanism of Candilis-Josic-Woods* (Rotterdam: NAI Publishers, 2005), 315.

61 Ibid., 303.

62 Jürgen Joedicke, *Candilis, Josic, Woods: A Decade of Architecture and Urban Design* (Stuttgart: Karl Krämer, 1978), 208.

the physical environment.”⁶³ The principles of the ‘web’ apply to both architecture and urbanism. The ‘web’ is a metaphor used to embody the complex juxtaposition of everyday architectural and urban elements such as streets and squares and is compared to the activity of weaving a piece of fabric. The act of weaving involves various threads interconnecting in such a way as to create a stronger piece of fabric. The whole becomes greater than each of the parts. The ‘web’ theory exemplifies not just the intricate weaving of all of the parts, but also the tightness and closeness of urban density.⁶⁴

The idea was that the principal function of the building was to encourage exchange between people in different disciplines. The interaction between these people would result in an increasing field of human knowledge. The architects’ intention was to design the building with maximum opportunity for contact and interchange.⁶⁵ This called for different kinds of spaces defined as; “large-scale activity zones, study zones, and rest zones.”⁶⁶ The building is largely organised around these zones. The large-scale activity zones are located along the internal ‘streets’. The rest zone system is applied to the whole building as courtyards at ground floor and garden terraces on the first floor.

63 George Candilis and Alexis Josic Shadrach Woods, “Berlin Free University,” *Le Carré Bleu*, no. 1 (1964): 2.

64 Avermaete, *Another Modern: The Post-War Architecture and Urbanism of Candilis-Josic-Woods*, 318-19.

65 Gabriel Feld, *Exemplary Projects 3: Berlin Free University*, 25.

66 Ibid., 31.

The network is organized by four main, parallel, pedestrian passageways which are all connected by smaller secondary paths. Interrelated open spaces, consisting of courtyards and patios, run throughout the university scheme. The design incorporates a matrix of corridors which generate a complex pattern of open spaces.⁶⁷ The Free University consists of three storeys; a basement/storage floor, the ground floor hosting main activities, and first floor with small classrooms and offices. A second floor was conceptualized for a level of housing to be added to the building at a later date, but was never built. Alternatively the roof of the university was made accessible to students as a place for respite.

The building has two levels of pedestrian circulation. Accessed from the primary circulation are the commonly used rooms such as lecture halls, libraries, and exhibition spaces. Room functions that require more privacy and tranquility are located away from main spaces, accessed from secondary circulation. A web of circulation spaces is formed as a result. Permanent main streets with adaptable secondary streets accommodated more free and changeable use of the in-between space.⁶⁸

67 Ibid., 113.

68 Ibid., 97.



Figure Analysis of 'web' structure applied to circulation with the Berlin Free University

The design saw the university as an integral part of the city in which both university and city developed a symbiotic relationship. The intent for the Free University was “to recreate the richness of an urban fabric.”⁶⁹ However, the university sits as a largely autonomous structure due to its suburban setting. The Free University received criticism as it failed to produce connections to its context, as intended at the conception of the design. The architect and critic, Kenneth Frampton argues, “without the benefit of an urban context, the Free University has neither the conviction nor the intensity of events promised in the earlier project for Frankfurt.”⁷⁰

Gabriel Feld, practicing architect and professor, suggests that the regular, rigid edges of the scheme add to the autonomy of the university, and the use of irregular edges possibly could have allowed the building to dissolve into its context more easily.⁷¹ “One might have hoped that the university would, over its lifetime, have generated a city, that the educational programme would simply have been the medium, and the building the agent: the two-level grid of courts, corridors and rooms was intended ‘to organize a field (similar to irrigation systems) for the practice of urbiculture, the growing of cities’.”⁷² In this regard the design failed to achieve the desired symbiosis between the university and its context.

69 Ibid., 113.

70 Kenneth Frampton, *Modern Architecture: A Critical History* (London: Thames and Hudson, 1980), 277.

71 Gabriel Feld, *Exemplary Projects 3: Berlin Free University*, 115.

72 Ibid., 15.

Despite the criticism the precedent informs the articulation of the network and the connection of the network to its context. The Free University propounds the format of the medieval city layout with interstitial spaces connected by a network of streets. Alison Smithson, a fellow Team 10 member, identified that the Free University like many other post-war projects, had “attempted to recapture the spatial and functional density of the traditional European city.”⁷³ The concept of the network or ‘web’ not only describes the internal network within a building but also advocates for connection of the intervention with its surroundings. The network is strengthened by the connection to its context.

The success of the university or lack of it could be attributed to the limited density of its location. In order to recreate the richness of an urban fabric through the use of a network or ‘web’ structure it may have been necessary for the intervention to be located within an urban context rather than a suburban context.

73 Avermaete, *Another Modern: The Post-War Architecture and Urbanism of Candilis-Josic-Woods*, 319.

2.8 THE PICTURESQUE

In the late 17th century the notion of ‘sensationalism’ came about after John Locke’s seminal essay ‘Essay Concerning Human Understanding’.⁷⁴ Establishing a new philosophy of sensation, this piece of writing impacted the architectural world in respect/regards to aesthetic theory and the defining notions of the ‘picturesque’. Sensationalism is the doctrine that all knowledge is obtained from ‘experience through sensations’. It had great effect on aesthetic theory as it sought to elucidate the immediate relationship between mental states and physical objects.⁷⁵ The ‘picturesque’ was pioneered through garden design. It was employed to advocate the idea of creating “landscapes like paintings”.⁷⁶ The picturesque embraces idea of ‘natural’ nature as opposed to highly formal geometric gardens such as the gardens at the Palace of Versailles. Notions of the picturesque movement are in line with the extracted findings from the analysis of Athfield House and Office and urban street layouts.

74 Barry Bergdoll, *European Architecture 1750-1890*(New York: Oxford University Press, 2000), 74.

75 Ibid.

76 Ibid., 75.

Key features of the picturesque approach included winding pathways, asymmetric configuration as well as techniques that blurred the distinctions between the natural and the composed, used to emphasise the experience over intellect. Barry Bergdoll expressed the winding path to “introduce sequence and thus delay, expectation, and revelation, enhancing not only the narrative qualities that had been explored in such literary gardens and houses as Pope’s at Twickenham (1719-20) and Walpole’s at Strawberry Hill (1749) nearby, but also a process of self discovery which was to have potent implications for the garden as a realm of self-realisation.”⁷⁷



Figure 2.36: Watercolour depicting Picturesque landscape; Coplestone Warre Bampfylde, ‘Stourhead Please Grounds’ c. 1775

77 Ibid., 76.

2.9 BASIS FOR DESIGN

“Architecture, instead of being a mere tool of form and function, can play a key role in renewing the spirit.”⁷⁸

-Anthony Lawlor

The break space is intended to capture and maximise the liminal moment in people’s everyday lives, to provide opportunities for mental relief. The spaces of informal respite within the building will allow the occupants to be within this transitory phase everyday allowing the mind time and space to refresh, as no limits are set on psychological activity.

The preceding literature and analysis of precedents is used to inform the design of the proposed building. Variety of routes and the opportunity for chance encounter are key ideas that emerge from the research and form criteria to apply to the development of the ‘break’ space or journey between the realms of live and work.

⁷⁸ Anthony Lawlor, *The Temple in the House: Finding the Sacred in Everyday Architecture*(New York, USA: G. P. Putnam’s Sons, 1994), γ.

2.9.1 VARIETY

The network offers greater opportunity for variation within the circulation system. It is identified that variety plays an important role in articulating the liminal space. Variety enlivens our experiences as it presents choices rather than control. The research examples all presented a variety of routes available for the user. The freedom of choice allows the user to vary the route, providing the person with a variety of spatial experiences.

The notion of variety is an important consideration that is not just limited to circulation. It is identified and acknowledged through research that one particular space cannot lend everybody the same feeling. Due to the nature of psychology and human emotions one cannot design an exact space in which every person who enters the space will feel the same way. Nor is one able to design a space to encompass a particular mood. People are all different, and will react differently in different environments. At different moments during the day feelings can vary so it is not viable to assume that one space will suit everyone at all times. This propounds the notion that many different spatial experiences within the transition are required (rather than one single space, or type of space).

The notion of variety is aimed at producing psychological relief, by enhancing the liminal moment – giving people the means for introspective reflection, in an attempt to achieve some mental relief. Incorporating a variety of spatial experiences also mitigates a monotonous journey within the circulatory system of the building.

2.9.2 THE POETICS OF THE ENCOUNTER

In the current era, with the constant strive for new technology and greater efficiency, the quality of spatial experience is often compromised within architectural works. Within the architectural industry developers require the circulation of their buildings to be as direct and efficient as possible - allowing less space to be used for circulation and more for lettable space. This act more often than not is the destroyer of journey within architecture.

Overdesigned, efficient circulation space typically takes the form of a cul-de-sac; there is one way in, and one way out. All movement has intent and is direct. The cul-de-sac form produces a continuous, fast paced movement due to its directness.

One of the advantages of having varied routes within a building is the opportunity that is created for accidental encounters. In this explanation the term encounter is used in a broader sense to describe not only people but also objects and space. The ambiguity of the encounter can be an exciting experience – not knowing if, who, where, when or what you could bump into. Peter Zumthor propounds that “the most beautiful things generally come as a surprise.”⁷⁹ A variety of options provides greater opportunity for the chance encounter, increasing the element of surprise. The anticipation of a surprise encounter lends a freshness to the transitory experience as does the unknown probability that an encounter will even take place.

⁷⁹ Peter Zumthor, *Atmospheres : Architectural Environments ; Surrounding Objects* / Peter Zumthor.(Basel: Birkhäuser, 2006), Book, 13.

This is one delightful human experience that the cul-de-sac eliminates. Within the direct route, cul-de-sac experience one is more likely to expect an encounter with others. The expectation of an encounter creates dullness in the transitory experience. The possibilities for encounter are again highlighted by the contrast in urban grids. The street layouts of cities can act as a mechanism which creates countless possibilities for encounters. “If you were to walk all of the pathways and travel all the canals of one square mile in Venice you would pass more than 1500 separate intersections and circle at least 900 blocks. By contrast, in Brasilia you would find fewer than 100 intersections in a square mile radius.”⁸⁰



Figure 2.37: Medieval winding street, encourages further exploration (Sienna, Italy)

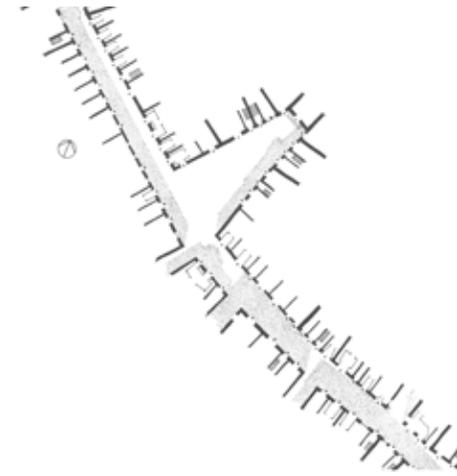


Figure 2.38: Plan view of a typical Medieval street

⁸⁰ Jacobs, *Great Streets*, 202.

3.0 THE BRIEF

3.1 PROGRAMME

The proposed programme, as specified previously, is of a live-work nature. The programme will incorporate thirty living units and thirty working units. The living units provided will range in size from one-bedroom apartments to three-bedroom apartments, in order to accommodate many different living situations. The workspaces are designed for small, usually one to two people, businesses or teleworkers requiring work space. These workspaces will range from 40m² – 60m². As well as living and working spaces communal amenities will be offered for the occupants.

It is acknowledged that in some cases an employee of a business located within the proposed complex, may live elsewhere. Like wise the family members of an occupier of workspace are likely to live with them but may work elsewhere.

The spatial configuration of the transition space is required to form an interwoven network of retreat-type spaces that enhance the experience of the journey within the building. The journey between the living spaces and the working spaces will comprise of different spatial experiences in which spaces of retreat will be established. The aim for design is that the journey as a whole forms a greater relief experience, than the individual parts.

3.1.1 PROGRAMME ANALYSIS

The space requirements for the project include:

Live Spaces:

30 apartments including;

- 10 one bedroom apartments
- 10 two bedroom apartments
- 10 three bedroom apartments

Work Spaces:

30 work spaces each ranging between 40m²-60m²

Other known space requirements:

- Communal laundry
- 3 lifts and lift lobbies
- 4 fire egress stairways

Circulation space: The precise amount of circulatory space is currently unknown.

