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I D E N T I T Y D I S P L A C E M E N T

A r c h i t e c t u r e , M i g r a t i o n & t h e I s l a m i c W o m a n

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Firstly, I would like to thank my family and partner who have provided me with continuous support and encouragement throughout the year. I would also like to thank my friends for their support, advice and encouragement.

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A B S T R A C T

Architecture can be regarded as both a product of culture and a medium that can influence change in contemporary society. Within the context of the Islamic woman refugee, architecture becomes intrinsically associated with the concept of socio-cultural sustainability because her cultural identity is challenged through the process of migration. Socio-cultural sustainability within the migrant context is concerned with maintaining cultural identity while allowing for transformation associated with the migration process. Furthermore, it aims to limit negative conflicts between ethnic groups that are often associated with misperceptions based on a lack of understanding. This thesis aims to further understand the role that architecture could play in the socio-cultural sustainability of Islamic women refugees living in Wellington. These women are often forced to make significant cultural changes through their migration process, and are faced with the question of which parts of their identity they maintain and which parts they adapt to the local culture. Traditional Islamic gender roles are challenged through the process of migration; where the Islamic woman, who was traditionally found within the home, is now becoming part of the professional workforce. The contrasting Western and Islamic perceptions of the veil identify that there are large gaps in the understanding of the other.

Both the house and the mosque are two architectural typologies that play a significant part in the lives of Islamic women refugees, and therefore the design case study is divided into 2 parts. Housing New Zealand Corporation (HNZC), who is responsible for housing recently-arrived refugees, commonly place refugee migrants in state properties.

These are unresponsive to the socio-cultural needs of most refugee migrants as they are generally designed for the New Zealand culture. Due to the limitations imposed on and by HNZC and the refugee housing process, the most feasible solution to this problem for the Islamic woman refugee is to provide Housing Design Guidelines for Islamic Women. They focus specifically on their socio-cultural needs and could be used in housing renovations and redevelopments by HNZC. The second and larger part of the design case studies concentrates on the redevelopment of the Kilbirnie Mosque in Wellington, which acts as an architectural symbol of Islamic identity. Unlike the house, it supports the wider concept of socio-cultural sustainability, which includes challenging the frequently negative perceptions towards the Islamic community. This is essential in fostering positive relationships between the migrant and the host community, which can significantly influence the re-settlement process of refugees. Traditional Islamic architecture is therefore critiqued in the design, through the concept of the veil and the contemporary position of the Islamic woman, in order to re-negotiate traditional perceptions.

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INTRODUCTION TO RESEARCH

In the context of the Islamic woman refugee, architecture can play an important role in the continuation of cultural traditions while simultaneously allowing for transformation. It can also act as a cultural medium that can help influence perceptions towards this ethnic minority. These concepts are explored in the thesis through the lens of socio-cultural sustainability, which aims to ensure that cultural traditions are maintained for communities while at the same time allowing for change. Additionally, it aims to reduce conflict frequently associated with mixed worldviews and misperceptions of the other. The general concept of sustainability within architecture is; however, frequently orientated towards the physical impact that buildings have on the environment. A broader view, endorsed by the United Nations, encompasses three other aspects – the economic, social and cultural – which are associated with a holistic view of sustainable development. Within an increasingly globalised world the migrant and refugee are becoming increasingly more common; however, their cultural identity is challenged through the process of migrating into an unfamiliar community. Therefore the social and cultural aspects of sustainability within architecture become significantly more important.

The impact of exile and displacement on the lives of Islamic women refugees is an important issue to discuss in relation to the concept of socio-cultural sustainability. This group have often faced trauma associated with violence from war and the loss of a known community and culture; and they are subsequently forced into an alien environment where they become part of a minority. Their previously known religion, values, and ways of life

often differ from those of the host community; which can result in conflicts, misunderstandings, racism and discrimination. For the Islamic community, the media plays a considerable role in negatively influencing the perceptions towards their group. This can often lead to destructive social relationships that challenge their re-settlement process. In addition to this, the Islamic woman refugee faces the task of reconstructing her life and identity in an unfamiliar environment. She often has to choose what aspects of her past life she wants to sustain and which parts she must reevaluate in the context of the new culture.

The house and the mosque are both potential architectural sites where the concepts of socio-cultural sustainability could influence the re-settlement process of Islamic women refugees. They can both play a role in identity formation, cultural continuation and transformation, and the process of integration into a new culture. Islamic refugees are a people who have been forced to migrate, and subsequently lose many aspects of their known culture unwillingly. The house they inhabit and their mosque become important mediums through which they can sustain cultural traditions and practices, and therefore maintain their sense of cultural identity. Current housing in Wellington barely acknowledges the specific socio-cultural needs of the Islamic refugee community. They are currently left with limited housing choice due to affordability, availability and the Housing New Zealand (HNZC) housing process. This often forces them to live in homes that do not respond to their socio-cultural requirements, as most homes they inhabit are designed for the New Zealand culture and are unresponsive to their own traditions. This can result in further stress and disorder during the re-settlement process. For this reason the importance of

addressing the need to maintain cultural traditions through architecture, while simultaneously allowing for changes associated with migration, becomes critical. The mosque within the New Zealand context acts as a symbolic site of Islamic identity that can not only help maintain cultural traditions, but also act as a medium that can influence the perceptions towards the Islamic community. Therefore, although the house is important to address, the mosque holds the potential to engage with the wider concerns of socio-cultural sustainability.

The aim of this research is therefore to develop a further understanding of the role that architecture could play in the socio-cultural needs of Islamic women refugees. The house and the mosque can both be considered important to the continuation of an Islamic woman's known culture and way of life. Housing design could help this community reconstruct their cultural identity, effectively improving their wellbeing. As introduced earlier, the mosque can not only help this community maintain their cultural and religious practices, but also act as a symbolic site of Islamic identity that could influence the perceptions towards this community. Although the mosque is traditionally conceived as an internalized space, its renegotiation within the Western context could offer a new, more public typology. This is especially important in the development of positive relationships between the Islamic community and the wider New Zealand community. Contemporary gender roles, which have traditionally differed between Islamic traditions and the New Zealand culture, play an important part in understanding the role of Islamic women refugees upon migration and how they are perceived.

The research negotiates inter-disciplinary boundaries, including anthropological and psychological research, which effectively places it within a wider social and cultural context. It enables a holistic view on both the refugee and their relationship to architecture within New Zealand. Joseph Robinson, a prominent architect who investigates the relationship between architecture and anthropology, understands the anthropological perspective as being complementary to architectural theory because “anthropology, like architecture, deals with the relationship between human artifacts and mental constructs” (1991: 157). Anthropology in the built environment is understood to be a medium for the communication and propagation of cultural ideas, which can either perpetuate cultural norms or enable change (Robinson 1991). The scope of the research examines primarily quantitative literature, which includes: the concept of socio-cultural sustainability; existing refugee housing conditions in Wellington; a conceptual study of the migrant home; a multi-disciplinary background study of the issues surrounding the refugee community and Islamic women; and the role of gender within Islam and its relationship to architecture. This includes an analysis of both contemporary and traditional mosques and Islamic homes. As limited research has been conducted on designing for the Islamic refugee community, it is necessary to gain this cross-disciplinary knowledge to highlight key cultural areas where the role of architecture as a communicative medium could become important. The limitations applied to the research include defining the concept of culture as religion, as Islam plays a dominant role in the values, morals and ways of life of Muslims. My personal background as a New Zealander, with limited interaction with the Islamic community, may restrict my understanding of their culture but may also provide an important external

perspective. The concept of sustainability is predominately explored through the social and cultural aspects.

The thesis is divided into two parts: the first is an analysis of the background research, and the second is a review of the design case studies. The background research involves five key chapters, each contributing to an interdisciplinary review of literature. The second part is a review of the design case studies, which explores how the concepts outlined in the literature review can be appropriated into architecture.

Chapter 1.1 introduces the four components of sustainability and provides a definition of the socio-cultural aspects to be referred to within the thesis. As discussed in the chapter, the four elements of sustainability have been conceived as the environmental, social, cultural and economic. The chapter focuses on the concepts of socio-cultural sustainability as these play a crucial role within the migrant context. Following from this, the relationship of socio-cultural sustainability to architecture is evaluated.

Chapter 1.2 is a review of current research on housing for refugee communities, and the problems associated with the Islamic woman living in Western houses. This includes New Zealand Government research, International research and interviews conducted by Change-Makers Refugee Forum. Research conducted by this organization, which is established by refugees for refugee research, is discussed in comparison to Government research. Both perspectives are summarized and a comparison is made that identifies important gaps within current Government research, which effectively holds power over the development of

social housing typologies. Following from this, the problems associated with Islamic women living in Western housing are discussed. Finally, a survey of existing state housing in Wellington is analyzed in relation to the socio-cultural needs of Islamic woman refugees, as these are the most common properties that they occupy.

Chapter 1.3 is a discussion of the role of the home within the context of migration. Initially, it provides a critique to the traditional notion of the home, which was associated with fixed and stable societies. Following from this, the interior of the migrant home is discussed as becoming a site that supports cultural continuation. Finally, the exterior/facade is conceptualized as a site of cultural negotiation, where it acts as a medium that influences the perceptions towards the inhabitant.

Chapter 1.4 introduces the concerns related to Islamic women refugees living in Western countries. Initially, the issues associated with the refugee community are established from both a psychological and anthropological perspective. This includes the effect of trauma from both pre- and post-migration experiences. Secondly, the concerns relating to the Islamic community living within the West are reviewed, which includes the social implications of belonging to a religious minority connected to the events of 9/11. Following from this, the concerns relating to the Islamic woman living in the West are examined, which introduces the issues associated with the differing cultural perceptions of gender. Finally, the process of cultural transformation, which many of these women experience through the migration process, is discussed.

Chapter 1.5 introduces the key concepts of Islam, which includes gender and its subsequent role in architecture. Initially, a background study outlines the key concepts and rituals associated with Islam. Secondly, the social structure and gender roles of traditional Islamic communities are analyzed. The veil becomes a mode of exploring the idea of gender segregation through architecture and dress. Following from this the mashrabiyya, which is a traditional Islamic architectural screening device, is analyzed in relation to gender segregation. Finally, the key principles of both the Islamic house and the mosque are examined from both a traditional and contemporary position.

Chapter 2.1 introduces the design outcomes and site context analysis. The research indicated that both the house and the mosque are important to address, as they both play a role in the lives of

Islamic women refugees. The mosque, as the most dominant architectural symbol of Islamic identity in Wellington, becomes the significant focus of the design case study as it has the greater potential to influence the perceptions towards the Islamic community. The site analysis initially examines the wider Wellington region in order to place the design in a contextually appropriate area, through a series of cultural mapping studies. This is followed by an analysis of the sites surrounding the three Islamic centers in the greater Wellington region.

Chapter 2.2 outlines the design process and final outcome of the housing component of the design case studies. Initially, the design process is described. Following from this, is the final design outcome, which was to provide Housing Design Guidelines for Islamic

Women. As the research indicated that the majority of recently arrived refugees are housed in HNZC properties, the most feasible solution to improving housing conditions was to provide these guidelines that could be used in renovations and new developments.

The third chapter outlines the redesign of the Kilbirnie Mosque, which is the more significant focus of the design case studies. It begins with an analysis of the existing Kilbirnie Mosque. This is followed by an outline of the design concept, which is concerned with renegotiating the traditional conception of the mosque with the cultural shifts associated with migration and the contemporary Islamic woman. Secondly, the design process is described, which began by critiquing the traditional role of the mashrabiyya within the contemporary mosque and the New Zealand context. Concluding the chapter is a comprehensive discussion of the final design outcome.

PART ONE

L I T E R A T U R E R E V I E W A N D B A C K G R O U N D R E S E A R C H

CHAPTER 1.1

DEFINING SOCIO-CULTURAL SUSTAINABILITY

This chapter establishes a background and framework of interpretation to the concepts of sustainability. This is to be applied throughout the remainder of the thesis. Current theories on the application and interpretation of sustainability are analyzed to gather a background to the concept. The chapter focuses on the development of the socio-cultural aspects of sustainability, which play a significant part in the context of the refugee, over the typical emphasis placed on environmental and economic concerns. Analyzing the relationship of socio-cultural sustainability to architecture concludes the chapter.

The concept of sustainability within architecture is often fixated on limiting the environmental impact of buildings. A broader view; however, also encompasses social, cultural and economic aspects that are crucial to the development of a sustainable community. The fundamental definition of sustainable development, as identified by the World Commission on the Environment and Development (1987:23), is: “development that meets the needs of the present without compromising the ability of future generations to meet their own needs.” Since the publication of this statement in the Brundtland report in 1987, architectural practice and literature has generally focused on economic and environmental concerns and has disregarded the significance of the social and cultural aspects. These are, however, central to the development and sustainment of a community’s cultural identity and subsequently their wellbeing. Architecture should therefore place greater emphasis on the socio-cultural aspects, especially within the context of migration, as it can play a role in cultural continuation and transformation.

As outlined above, the social and cultural aspects play an important part in the development of a sustainable community. Chiu (2004) identifies that social sustainability and cultural sustainability are key dimensions of sustainable development, which often intertwine and are sometimes indistinguishable. She notes that “when social sustainability is interpreted in terms of social constraints limiting development, cultural factors are significant, as cultural values and customs are often at play to set social norms” (Chiu,

2004:66). Although Chiu (2004) argues that the connection between social and cultural sustainability is often intertwined, she identifies that they both have distinct areas of concern. These can be considered as the social wellbeing of people related to social sustainability, and the continuation of culture associated with cultural sustainability. She further explains that many aspects of social sustainability are intangible, such as social cohesion and inclusion, but aspects of cultural sustainability may be more tangible – such as the arts, architecture, music and religion. Therefore, the cultural aspect can be equated with the tangible, and the social with the intangible.

The refugee community currently living within New Zealand is a group whose identity is defined by their culture and traditions which have been challenged through the process of forced migration. Their placement within an unknown culture and environment often causes further stress as it can place limits on their known way of life. This is due to the fact that these contexts are generally not sensitive to their social and cultural needs, in particular their religious requirements. Therefore, for Islamic women refugees living in Wellington both the social and cultural aspects of sustainability play an important role in their resettlement process. As Chiu (2004) explains, culture affects the social structure, social values and lifestyles of a community, therefore it is necessary to understand the social issues that the Islamic refugee community face, and how these relate to their religion and cultural conditioning. This will be discussed and evaluated in Chapter 1.4.

As introduced earlier, social sustainability can be associated with social cohesion and inclusion. Through defining social sustainability, Chiu (2004) examines three interpretations based on previous literature. The first is development-oriented, the second environment-oriented, the third people-oriented. This thesis interprets social sustainability through both the first and third interpretation. The development-oriented view refers to social constraints that may limit development, subsequently linking continuity to progression. The third interpretation refers to the process of maintaining and improving the wellbeing of people in this and future generations. Chiu (2004) elaborates on these concepts and identifies that there should also be reductions in social inequality, especially in terms of social exclusion, social discontinuity and destructive conflicts. Therefore, it can be concluded that harmonious social relations between and within groups is a central issue concerned with social sustainability.

Before defining the concept of cultural sustainability, the interpretation of culture within the thesis must be outlined. Definitions of culture have been provided by Rapoport (1969 and 2001); Schusky and Culbert (1973); and Thaman (2002), who have identified culture as incorporating three aspects. The first is its aesthetic and artistic aspect, which includes the fine arts, architecture, music and performing arts. The second is the cultivation of mind and spirit, which refers to beliefs, religion and ideologies. The third aspect is from the anthropological perspective and refers to the social aspect of human behavior, which includes morals, values, laws, codes, and customs. Robinson (1999: 157)

understands the concept of culture as “a mental construct shared by a group of people that is perpetuated and manifested directly in behavior, and indirectly by means of artifacts.” It provides a way to describe the relationship between the built form and society’s actions and values (Robinson 1999). Chiu (2004) further understands culture as being equated to evolution rather than remaining static. Therefore the notion of cultural sustainability should allow cultures to evolve and develop with time and global influences, while still maintaining a sense of cultural identity. For the scope of this thesis, culture will be defined in terms of the Islamic religion, as it plays a dominant part in all three aspects of culture defined above. Its physical manifestation within architecture and dress are evaluated in Chapter 1.5; for architectural form, as proposed by Rapoport (1969), is greatly influenced by culture. Within the context of the refugee and migrant, the host culture will have an impact on both the migrant culture and their architecture.

The definition of cultural sustainability can therefore be understood as retaining parts of a culture while simultaneously allowing for change. Similarly to defining social sustainability, Chiu (2004) provides two interpretations of cultural sustainability. The first refers to the contribution of shared values, perceptions and attitudes to the achievement of sustainable development. The second interpretation refers to the sustainability of a culture itself, where culture is regarded as a critical component of development. Chiu (2004) concludes that culture should evolve with socio-economic developments over time, and its evolutionary process should be recognized through the conservation of cultural heritage. Therefore, this thesis defines cultural sustainability as maintaining cultural traditions while simultaneously allowing for transformation.

As important components of the built environment, both housing and the mosque play a crucial role in the sustainable development of the migrant Islamic community. Ozaki (2002) believes that housing is not only a physical space in which people live, but also a space where social interactions and rituals take place. Similarly, Chiu (2004) considers housing as more than just about meeting accommodation demands; it is simultaneously an important measure of social developments, a key economic concern and a cultural element. She argues that socio-cultural factors have a greater influence on housing design than climate, construction techniques and cost. This is reiterated by Rapoport (1969), where he contends that the form and organization of architecture is more strongly influenced by cultural traditions than climatic conditions. Therefore, Chiu (2004:74) understands that “housing form, especially the external appearance and internal structure, has become an important manifestation and symbol of a culture. Its preservation as a form of cultural heritage is therefore important.” Chiu (2004) further explains that housing forms of different stages can speak of the changes that take place within a culture. She concludes that, “the design of residential buildings based on contemporary local cultural and aesthetic values mixed with those of the past enriches and sustains the cultural identity of a place” (Chiu 2004:75). Similarly to housing, these concepts can be translated to the mosque as this acts as a symbol and product of culture. Their organization, like housing, is greatly linked to social interactions, rituals and the way of life of the Islamic community. These considerations raise important questions of how both the house and the mosque are designed for the Islamic minority living within Wellington, through taking into

account how transformations in culture will inform both the interior and exterior form of these typologies. This will be discussed in Chapter 1.3.

This chapter has identified and defined the concepts of social and cultural sustainability, and their relationship to the Islamic community living in New Zealand. It has examined the role that socio-cultural sustainability can play within both the house and the mosque, which provides a framework of interpretation for the thesis.

CHAPTER 1.2

THE REFUGEE HOME IN WELLINGTON

This chapter evaluates the current refugee housing conditions in Wellington. It contains both New Zealand and international research on the conditions and suitability of housing for refugee communities. The research includes Government publications and interviews conducted by Change-Makers Refugee Forum. This gives an important perspective from Government research, as it obtains direct qualitative information. This also identifies important gaps in current social housing and research, related to the concept of socio-cultural sustainability. The chapter then identifies the key issues for Islamic women living in Western houses. Finally, 3 state housing typologies are analyzed in regards to the needs of the Islamic woman, as these are the properties that most recently arrived refugees occupy.