3.2 INTENDED OCCUPANTS

The location of the intervention, at the uppermost level of a central city car parking building, produces limitations for the viability of use for some occupational groups. The foremost restriction is the access to the building. The difficulty in transporting large and/or heavy objects or building materials between the ground level and rooftop limits the practicality for some occupations to work within the proposed building. The small workspaces offered for the building limits the potential users to small business owners, or teleworkers that require minimal workspace.

Whilst it is acknowledged that in reality this intervention could not be restricted only to a certain type or societal group of people, from the research and analysis of the context; it is suggested that this intervention would be best suited but not limited to creative professionals and teleworkers.

People in creative occupations are often faced with many deadlines which cause stress in their lives. For many creative workers their work is not just a job to reap financial benefits, it is a personal passion or interest. There is tendency for creative professionals to carry their work mentally wherever they go, constantly searching for creative influence to overcome a challenge in their work. This could lead to stress and anxiety.⁸¹

Melbourne City has a reputation for being a vibrant creative city. In the most recent Council plan produced by Melbourne City Council, an aspiration is identified to encourage creative enterprises to locate themselves within the municipal area.⁸²

⁸¹ Andreassen, "Secrets of the Creative Brain".

⁸² Melbourne City Council, "Council Plan 2013-17,"(Melbourne2012), 20.

3.3 CRITERIA FOR SITE SELECTION

A prerequisite for the project site is that it be located in a busy, urban setting. The elimination of the commute, through utilization of live-work programme, largely mitigates the need for occupants to have cars and therefore requiring the intervention to have close proximity to necessary amenities including public transport. The busy atmosphere of the urban setting also lent itself to the project as the transition spaces aim to relieve stress, providing a place of retreat within the city. The intervention required surrounding busy-ness for the proposal to be a viable experiment.

The functional requirements for the project also had an impact on the site selection. The project proposes thirty separate living spaces and thirty separate working spaces as well as space for shared amenities, circulation, and services. Consequently a suitable site needs to have provision for a floor area of approximately 4500m² across several levels. The conceived circulation is required to provide both horizontal and vertical movement within the transition space of the building, therefore requiring the site to allow for these movements.

The living requirement within the scope of the project requires that the selected site receive a sufficient amount of sunlight to provide comfortable living for the occupants.

4.0 THE SITE

4.1 SITE LOCATION

The site selected for the project is located in the heart of Melbourne City in Australia. The site, known as Flinders Gate, is positioned in the block contained by Flinders Street, Swanston Street, Flinders Lane and Russell Street, opposite Federation Square and on a diagonal from Flinders Street Station. The street address is 172-192 Flinders Street, Melbourne VIC, 3000

The site location has access to various modes of public transport; including trains, trams and buses within a five minute walk of the site. The central location of the site also means that amenities including grocery stores and healthcare practices are also within walking distance, lessening the need for occupants to have private cars.

Located close to several prominent and popular attractions of Melbourne City including Saint Paul's Cathedral, Federation Square and Flinders Street Station, the site lies within one of Melbourne's busiest precincts of the city. The site for the project has an area of 2420m² providing the appropriate amount of space for the programme requirements providing that the intervention is several levels high. Due to the requirement for both horizontal and vertical movement within the circulation system, this site meets the specified criteria.





Figure 4.2: Built form of greater site

4.2 SITE CONTEXT AND CHARACTER

The site is bordered by several of Melbourne's significant historic buildings and landmarks. The most prominent building within the block is Saint Paul's Cathedral, Melbourne's third Anglican Church built in the 1850s. Another iconic building within the block is the Forum Theatre, which sits east of the site.

The area, whilst classed as a 'heritage precinct' in Melbourne, hosts a wide mixture of architectural styles and materials, from the iconic bluestone lanes and red brick used for the nineteenth to twentieth century warehouses, to the zinc paneling and glazed facades of the twenty-first century buildings in Federation Square. The character of the wider site encompasses the remnants of the past with modern-day culture. The block in which the site is located hosts two of Melbourne's most famous graffiti art laneways, one is directly adjacent to the site's Eastern boundary. Hosier Lane is situated between Flinders Street at the South end and Flinders Lane at the North. Rutledge Lane, adjacent to the site, forms a crescent which can only be accessed from Hosier Lane (see fig.). The graffiti artworks in the laneways are constantly changing as there are no specific rules or regulations as to who can paint, where, or when. The temporal nature of graffiti lends itself to the character of the site.

Adjacent laneways, Rutledge Lane and Hosier Lane, are important elements of the network of temporal street art for which Melbourne is internationally renowned. The laneways attract a multitude of people including tourists, artists and photographers. The laneways also provide a gritty insight

into the human scale and culture of the city. Hosier Lane acts more as a thoroughfare within the street network of Melbourne, and Rutledge Lane is subsidiary to it. Rutledge Lane houses several large rubbish bins which service surrounding companies. The southern corner of the lane is largely used for cigarette breaks for the restaurant workers. At the Northern end of Rutledge Lane there is an existing youth centre, and accordingly a varied mix of young people within close proximity. These small laneways have a rich variety of uses and have become emblematic of contemporary culture in Melbourne. The proposal aims to take cues from the character of the laneways for design, in order to embrace their unique qualities and attributes.

In terms of commercial activity the adjacent laneways are reasonably barren. The laneways largely consist of blank walls and inactivated edges. This is however alluring and practical to the local graffiti artists. During the day the attraction of the graffiti art ensures the laneways are busy, diverse and a great place for chance interactions. However at night the lack of lighting and inactive edges, thus lack of activity, make the laneways desolate.

The immediate context within the St. Paul's block presents cohesive built form that ranges in height between twenty metres and forty metres. The greater context contains several high-rise buildings which can be seen from the site. The area is characterized by several old theatres; the Forum theatre and the Regent theatre both still in operation, refurbished heritage brick warehouses, graffiti, art galleries, boutique shops and several five star hotels.



Figure 4.3: Analysis of activity of immediate context

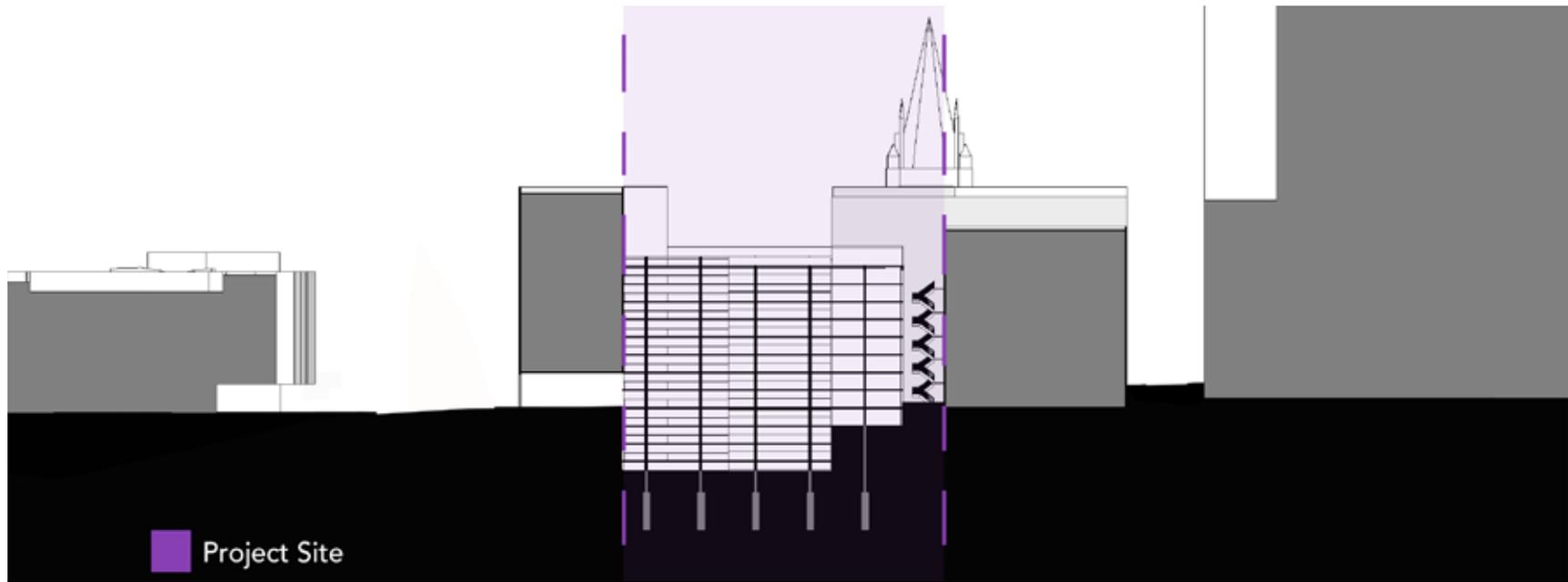


Figure 4.6: Cross Section through site

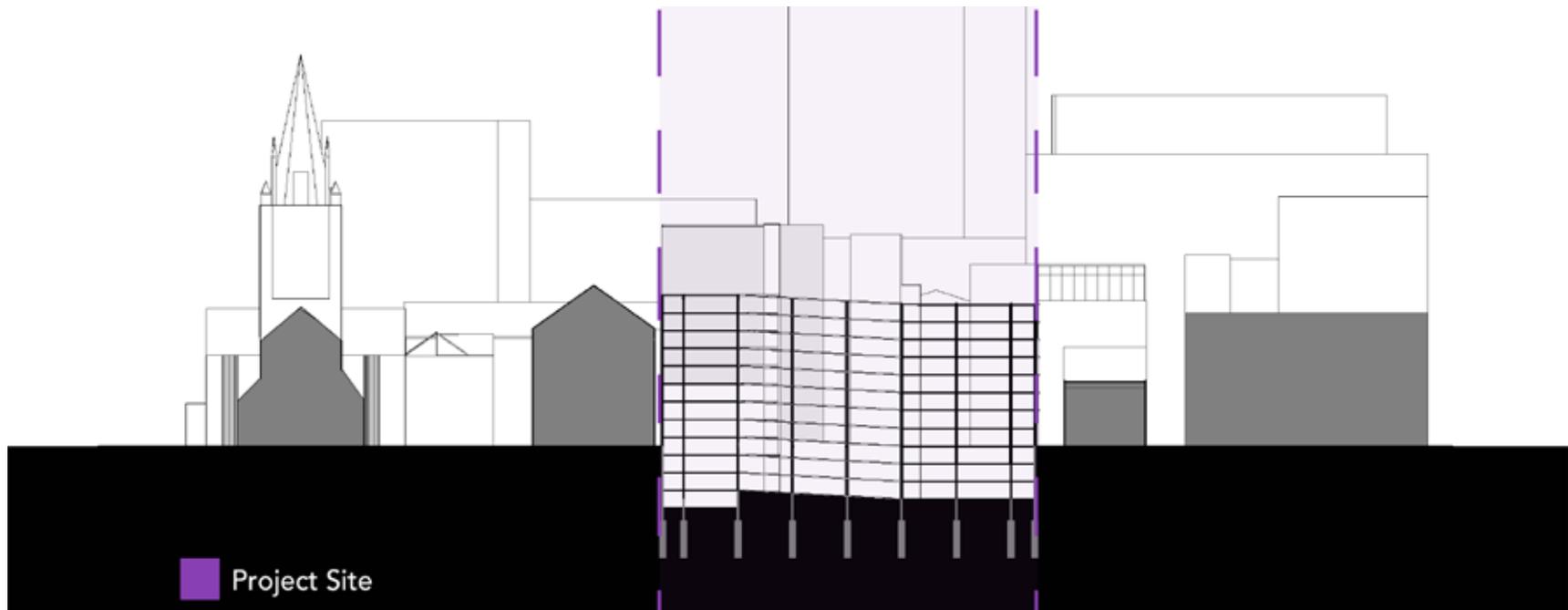


Figure 4.7: Long Section through site

4.4 LANEWAY CIRCUIT

In 1994 and again in 2004 architect and urban designer, Jan Gehl, was invited by Melbourne City Council to conduct a study of public life in Melbourne with an aim to better the public spaces and circulation networks of the city. After Gehl's initial study of Melbourne the Council implemented initiatives to improve the public realm in which the improvement of pedestrian networks was one key focus. Over three kilometers of laneways were redeveloped, extended, or added to the urban tissue, for accessible pedestrian use. Since then, Melbourne's laneways have ultimately strengthened pedestrian life within the city, and have become iconic features of Melbourne City. (see fig. laneway network). The strength of Melbourne's pedestrian network has become a precedent for cities worldwide.



Figure 4.8: Plan of Melbourne's laneway network

4.5 CIRCULATION AND ACCESS TO SITE

As the proposed intervention is located on the roof level of a carparking building, significant attention is required with regard to access. The carpark is currently accessed through vehicular entrances from Flinders Street and Flinders Lane. Access to the roof of the carpark is achieved by walking through the ground level entrances to either the lifts within the centre of the building or via one of the four staircases, used for fire egress, at each corner. The current pedestrian access to the roof is unattractive and uninviting due to the strong vehicle preference given to the building.

Within the site boundaries of the carpark lies an undeveloped piece of land that flanks Rutledge Lane and a small part of the northern edge of the carpark opens out to a service lane off Flinders Lane. These openings have the potential to be utilized for access from street level to the proposed intervention.



Figure 4.9: Analysis of movement around site

4.6 DEVELOPMENT CONTROLS

The maximum height control for the block in which the chosen site resides is forty metres (see fig.). The carpark in its current form reaches a height of twenty-one metres, leaving the opportunity for an added nineteen metres to the building. The project is not at risk of contravening the height controls of the site as the intended height for the building is to be no more than four storeys. This will support the intervention to achieve sufficient levels of air and sunlight into lower level spaces.

The maximum control ratio for a Class One or Class Two laneway is 5:1.⁸³ The height of adjacent buildings to the laneway must not be more than five times its width. This control applies only to Hosier Lane as it is a Class Two laneway. To build on top of a bordering building to Hosier Lane, a setback of three metres is required in order for the level of natural light within this laneway not to be compromised. (section to show setback required)

The preference is for the proposed built form to not encroach on the human scale of the laneways. Melbourne City Council propounds that new interventions should engage interest and feel welcoming, be evolutionary but also maintain a sense of continuity.⁸⁴

⁸³ Planisphere and Melbourne City Council, "Central City (Hoddle Grid) Built Form Review: Overview Report," (Melbourne 2011), 10.

⁸⁴ Ibid., 8.

4.7 VIEWPOINTS

The site has a couple of notable character viewpoints with potential to be utilized. To the West of the site the spires of St. Paul's Cathedral can be seen, as well as the Eureka Tower (Melbourne's tallest building). To the East of the site is the opulently decorated Forum Theatre and looking down from the East are the laneways showcasing an abundance of graffiti art. The several surrounding historic brick warehouses are also of visual interest.

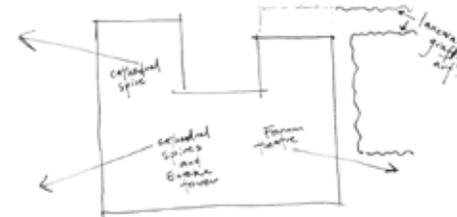


Figure 4.10: Plan showing site viewpoints



Figure 4.11: View of Chapter House spire from site



Figure 4.12: View of Cathedral spire from site



Figure 4.13: View of Forum theatre tower

4.8 SUN STUDY

Summer Solstice - Dec 21



8:30am

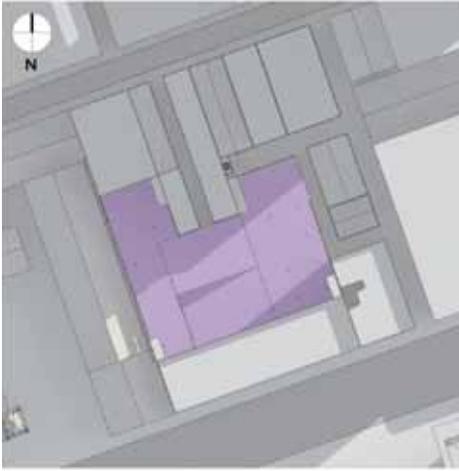


12:30pm

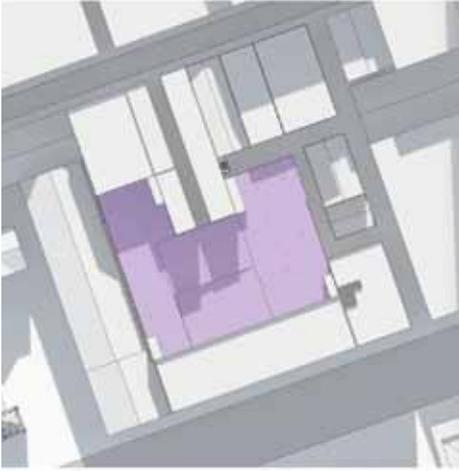


4:30pm

Winter Solstice - Dec 21



8:30am



12:30pm



4:30pm

Figure 4.14: Sun Study diagrams

4.9 CLIMATIC CONDITIONS OF MELBOURNE

Located in the Southern hemisphere, Melbourne has a temperate climate with a moderate range of temperatures. During the summer months, temperatures in Melbourne can reach over forty degrees Celsius and in winter drop below five degrees Celsius. The average annual rainfall is approximately 650 millimetres.⁸⁵ Melbourne typically experiences dry summers with minimal rainfall, which is contrasted by a high level of rainfall throughout the winter months. Melbourne is renowned for its highly variable weather conditions. This occurs as the location of Melbourne is at the intersection of cool southern seas and hot inland desert. Melbourne experiences predominantly southerly winds, typically from October to April, and northerly winds from May to September. Melbourne has reasonably consistent wind speeds year round averaging between 11 to 15 knots.⁸⁶

This climatic data will be taken into account for material specification. The data will also be considered throughout the design and will partially dictate placement and orientation of external 'transition' areas.

⁸⁵ Bureau of Meteorology: Australian Government, "Climate Statistics for Australian Locations," Climate Statistics for Australian Locations, 'last modified' 2 October 2014, 'accessed' 15 September 2014, http://www.bom.gov.au/climate/averages/tables/cw_086071.shtml

⁸⁶ "Wind and Weather Statistics Melbourne," Windfinder, Wind and Weather Statistics Melbourne, 'last, 'accessed' 15 September 2014, <http://www.windfinder.com/windstatistics/melbourne>



Figure 4.15: Site character images - medium grain



Figure 4.16: Site character images - fine grain

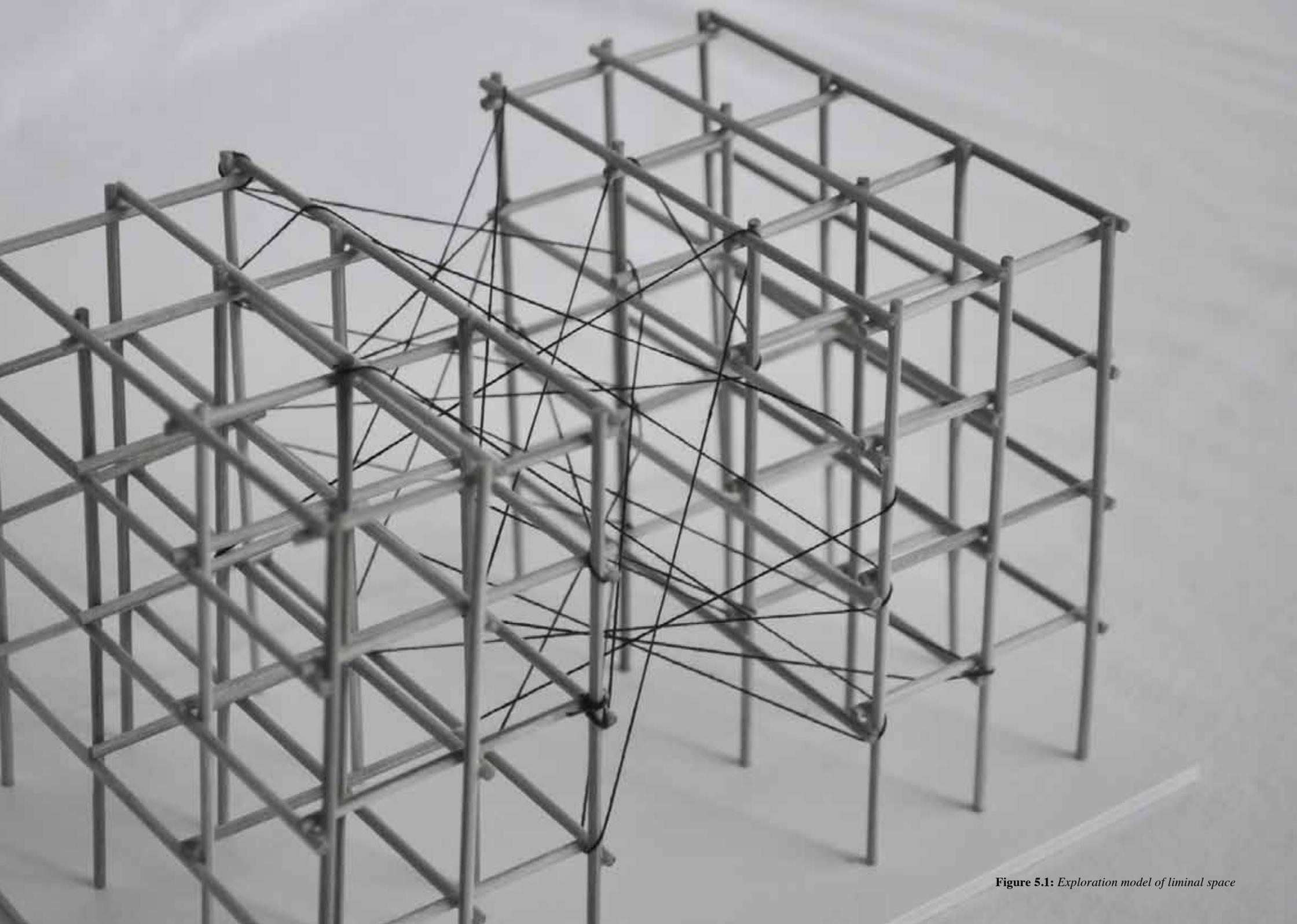


Figure 5.1: *Exploration model of liminal space*

5.0 FORMAL DESIGN CRITERIA

5.1 LIMINALITY IN ARCHITECTURE

Liminal space as a conceptual idea refers to a physical space in which the liminal moment occurs and is enriched. The physical space must allow the time and space to ensure the liminal moment is not rushed, allowing a sufficient break for the user, which in turn provides opportunity for psychological relief.

The liminal space is conceived as a lively threshold space in which playful events can occur and the mind can wander. The threshold, or in-between space, is extended to become a network in itself, creating a dedicated space of 'in-between' facilitating no requirements on the user.

In this project the live-work programme acts as the framework to which the idea of a transition space has been experimented with and applied. The separation of the two functions of 'living' and 'working' provides the space for the network. Explorative models exemplify the rigid framework of the live-work programme, and attempt to investigate the 'essence' of liminality.

The solid grid structure represents the behavioural control and consequently psychological control of activities involved with the realms of living and working. The in-between space is characterized by components demonstrating the unstructured and dynamic spirit of the liminal moment.

There are no set rules for activity or thought within the liminal space. Lack of restriction of activity within this space allows the user free movement; to go wherever pleases his psychological state, with no requirement for justification. The network is conceptualised within a three-dimensional form.