Current Government research, conducted by both the NZ Immigration Department and the Department of Labour, uncovers key information about the problems associated with New Zealand urban housing for refugees. Currently, refugees enter the country and stay for 6 weeks at the Mangere Reception centre in Auckland. It is then Housing New Zealand's responsibility to locate more permanent housing. This is preferably in state housing properties but refugees are often forced to live in private rentals due to a lack of availability. This is indicated in Fig.1, which is extracted from the NZ Immigration Department's 2004 research entitled "Refugee Voices."

| Who Rent Was Paid To | Refugee Type | | | | | | | | | |
|----------------------------|-----------------------------|-----|------------|-----|----------------|-----|-------|-----|-------------|-----|
| | Recently Arrived (6 Months) | | | | | | | | Established | |
| | Quota | | Convention | | Family Reunion | | Total | | | |
| | n | % | n | % | n | % | n | % | n | % |
| Private Landlord | 16 | 26 | 26 | 90 | 30 | 61 | 72 | 52 | 54 | 46 |
| HNZC | 42 | 69 | 1 | 3 | 3 | 6 | 46 | 33 | 43 | 37 |
| Business | 0 | 0 | 0 | 0 | 11 | 22 | 11 | 8 | 4 | 3 |
| Local Authority or Council | 3 | 5 | 1 | 3 | 4 | 8 | 8 | 6 | 14 | 12 |
| Other | 0 | 0 | 1 | 3 | 1 | 2 | 2 | 1 | 2 | 2 |
| | | | | | | | | | | |
| TOTAL | 61 | 100 | 29 | 100 | 49 | 100 | 139 | 100 | 117 | 100 |

Fig.1 | Table indicating to whom refugees pay housing rent.

The most common housing typology that refugees occupy is the freestanding house. This is followed by either an apartment or townhouse. Although based on housing typologies in Auckland, Fig. 2 indicates the percentage of refugees living within the various typologies.

“Refugee Voices,” involved interviewing 135 refugees on their experience of housing in New Zealand. It established some important issues relating to the quality of housing, including its location, size, cost and cultural appropriateness. Location of housing for these communities was considered an important issue. Firstly, this is because they generally prefer being located close to their ethnic community as it provides social and emotional support; and secondly, being located close to a religious facility was considered important as religion plays a critical part in the lives of many refugees. These facilities also provide a place for refugees to meet others from their own ethnic backgrounds. The lack of cultural appropriateness within New Zealand housing for refugees was established, and primarily focused on spatial layouts that neglected the specific needs of different religions and cultures. The size of housing was considered problematic as many families were found to be living in overcrowded conditions. Emphasis was therefore placed on both the urban placement and requirement of more housing for these groups, with limited detail on spatial requirements and design for specific cultural groups.

| TYPES OF HOUSING | | n | % |
|---------------------------------|--------------|----|------|
| Type of House in Private Rental | House | 30 | 41.5 |
| | Apartment | 2 | 3.1 |
| | Townhouse | 9 | 12.5 |
| Type of House in State Rental | House | 39 | 54.2 |
| | Townhouse | 1 | 1.4 |
| | Apartment | 8 | 11.1 |
| | Shared House | 4 | 5.5 |

Fig. 2 | *Refugee Housing Typologies in Auckland.*

In 2009, the New Zealand Department of Labour compiled a document entitled “Long-Term Settlement for Refugees: Themes Emerging from the Research.” This document contains key themes arising from national and international research into the resettlement of refugees. Peckham, Wallace, Wilby and Noble (2004), outline that secure housing is

extremely important to refugees, and satisfaction with housing was associated with quality of life. Ager and Strang (2004) found that interviewees seldom focused on the physical aspects of housing, instead they centered on the social and cultural aspects; including safety and security, and the importance of relationships with people of the same ethnic group. Halango (2009) challenges that few areas in New Zealand have specific refugee housing strategies, yet these newcomers often need more support. This is due to the associated trauma of forced migration such as public hostility, discrimination and a lack of community support, which is discussed in Chapter 1.4. This establishes a requirement within New Zealand for not only a housing typology that addresses the specific needs of the Islamic refugee community, but also the importance of community space, such as the mosque. This space allows them to meet with people from their ethnic group, maintain cultural traditions, and could also help to influence the perceptions towards the Islamic group which can lead to negative relationships between the host community and the migrant.

Change-Makers Refugee Forum is an organization established by refugees for the refugee community. They have conducted numerous research projects into the housing conditions for their community through various interview processes. Through contact with this organization, further information was obtained on the issues of housing from a refugee perspective. Although many issues raised were similar to those uncovered by Government research, there was more emphasis placed on the cultural appropriateness of housing and how understanding the history and background of these communities could better inform design. For example, overseas research conducted by Change-Makers suggests that half of all refugees come from agricultural backgrounds, therefore many of these communities would feel more at home if they were able to build on agricultural land in order to sustain themselves in small community groups. Their research identified that many refugees encounter abuse from neighbors, especially in apartment complexes, which has a negative impact on their integration process and emotional wellbeing. Social isolation was considered a key issue that is prevalent within current housing placement, and the importance of being located near other people of the same ethnic background was emphasized. Therefore, this research further establishes the need for a housing typology that is designed specifically to meet both the housing and urban needs of the Islamic refugee community.

One of the most significant problems found for Islamic women living in Western housing is the issue of privacy. Many Islamic women encounter difficulty in being able to remove the veil within Western houses, where traditionally the home has been one of the few places that allowed for this. Vahiji and Hadjiyanni (2009) identify that the difficulties some of these women face living in U.S. homes, was the lack of support in regards to privacy needs. One 27-year old interviewee commented that “privacy is important because living in America means there are certain norms that you need to practice. Because when I am home, I can truly be who I am, I need to have privacy to maintain who I am” (Vahiji and Hadjiyanni 2009). These difficulties were exacerbated by temporal factors like the fact that half of their interviewees spent much of the day in the home often caring for children; cooking and cleaning; socializing; and reading and working on the computer (Vahiji and Hadjiyanni 2009). The open plans prevalent in new Western homes were found to be one of the design characteristics that most interviewees had trouble with. For example, open-plan kitchens restrict a woman’s freedom while cooking when guests are in the house, as they have to keep their veils on to maintain privacy. These spatial divisions not only extend horizontally, but vertically as well. Bedrooms located upstairs were found to provide a space to take off the veil. The placement of the staircase was also considered important, as it must allow her to go to the second floor without being seen from both the inside and outside of the house. Apart from spatial divisions and the placement of rooms, the size of spaces also impacted the women’s activities in the home. Typically when guests visit gender segregation rules take effect. Having two large separate

spaces to accommodate the two groups is ideal for a gathering, as women have a living space to themselves where they can remove the veil. Views in from the outside were also found to limit the activities of the women where, traditionally, openings and windows were designed to minimize the views into the house while still allowing views out. This concept intricately connects to the perception of safety and security, where a women can feel safe inside her house, knowing that she cannot be viewed from the outside. Therefore, the concept of privacy is connected not only to the ability to perform household activities freely, but also to a woman's perception of safety and security.

As Housing New Zealand (HNZC) properties are where refugees are preferably placed, and therefore commonly occupied by refugees, this section will provide a background into Wellington state housing properties and will analyze 2 case studies in regards to the needs of Islamic women. HNZC uses a social allocation system that provides state housing to those in need and is measured in terms of income, employment situation, and immigration status. HNZC gives priority to people experiencing housing and financial stress that is severe; urgent and likely to persist over time; and who have difficulty functioning in the private housing market. They are constantly re-evaluating their housing stock, and often buy or lease private homes, relocate or redevelop existing housing, or build purpose built housing facilities.

Within the greater Wellington region, there is a concentration of state housing properties in Porirua, Lower Hutt and the Wellington City area as indicated in Fig. 3. Within the Wellington City area, there is a high concentration of state housing properties in Breaker Bay and Karori West, as indicated in Fig. 4. It also indicates a moderate concentration of state housing in Lyall Bay, Newtown, Berhampore, and Northland.

As introduced earlier, the urban layout of refugee housing can influence how successfully these groups settle into their new community. Immigration New Zealand identifies that a high concentration of migrant and refugee families from diverse cultural backgrounds within a suburban area means that they may struggle to integrate into the wider

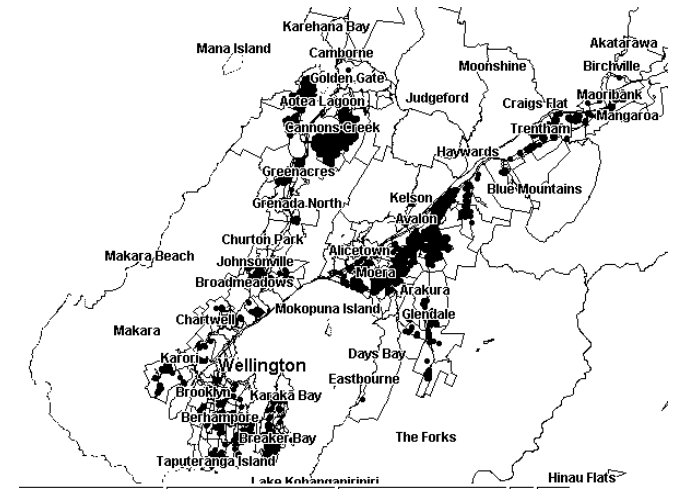


Fig. 3 | Location of State Housing in the Greater Wellington Region.

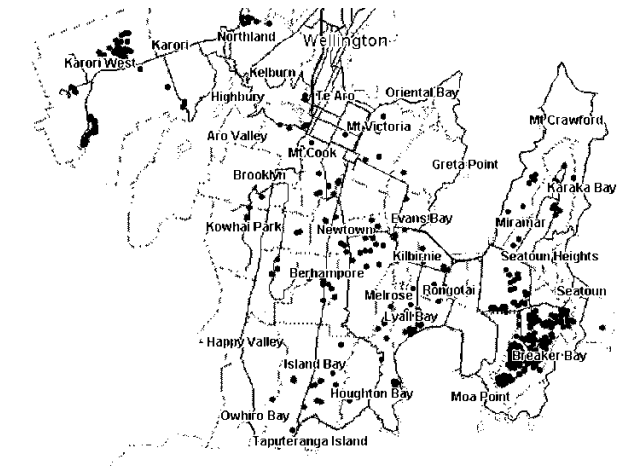


Fig. 4 | Location of State Housing in Wellington City Region.

community. In the past, HNZC used a strategy called 'pepper-potting,' which was an early attempt to assimilate the Maori community into the European. It essentially involved placing Maori families into European neighborhoods, in order to lessen the separation between the two groups. It received mixed reactions from both communities – although relationships between Maori and Europeans were fostered, it was also found to result in a loss of cultural identity within the Maori community. Schrader (2005) understands that in the 1970's, the pepper-potting policy fell out of favour as politicians began recognizing that the complete assimilation of Maori into Pakeha society was neither desirable nor practical.

V | THE STATE HOUSE IN WELLINGTON

Within Wellington, most state housing properties are either detached or joined houses, or mid-rise apartment buildings. This section will analyze these typologies in relation to the socio-cultural requirements of Islamic women.

JOINED FLATS

623 A, B, C, D Evans Bay Parade, Kilbirnie

This state property consists of four one level units, each with an identical floor plan. This includes 3 bedrooms located off the living area, and an open plan kitchen and dining area. A small corridor off this space provides access to the bathroom, toilet and laundry. A central corridor provides access to the four units.

In regards to the socio-cultural concerns of Islamic woman, there are some elements of the layout that respond to their needs, but others that are unsupportive. The segregated bathroom, laundry and toilet space allows this to be separate from the rest of the house. However, there is only one entrance to the house, which does not support the gender segregation requirements, especially when there are guests visiting the property. The location of the bedroom off the main living space also decreases the level of privacy within the bedrooms, which are more suitably placed away from the main living areas of

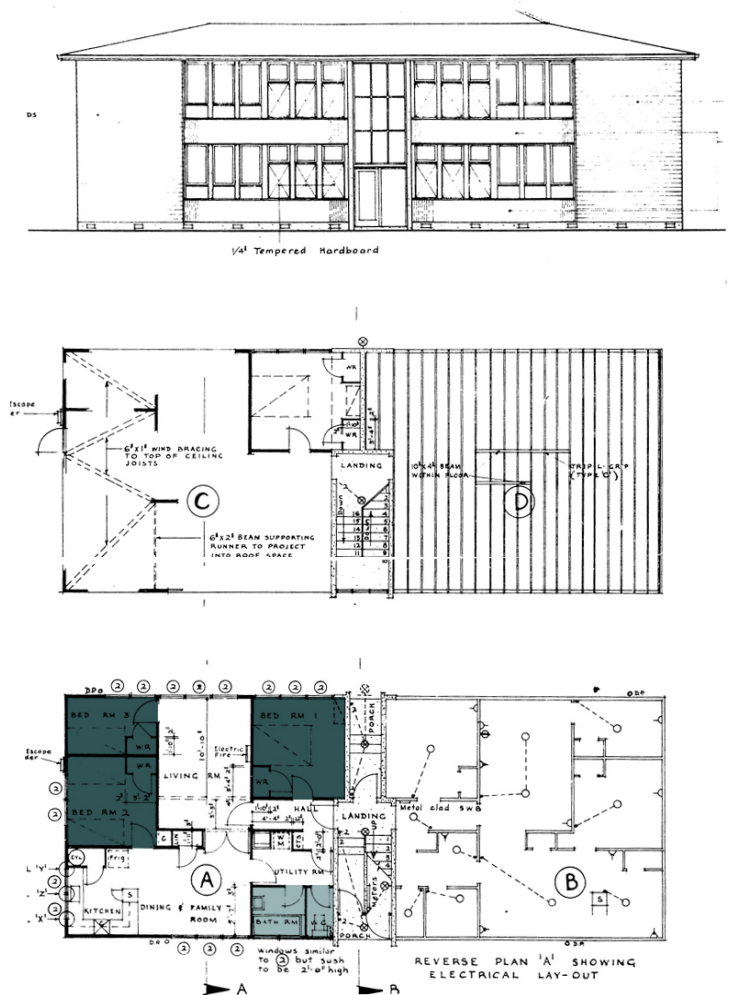


Fig. 5 | Front Elevation and Floor Plans of 623 Evans Bay Road

the house. The open plan kitchen and dining area is also problematic, as this doesn't allow the woman to cook without her veil while there are visitors in the house.

From the exterior, the openings located on the façade allow views easily into the house from the street, however the spaces that they look in to are relatively public interior spaces. The bedroom windows face towards the back of the site which significantly increases the privacy of these spaces, which has been considered by Vahiji and Hadjiyanni (2009) as one of the few spaces that the Islamic woman has ultimate privacy. The kitchen area and bathroom, however, are located at the front of the house which permits public views into these spaces. The size and placement of the windows in the bathroom, however, limits views into this room.

DETACHED HOUSING

127 Nevay Road, Miramar

This two-storey state house consists of 3 bedrooms and a bathroom on the upper floor; and an open planned living space with a segregated kitchen space on the ground floor.

In comparison to the Evans Bay Road property, this is more supportive of the socio-cultural needs of the Islamic woman. The location of the bedrooms and bathrooms on the upper level provides a private space that is detached from the living spaces located downstairs. The stairwell, however, is located off the main entrance to the house, which decreases the privacy of the women if she wishes to access upstairs without being seen from the entry. There is only one main living space that does not allow for the traditional separation of women and men during visits, however, its scale would support a relatively large gathering. The kitchen and laundry is separated from the living space, which would allow the women to cook and clean freely without wearing the veil. There are two entrances into the house – one from the laundry and another from the main entry, which supports traditional gender segregation.

The street elevation of the property, illustrated in Fig.6, indicates that the scale of the openings limit views into both the living space downstairs, and the bedrooms upstairs, which helps to maintain the sense of privacy in these rooms.

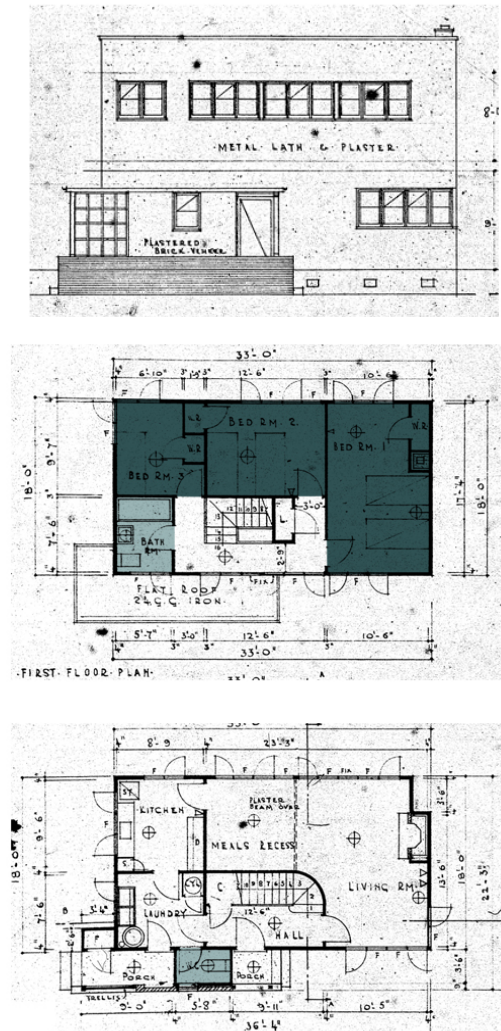


Fig. 6 | *Front Elevation and Floor Plans of 127 Nevay Road.*

■ Bedroom
■ Bathroom

OTHER HOUSING TYPOLOGIES

High-Rise and Mid-Rise Apartments

There are several perceived advantages and disadvantages for Islamic women living within apartment buildings.

Advantages for living in these properties include:

- Views into the upper level apartments from the street would be diminished due to the distance from the ground to the rooms, which would increase the sense of privacy.
- Apartment complexes could limit social isolation as Islamic refugees could be housed with extended families and friends in the same building.
- Could allow for mixed ethnicities, which reduces residential segregation.

Disadvantages for living within these properties include:

- The public circulation space and entrances that are used to access apartments do not allow for gender segregation.
- There is generally little private exterior space where the women can remove her veil.
- There is an increased potential for discrimination and abuse from neighbors compared to a detached house, due to living within a close proximity.
- There is limited ability to express cultural identity within a mixed-ethnicity housing complex.

This chapter reviewed national and international research into housing for refugee populations in order to establish the current gap within housing for these communities from a socio-cultural perspective. It drew information from both government and refugee perspectives, to gain a holistic model of current housing issues within this community. The state house, where the majority of refugees are placed, was analyzed in regards to the needs of the Islamic woman, and identified several issues with Western homes that were unresponsive to their socio-cultural needs.