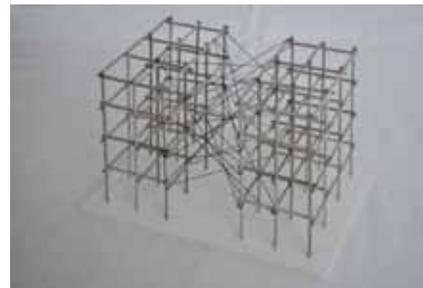
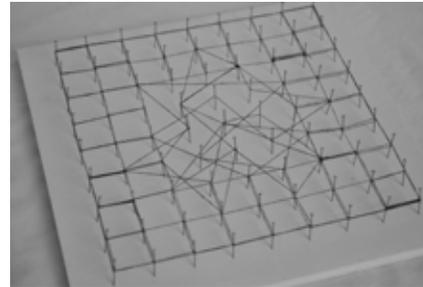
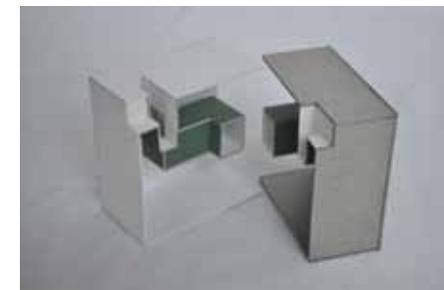


Figure 5.2: *Conceptual models of liminal space*



5.2 ORGANISATION OF THE LIVING SPACES AND THE WORKING SPACES

The requirement for physical separation of the living and the working generates a space between. The researches identifies that the articulation of this space requires more than a common courtyard or 'street' within the built form to effectively enhance the liminal moment. The liminal space requires alternative, indirect routes, and variety of spaces. To maximise these initiatives the given route between one particular apartment unit and respective work unit, requires the journey between to be of reasonable duration in order to provide sufficient time for the liminal moment to be achieved and not rushed.

Having all the living units grouped together and all the working units grouped together, with a space in-between does not evoke a sense of discovery or encourage further exploration and time spent within the in-between space, due to its monotonous format. (diagram). At the opposite end of the scale is the organizational form of alternating live and work units – like a checkerboard.

The layout characterized by alternating live and work units allow occupants the chance to interact with other occupants work spaces and live spaces. Allows the opportunity for stronger connection between businesses. Occupants take interest in each others businesses, due to the proximity of living and working spaces. The relationships between the occupants of the building are strengthened which helps to overcome the issue of social isolation.

The alternating design of living and working units has the additional advantage that the entire structure is more generally populated at all times of the day or night, creating a vibrant atmosphere in all locations across the building. Diagram 1 has the potential for one half of the building to be largely populated whilst the other lies empty relating to when most people are at work or at home. A useful framework to set up this journey is therefore a mixed live and work unit layout as shown in diagram 2.

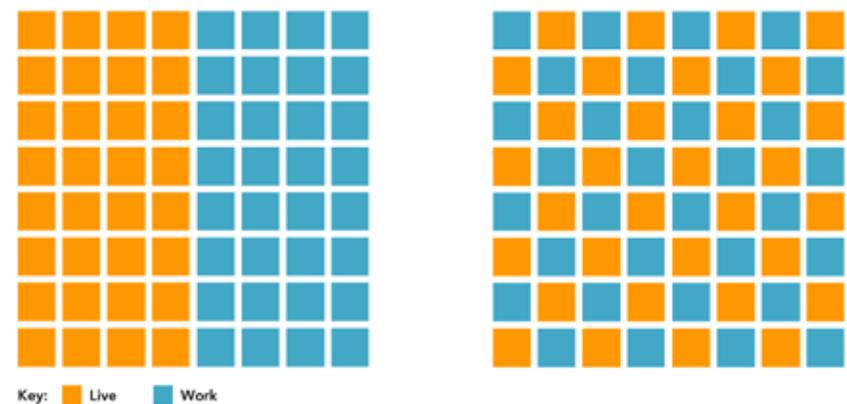


Figure 5.3: *Exploration of live-work arrangement*

5.3 CIRCULATION

The circulation within the building is a central focus for this research project and has been largely informed by the theoretical research and analysis of examples.

It has been identified that people living in a live-work scenario can become to feel socially isolated. The project definition proposes that approximately fifty people would live in the intervention. The design is thus required to provide spaces which facilitate both formal and informal social interaction. This could be achieved through the use of well designed courtyard-type spaces, that attract congregation. The network system conceived for the project circulation will also provide the means for casual social interaction, as one is able to unsuspectingly ‘bump’ into other occupants as they move through the circulation system. This has been conceptualized to mitigate the occupants from feeling socially isolated within the project.

It is acknowledged within this research that on occasion people require solitude and private respite. The design caters for this by offering several small retreat spaces of varying spatial articulations. The public and private retreat spaces form the basis for the organization of the conceived network system. Public gathering spaces are located within the centre of the network. The private retreat spaces are located further out from the centre to achieve more tranquil space, away from the busy central space/s. The private spaces are all connected to the public, as well as to each other producing an outer ring of circulation. This peripheral circulatory system provides alternative routes of travel to move around the network.

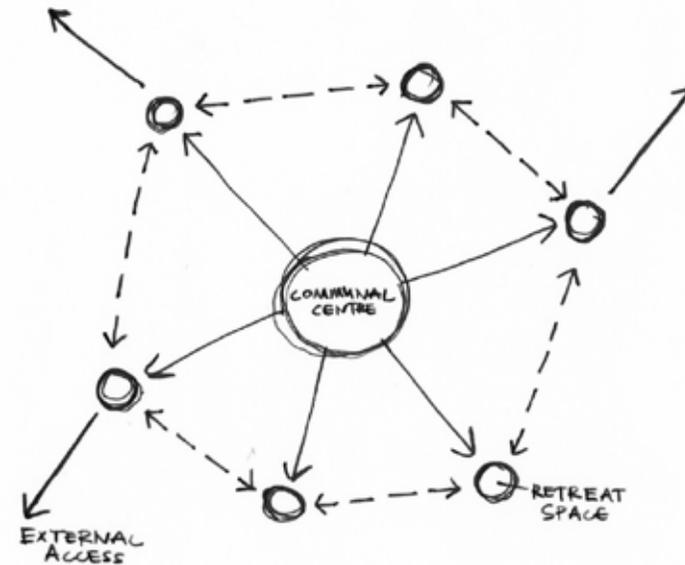


Figure 5.4: Development of network for circulation

The network not only organizes the internal circulation of the project but also (determines the) links to its context and wider laneway, street and city networks. The network provides for multiple connections to the context allowing varied access to the project.

5.4 THE JOURNEY BETWEEN LIVE AND WORK

As previously stated, the journey between the occupants living unit and their working unit needs to provide sufficient means for them to have periodic unfocussed breaks. The organization of the live and work are overlaid with the circulation network to further explore the concept and develop the journey between.

The journey between live and work requires the occupants to move past at least one private respite space, and central communal space. This allows the occupants choice of space depending on what is relevant at a particular time for them. The accessibility of these spaces encourages occupants to choose to stop and pause with a 'break' space. While you cannot force people to use these spaces, they are offered and allow the occupant the choice to utilize them for their 'break'.

The criteria for the journey determines the need to 'match' live units and work units, in order for each occupant of the building to experience this journey. This will be used as a rule for design to ensure that every occupant moves through both public and private spaces in their commute between their apartment and workspace.

The journey is required to offer the occupants multiple choices of routes between their living unit and their working unit. In addition each route offered meets the criteria that it include at least one private respite space and communal space through which the occupant will pass.

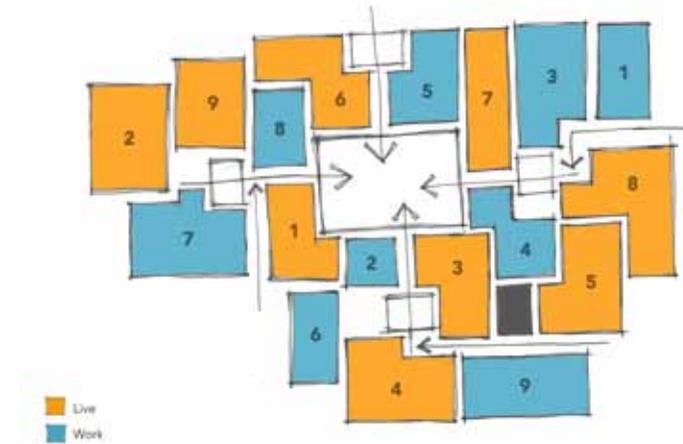


Figure 5.5: Conceptual plan of live-work arrangement

1. The numbers on the diagram relate to each other that is; the occupant of number nine living unit, works in the number nine work space.

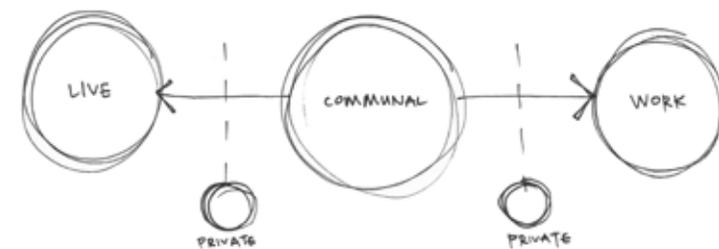


Figure 5.6: Diagram representing the journey between live and work

The network induces movement in some places and encourages pause in others. The ‘stop-start’ nature of the journey is designed to allow the user sufficient ‘break’ in order to achieve opportunities for psychological relief by means of the liminal moment. Akin to a road containing speed bumps, specific architectural elements can be utilized to slow the pace of the journey and restrict the occupant from rushing this moment. Just as speed bumps are designed to keep people safe, these elements aim to safeguard the occupants’ psychological well-being. Christopher Day propounds the requirement for slow paced movement through architectural works as he states “places can’t acquire life unless they invite us to stop, not just pass through.”⁸⁷

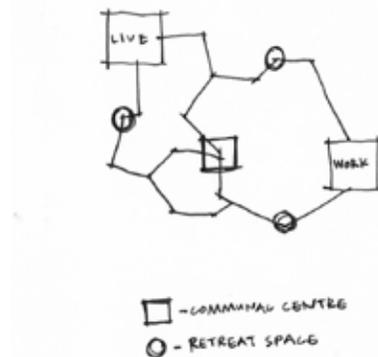


Figure 5.7: Plan diagram representing the varied journey conceived for the project with break spaces

87 Christopher Day, *Places of the Soul : Architecture and Environmental Design as a Healing Art*, 2nd ed.(Burlington: Elsevier, 2004), 244.

5.5 PLACE IDENTIFICATION

An issue that arises from the design of the network system is the likelihood of occupants and/or visitors and clients getting lost within the network.

As identified in the research, regular urban street layouts such as that of New York City, would be easy to get lost within due to its placeless nature. Within medieval street layouts, town squares, or prominent buildings can be used as place markers, to identify where you are located. Allan Jacobs propounds that a ‘great street’ is needed to give focus to a city, referring to a common place with which to familiarize oneself.⁸⁸ This notion is applied to the intervention as a means to mitigate confusion for occupants and visitors when moving within the transition spaces to get to a specific destination.

Whilst the network is aimed to have many differing spaces and routes it is not intended to confuse. A common space located at the heart of the network is conceived for the intervention as a prominent landmark in aim to create a familiar place for inhabitants. As well as several smaller retreat type spaces, located within or adjacent to the transition.

88 Jacobs, *Great Streets*, 257.

6.0 DESIGN RESPONSE

6.1 SPACE REQUIREMENTS

Space requirements are approximate and used as a guide for design but may alter slightly during the design process.

One bedroom apartments:	70m ²
Two bedroom apartments:	100m ²
Three bedroom apartments:	110m ²
Workspaces:	ranging from 40m ² to 60m ²
Lift lobbies including the lift space:	10m ²
Main courtyard space:	80m ²

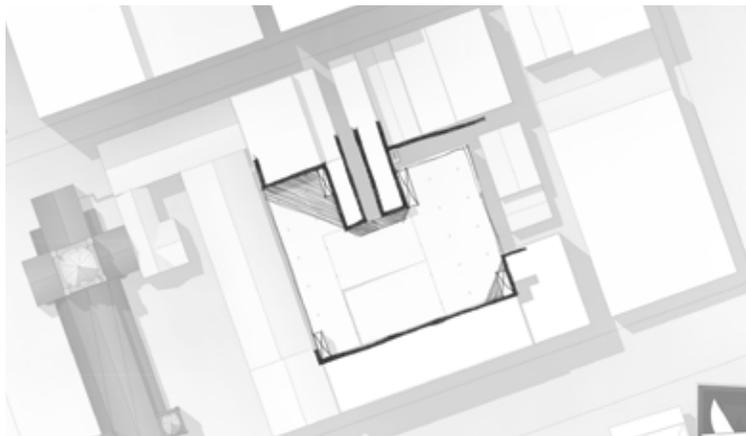


Figure 6.1: Plan of site showing 'dark' spaces - areas that receive minimal sunlight

6.2 RESPONSE TO SITE

The initial response to the site prompted the exploration of built form and central space, to identify an appropriate formation that would work with the constraints of the site.

The northern and southern edges of the site run adjacent to several taller buildings enclosing the site on these sides. This directly limits the amount of sunlight that the site receives. As recognised in the sun study, whilst the roof of the carpark does receive a sufficient amount of light, there are several areas on the site somewhat sheltered from direct sunlight, particularly in the winter months. The north-west arm of the site receives little sunlight; as does the south-eastern corner and a small strip along the northern middle edge (as shown in figure.). Sun studies have been undertaken in respect to initial massing on the site to further understand this limitation.

Another constraint of the site is the inclusion of four existing fire exits located at the corners of the site – three of the four fire exits are used as fire egress for surrounding buildings, limiting the possibility of moving these fire exits to alternative locations.

An adjacent office building to the north-west arm of the site has penetrations facing the site which provide light to the office building. For this reason the proposed intervention will not be able to be built right up to this edge. It is important that the intervention not hinder any direct sunlight that this adjacent building receives. Also acknowledged is the requirement that privacy be achieved for the occupants of each building particularly in respect to living spaces of the proposed intervention. Other adjacent walls of the site are blank, that is they do not have any penetrations which the design would need to consider and respond to.

6.2.1 INITIAL MASSING

'STREET' MASSING:

This massing formation is characterized by three main 'streets' that run parallel to each other from the Northern edge of the site to the Southern edge of the site. The main streets are a functional resolution for the form of the building as they allow direct sunlight to penetrate a greater area of space. These streets allow most of the units, both live and work, to have two facades with penetrations, allowing more light into the spaces, as well as providing cross ventilation. Arranged on a north-south axis, the units will receive both morning and afternoon sunlight.

ITERATION 1

The streets in this model run perpendicular to the northern and southern edges of the site. This massing option produces greater usable space for the live and work units than iteration 2.

ITERATION 2

Maintaining the 'street' formation, the streets of this iteration follow a true north-south axis. They receive a greater amount of sunlight through the streets and on the facades of the form, than iteration 1.

'CIRCULATION' MASSING:

A massing option around the circulatory network was studied also, however this massing did not achieve as much sunlight to all of the units as the 'street' massing did, and some units faced south; receiving no direct sunlight during the winter months. It also meant that a proportion had only one wall of outlook. Privacy for apartment spaces was also difficult to achieve in this model. It was therefore concluded that the 'street' massing would achieve better results in terms of functionality for the live and work units.

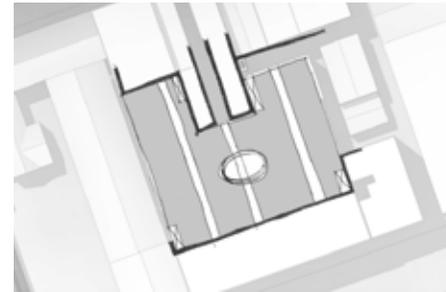


Figure 6.2: Massing iteration 1

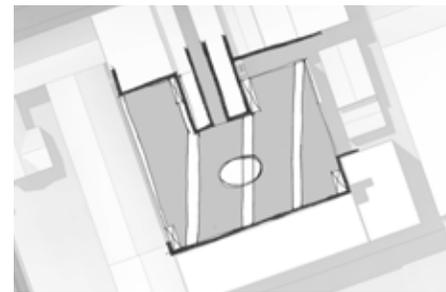


Figure 6.3: Massing iteration 2

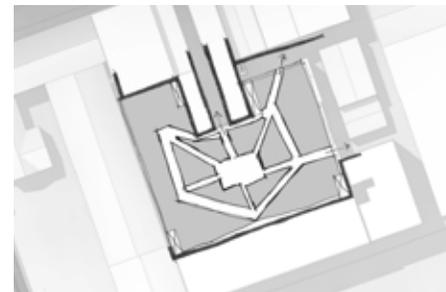


Figure 6.4: Circulation massing



Figure 6.5: Diagram of section through massing - Iteration 1

6.2.2 INTERNAL CIRCULATION

The network conceived for the project, as specified in the design criteria, was overlaid onto the 'street' massing for the site to further develop the building form. The massing for the project requires open spaces to allow sunlight to reach a significant proportion of the building complex. These open spaces, in the form of streets make up the primary circulation for the intervention and occur on all levels. Secondary 'lanes' connect the three main parallel streets. These 'lanes' vary in direction and placement to create a wide ranging journey through the intervention.

The circulation provides both public and private respite spaces to offer the occupant choice of retreat. A main courtyard space connected to both primary and secondary circulation is used as a public gathering place for occupants and visitors. The private retreat spaces are only accessed from the secondary circulation system.

The primary circulation is connected to three external access points of the building which strengthens the network between the intervention and the surrounding urban tissue. The project harmonizes with the existing laneway network of Melbourne City.

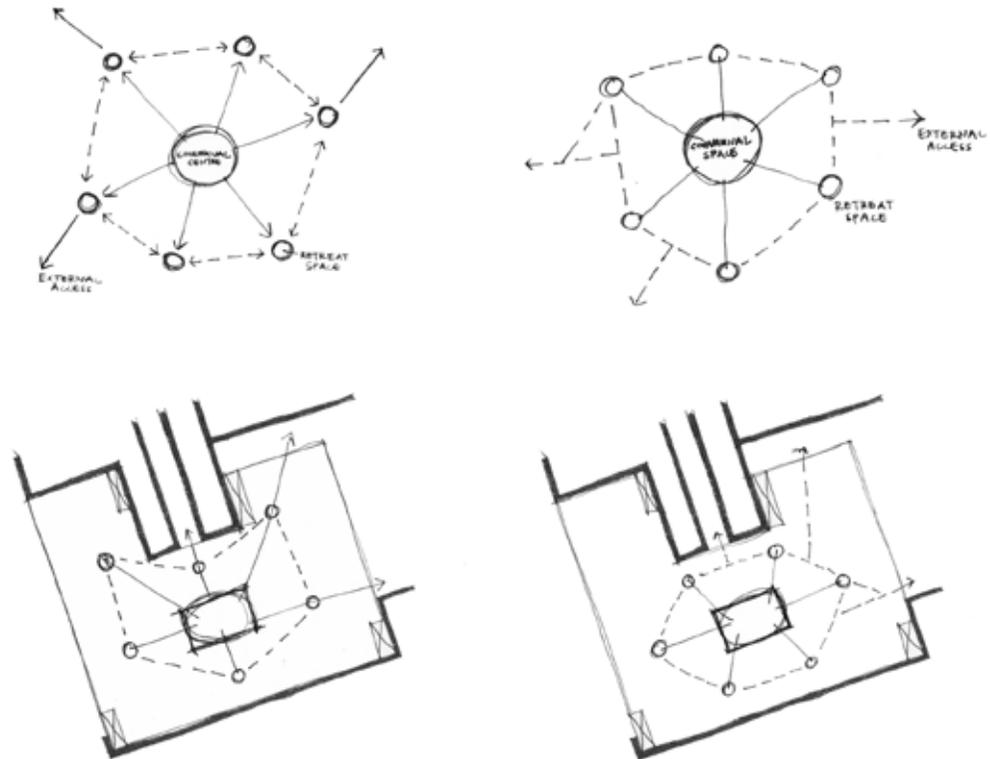


Figure 6.6: Network overlay on site

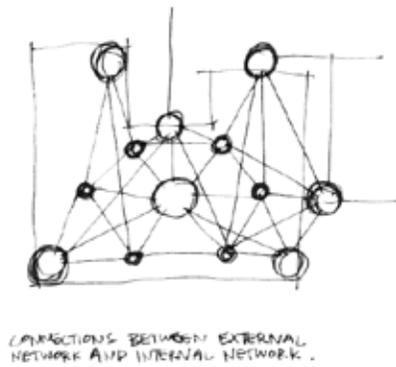
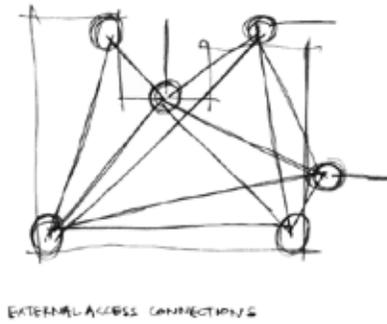


Figure 6.7: Development of network to link with context

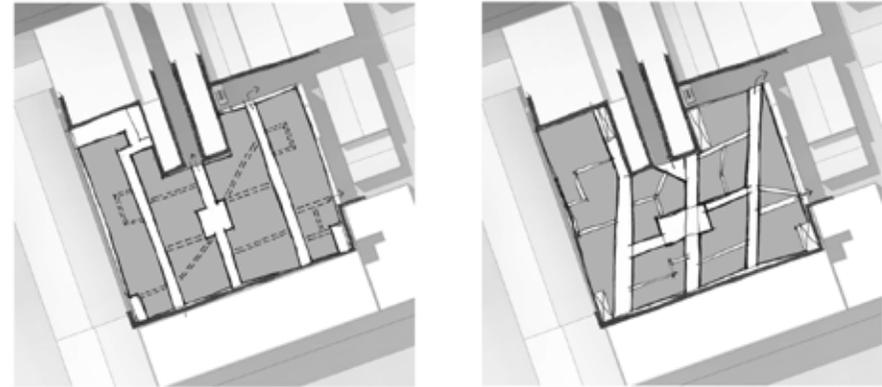
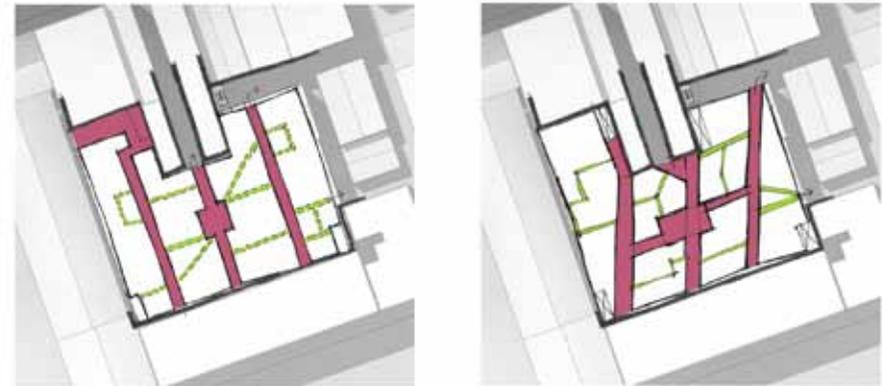


Figure 6.8: Network overlay across massing forms



Primary Circulation Secondary Circulation

Figure 6.9: Development of varying levels of circulation

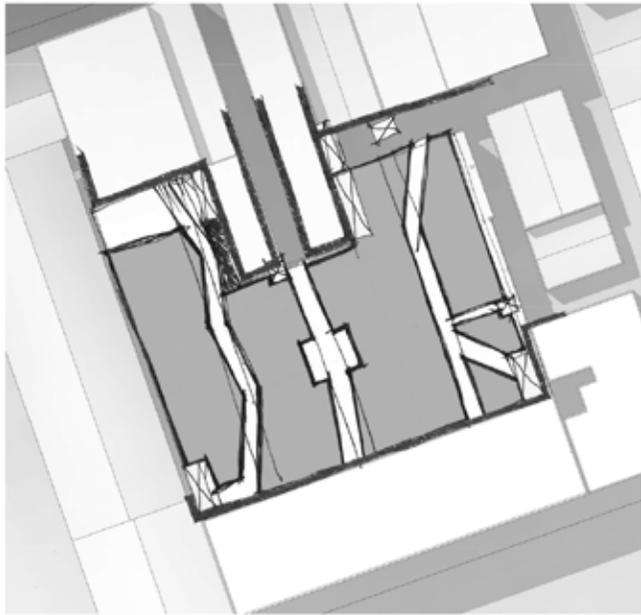


Figure 6.10: *Merged massing creating a third iteration*

ITERATION 3

This iteration was produced by combining the forms from iteration 1 and 2. It achieves high levels of sunlight into the streets whilst maximizing usable space. This iteration achieves a winding street effect; not being able to see the end of the street entices the user through the space encouraging further exploration and prolonging the journey. The aim is to draw out the liminal moment.

Whilst this research project is focused primarily on the network systems to articulate liminal space, it is necessary for the living spaces and the working spaces to be functional and attractive places to both live in and work in.