CHAPTER 1.3

THE HOME WITHIN THE CONTEXT OF MIGRATION

This chapter re-evaluates the concept of the home within the context of migration. Initially it critiques the traditional view of the home with that of the contemporary migrant home. Secondly, the role of the interior of the migrant home is established in terms of identity continuation and memory; and its relationship to culture and homeland is discussed. Finally, the role of the exterior of the migrant home is established in regards to symbolism and perception, and is analyzed through its relationship with the host community. These concepts are intrinsically linked to socio-cultural sustainability, as the home plays an important part in both cultural continuity and transformation; and the minimization of conflict between the migrant and host culture.

Within an increasingly globalised world the migrant is becoming increasingly more common. This has vast implications for the traditional notion of home, which is concerned with fixed and stable societies. Rapport and Dawson (1998) define the traditional conceptualizations of home as being a safe and still place to leave and return to, and a principal focus of one's concern and control. Consequently, they argue that to view the home in this way is outdated, as it provides little conceptual grounding in a world of increasing contemporary movement. Simonot (2002:10) further believes that "sedentariness and rootedness are linked with a conservative view of the world that doesn't encompass changes at work – economic and social changes, not to say the dissolution of what is called the household unit." Busch (1999:20) further argues that "any definition of home today must consider how new attitudes and values come up against the familiar; how our needs are served by what we know, as well as by what we remember." The house form both encloses space (the house interior) and excludes space (everything outside it). Therefore it has two very important and different components: its interior and exterior/facade. "The house therefore nicely reflects how man sees himself, with both an intimate interior, or self as viewed from within and revealed only to those intimates who are invited inside, and a public exterior (the persona or mask, in Jungian terms) or the self that we choose to display to others" Cooper (1974:131). These two roles of the house have a significant part to play within the context of the migrant, and will be discussed in the following paragraphs.

The interior of the migrant home can be conceived as a site where symbolism, memory and ritual can play a part in the continuation of a migrant's culture. Rapport and Dawson (1998) identify that one feels at home when they inhabit an environment that best allows for the routines of daily life and through which they find their identity best mediated. The concepts of memory and symbolism within the interior of migrant homes can be established as a method of ensuring cultural continuation. Cooper (1974: 131) understands that in order to comprehend the idea of self, "man grasps at physical forms or symbols which are close and meaningful to him, and which are visible and definable." Ghattas (1999:12), views memory as being the "primary means by which refugees establish continuity between the past and the present," and views this as being critical to the development of identity in the refugee diaspora. He outlines that the importance of shared memory is obvious – in order to reconstitute their lives memory becomes a critical link, without which the identity of these communities is lost. "The recollections of the past serve as the active ideological terrain on which people represent themselves to themselves. The past acquires a more marked salience with subjects for whom categories of the present have been made unusually unstable or unpredictable as a consequence of the displacement enforced by postcolonial and migrant circumstances" (Ganguly 1997: 29-30). Therefore, the interior of the migrant home can be conceived as a space that provokes memory and symbolically links a migrant back to their cultural and religious traditions. This includes things such as food, music, ornaments and daily rituals. Ingraham

(2004:63) further identifies that the production of architectural space is never simply the production of abstract symbolic space, but rather a cultural negotiation: “It is space produced out of an entangled network of cultural negotiations surrounding ideas of home, identity, community, propriety, property ownership, gender, aesthetics, and a multitude of other issues.” Therefore the symbolic interior elements of the migrant house play an important part within identity formation and cultural sustainability.

iii | THE EXTERIOR: A SITE OF CROSS-CULTURAL NEGOTIATION

As the migrant house is a site in which the migrant is inserted into a pre-existing order of language, it raises some significant questions about the spatial relationships between the migrant house and the host community. The house exterior becomes a site where processes of negotiation occur, and could be seen as a mediator between two different cultures. Lozanovska (1997) introduces the exterior form of the house as becoming a symbol that interacts between both the migrant and the host community. Within her text, she provides an example of an Australian migrant house, where lion figures adorn the gate. “For the migrant these figures are images of power and force, images of territorializations, of a frontier in and of space. Yet in their transfer into the suburban environment, they become targets for the common gesture of finger pointing – a gesture of military intent in the cultural battlefield” (Lozanovska 1997:110). Therefore the symbolic object may take on different meanings and perceptions for different cultures, often resulting in misconceptions that hold the potential to create negative interactions between the migrant and the host community. Consequently, it is important to carefully negotiate between the differing perception of meaning of the symbolic object, in order to reduce negative relationships and effectively increase social sustainability within both the migrant and host communities.

This chapter provided a conceptual interpretation of the home within the context of migration. It established an understanding of the role of both the interior and exterior of the home. The interior was understood as becoming a site that allows for cultural continuation, through spatial layouts and the belongings of the migrant. The exterior was established as becoming a site where the wider perceptions of the inhabitant were negotiated. Therefore, this chapter provides an important conceptual interpretation that will further inform the design case studies in Part Two.

CHAPTER 1.4

EXILE & THE ISLAMIC WOMAN

This chapter introduces the concept of exile and its impact on Islamic women living in Western societies. Initially, the chapter introduces the concept of the refugee and the key issues that they face. Secondly, a more detailed examination of the Islamic woman living in Western countries is discussed. Finally, the chapter introduces the concept of cultural transformation, a process that many migrants face while adapting to their new community.

The concept of the refugee can be considered as a person who lives in an in-between world who suffers from traumas experienced in their home country and through the migration process. Having sought asylum in another country, “refugees arrive at the spiritual, spatial, temporal, and emotional equidistant of no-man’s-land midway-to-nowhere” (Bousquet 1987:35), and are deprived of a sense of belonging. Refugees are neither true immigrants nor natives, who have lost everything materially but attempt to carve out a life in a foreign country (Ghattas, 1999). The refugee community differs from the migrant community as they not only face negative post-migration experiences, such as racism, but also must comprehend with traumas experienced in their home country before migration. These traumas often involve violence associated with war; the loss of loved ones, a familiar environment and a known culture; a diminished social support structure; and discrimination within the host community. These experiences often have an indirect effect in diminishing their capacity to cope with acculturation stressors (Jorden and Anisman 2008). Various studies have indicated that the majority of refugees who experience pre-migration traumas appear to be at risk for psychological disturbances (Jorden and Anisman 2008, Aroche and Coello 2004). These include depression, anxiety disorders and post-traumatic stress disorder. Superimposed upon their traumatic experiences in their home country is the distress associated with adaption to the host culture. Aroche and Coello (2004) understand concepts such as post-traumatic stress disorder and ‘cultural bereavement’ as becoming most useful in understanding the contributing factors to a

refugee's psychological wellbeing. Therefore both ethno-cultural issues, such as cultural differences and trauma associated with war and violence, play a crucial role in the psychological wellbeing of refugees. This accounts for much of the sense of loss of control and confusion experienced by exiled populations in first world countries.

The Islamic diaspora face a large number of obstacles in their resettlement process in Western societies, which could be considered greater than other religious groups. In Casimiro, Hancock and Northcote's (2007) study, they establish that Islamic refugees and migrants not only face the usual range of issues that most migrants face (such as language, employment, culture and isolation), but they must also deal with the added challenge of a host society that has become increasingly hostile to their form of religious expression and traditional lifestyle. They further understand that the media plays a crucial role in the negative portrayal of Islam. McAuliffe (2007) identifies the media as playing an "important role in defining communal forms through the selective deployment of representations of people and places." In particular, he understands that visual representations are central in the construction of essential stereotypes associated with different groups of people. "Muslim Australians face increased social pressures as a result of a dramatic shift in the political climate in the wake of the 2001 September 11 terrorist attacks, which has heightened racial tensions and criticism of Muslim practices in terms of their compatibility with the 'Australian way of life'" (Casimiro, Hancock and Northcote 2007:58). These views fail to recognize terrorist groups existing as only a very small minority of the Islamic community. These additional pressures have been argued by Casimiro, Hancock and Northcote (2007) to increase anxiety for a Muslim's ability to adapt to the host society. Therefore the impact that the media portrayal of Islam has on

Western perceptions contributes significantly to the difficulty that the Islamic diaspora face within Western societies.

iii | THE ISLAMIC WOMAN LIVING IN THE WEST

Traditional gender roles differ greatly between the Islamic community and the Western host community, which can often impact how each group is perceived. Many perceptions towards each culture are often misinterpreted and based solely on traditional values, which do not negotiate the evolution of culture, outlined by Chiu (2004) in Chapter 1.1. Typically, Islamic refugee women come from strong patriarchal societies where husbands (and other male relatives) traditionally exercised considerable influence over the public activities of these women. This differs greatly from the gender roles in Western societies, where women have generally exercised freewill. Therefore, from a Western perspective Islamic women are often perceived as being oppressed and traditional. Within Western societies, the veil acts as a clear symbol and marker of Islam and its associated gender relations, which often provokes racism and discrimination. Although many Westerners may conceive Islamic women as being oppressed, several sources establish that the contemporary status of the Islamic women is becoming less orientated towards the home, and directed more towards education and the professional workforce. Mahfouz and Serageldin (1990) identify that Islamic women living in the west are as active as their non-Muslim counterparts, whether inside or outside their homes, depending on their socio-economic class or their level of education. This can be seen as a form of cultural

transformation impacted by migration. Therefore, the common Western perceptions of the Islamic woman fail to recognize that they are becoming more empowered within Western societies.

As the concept of culture and identity can be associated with that of evolution and change, cultural transformation becomes an important concept in understanding the experience of Islamic women living in Western societies. Before migrating, refugees must face the loss of a known community and culture but they also hold hope for a future free from war and violence. Therefore they may become more willing to adapt aspects of their culture into those of the host community. Sharify-Funk (2008) understands that within such a complex and densely networked world, Islamic and Western spheres cannot exist in isolation, as each of the world's geographic zones is a composite of overlapping religious, cultural, ethnic and political contexts. She identifies that for many Muslims, meaning and identity formation are constructed through the negotiation between two differing worldviews: the traditional/religious and the modernist/secular. Women from Islamic societies face the task of leaving a conservative country where the concepts of Islam play a dominant role in determining the social structure of the community, to entering a far more liberal country in Western societies. Therefore, many of these women have been found to re-interpret the role that Islam plays in their lives. For example, Marranci's (2007:90) study into Muslims living in Northern Ireland identifies that "the emphasis on religion that the women were exposed to in Northern Ireland inspired them to rethink Islam as being an empowering force." It was also found that Islamic women community groups helped to re-conceptualize their religion into an innovative act of identity rather than a

conservative element in their lives. “While some women identify with the global Islamic community, the umma, and refuse contact with non-practicing Muslims, other women redefine or locally challenge religious meanings and combine different cultural and religious repertoires” (Salih, 2000: 333). This questioning of the role of religion can be considered to be connected to what some may call a shift, transformation, or new synthesis in contemporary Islamic identity (Sharify-Funk (2008:19). Therefore it can be understood that many Islamic women living within Western societies are willing to re-evaluate their traditional role due to the influences of migration and the host community.

This chapter established the predominant issues that Islamic women refugees face in pre- and post- migration experiences, through analyzing the experiences of refugees and Muslims living in Western societies. Through understanding the impact that exile plays in the lives of refugees, it was established that a major contributing aspect to their wellbeing is the continuation of their known culture. This helps to reduce the alienation and loss of control associated with forced migration. Through a more detailed exploration of the Islamic woman and the impact that Islam has on her daily role, it was gathered that many of these women undergo a transformation process due to the cultural differences between their home and the host community.

CHAPTER 1.5

ISLAM, GENDER & ARCHITECTURE

This chapter evaluates the role that the Islamic religion plays in the daily lives of Muslims, and its impact on gender relations and architecture. The traditional screening device called the mashrabiyya is introduced, which is intricately connected to the concept of the veil. Examples of both traditional and contemporary architecture in Islam are analyzed in regards to the concept of gender segregation, through both the house and the mosque. Finally, the development of the mosque within Western countries is evaluated, which contributes to the concept of cultural transformation.

For Muslims, Islam is both a religion and culture, as it is a source of both spiritual ideas and social norms. These are derived from the Qu'ran, which is a text considered to be the exact word of the one, incomparable God. Islam becomes a way to seek an understanding of the beliefs that affect one's entire way of life. It is the predominant religion in the Middle East, North Africa, and large parts of Asia and Sub-Saharan Africa. Many of these countries also comprise of a large refugee population. Religious practices, such as prayers, become an integral part to the life of Muslims. These include the Five Pillars of Islam, which are five obligatory acts of worship performed daily.

The gender roles associated with the Islamic religion vary from those in Western societies, and are reflected within the veil. Traditionally, men exercised a certain degree of control over the public activities of Islamic women, and gender segregation played an important part in social relations, dress and architecture. Although from a Western perspective the veil is often conceived as a symbol of oppression, Islamic women wear the veil not only as a religious requirement but also as a symbol of their identity and upbringing. The veil, for Muslims, represents modesty, piety and devotion to God. It is thought that men will appreciate women more for their intellect and achievements through wearing the veil, rather than for her physical beauty. "The hijab increases the value of women in the eyes of men, helping them to be recognized for their achievements" (Vahiji and Hadjiyanni 2009:41). Kenzari and Elsheshtawy (2003) identify that the veil makes women socially invisible, which enables gender segregation to be upheld while giving women access to the

streets and social life outside their homes. It also provides a level of security amongst strangers, that otherwise would be lost. Vahiji and Hadjiyanni (2009) conclude by noting that the process of veiling is “the purposive act of building a wall around one’s body that ensures a woman’s privacy. Acting as a means of control, the veil becomes the vehicle through which Muslim women negotiate between the self they show to others and their private self.” Therefore, women choose to wear the veil as it is not only a symbol of religion and identity, but it also acts as an empowering device that provides a level of comfort and security that would otherwise be lost.

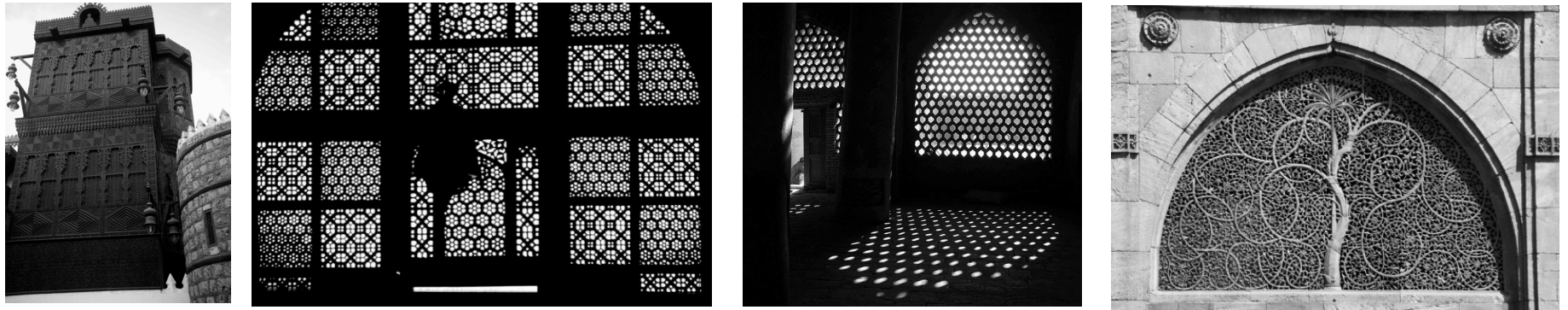
The concept of ambiguity and privacy found within the veil is also to be found within the Islamic screening device called the mashrabiyya. There are many perceived parallels between the veil and the mashrabiyya as noted by El Guindi (1999:95) who states: “in many ways, veiling resembles a mashrabiyya; but whereas the mashrabiyya is stationary, veiling is mobile, carrying a women’s privacy to public spaces.” The mashrabiyya is a common traditional technique of controlling views into the house via the windows, and is also used as a climatic moderating device. Although from a Western perspective it is often interpreted as a symbol of segregation and exclusion, the mashrabiyya guards a family and women’s right to privacy. It also creates a sense of power from the women’s perspective, by being able to see but not be seen. Kenzari and Elsheshtawy (2003) understand that there is an inter-connection between the gaze and power, as spatial locations are not neutral, but are instead framed and manipulated by the female viewer. This concept relates to that of Foucault’s interpretation of Bentham’s Panopticon, which demonstrates the power that one has over being able to watch without being seen. As the woman has the opportunity to view, but not be seen, this grants them a level of power over the man, who is unsure if he is being watched. “The subject of desire (man) sees the screen behind which the woman (the object of desire) may or may not be sitting, and this provokes a certain form of anxiety, an obscure feeling that the house/mashrabiyya itself is somehow already gazing at him from a point that totally escapes his view and thus makes him utterly helpless” (Kenzari and Elsheshtawy, 2003:23). Therefore from the Islamic woman’s

position, the gaze connected with the mashrabiyya denotes power, where the woman is able to exert control over the situation by occupying the position of the master. Furthermore, through comparing the Islamic window with the Western window, it can be conceived that the Islamic window holds an asymmetrical balance of power where the Western conception is symmetrical, as it allows views from both the inside and outside. Kenzari and Elseshtawy (2003) identify that unlike the standard glazed window, the mashrabiyya does not recognize the 'looking in' and 'looking out' polarity. Therefore, although Westerners often perceive the mashrabiyya and the veil as symbols of oppression, they instead could be considered as objects that grant the Islamic woman a degree of power.

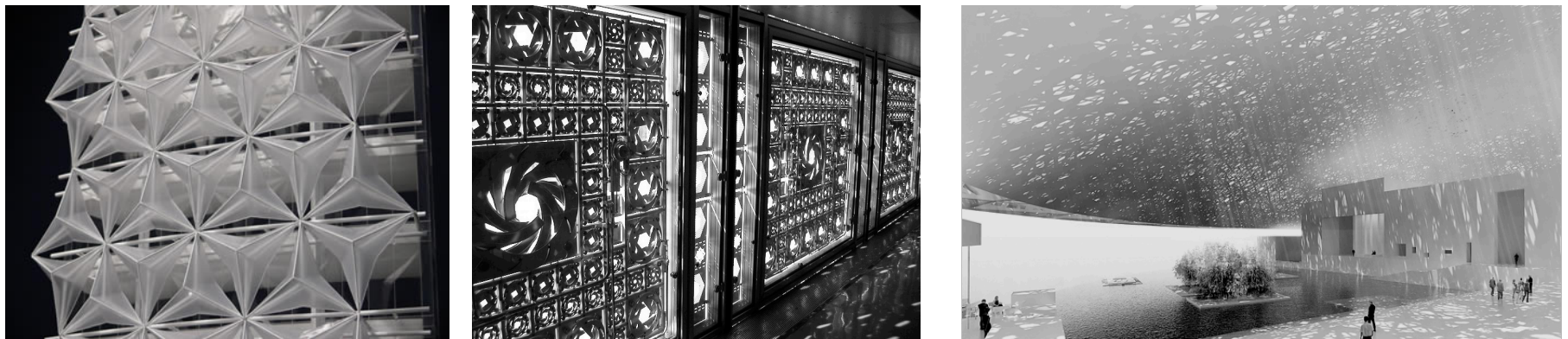
The mashrabiyya is commonly conceived as an ornamental feature, which links it to conceptions of Islamic art. Islamic art has traditionally focused on the depiction of patterns and Arabic calligraphy rather than on figures. This is because it is thought by many Muslims that the depiction of the human form is idolatry and thereby a sin against Allah. There are repeating elements in Islamic art, such as the use of geometrical floral or vegetal designs in repetition, which is known as the arabesque. This is often considered as the most distinctive form of Islamic art, where the transformation of the natural into the arabesque, governed plants and leaves to grow according to the laws of geometry (Shahnawaz, 2003). Alongside the arabesque is calligraphic design, which is omnipresent in Islamic art, and is usually expressed in a mix of Qur'anic verses and historical proclamations. Two of the main scripts involved are the symbolic kufic and naskh scripts, which can be found adorning and enhancing the visual appeal of the walls and domes of

Islamic buildings. Therefore, Islamic art can be conceived as playing an important part in Islamic architecture, and is directly related to religion.