6.2.3 ACCESS TO THE BUILDING

The current journey to the rooftop of the car-park is disconnected. From the entry points the carpark building is not visible at all. Without signposting you would not know how to get into it. The visual disconnection of entry to the destination gives the viewer a weak and un-enlivened journey.

The intervention is intended to have a strong connection to the city fabric. It is not intended that the occupants will require the use of a private vehicle therefore strong pedestrian connection needs to be established. Shadrach Woods expressed that “the basic axiom that every extension to the city is an extension of the city and cannot be considered as a self contained unit, isolated by its introspective nature from the rest of society.”⁸⁹

Multiple entries are intended to connect with the existing network of laneways within Melbourne’s municipal area. Access from the laneways further accentuates the journey for the occupants. Three chosen access points make the connection between the ground and rooftop building visible. Multiple entries provide further opportunities for choice within the project and build on the theme of variety characterized by the network.

Access the building from the adjacent laneways, where the building can be seen, controls the occupants movement through a series of spaces with varying levels of privacy and traffic flow. Moving through a succession of spaces allows the user to slowly adjust from very public space to very private space.

⁸⁹ Shadrach Woods, “Stem,” *Architectural Design*, no. 5 (1960): 181.

Strategically placed lift shafts visually connect the ground plane to the rooftop. The connection to the building can clearly be seen but there is still an element of curiosity. Parts of the network are hinted at from the ground level, but the intricate web of transition within the building is secret to the passer-by, giving a feeling of exclusivity to the spaces within.

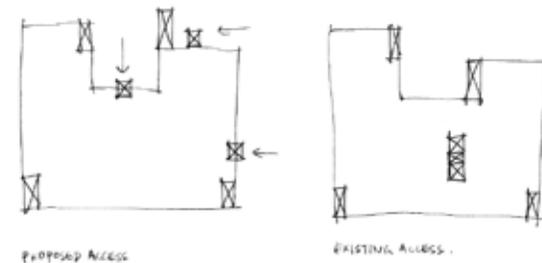


Figure 6.11: Existing access, and proposed access

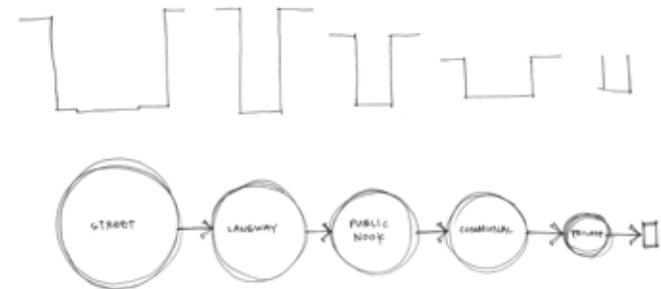


Figure 6.12: Diagram of the journey from street to home

6.3 THE ISSUE OF PRIVACY

The network circulation proposed for the intervention makes it difficult to achieve privacy for residents particularly for the living units. It is not desirable to have external circulation adjacent to private bedroom and living spaces. Maintaining privacy has been achieved through the use of internal courtyards within several masses of the built form. The courtyards create a central inward focus for the living spaces allowing external circulatory spaces to run adjacent to external walls of the living unit without hindering the privacy for the occupants.

The choice to have alternating live and work spaces necessitates consideration be given to ensuring that work spaces are arranged so as not to look directly into living spaces. The living and working units require different stud heights. The work units are generally required to have a larger stud height than the live units to allow flexibility of activities and suit a range of occupational groups. By stacking these units in such a way some staggering is achieved due to the different heights of the living and working units. Staggered levels are proposed so that windows are not directly aligned and consequently not looking directly into each others spaces, maintaining privacy for all occupants.



Figure 6.13: Sectional diagrams indicating staggered stacking of units to ensure privacy

6.4 ARTICULATION OF ROUTES

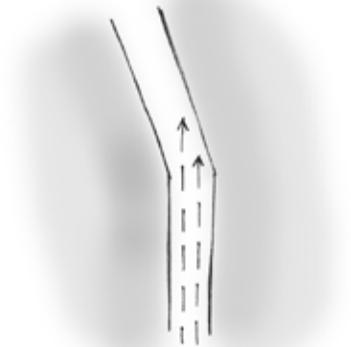
This series of diagrams investigates how different circulation layouts can be used to entice the user to further explore a particular route, lengthening their journey and thus time spent within the liminal moment.



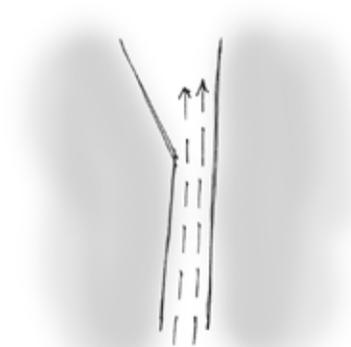
Figure 6.14: Indicative perspective within 'street' space



Figure 6.15: Indicative perspective of secondary circulation



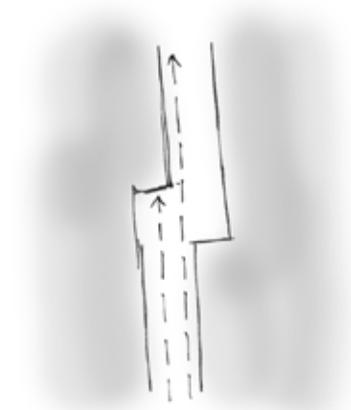
In layout 1 the end point of the street is not immediately evident so the user could potentially be encouraged to explore the intervention further.



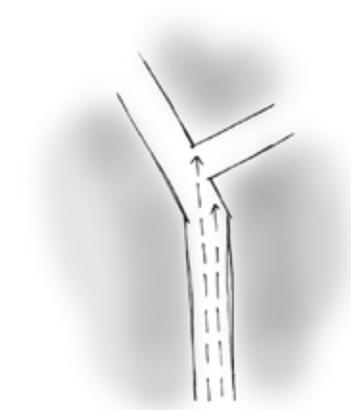
In layout 2 the end point is immediately visible so the user is not enticed to explore further. The slight bend in the built form may possibly encourage further exploration but is less likely to compared to other explored layouts.



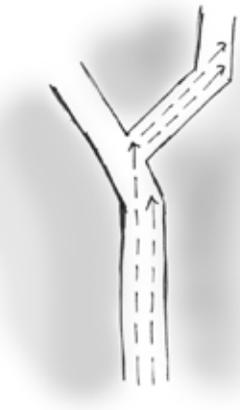
Layout 3 presents an abrupt corner within the route. From within this form there could appear to be a dead end, potentially deterring the user from exploring the route further.



Layout 4 produces a glimpse of the end point potentially arousing curiosity and inviting further investigation of the space.



In layout 5 the end point is not visible however alternative routes are presented to the user, heightening curiosity by opportunities to explore the spaces further.



Layout 6 is similar to layout 5. The user is drawn along the route by curiosity for discovery as the end point is not visible and continues to be elusive.

Figure 6.16: Exploration of route formations to entice users through circulation space

6.5 DEVELOPMENT OF FLOOR PLANS

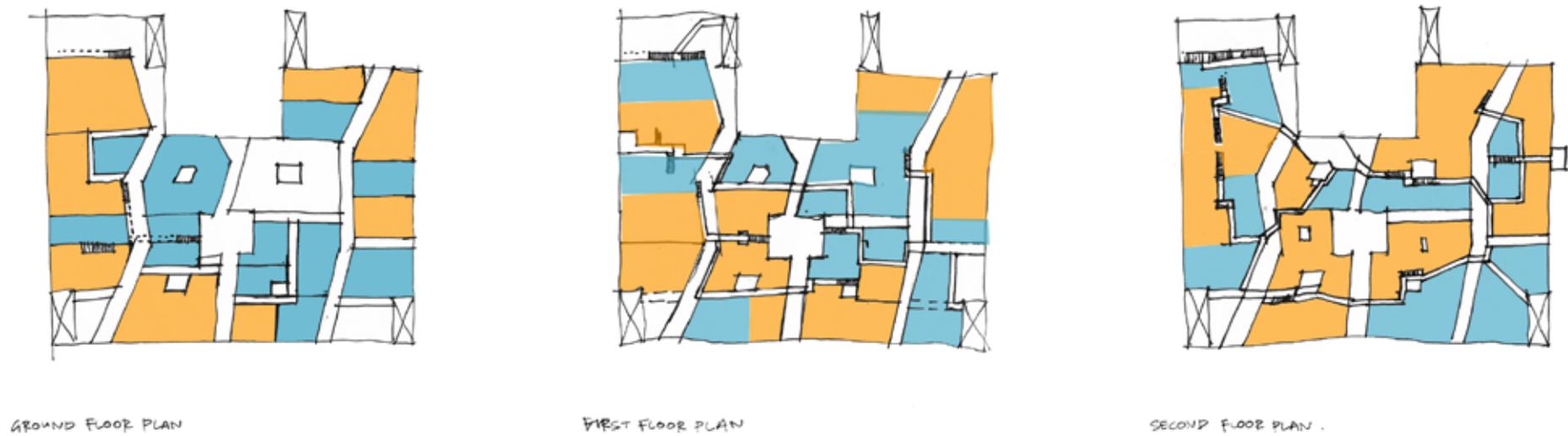
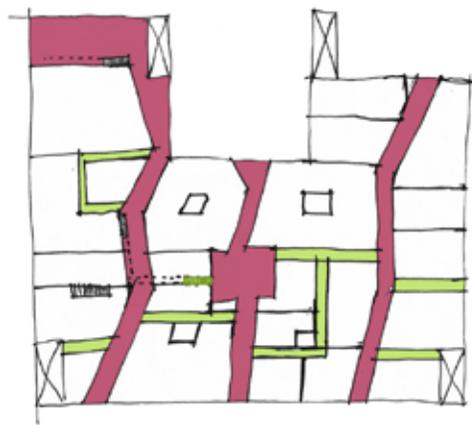
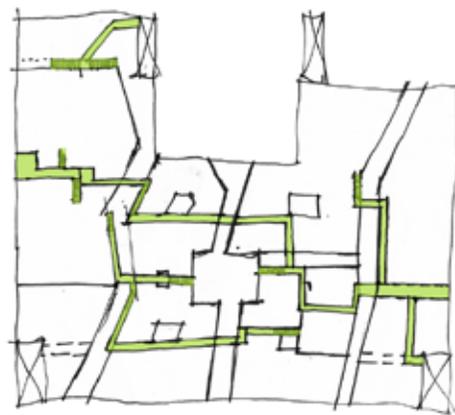


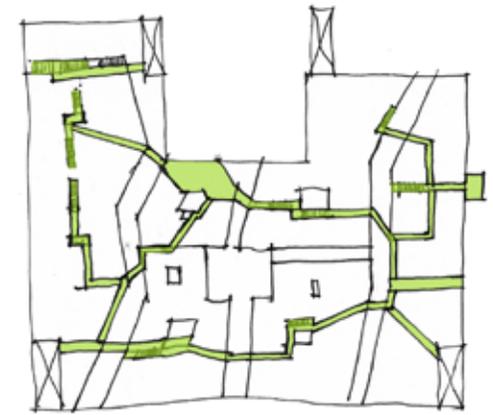
Figure 6.17: Proposed floor plan layout - indicating relationship between live and work units



GROUND FLOOR PLAN



FIRST FLOOR PLAN



SECOND FLOOR PLAN

Figure 6.18: Proposed floor plan layout - indicating circulation web across all levels

7.0 CONCLUSION

As cities sprawl outward increasing amounts of time and resources are spent on the commute between home and work. One response to this issue is the densification of urban centres, and the subsequent increased relevance of the live-work typology. This project set out to investigate how opportunities for psychological relief could be achieved in architecture, with a specific focus on a live-work scenario. Research into the live-work typology identified the need for separation of 'home-life' and 'work-life' and led to the concept of a 'break' space. Further investigation of this idea exposed the notion of liminal space. Enhancing the liminal moment in the absence of the commute between home and work became a fundamental challenge for the project.

Research included the examination of several architectural examples. Each of these precedents exemplified a network for circulation, exploring both intentional and unintentional use of the network system. Throughout the project ideologies of 'in-between' space were sought to support the exploration of liminal space. Emerging ideas included 'the house as tiny city' and the concept of the 'web' as a structure for circulation leading to an analysis of city street layouts. The principles of variety of route and the chance encounter were developed to further define the network. These ideas were incorporated into the design of a live-work, or rather a live-nearby, programme in which a web structured circulation system connects the living and the working spaces within a unified building. Site location and functional considerations such as sunlight, access and spatial requirements influenced the form of the design.

Application of the live-work typology has been a useful framework to test the relevance of a 'break' space within architectural works. Twenty-first century living imposes many forms of stress which manifest in people's everyday lives, including work life and home life. These two activities form a major part of daily routines. Creating time and space to escape from these everyday pressures is pertinent for maintaining psychological well-being, giving credence to consciously forming moments for liminality. This also suggests that creating a space for the liminal moment could be applied to other programmes for example health or education facilities.

In conclusion, this research project has demonstrated the value of the journey in enhancing the liminal moment within everyday life. In modern society financially driven decisions frequently influence the design of circulation systems without due consideration to the value of the journey and its possible benefits to personal well-being.

8.0 BIBLIOGRAPHY

Andreasen, Nancy. "Secrets of the Creative Brain." (2014). <http://www.theatlantic.com/features/archive/2014/06/secrets-of-the-creative-brain/372299/>

Avermaete, Tom. *Another Modern: The Post-War Architecture and Urbanism of Candilis-Josic-Woods*. Rotterdam: NAI Publishers, 2005.

Bergdoll, Barry. *European Architecture 1750-1890*. New York: Oxford University Press, 2000.

Berman, E. L. "Work/Life Balance." *Engineering Management Review*, IEEE 30, no. 4 (2002): 116.

Bowring, Jacky. "The Liminal, the Subliminal and the Sublime: Crossing between Landscape and Architecture." In *Limits: Proceedings from the 21st Annual Conference of the Society of Architectural Historians Australia and New Zealand*. Melbourne, Australia: Society of Architectural Historians, Australia and New Zealand, 2004.

"A Brief History of the Workhome." Accessed 23 March 2014. <http://www.theworkhome.com/history-workhome/>

Council, Melbourne City. "Council Plan 2013-17." Melbourne, 2012.

Council, Planisphere and Melbourne City. "Central City (Hoddle Grid) Built Form Review: Overview Report." Melbourne, 2011.

Cullen, Gordon. *The Concise Townscape*. Oxford; Boston: Butterworth-Heinemann, 1995.

Day, Christopher. *Places of the Soul : Architecture and Environmental Design as a Healing Art*. 2nd ed. Burlington: Elsevier, 2004.

Design, Cutting Edge Planning and. "Does Live/Work: Problems and Issues Concerning Live/Work Development in London." 2005.

Dolan, Thomas. *Live-Work Planning and Design: Zero-Commute Housing*. Hoboken: John Wiley & Sons, 2012.

Eyck, Aldo van. "The Child, the City and the Artist: An Essay on Architecture; the in-between Realm." In *Aldo Van Eyck: Writings*. Edited by Vincent Ligtelijn and Francis Strauven. The Netherlands: Sun Publishers, 2006.

Frampton, Kenneth. *Modern Architecture: A Critical History*. London: Thames and Hudson, 1980.

Friedman, Avi. *Inspired Homes: Architecture for Changing Times*. Victoria, Australia: The Images Publishing Group Pty Ltd, 2013.

Gabriel Feld, Mohsen Mostafavi, Manfred Schiedhelm, Peter Smithson, Alexander Tzonis, Liane Lefaivre and George Wagner. *Exemplary Projects 3: Berlin Free University*. London: AA Publications, 1999.

Gateley, Julia. *Athfield Architects*. Auckland: Auckland University Press 2012.

Government, Bureau of Meteorology: Australian. "Climate Statistics for Australian Locations." Last modified 2 October 2014. Accessed

15 September 2014. http://www.bom.gov.au/climate/averages/tables/cw_086071.shtml

Gurstein, Penny. *Wired to the World, Chained to the Home: Telework in Daily Life*. Vancouver, Canada: UBC Press, 2001.

Hertzberger, Herman. *Space and the Architect: Lessons in Architecture 2*. Translated by John Kirkpatrick. Rotterdam: 010 Publishers, 2000.

Holliss, Frances. "Beyond Live/Work." *Planning in London* Oct-Dec, no. 67 (2008).

Holliss, Frances. "From Longhouse to Live/Work Unit: Parallel Histories and Absent Narratives." In *Built from Below: British Architecture and the Vernacular*. Edited by Peter Guillery. New York, USA: Routledge, 2011.

Jabr, Ferris. "Why Your Brain Needs More Downtime." (2013). Published electronically 15 October 2013. <http://www.scientificamerican.com/article/mental-downtime/>

Jacobs, Allan B. *Great Streets*. Fifth ed. Cambridge, Massachusetts: MIT Press, 1999.

Joedicke, Jürgen. Candilis, Josic, Woods: *A Decade of Architecture and Urban Design*. Stuttgart: Karl Krämer, 1978.

Kundtz, David. *Moments in Between: The Art of the Quiet Mind*.

Cork: Red Wheel Weiser, 2006.

Kundtz, David. *Quiet Mind: One-Minute Retreats from a Busy World*. Cork: Red Wheel Weiser, 2003.

Lawlor, Anthony. *The Temple in the House: Finding the Sacred in Everyday Architecture*. New York, USA: G. P. Putnam's Sons, 1994.

Melling, Gerald. *Joyful Architecture: The Genius of New Zealand's Ian Athfield*. Dunedin, NZ: Caveman Press, 1980.

Reynolds, John Walsh and Patrick. *Home Work: Leading New Zealand Architects' Own Houses Auckland, NZ*: Godwit, 2010.

Salomon, Boas Shamir and Ilan. "Work-at-Home and the Quality of Working Life." *Academy of Management Review* 10, no. 3 (1985): 455-64.

Shadrach Woods, George Candilis and Alexis Josic. "Berlin Free University." *Le Carré Bleu*, no. 1 (1964).

Stevens, Quentin. "Betwixt and Between: Building Thresholds, Liminality, and Public Space." In *Loose Space: Possibility and Diversity in Urban Life*. Edited by Karen A. Franck and Quentin Stevens. New York, USA: Routledge, 2007.

Strauven, Francis. *Aldo Van Eyck: The Shape of Relativity*. Amsterdam, The Netherlands: Architectura & Natura, 1998.

Wichtel, Diana. "Interview: Architect Ian Athfield." Published electronically 23 June 2012. <http://www.listener.co.nz/culture/interview->

architect-ian-athfield/

“Wind and Weather Statistics Melbourne.” Windfinder. Accessed 15 September 2014. <http://www.windfinder.com/windstatistics/melbourne>

Woods, Shadrach. “Stem.” *Architectural Design*, no. 5 (1960).

Zucker, Paul. *Town and Square*. New York: 1959. Cited in Christian Norberg-Schulz, *The Concept of dwelling: On the way to Figurative Architecture*. New York: Rizzoli International Publications Inc., 1985

Zumthor, Peter. *Atmospheres : Architectural Environments ; Surrounding Objects / Peter Zumthor*. [in English]. Basel: Birkhäuser, 2006. Book.

9.0 LIST OF FIGURES

- 2.1: Blacksmith working adjacent to living quarters c. 1900 <http://www.theworkhome.com/history-workhome/>
- 2.2: Early nineteenth century weavers' workhome <http://www.theworkhome.com/history-workhome/>
- 2.3: Conceptual diagram of Ebenezer Howard's Garden City. https://31.media.tumblr.com/tumblr_m2x4m5SEAL1rrtifo1_500.jpg
- 2.4: Ozenfant house by Le Corbusier, 1922 <http://www.pinterest.com/pin/321866704590761792/>
- 2.5: Diagram of 'live-adjacent' proximity type Thomas Dolan. Live-Work Planning and Design: Zero Commute Housing
- 2.6: Diagram of 'live-with' proximity type Thomas Dolan. Live-Work Planning and Design: Zero Commute Housing
- 2.7: Diagram of 'live-nearby' proximity type Thomas Dolan. Live-Work Planning and Design: Zero Commute Housing
- 2.8: Plan of a Japanese Machiya Katsuhiko Mizuno. Courtyard Gardens of Kyoto's Merchant Houses
- 2.9: Spatial diagram of typical English Longhouse – Author
- 2.10: Row of Vietnamese Tube houses
- 2.11: Vertical organisation of Vietnamese Tube houses – Author
- 2.12: Diagram of Modernist zoning principles by Leon Krier. Leon Krier. Architecture of Community
- 2.13: Diagram of separated live and work – Author
- 2.14: Diagram illustrating the threshold as a space. Avi Friedman. Inspired Homes: Architecture for changing times.
- 2.15: Analysis of the established boundaries between live and work in several prominent individual 'houses' signifying the relevance of separation of live and work – Author
- 2.16: Child lingering on the threshold between spaces in Aldo van Eyck's Orphanage in Amsterdam <http://thesleepofrigour.files.wordpress.com/2013/01/orph-archival021.jpg>
- 2.17: Plan of Sonsbeek Pavilion. Francis Strauven. Aldo van Eyck: The Shape of Relativity
- 2.18: Children playing within the 'streets' of the Sonsbeek Pavilion. Aldo van Eyck: The Shape of Relativity
- 2.19: Axonometric view of Athfield House and Office showing the relationship of living to working – Author
- 2.20: Tower used for private respite - Author
- 2.21: Tower porthole overlooking Wellington Harbour - Author
- 2.22: Within the external circulation space, overlooking a communal space - Author
- 2.23: Staircase leading to a communal 'break' space - Author
- 2.24: Communal enclosed courtyard located between working spaces - Author
- 2.25: Stairs leading to small exposed rooftop space above offices – Author
- 2.26: Analysis of external circulation routes - Author
- 2.27: Axonometric view of external circulation routes – Author
- 2.28: Analysis of communal and private respite spaces within Athfield House and Office - Author
- 2.29: Analysis of enclosure within the respite spaces of Athfield House and Office - Author
- 2.30: Analysis of relationship between respite spaces and live/work – Author
- 2.31: Comparison of built form and circulation of several models of urban street layouts – Allan Jacobs. Great Streets and Author
- 2.32: Analysis of street layout of Rome indicating places of rest within the circulatory system – Author
- 2.33: Courtyard space with interconnecting circulation. Mohsen Mostafavi Gabriel Feld, Manfred Schiedhelm, Peter Smithson, Alexander Tzonis, Liane Lefavre and George Wagner. Exemplary Projects 3: Berlin Free University
- 2.34: Aerial view of Berlin Free University. Mohsen Mostafavi Gabriel Feld, Manfred Schiedhelm, Peter Smithson, Alexander Tzonis, Liane Lefavre and George Wagner. Exemplary Projects 3: Berlin Free University
- 2.35: Ramp vertically connecting the main, parallel 'streets'. Mohsen Mostafavi Gabriel Feld, Manfred Schiedhelm, Peter Smithson, Alexander Tzonis, Liane Lefavre and George Wagner. Exemplary Projects 3: Berlin Free University
- 2.36: Watercolour depicting Picturesque landscape; Coplestone Warre Bampfylde, 'Stourhead Please Grounds' c. 1775
Barry Bergdoll. European Architecture 1750-1890
- 2.37: Medieval winding street, encourages further exploration. Christian Norberg-Schulz. The Concept of Dwelling.
- 2.38: Plan view of a typical Medieval street. Allan Jacobs. Great Streets
- 4.1: Port Phillip, Melbourne, Australia. <https://www.google.com/maps/place/Melbourne+VIC,+Australia/@-37.8602828,145.079616,100186m/data=!3m2!1e3!4b!4m2!3m1!1s0x6ad646b5d2ba4df7:0x4045675218ccd90>
- 4.2: Built form of greater site – Author
- 4.3: Analysis of activity of immediate context – Author
- 4.4: Dimensioned plan of site in context – Author
- 4.5: Images of car park rooftop – Author

- 4.6: Cross Section through site - Author
- 4.7: Long Section through site - Author
- 4.8: Plan of Melbourne's laneway network. Melbourne City Council: Built Form Review
- 4.9: Analysis of movement around site – Author
- 4.10: Plan showing site viewpoints - Author
- 4.11: View of Chapter House spire from site - Author
- 4.12: View of Cathedral spire from site - Author
- 4.13: View of Forum theatre tower - Author
- 4.14: Sun Study diagrams - Author
- 4.15: Site character images - medium grain - Author
- 4.16: Site character images - fine grain - Author