The mashrabiyya is also used traditionally as a climatic moderating device constructed from local materials. As most Islamic countries are situated in dry and arid conditions the mashrabiyya is used for solar shading while allowing for ventilation through the perforations. Khan (1980) explains that the openings to the outside are traditionally only small windows placed strategically on the outside wall. These windows are then screened by the mashrabiyya. They were traditionally constructed using locally available timber or stone. Contemporary examples of the mashrabiyya (Fig. 11-13) use modern materials and technology, such as various metals and plastics.



Figs.7-10 | *Examples of Traditional Mashrabiyyas. From left: Mashrabiyya on an old renovated house in Jeddah, Saudi Arabia; Scaling of the mashrabiyya; Interior view of the mashrabiyya; Intricately detailed stone mashrabiyya with floral pattern based on Islamic art principles.*



Figs. 11-13 | *Examples of Contemporary Mashrabiyyas. From Left: Façade detail from the ADIC Headquarters, Abu Dhabi; Mechanically-operated metal screen from the World Arab Institute in Paris, designed by Jean Nouvel; Interior Perspective of the Louvre Abu Dhabi, designed by Jean Nouvel.*

Islamic domestic space is conceived differently to that of Western societies. Where Western cultures generally perceive the home as a secular place, in Islam the home becomes sacred. The Islamic home is a site for various religious rituals, including daily prayers, weddings, and funerals. Mazumdar and Mazumdar (2004) note that for many Muslims, the home is the cornerstone of religious identity, the setting where personal faith is practiced, expressed, transmitted, and transformed. Vahiji and Hadjiyanni (2009) explain that the transition between the public and private within Islamic domestic space marks the transition from the secular to the sacred, and has a great degree of religious significance compared to Western entrances. According to Eliade (1959:25), the threshold is “the limit, the boundary, the frontier that distinguishes and opposes two worlds – and at the same time a paradoxical place where those worlds communicate, where passage from the profane to the sacred becomes possible.” Therefore, the conception of the home for a Muslim becomes a religious site that significantly differs from the secular notion of the Western home.

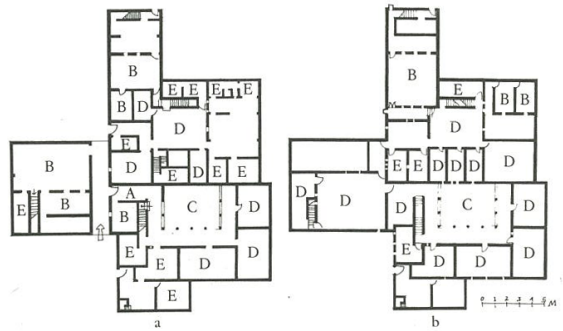
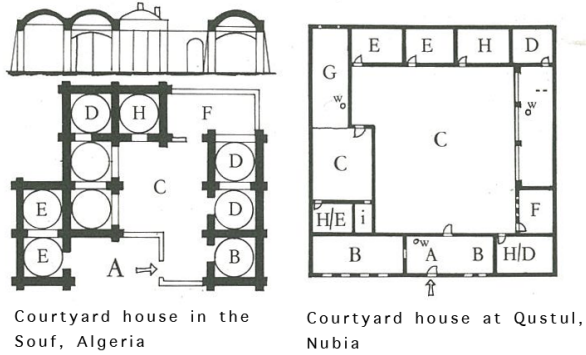
The physical formation of the traditional Islamic home is based around the principles of Islam, which includes the concept of privacy for both the woman and her family. Therefore, one of the key underlying and critical mechanisms of the Islamic house is gender segregation. The entrance becomes a secondary boundary or zone between the public and private, where it is traditionally designed to ensure that unrelated male visitors to the

house are unable to view the women. In order for men and women to socialize separately, the private spaces of both traditional and modern Islamic homes are often divided into two segments: the male quarter (majilis) and the domain of the women (harem). The harem spaces include the living room, bedrooms, bathrooms, kitchen and storage areas. Islamic homes often feature a backyard (hayat), which are enmeshed in the dialogue of public and private. This is where the woman can take off her veil and enjoy the feeling of sunlight and wind in the privacy of her own home (Vahiji and Hadjiyanni 2009). The notion of privacy extends to aligning windows and openings so that views from neighboring properties are excluded, while views outside from the interior are still allowed. Privacy is also explored through the mashrabiyya, which allows the woman to view the outside world without being seen. These are located on balconies at the perimeters of the house, and may also be built opening from the harem onto the reception rooms, so that men's gatherings and festivities can be observed from the safety of view. Therefore, throughout the design of the traditional Islamic house, the concepts associated with the veil and privacy become apparent.

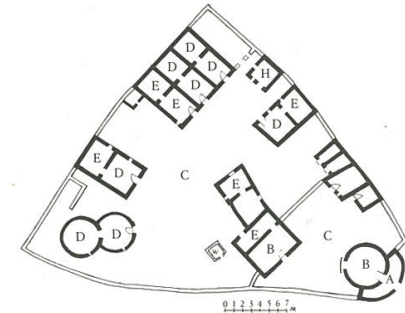
Fig. 14 illustrates plans of interior and exterior courtyard houses from widely separated areas of the Islamic world. However, they share common principles of spatial planning, which reflects Islamic patterns of social organization.

Fig. 14 | Key

- | | |
|--|--------------------------|
| A Entrance placed so that the passerby cannot see directly into harem. | C Courtyard |
| B Men's reception room situated on the periphery of the family quarters. | D Living/Sleeping Area |
| | E Storage/Service Area |
| | F Stable |



Courtyard house at Al-Majma'ah Saudi Arabia, showing the ground floor [a] and upper storey [b]



Compound of a West African family house in Zaria, Nigeria

Fig.14 | *Plans of Traditional Houses in Islamic Contexts.*

The Akil Sami House, designed by architect Hassan Fathy in 1978, is an example of a contemporary Islamic home designed in a traditional style. As indicated in the plan in Fig.16, it features an internal courtyard and utilises the concepts of gender segregation. The facades are designed in order to limit views into the property. As indicated in Fig.16 & 17-19, they feature small windows that are covered by wooden mashrabiyyas.

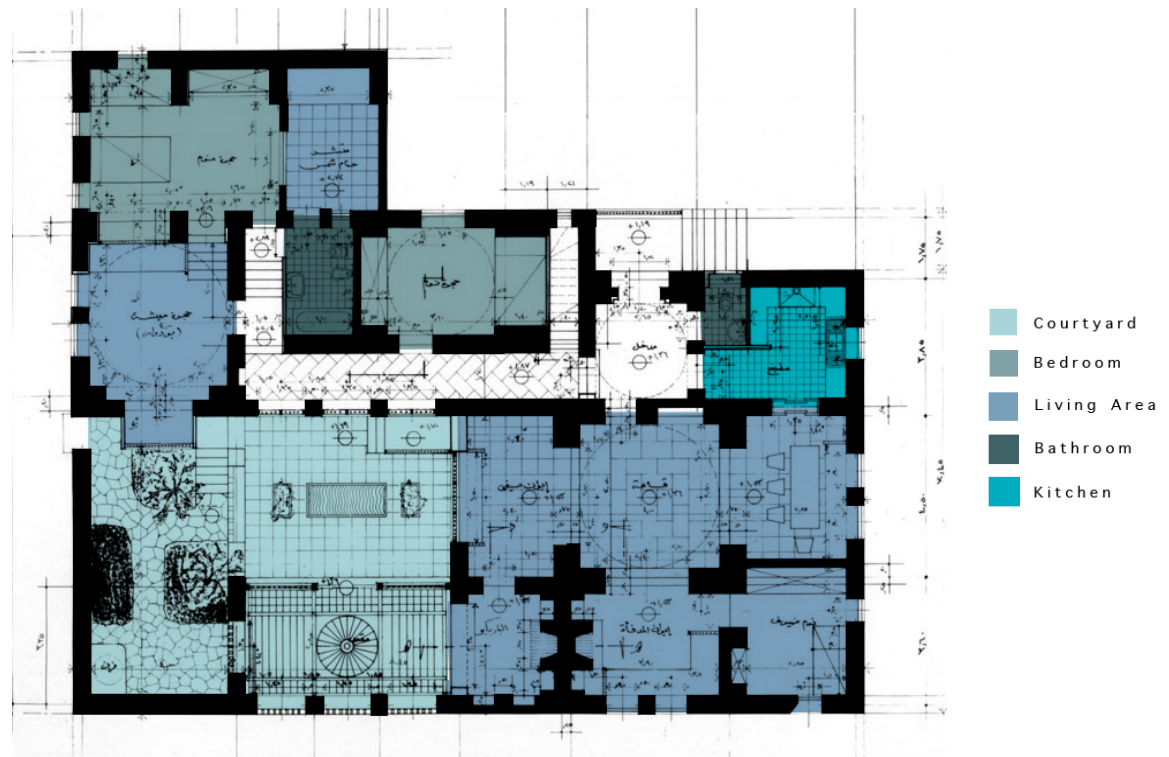


Fig. 15 | Floor plan of the Akil Sami House NTS.



Figs. 16-19 | *From Left: Interior photograph looking out onto internal courtyard; Exterior wall illustrating mashrabiyyas; Interior photograph illustrating different scales of mashrabiyyas; Internal Courtyard.*



V | A CONTEMPORARY DOMESTIC CASE STUDY

The Mashrabiyya House, Jerusalem

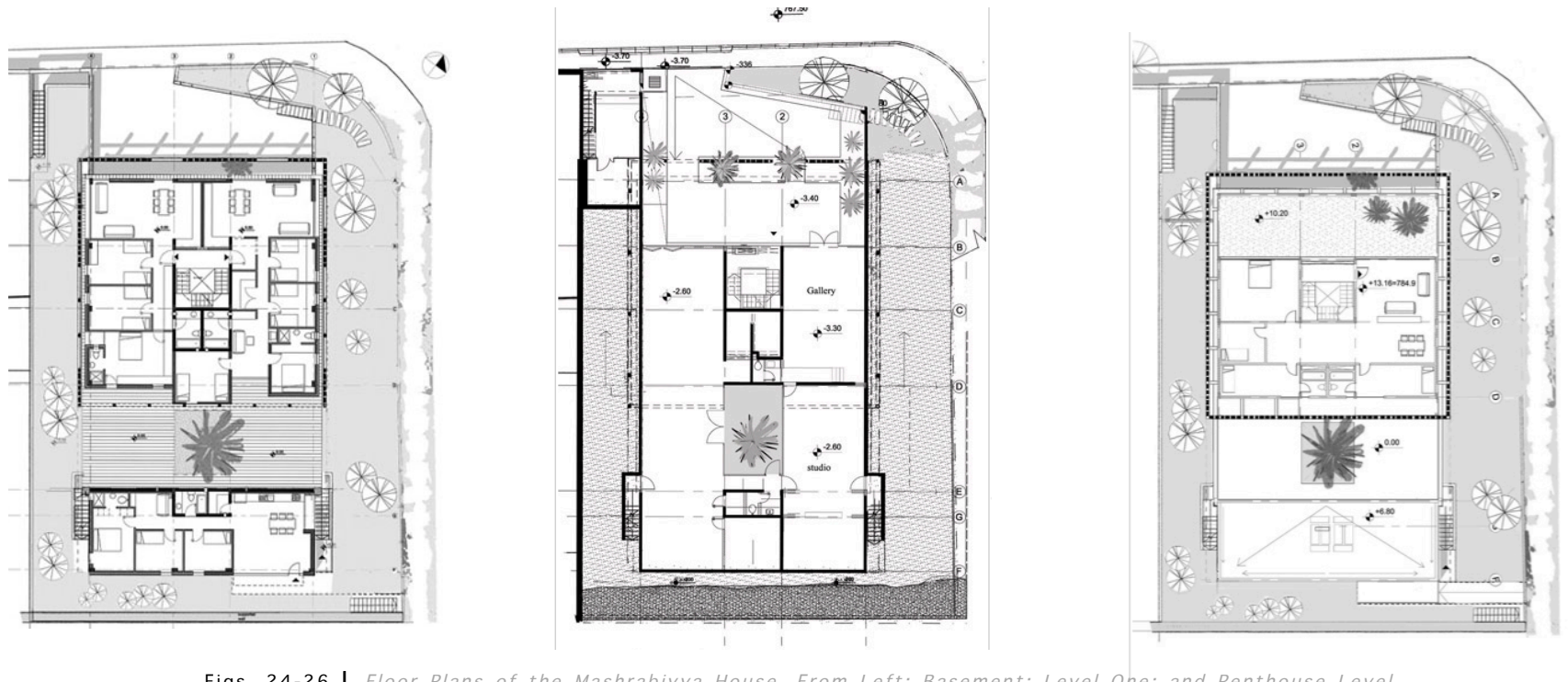
The Mashrabiyya House was designed by Senan Abdelqader Architects in 2006 and is located in the Arab Palestinian village Beit Safafa, situated between Jerusalem and Bethlehem. Beit Safafa, like most villages in the Jerusalem area, currently faces social and cultural challenges typical of the transformation from a close village community to a suburban centre. Essentially, the building is a residential home with a gallery and studio space, as indicated in the plans of the building (Figs. 24-26.). The upper levels of the building contain apartments, while a stone-clad deck at the basement level accommodates a workshop, studio and the new Gallery for Palestinian Cultural Representation.

The building was designed as a contemporary re-interpretation of traditional elements of Arab vernacular architecture, providing new and imaginative solutions for the transforming social and cultural landscape of the village on the brink of urbanization. In this context, the building provides an original solution by combining a traditional building form with modern urban apartment living. The typical light and porous effect of the mashrabiyya is re-invented through the positioning of stones at irregular spacing's, which forms the envelope of the building. The arrangement of small and large openings provides views from the interiors out onto the landscape, while carefully maintaining privacy.

Fig. 20-23 | *Clockwise from top: Image of house from the street; Looking over central courtyard space; View from west edge of the property; Interior space.*

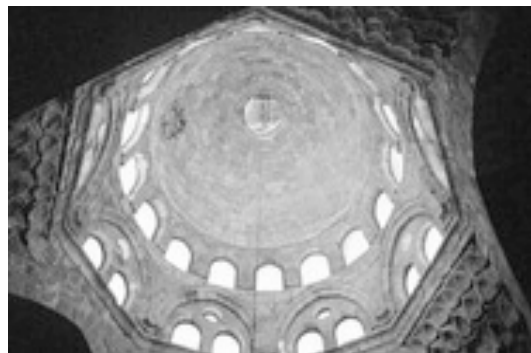
Beyond the formal references to Arab vernacular traditions, the building explores and develops concepts that can promote an agenda of environmental sustainability, while

maintaining cultural traditions. The mashrabiyya acts as not only a traditional threshold between public and private spaces, but it also provides an element of climatic control. The stone mass, which acts as a climatic buffer, is separate from the inner building and follows a different structural grid. The gap between the layers allows air to circulate, contributing to passive cooling. Therefore the Mashrabiyya House can be conceived as an example of a contemporary Islamic building that retains aspects of tradition, but also responds to modern living conditions and technologies.



Figs. 24-26 | Floor Plans of the Mashrabiyya House. From Left: Basement; Level One; and Penthouse Level.

The traditional mosque in Islamic countries acts as a significant focus point within the urban fabric. It provides not only a place for prayer but also acts as an organizer of space and society. It is traditionally an introverted space where views into the mosque are restricted from the outside, similarly to the house. Serageldin (1992) understands the mosque as a place where important matters for the community are discussed and decided, and is a space that integrates both the spiritual and the temporal. The orientation of mosques plays a dominant part in their design and layout. As Mecca marks the geographic and spiritual center of the Islamic world, mosques are erected to form a direct axial connection with it, forming a clear physical gesture towards orientation. The minaret, dome, gateway, and mihrab are all key symbolic elements of traditional mosque architecture. Serageldin (1992) believes that they speak to all Muslims (and even non-Muslims) with a powerful symbolism that transcends space and time. Traditionally, mosques were generally occupied only by men, as it was thought that women could perform their prayers at home. In some Islamic communities, however, women were invited to use the mosque. Kenzari and Elsheshtawy (2003) identify that in these mosques, women's prayer places were separated from men's. They were often placed behind, in a mezzanine above, or to the side; where they were not visible but could still see the male worshippers and the imam. The traditional conception of the mosque can therefore be conceived as an urban focus point, and its design often maintains the concept of gender segregation, which is prevalent within domestic space.



vii | A TRADITIONAL MOSQUE CASE STUDY

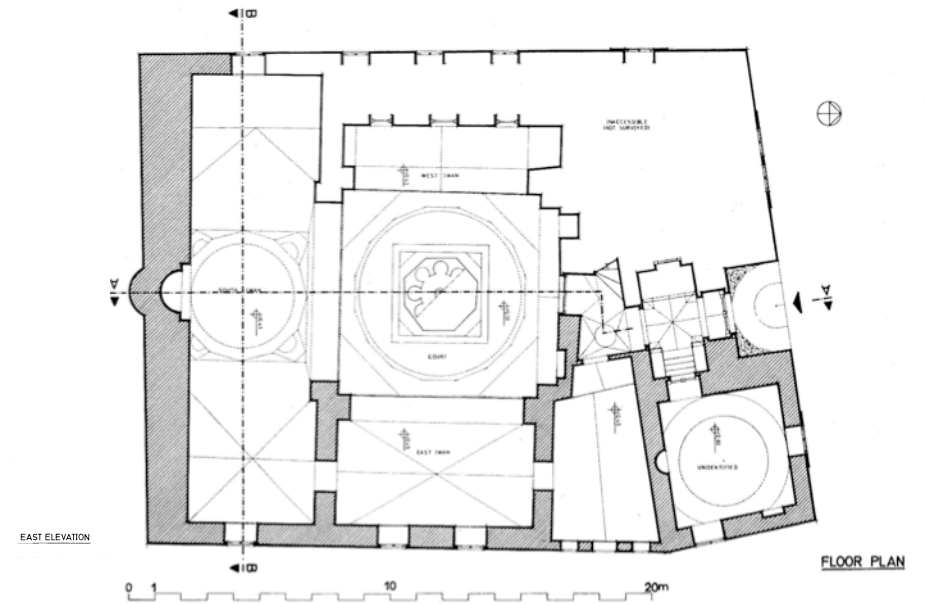
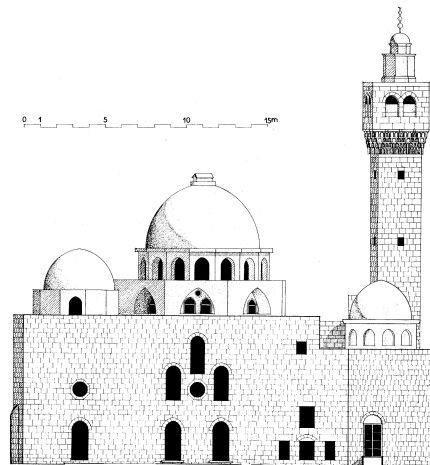
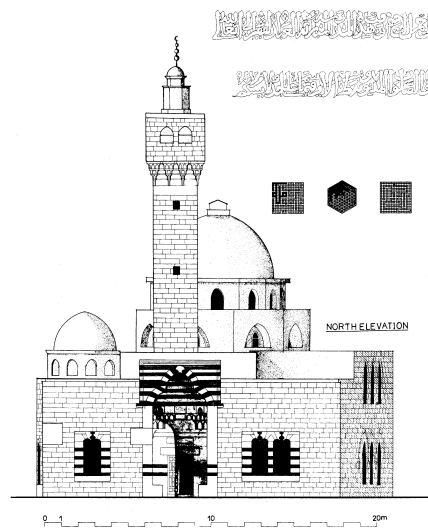
The Burtasi Mosque & Madrasa, Tripoli, Lebanon

The Burtasi Mosque and Madrasa in Tripoli was constructed early in the 12th century, and is an example of a mosque that is identifiable by traditional symbolism. This can be observed in the elevations of the mosque in Figs. 30 & 31, which illustrate the key symbolic elements of the traditional mosque – three domes of varying scales, a minaret and arched portals. The mosque is highly ornamented, with both decorative elements derived from Islamic art and inscriptions.