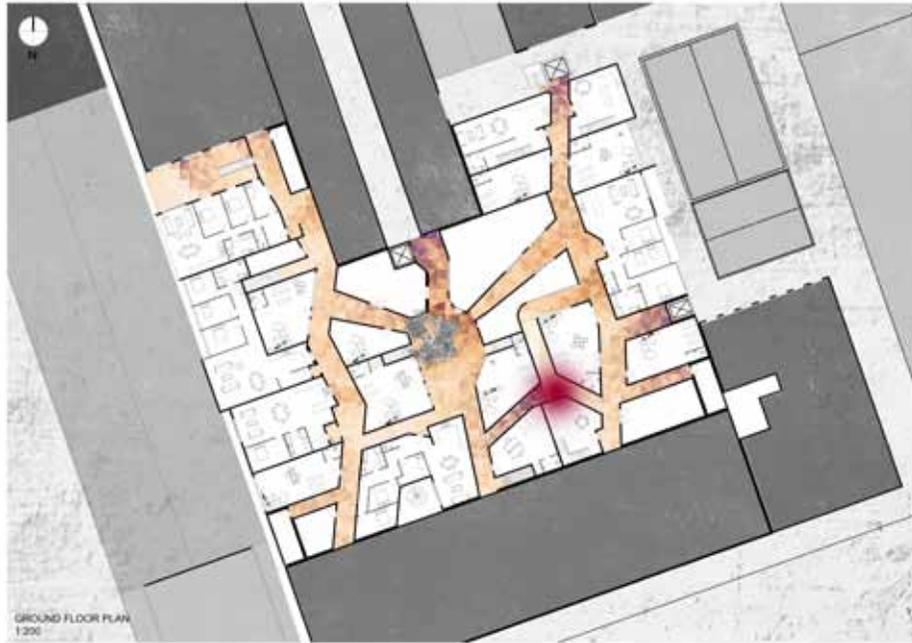
- 5.1: Exploration model of liminal space - Author
- 5.2: Conceptual models of liminal space - Author
- 5.3: Exploration of live-work arrangement - Author
- 5.4: Development of network for circulation - Author
- 5.5: Conceptual plan of live-work arrangement - Author
- 5.6: Diagram representing the journey between live and work - Author
- 5.7: Plan diagram representing the varied journey conceived for the project with break spaces - Author

- 6.1: Plan of site showing 'dark' spaces - areas that receive minimal sunlight - Author
- 6.2: Massing iteration 1 - Author
- 6.3: Massing iteration 2 - Author
- 6.4: Circulation massing - Author
- 6.5: Diagram of section through massing - Iteration 1 - Author
- 6.6: Network overlay on site - Author
- 6.7: Development of network to link with context - Author
- 6.8: Network overlay across massing forms - Author
- 6.9: Development of varying levels of circulation - Author
- 6.10: Merged massing creating a third iteration - Author
- 6.11: Existing access, and proposed access - Author
- 6.12: Diagram of the journey from street to home - Author
- 6.13: Sectional diagrams indicating staggered stacking of units to ensure privacy - Author
- 6.14: Indicative perspective within 'street' space - Author
- 6.15: Indicative perspective of secondary circulation - Author
- 6.16: Exploration of route formations to entice users through circulation space - Author
- 6.17: Proposed floor plan layout - indicating relationship between live and work units - Author
- 6.18: Proposed floor plan layout - indicating circulation web across all levels - Author

10.0 APPENDIX

FINAL PRESENTATION DRAWINGS

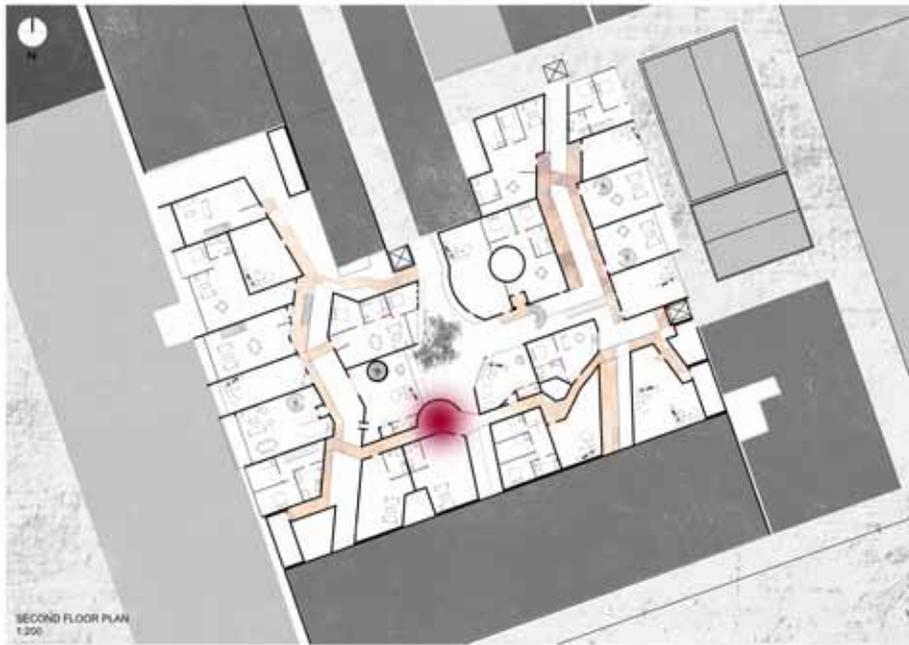
Floor plans indicating 'break' spaces



1. Ground floor plan



2. First floor plan



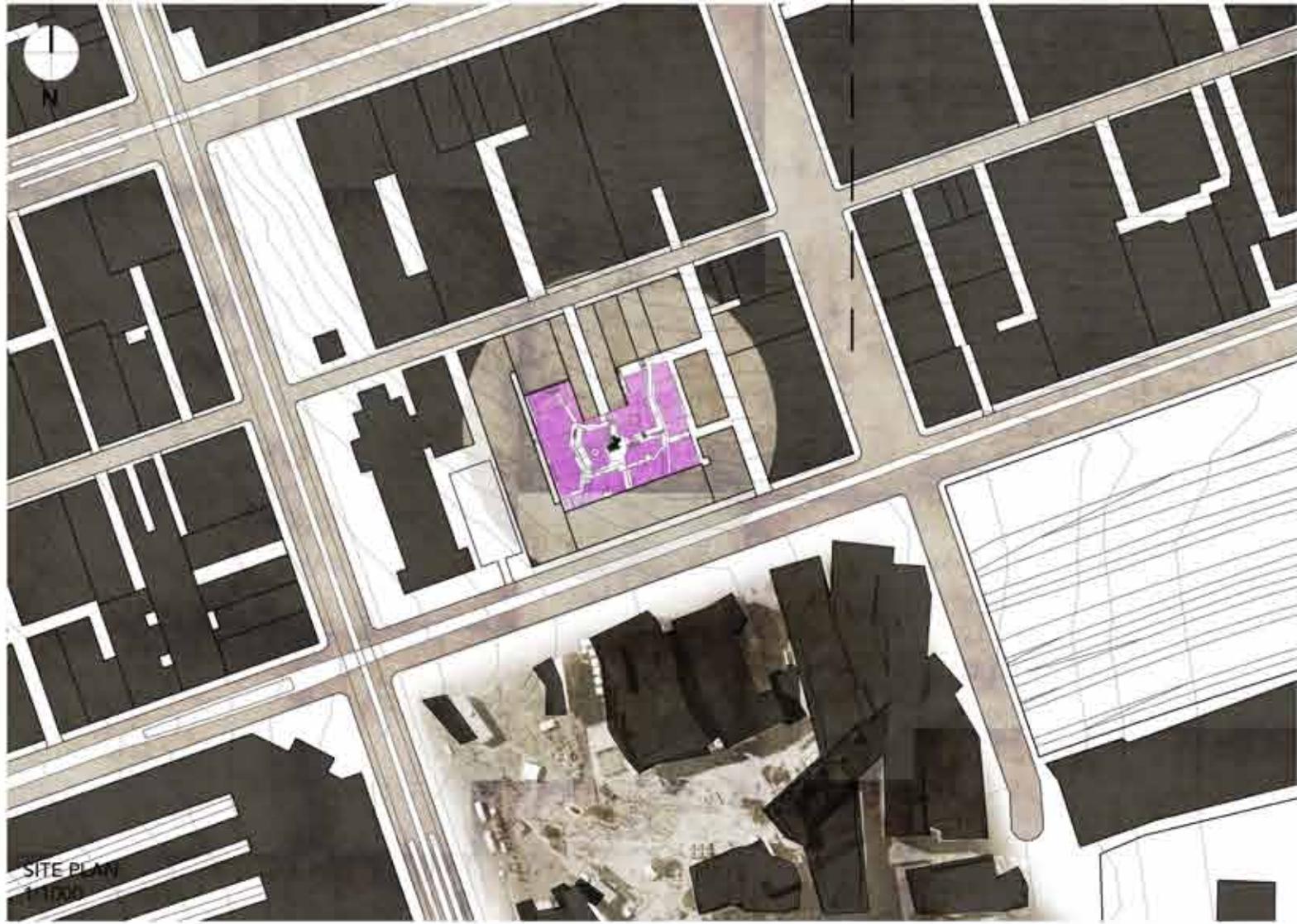
3. Second floor plan



4. Third floor plan



5. Serial vision of journey from 'living' to 'working'



6. Site plan



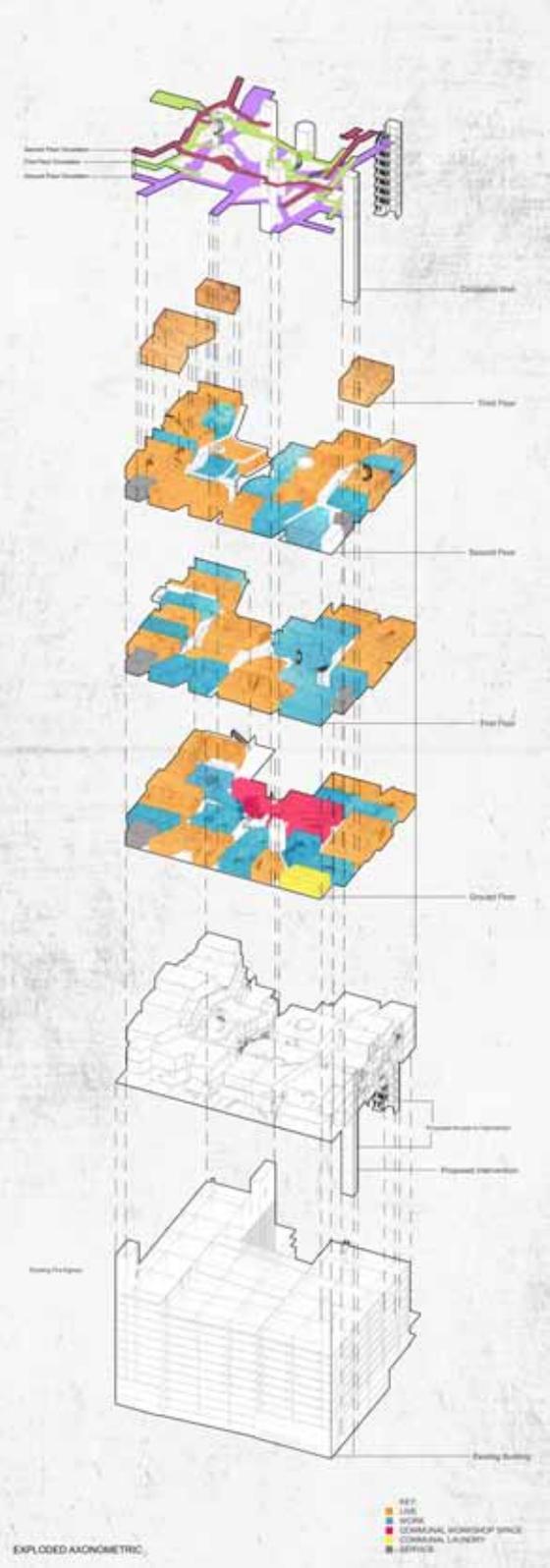
7. Perspective view of transitional space



8. Perspective view of communal break space



9. Sectional perspective showing interaction with context



10. Contextual model; proposed building shown in white mass

11. Exploded axonometric explaining organisation of living units and working units

12. Perspective view of private break space