The Burtasi Mosque and Madrasa has been identified by Salam-Liebich (1983) as originally holding the function of a madarasa where Friday prayer is also taken place, therefore it holds the dual function of both a mosque and a madrasa. The floor plan indicates a central, covered courtyard that has a central octagonal marble fountain used for ablutions¹. The two rooms to the east and to the west are rectangular halls with simple vaulting, one that may have been used as a secondary prayer hall for women. The larger interior space extends the width of the building and is used as the main prayer hall.

¹Ablutions is the process of cleansing before prayers are conducted.

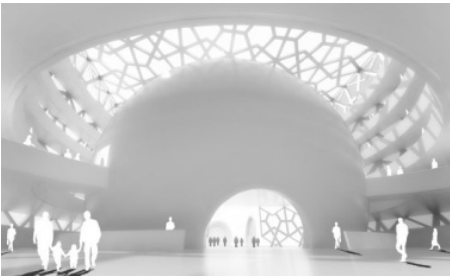
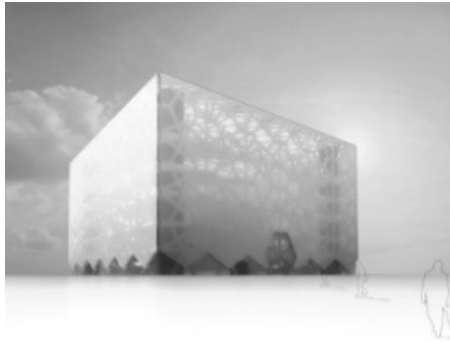
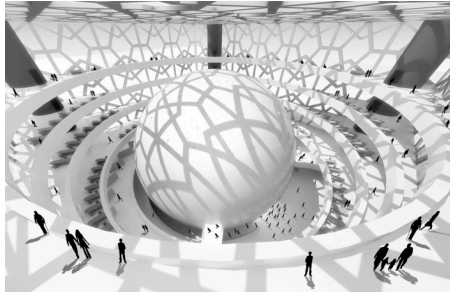
Figs. 27-29 | From top: Exterior view of the mosque, with city in the background; Photograph of the mihrab, illustrating Islamic ornamentation; Photograph of the dome, illustrating extensive detailing to stone work.



Figs. 30-32 | *Elevations and Floor Plan of the Mosque. From Left: North Elevation, illustrating traditional mosque symbolism; East Elevation; Floor plan illustrating traditional spatial layout.*

The contemporary mosque within Western contexts is transforming in its conception from being not only a place of prayer, but to a site that hosts various community functions. Holod and Khan (1997) identify that in addition to being places for prayer, Western mosques often take the form of a complex intended to serve all the socio-religious needs of the community – such as family functions and education. These mosques have become a repository of identity and authenticity for those who have found themselves distanced from their home countries. “Muslims from a variety of regions with disparate cultural roots have created in their new mosques a locus of new identity and through them a connection with their new physical surroundings; that identity has come to be increasingly represented in hybridized, ‘creolized’ forms in today’s post modern climate,” Holod and Khan (1997:12). They further believe that it is through the mosque that each diaspora community (migrant, refugee, emigrant or settled) connects to the larger non-Islamic society, and is represented through its very form and location (Holod and Khan (1997)). This implies that the mosque becomes a mode through which cultural identity is sustained, and also as an object of negotiation between Muslims and the wider community. Therefore, the notion of symbolism present within the exterior of the migrant house becomes an equally important part in the perception of the mosque from the Western perspective. As the most important architectural symbol of Islam within Western contexts, the form of the mosque can either negatively or positively influence the perception of Islam from both communities. In regards to the transformation of culture associated with migration, the Western mosque could begin responding to this evolution and particularly to the

transformation that women living in Western societies experience, as outlined in Chapter 1.4. As introduced in this chapter, Islamic women are increasingly becoming part of the workforce, which subsequently impacts their role in the home. Therefore, this could begin to influence the contemporary notion of the mosque where it could respond to these cultural shifts. In this regard, the mosque may provide facilities, like childcare, that enable the Islamic woman to work.



Figs.33-35 | *From Top: Interior perspective from upper level; Exterior perspective illustrating cube form; Interior perspective illustrating central prayer space.*

ix | A CONTEMPORARY MOSQUE CASE STUDY

Studio Z Mosque Proposal, Turkey

The Studio Z mosque proposal critiques the traditional symbolism of the mosque by rejecting the forms of the minaret, mihrab and the dome. The design is instead derived from traditional mosque proportions, and is essentially a cubic shell with an ornamental steel structure based on the geometric principles of Islamic art. This structure, which is clad with a semi-opaque material, can be seen as a contemporary re-interpretation of the mashrabiyya where it becomes combined with a structural purpose. The prayer space is located inside the large concrete sphere, which could be seen as an interior core or a space of introversion. Although the prayer space is traditionally rectilinear with an orientation towards Mecca, there exists no rule implying that it cannot be circular, rather orientation can be implied in other ways. The space created between the inner dome and the exterior form, creates a space for secondary functions, where it becomes a threshold between the public/secular space and the inner, private and sacred space.

The program combines the prayer space with a conference space, library and exhibition space, which provides facilities that cater for other necessities of contemporary life. The educational areas of the proposal provide space for information to be passed between generations, which helps to ensure cultural continuation.

The cubic form of the mosque alludes to that of Mecca, illustrated in Fig. 37, which could be interpreted as creating a more direct connection with the place that Muslims consider the spiritual centre of the world.

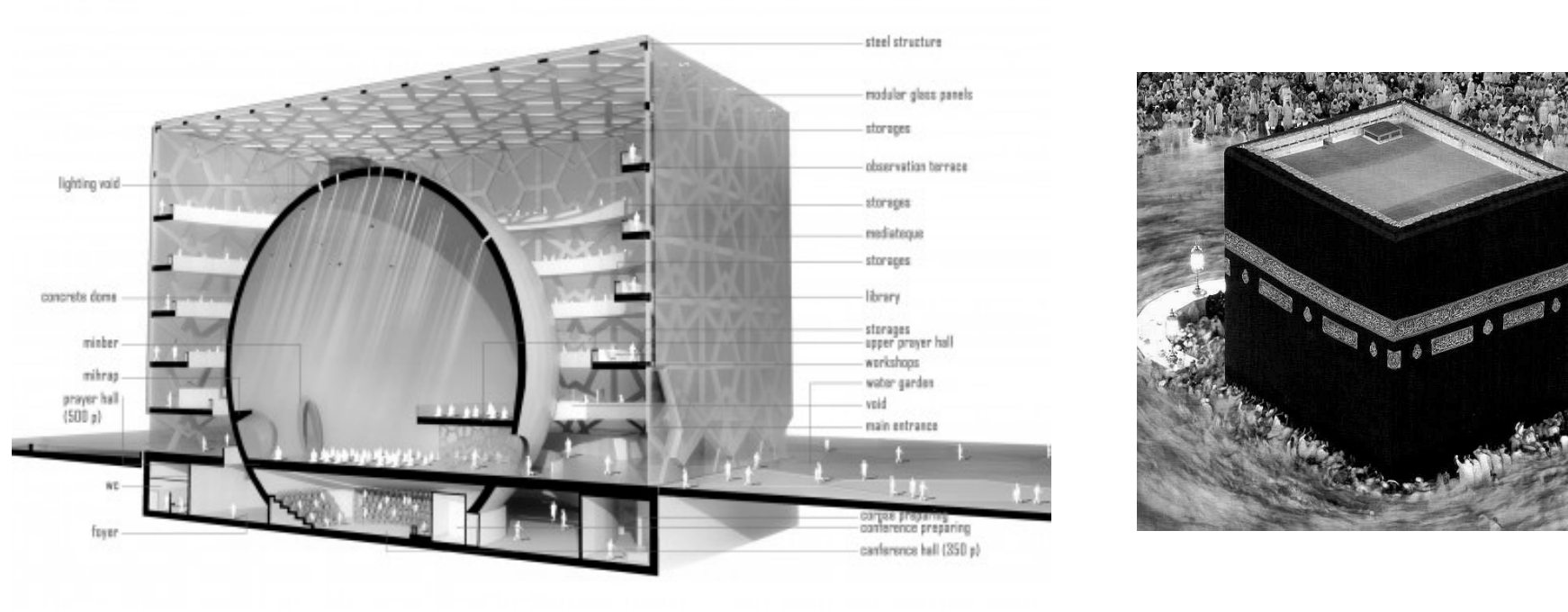


Fig. 36 & 37 | From Left: Section through the Studio Z Mosque Proposal; The centre of Mecca.

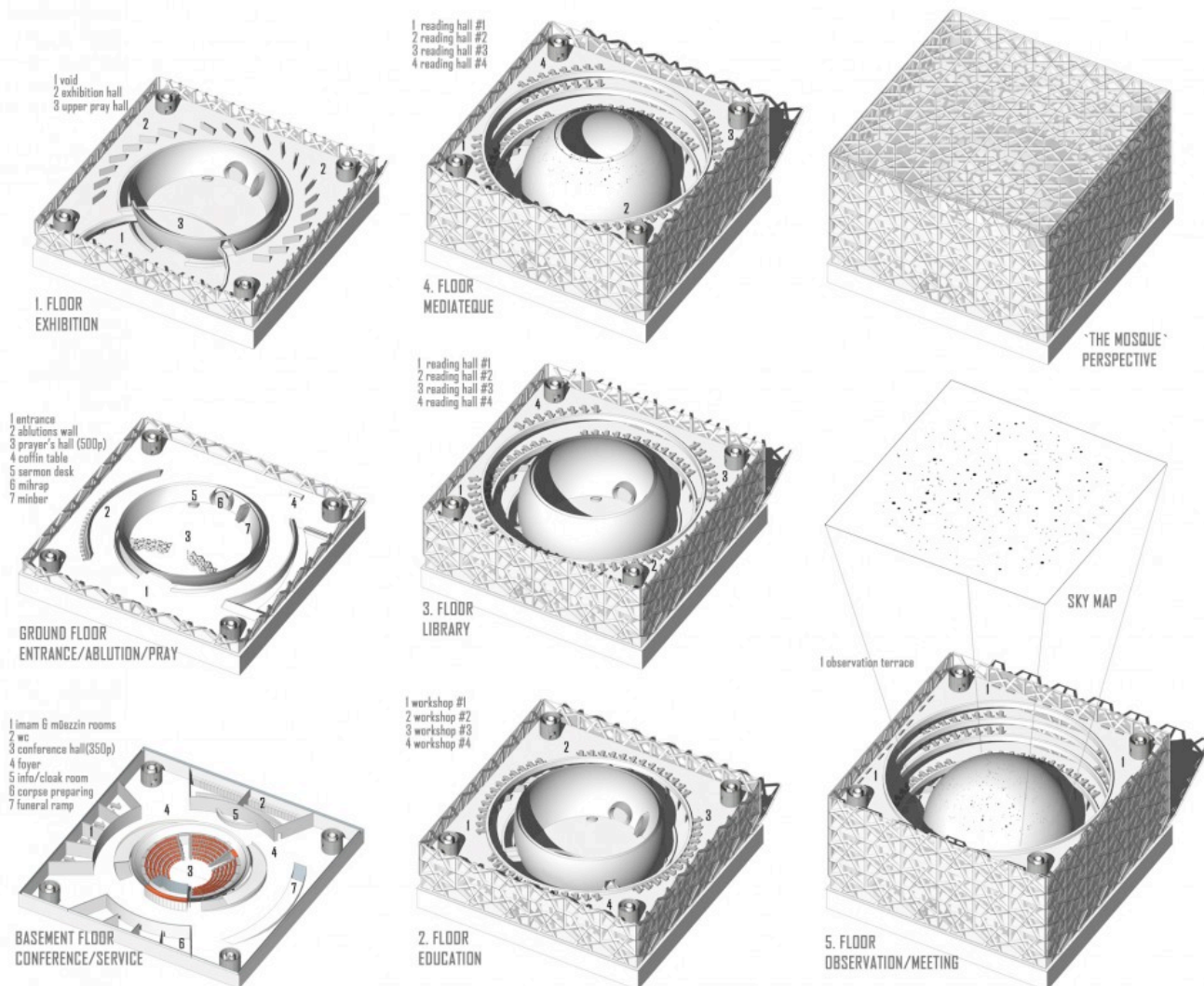


Fig. 38 | Orthographic Plans of the Studio Z Mosque Proposal.

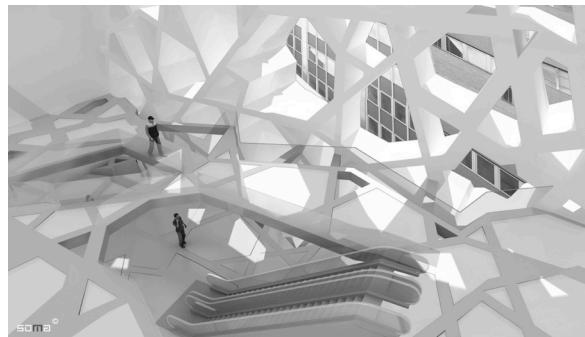


Fig. 39 & 40 | *From Top: Exterior perspective; and interior perspective of proposal.*

x | A CONTEMPORARY WESTERN MOSQUE CASE STUDY

Park 51: Ground Zero Mosque, New York

The proposed glass and steel building is intended to serve as an Islamic community centre. The program consists of a prayer space, a 500-seat auditorium, theater, performing arts center, fitness center, swimming pool, basketball court, childcare services, bookstore, culinary school, and a food court. This reflects the multi-use program found in many contemporary mosques. Its urban location near the site of the Twin Towers has; however, raised a considerable amount of controversy through the project's conception.

This controversy focuses excessively on the proposal's proximity to the September 11 site. The Park 51 Islamic centre is proposed to stand 170m from the site of the Twin Towers, as indicated in Fig. 41. Although the proposed building would not be visible from the World Trade Center site, opponents of the Park 51 project have said that building a mosque so close to Ground Zero is offensive to the victims of 9/11. Therefore, this case study clearly identifies that the urban appropriation of a mosque into a Western context needs to be carefully considered.



Fig.41 | *Diagram indicating the proximity of the proposal to the World Trade Center site.*

PART TWO

DESIGN CASE STUDIES

CHAPTER 2.1

DESIGN OUTCOMES AND SITE CONTEXT ANALYSIS

This chapter introduces the design outcomes and site context analysis. As the research analyzed both housing and the mosque, the design case studies are divided into two parts: the housing component, and the re-design of the Kilbirnie Mosque. As the mosque is the most dominant architectural symbol of Islam in Wellington, it becomes influential to not only the wider perceptions of the Islamic community. Therefore, it becomes the most significant focus of the design.

The housing component of the design case study provides a feasible solution that HNZA could use to help improve the housing conditions for Islamic women. A design guide summarizes the key findings from the research that will help to inform designers and government agencies on the specific needs of these women, as this is the most useful, practical and feasible solution. This will include solutions for both renovations and new developments.

The re-design of the Kilbirnie Mosque on Queen's Drive becomes the main focus of the design case study. Firstly, this is because the limitations imposed by HNZA and the refugee housing process limited the architectural outcome. Secondly, although the house was found to be able to help support cultural continuation, it was less influential towards the Western perceptions of the Islamic community. The mosque; however, is a site that not only supports cultural continuation and transformation, but also helps influence the perceptions towards the Islamic community. This is because it is the most dominant architectural symbol of contemporary Islamic culture. Therefore, the design seeks to challenge the traditional conception of the mosque through its relationship to the contemporary woman and its urban integration in the Wellington context.

ii | SITE & CONTEXT ANALYSIS

Kilbirnie, Wellington

This site analysis is conducted to identify the most suitable location for both housing and the mosque within the Wellington region.

The site analysis initially investigates the wider Wellington region in order to determine the current concentrations of Middle Eastern/African/Latin America citizens, and therefore the most suitable placement of the mosque and housing. This is illustrated in Fig. 42. A series of cultural maps (Figs. 43-48) depict the current ethnic concentrations of the Wellington suburbs. This provides an indication of which areas are currently more ethnically diverse, and therefore may more accepting of other cultures. These maps were derived from the 2006 census data, conducted by Statistics New Zealand.

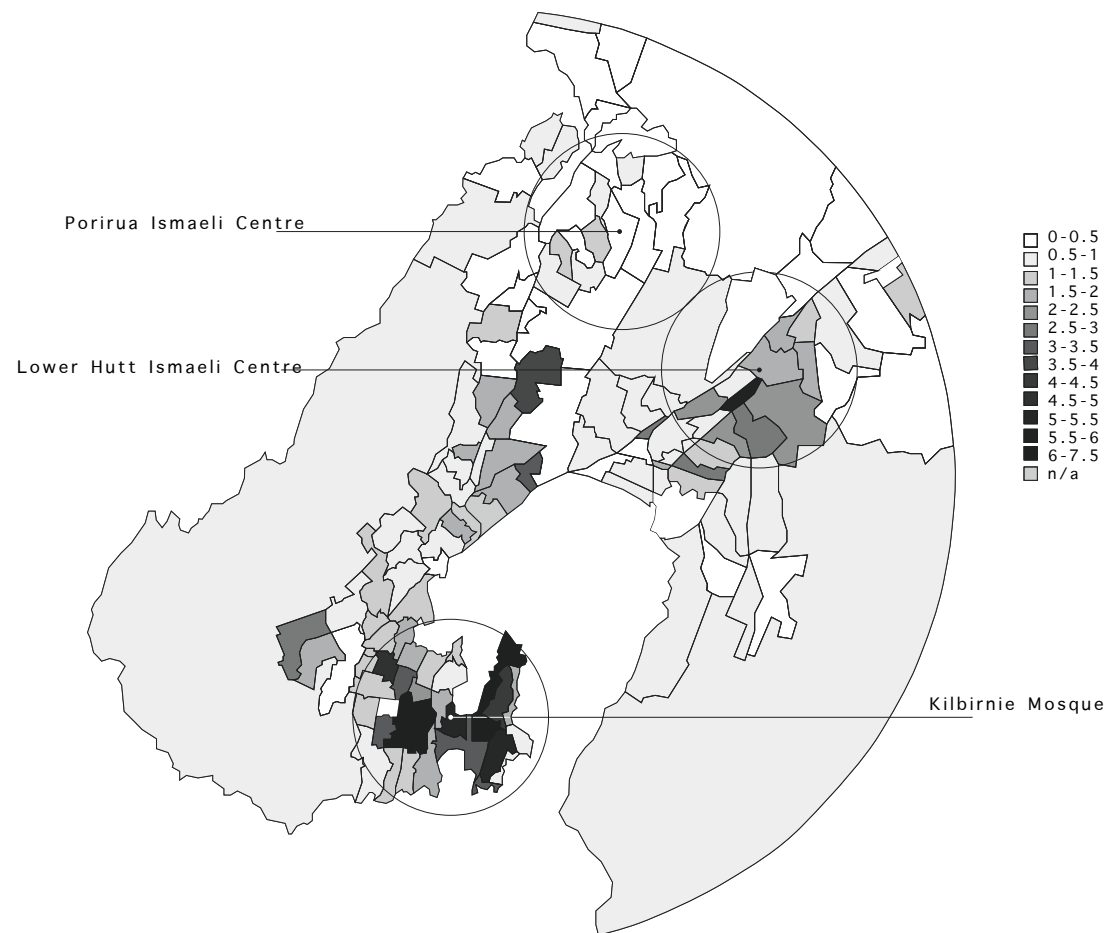


Fig. 42 | *Map of the Greater Wellington region indicating the Concentration of Middle Eastern/Latin American/African Citizens. In percentage of total population.*

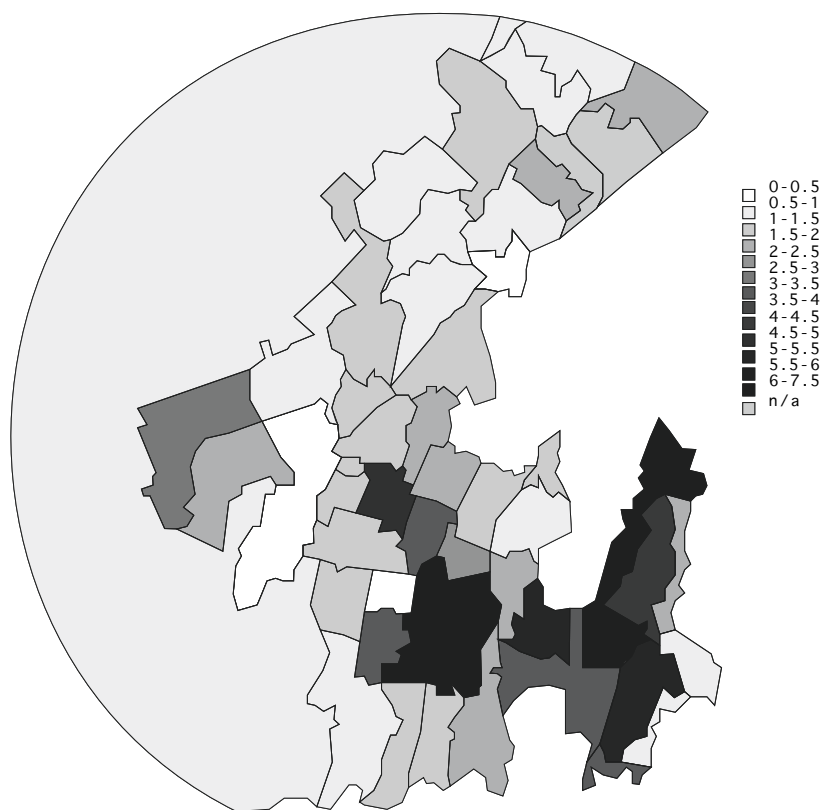


Fig. 43 | *Concentration of Middle Eastern/Latin American/African Citizens. In percentage of total population.*



Fig. 44 | *Concentration of Asian Citizens. In percentage of total population.*



Fig. 45 | *Concentration of Maori Citizens, in percentage of total population.*

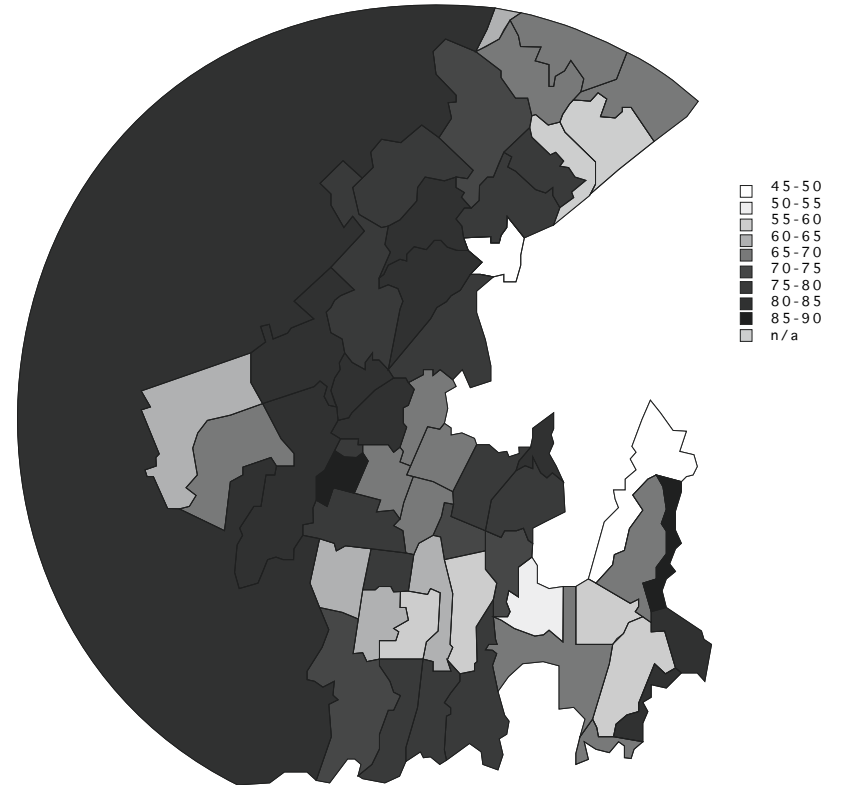


Fig. 46 | *Concentration of New Zealand Europeans, in percentage of total population.*

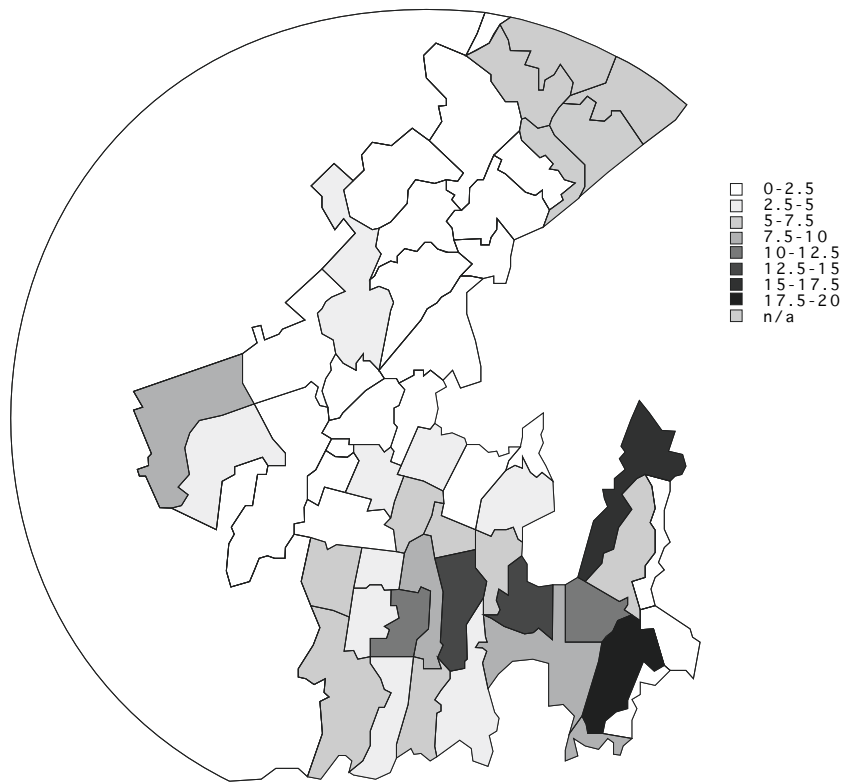


Fig. 47 | *Concentration of Pacific Island Citizens, in percentage of total population.*

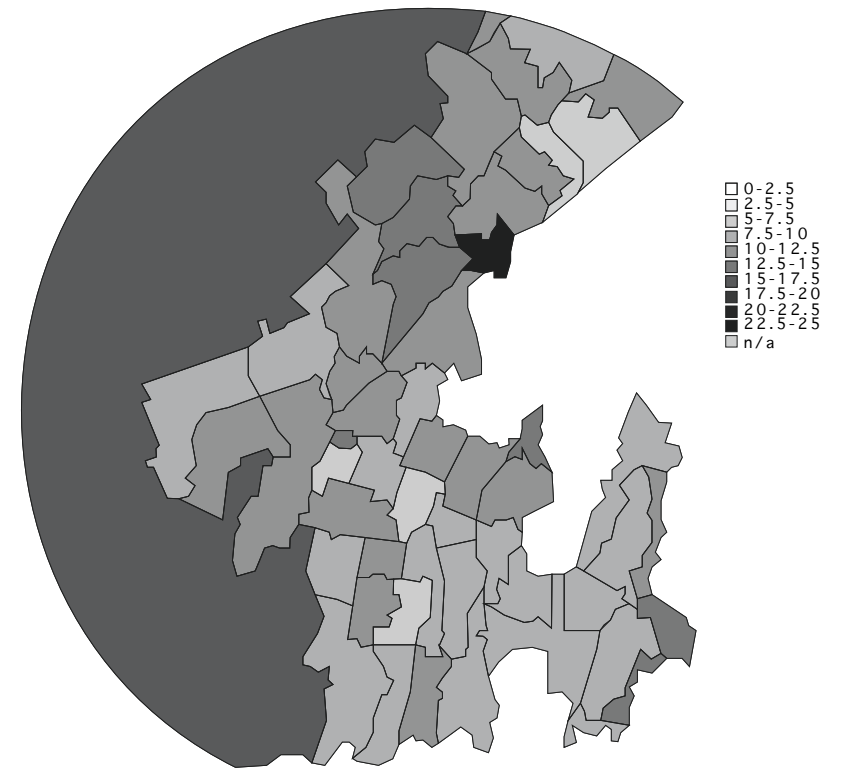


Fig. 48 | *Concentration of Other Ethnicity Citizens, in percentage of total population.*

In addition to the cultural maps indicating ethnic concentrations, the sites surrounding the 3 Islamic centers in the wider Wellington region were analyzed. This involved a programmatic mapping study of the sites within a 300m radius of the Islamic centres. This was conducted in order to locate the mosque within a site that will enable significant interaction with the wider community. The three sites included Porirua, Lower Hutt and Kilbirnie. The Porirua and Lower Hutt sites, as indicated by the Figs.49 & 50, are surrounded primarily by residential properties. This limits their potential for interaction with the wider community. The Kilbirnie site, however, is located in a relatively busy urban environment and is surrounded by a mix of residential, commercial and industrial properties. The suburb of Kilbirnie was also identified by the initial cultural mapping studies as being a relatively ethnically diverse area. This indicates that the Kilbirnie site may be more accepting of the mosque than other suburbs.

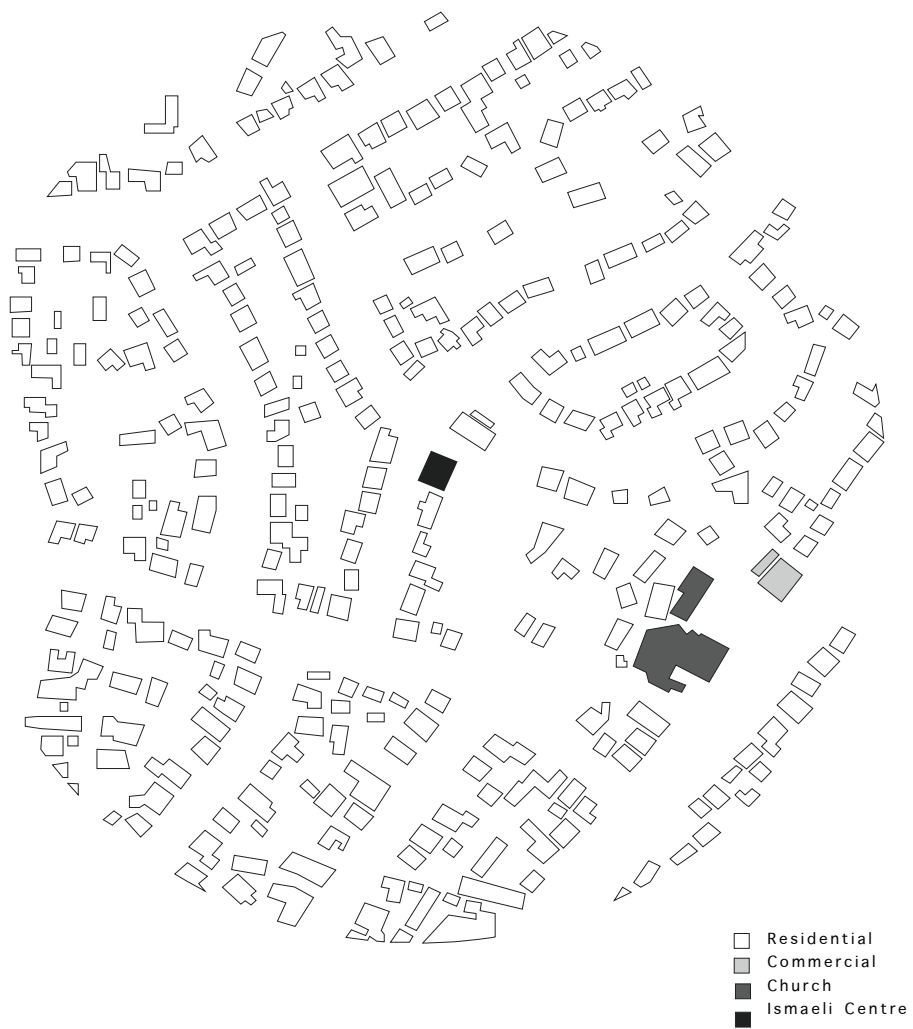


Fig. 49 | Programmatic study of the site surrounding the 300m radius of the Lower Hutt Ismaeli Centre.

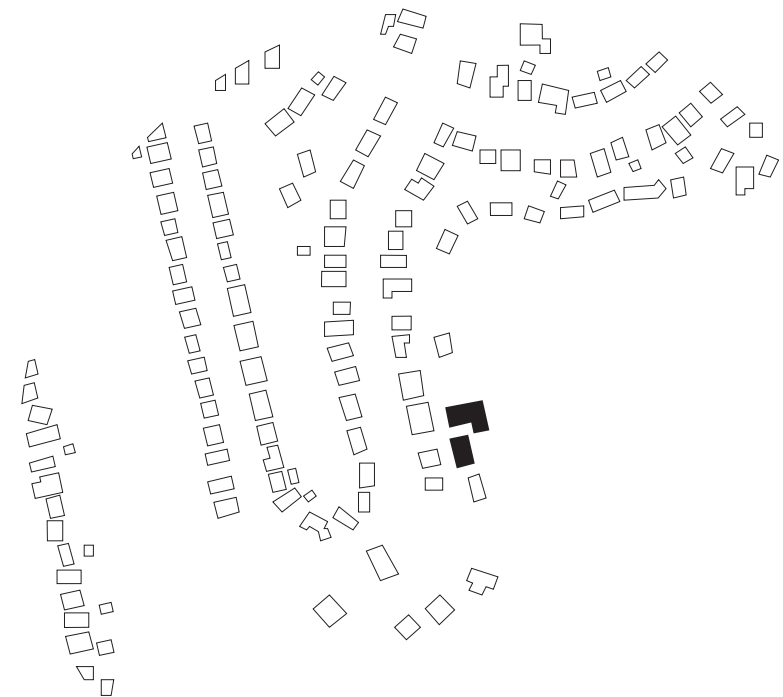


Fig. 50 | Programmatic study of the site surrounding the 300m radius of the Porirua Ismaeli Centre.

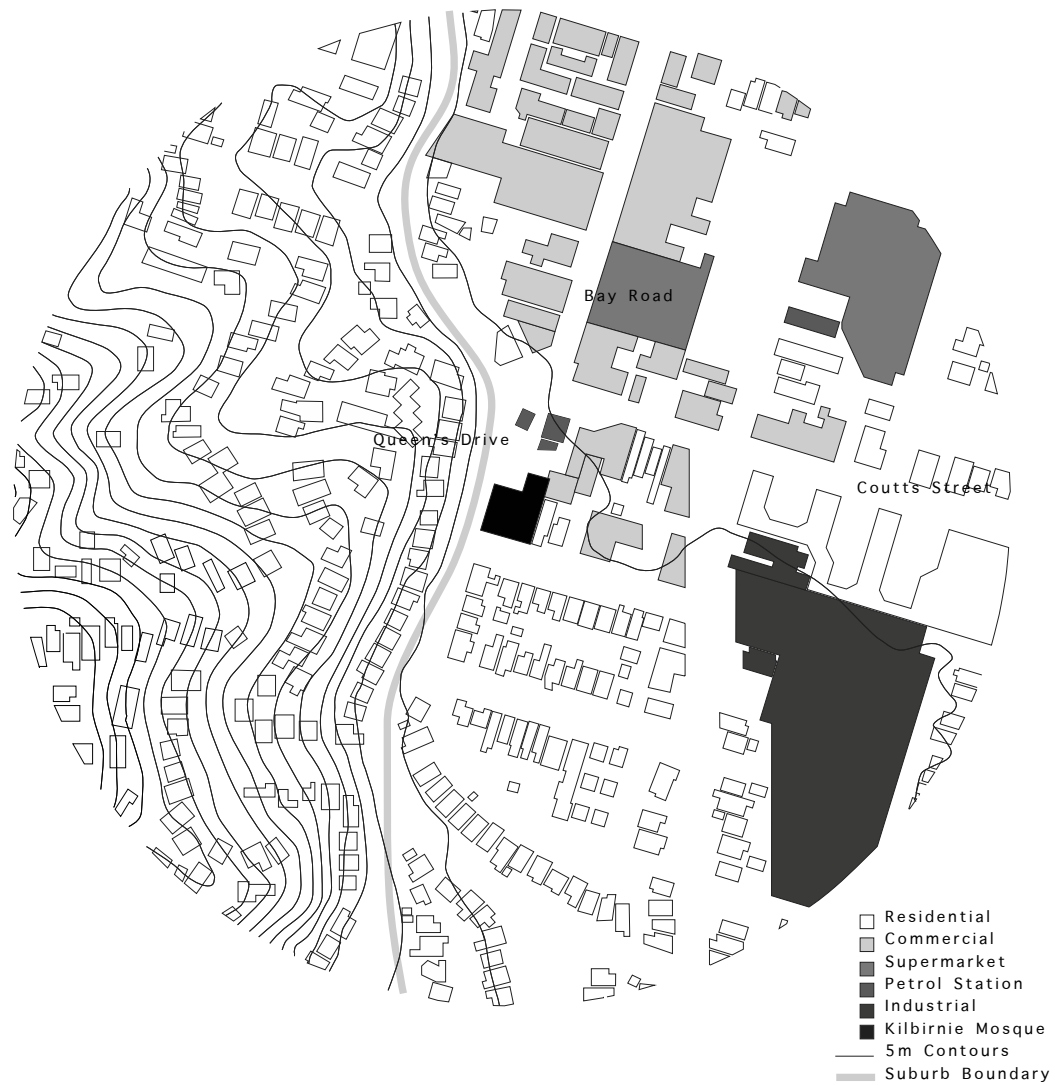


Fig. 51 | Programmatic study of the site surrounding the 300m radius of the Kilbirnie Mosque.

CHAPTER 2.2

THE HOUSING COMPONENT

The purpose of this chapter is to outline the key principles of the housing component of the design case study. The process of design is initially described, which focuses on state housing properties, as these are where refugees are preferably placed upon arrival to New Zealand. Concluding the chapter is the final design outcome.

Initially, 2 urban layouts were developed in order to explore their impact on the existing urban environment. This is because research conducted in Chapter 1.2 indicated that the urban location of refugee housing was considered important to address in terms of socio-cultural requirements. The first typology explores a low-rise apartment complex that would be occupied by mixed ethnicities, as indicated in Fig.52. Through analyzing this typology in relation to Chapter 1.2 paragraph 17, this concept was not developed any further. This was significantly due to the lack of privacy associated with the exterior space of apartment living, and the greater potential for abuse from neighbours. As a mixed-ethnicity development, it also lacked the ability to act as an architectural symbol that could influence the perceptions towards the Islamic group, which is a key concept of socio-cultural sustainability. An apartment complex inhabited primarily by Islamic refugees was not explored as it could be negatively perceived as a cultural enclave.

The second layout explores the concept of pepper-potting, which was introduced in Chapter 1.2 paragraph 9. This design involves placing recently arrived refugees within individual housing units, but unlike the technique used historically by Housing New Zealand, they would be placed in a relatively close proximity to each other. This would enable them to foster relationships more easily with people of their same ethnicity, while also interacting with the wider Wellington community. The housing is placed within the 300m radius of the Kilbirnie Mosque, as a close proximity to their religious facility is important,

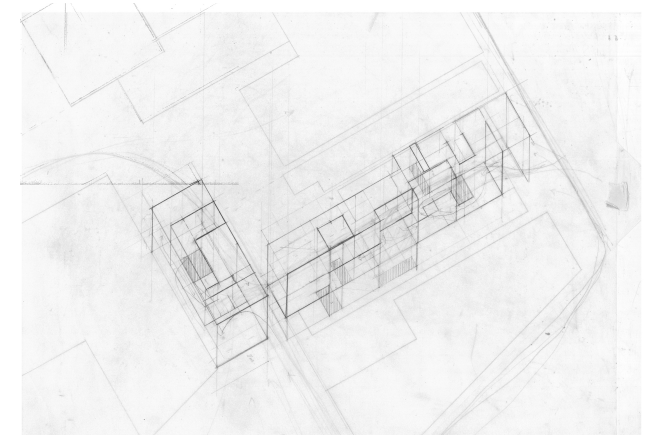


Fig. 52 | *Concept sketch of low-rise apartment complex.*

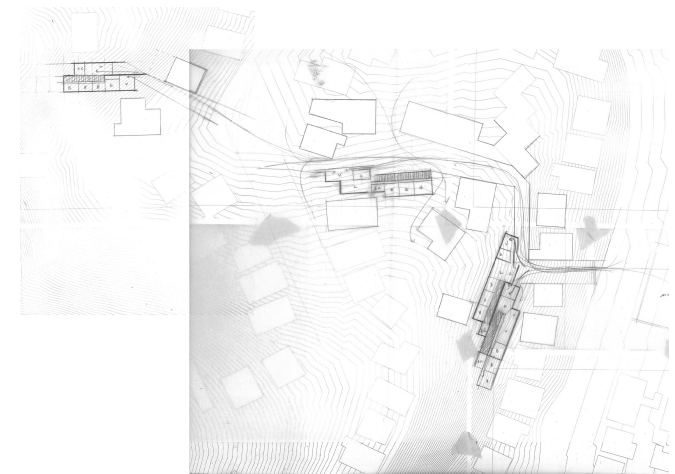


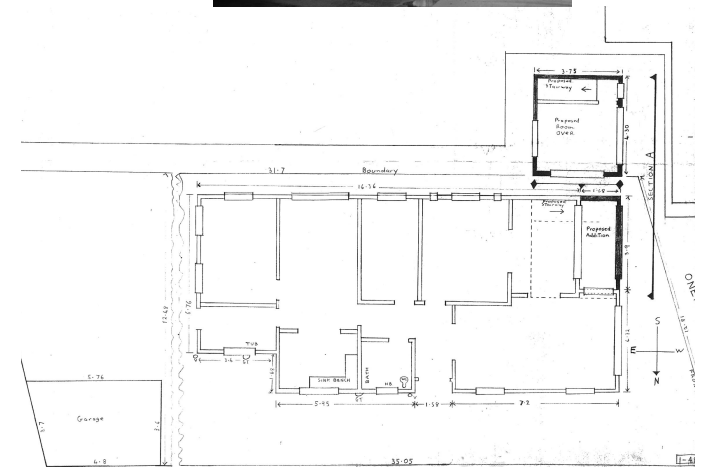
Fig. 53 | *Pepper-potting layout.*

as indicated by research in Chapter 1.2 paragraph 2. The development involved an analysis that identified several derelict houses within the 300m radius of the Kilbirnie mosque, as indicated in Figs. 54-59. It was thought that this intervention would revitalize the neighborhood through demolishing and rebuilding these properties, effectively creating a positive impact on the Kilbirnie site.

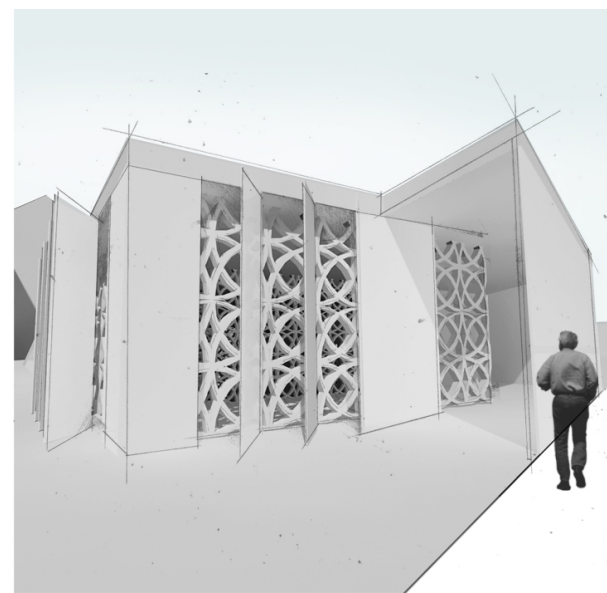
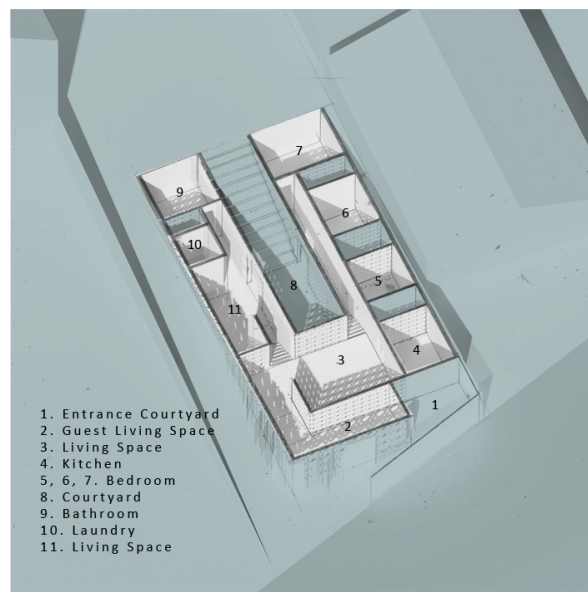
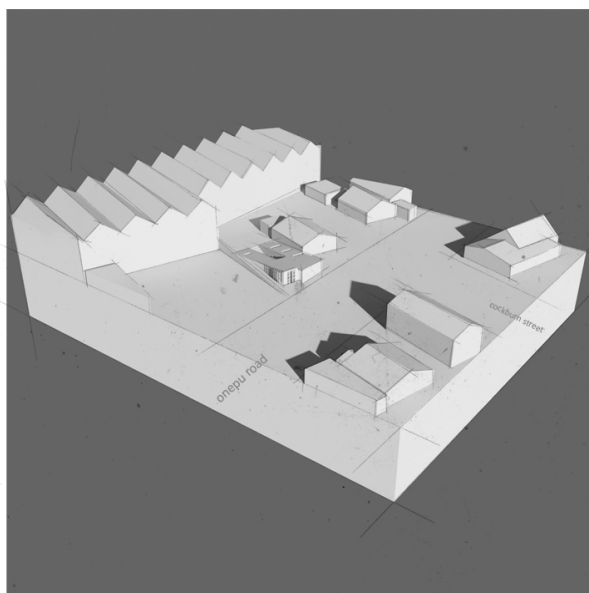


Figs. 54-59 | *Clockwise from left: Site map of 300m radius surrounding the Kilbirnie Mosque indicating run-down residential properties; Images of run-down residential properties.*

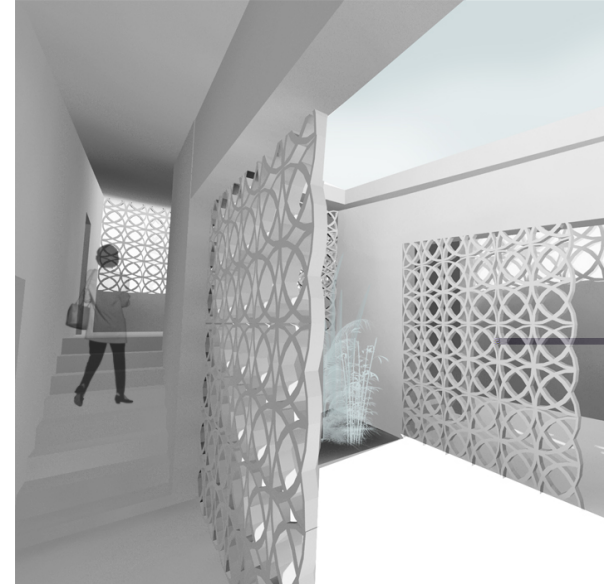
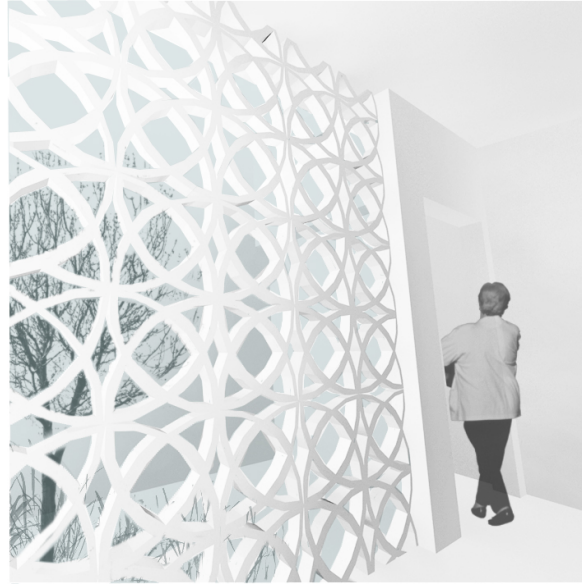
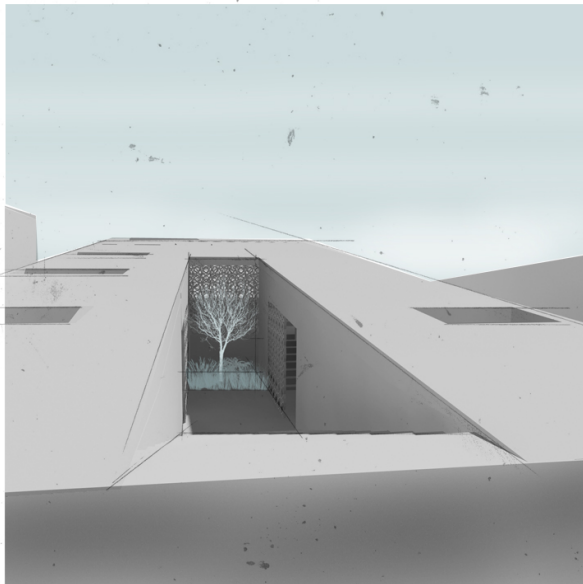
The property at 69 Onepu Road was then re-developed in order to explore how the house could be redesigned to meet the needs of the Islamic woman refugee. The mashrabiyya, which is a device that is intricately connected to the Islamic woman and her veil as introduced by El Guindi (1999) in Chapter 1.5 paragraph 2, was explored in the design. This involved the use of ornamental screens that were derived from principles of Islamic art. The perforations were designed to diminish in size in order to further restrict views into the more private domains of the house. The exterior facades allow for movement and adaption, which enables the woman to control her amount of privacy. This design was influenced by the conception of the role of the exterior of the migrant home, as outlined in Chapter 1.3, paragraph 3, where it becomes a site of perception and negotiation between the migrant and the wider community. Its flexibility and porosity was designed to reflect how the refugee is willing to adapt aspects of their culture to that of the host community, however its ornamentation is a clear indicator of identity and tradition. Spatially, the house is organized around the traditional requirements of gender segregation and privacy. This traditional interior is derived from the role of the interior of the home as introduced in Chapter 1.3 paragraph 2, where it supports traditional rituals and provides a symbolic connection to the past. The courtyard, a traditional space in Islamic architecture, was introduced in the design as the centre of the home, and is conceived as a space that provides a sense of security, which can be considered extremely important for the refugee.



Figs. 60-62 | Images of 69 Onepu Road. From top: Exterior façade from street; Northern façade; Existing Plan of 69 Onepu Road.



Figs. 63-65 | Images of the Design Proposal for 69 Onepu Road. From Left: Site Diagram; Plan; Exterior perspective from street illustrating flexible polycarbonate facades and ornamentated screens.



Figs.66-68 | *Interior and Exterior Perspectives of the proposal. From Left: Exterior perspective looking towards courtyard from back edge of the site; Interior perspective of a bedroom illustrating private courtyard; Interior perspective of hallway space with view onto main courtyard.*

Through further analysis of the research it was decided that it would be unfeasible for HNZN to demolish and replace existing houses, but rather renovations were considered as a better alternative. This also responds to the idea that refugees want to accept and be part of the New Zealand culture, rather than completely impose their culture on the community. It also ensures that the state house, as an important cultural artifact, is preserved and treated in a positive way. Therefore, providing Housing Design Guidelines for the Islamic Woman was considered the most feasible and practical solution, as these could be applied to both renovations and future developments by Housing New Zealand.

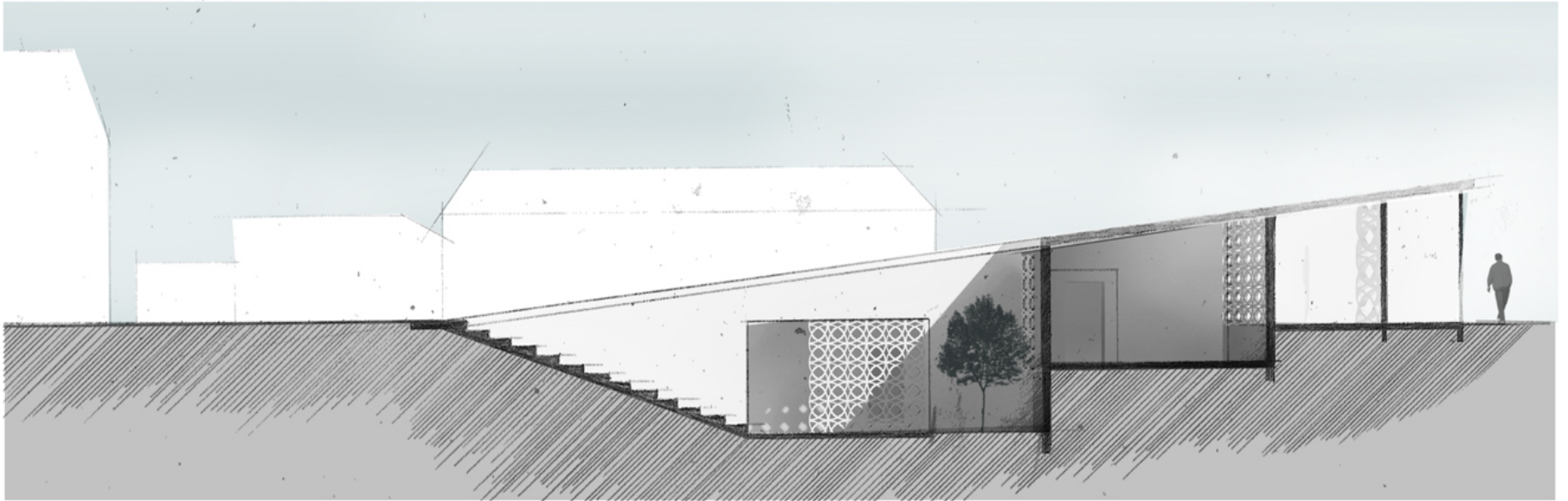


Fig. 69 | *Cross section through proposal, illustrating varying levels according to privacy needs.*

ii | FINAL DESIGN OUTCOME

Housing Design Guidelines for Islamic Women

These guidelines are based on the Pacific Housing Design Guideline published by Housing New Zealand in 2004. It seeks to inform how housing in New Zealand could further respond to the cultural and social needs of Islamic women, from both migrant and refugee backgrounds. Essentially, it is a summary of the key findings of the research.

The aims of this Design Guide are to:

- Improve understanding of the specific needs of Islamic housing in New Zealand;
- Highlight the cultural needs, dynamics, and pressures acting on Islamic women and their housing environments;
- Establish performance-based guidelines for appropriate solutions;
- Inform and assist all housing stakeholders (including architects, designers, and property developers in the public and private sectors) in the process of providing residential housing for Muslims in New Zealand;
- Inform designers, and encourage the development of new, innovative, and creative housing design solutions for Muslims.

The review of literature highlighted some key issues on the current state of housing for Islamic refugees and migrants living in New Zealand. These include:

1. Privacy requirements.
2. Larger families and family reunions.
3. Warmer living.
4. Maintaining cultural Identity.

I N D O O R S P A C E S

As most Islamic countries are hot and arid, the change from this climate to the New Zealand climate can often cause discomfort for Islamic families. Therefore, orientation of living spaces towards north to ensure maximum sunlight access is essential. Additionally, the use of warm colours and materials, such as timber, will help to provide a sense of warmth in all interior spaces.

1. LIVING SPACES

The Islamic home is commonly used as a site for rituals and large gatherings. These include daily prayers, weddings, and funerals. Therefore, in order to allow enough space for extended family, where possible, it is necessary to provide large living spaces.

It is ideal that prayer spaces, which may be located in the living areas of the house, are orientated towards Mecca.

Islamic houses should incorporate two living spaces – one for males and one for females – in order to maintain the traditional requirement of gender segregation. Additionally, views into the female living space must be hidden from view from the outside and from the male living space.

2. KITCHEN AREAS

The kitchen must be separated from the living spaces. This is to ensure that the woman can cook without wearing the veil when visitors are within the house.

3. BATHROOM AND TOILETS

The toilet must be located at a distant proximity to the kitchen area, as this space is regarded as unclean. It is also preferable that the toilet is located in a separate room to the bathroom.

4. BEDROOMS

As many migrants often have family reunions, large sleeping spaces that may be partitioned could be provided in order to allow for future family growth.

Ideally, bedrooms should be located in a more private area of the house, away from entrances and where views from the street are limited.

5. CONNECTING SPACES

There should be two entrances to the house, and access to the female living spaces and bedrooms should be unseen by any male visitors.

OUTDOOR SPACES

The outdoor spaces of the Islamic house should allow the woman to take off her veil without being seen. Therefore, female outdoor living spaces should be hidden from view from the male spaces and the street by screening and spatial orientation.

KEY SOLUTIONS

1. NEW HOUSING

New housing developments should understand the key principles of gender segregation, but also allow for changes that could occur through future cultural shifts or new inhabitants. Therefore, adaptive solutions for privacy such as removable and adaptable screens and walls could allow for future use and also for different ethnic groups that may move into the property.

2. EXISTING HOUSING

Similarly to new developments, removable screening devices are also a key solution to adapting existing houses. Ideally, these could be installed and removed by the requirements of the user. They also could be located in both interior and exterior spaces.

The design of the screens could incorporate ornamental pattern based on Islamic art principles, that would help to maintain a sense of cultural identity. Timber, patterned opaque glass, plastics, and various metals could be explored materially.

CHAPTER 2.3

THE KILBIRNIE MOSQUE

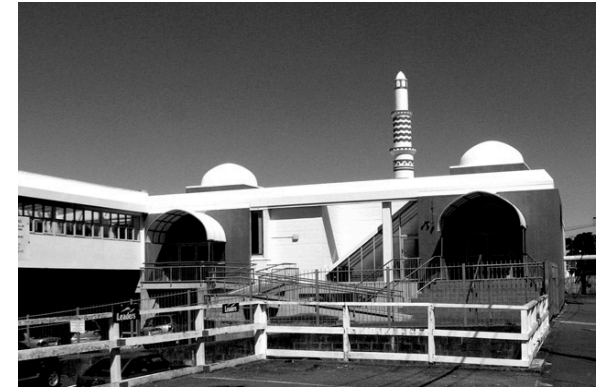
This chapter outlines the design concept, process and outcome of the re-design of the Kilbirnie Mosque. As the most dominant architectural symbol of Islamic identity in Wellington that can influence the wider concerns of socio-cultural sustainability, this is the more significant focus of the design case studies. Initially the chapter provides an analysis of the existing Kilbirnie Mosque. Following from this, the design concept is outlined, which is followed by a description of the design process. Concluding the chapter is a comprehensive discussion of the final design outcome.

i | THE EXISTING MOSQUE

The existing mosque in Kilbirnie was originally built in 1971 as a stationary storage facility for the Bank of New Zealand, and was renovated in 2004. As indicated by the plans and images of the building in Figs.70-75, the renovations included altering non-structural interior walls and the re-design of the northern façade. The other 3 facades of the mosque retain the original industrial facades of the stationary storage facility as indicated in Fig. 71.

The northern façade was designed with traditional Islamic mosque symbolism, which includes domes, portal arches and a minaret that is aligned with Bay Road. These symbolic qualities help identify to both Muslims and non-Muslims the function of the space, as noted by Serageldin (1992) in Chapter 1.5 paragraph 13; however, it does not respond to the transformation of the Islamic culture through the migration process or its New Zealand context. Therefore, the wider perception of the mosque may associate the Islamic community as being conservative and traditionalist, which does not reflect the cultural transformations that take place for Islamic refugees. It also doesn't respond to the repositioning of the Islamic woman in the context of migration.

Programmatically, the mosque caters for the growing Islamic community in Wellington and acts as a multi-purpose space. It is a place for prayer and worship, weddings, community gatherings, Ramadan dinners, Sunday school classes and holiday programs; and it also



Figs. 70 & 71 | *Photographs of the Existing Mosque. From Top: Northern façade and entrance to the existing Mosque; The south-west corner of the mosque, illustrating the industrial facades.*

hosts tours, school visits, open days and ethnic food fairs in an effort to open its doors to the wider community. Therefore, the program responds to the contemporary notion of the mosque and also its New Zealand context.

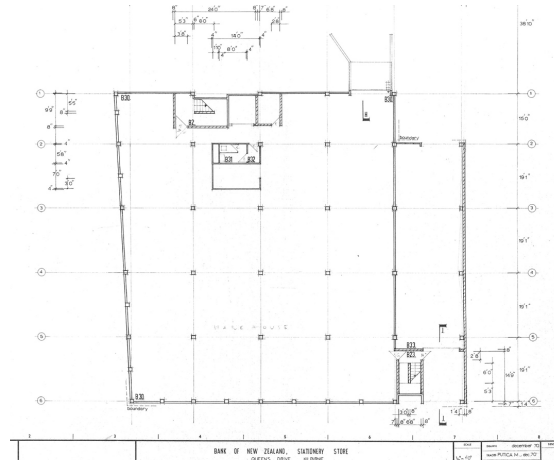


Fig.72 | *Original Basement Plan NTS.*

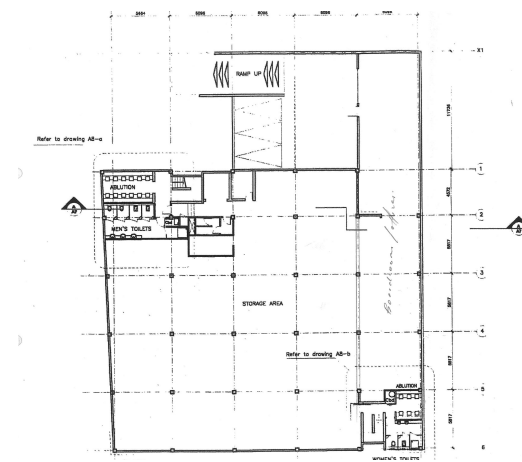


Fig. 74 | *Renovated Basement Plan NTS.*

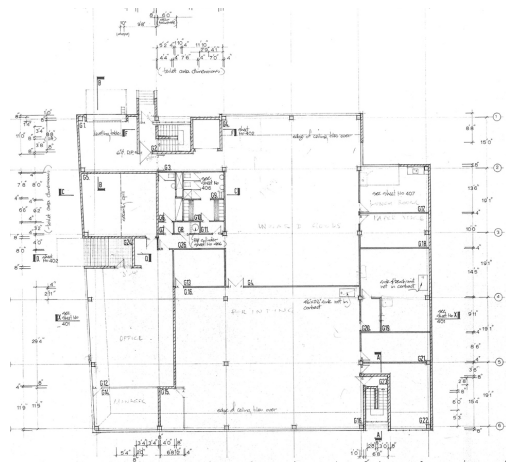


Fig.73 | *Original Level One Plan NTS.*

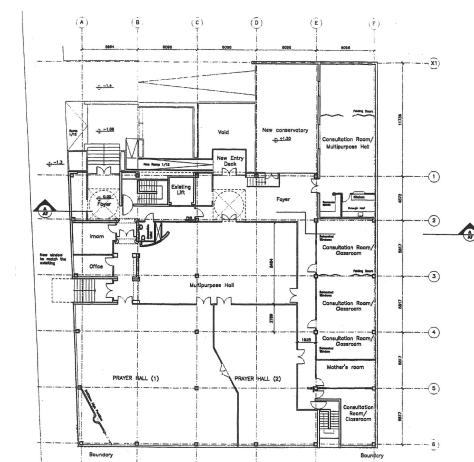


Fig. 75 | *Renovated Level One Plan NTS.*

The re-design of the Kilbirnie mosque is an exploration of the key research findings, which includes the over-arching concept of socio-cultural sustainability, and the cultural repositioning of the Islamic woman refugee upon migration. As introduced in Chapter 1.1, socio-cultural sustainability aims for ensuring cultural continuation, while simultaneously allowing for transformation. In addition to this, it seeks to limit negative conflicts that can occur between different cultural groups that are often influenced by perceptions based on a lack of knowledge and understanding. This concept plays an important role in the development of the design concept.

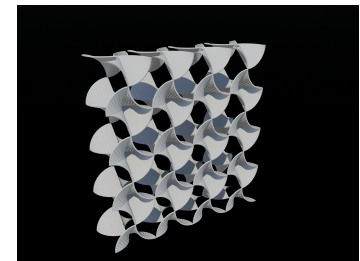
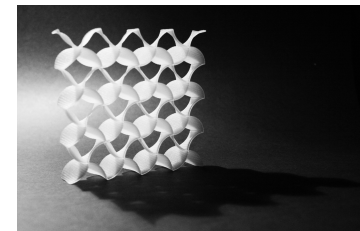
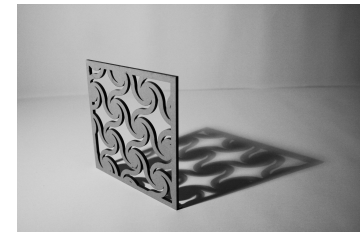
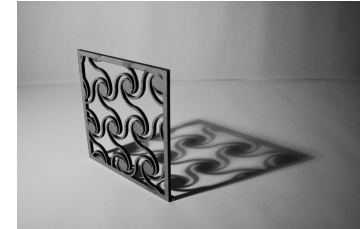
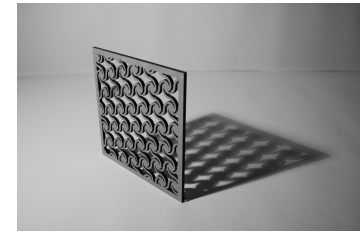
The repositioning of the Islamic woman in Western contexts becomes a critical driver of the design concept, where Westerners have often perceived her as being oppressed and orientated towards the home. However, as stated by Mahfouz and Serageldin (1990) in Chapter 1.4 paragraph 3, the Islamic woman is becoming increasingly more active in the Western workforce. This differs greatly from the Western opinion towards her, which is commonly informed by the perception of the veil. This can be considered as misguided, as the veil instead allows the woman to be judged on her character and intellect rather than her physical appearance, as noted by Vahiji and Hadjiyanni (2009) in Chapter 1.5 paragraph 2. It also acts as an expression and symbol of identity and an empowering device; and becomes voluntary to wear in Western contexts. The design therefore seeks to re-inform the Western perception of the Islamic woman through empowering the

feminine aspects of traditional Islamic architecture. The urban integration of the mosque also plays an important part in the design concept. It seeks to critique the traditional mosque, which was generally an introverted space, and instead allow for a greater interaction between the surrounding context and the mosque.

The relationship between the mashrabiyya and the cultural repositioning of the Islamic woman refugee is explored as the most important design influence. The mashrabiyya, as noted by Kenzari and Elsheshtawy (2003) in Chapter 1.5 paragraph 3, is used as a gender segregation device and is therefore intricately connected to the women and her veil. Traditionally, it has been added to the openings of buildings, therefore implying that it is a removable attachment because it is not part of the structure or the overall form. Lico (2001:30) understands that “the under-representation of the women’s body and experience in spatial structures creates a possible setting for subordination and exploitation.” Therefore the mashrabiyya is critiqued in the design, and is transformed from being merely an attachment to significantly influencing the form and structure. This empowers the feminine aspect of traditional Islamic architecture, which reflects the empowerment of the contemporary Islamic woman.

The design process of the mosque began as an extension to the re-design of 69 Onepu Road, described in Chapter 2.2, as many aspects of the house could be translated into the mosque. The detailing of the mashrabiyya was further examined through the New Zealand context. Pattern was explored through the koru/fern, a native plant to New Zealand, as the mashrabiyya is often derived from fauna based on Islamic principles. To many, the koru is considered symbolic of new life, which reflects the refugee community who come to New Zealand seeking a new beginning. Furthermore, the use of the koru arranged through Islamic geometry recognizes that refugees are willing to take on aspects of New Zealand culture while simultaneously maintaining elements of their past traditions. The koru was explored through the golden section and Islamic geometry; which involved basic principles of rotation, transposition and scale. These resulted in a series of 2-dimensional screens, indicated in Figs.76-78. The screens were further explored and abstracted through multiple 2D and 3D geometric variations of the arc, as illustrated in Figs.79 & 80.

Following from the exploration of the mashrabiyya, a series of maquettes were produced which explored ornamentation in 3D form. A model was constructed using the koru arranged in golden ratio as illustrated in Figs.80 & 81. These were placed on two planes and each arc was divided by a 9-degree angle. The two planes were chosen through the orientation of the site. One was used as a ground plane, the other in the direction of Mecca. The points created by the 9-degree divisions were then linked with thread, which



Figs.76-80 | *Development of screens through the geometric abstraction of the koru.*

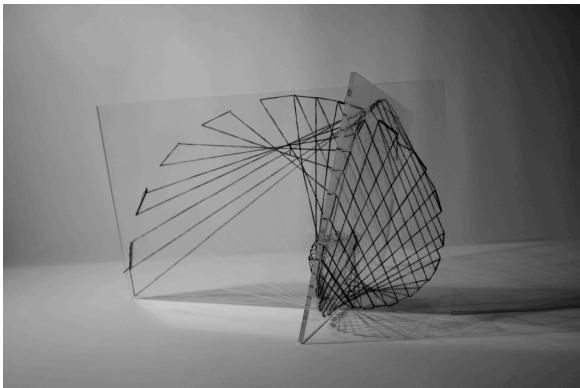
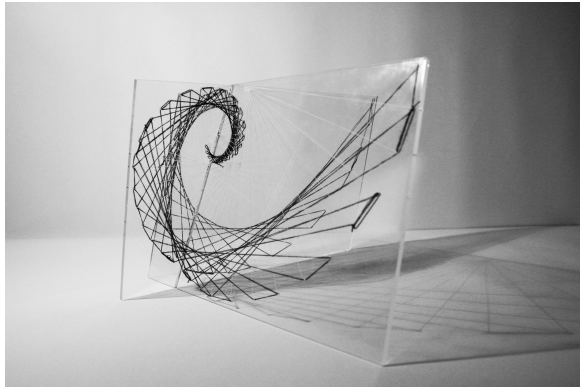


Fig.81 & 82 | *Exploration of the koru through 3D form.*

created a 3-dimensional form. This model highly influenced the conception of form within the mosque.

Pattern was further explored through the Spirograph. This device is derived from mathematical principles and creates pattern through the revolution of a template within a guide. A rectangular guide in golden ratio was constructed and the templates used spirals that were also constructed through golden ratio proportions. Each revolution was recorded, as identified in Fig.83, and a 3-D model was constructed (Fig. 84) which illustrated the process of each revolution. Although this provided some interesting results, it was not taken further into the design as the outcome became too abstracted and lacked any symbolic Islamic qualities.

The concepts surrounding the earlier conceptual model, illustrated in Fig. 81 & 82, were then applied to the development of the mosque; where the detail within the mashrabiyya was used as a driver for not only the decoration of the screening, but also the overall form. This refers to the re-positioning of the Islamic women within contemporary Western society, as introduced in the design concept. This was further explored through computer modeling, as illustrated in Figs. 85-92. The ornamental pattern was further abstracted from the initial explorations into pattern with the koru through this process. To reflect gender equality yet the independence of the Islamic woman refugee, the form was manipulated as a negotiation between the curved and the straight elements; and also the solid and the ornamented. The relationship between these forms and the program was then negotiated.

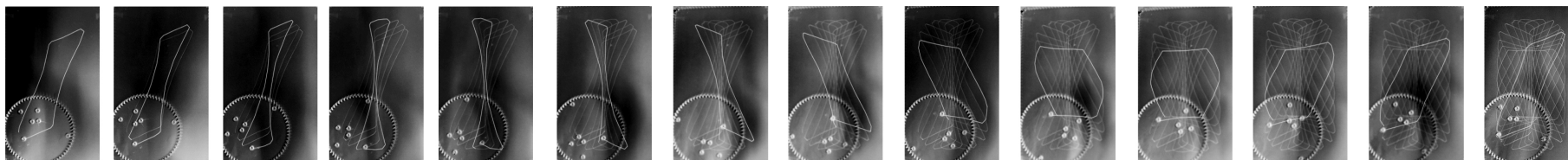


Fig. 83 | *Photographic series of the Spirograph model illustrating the pattern created by each subsequent revolution.*

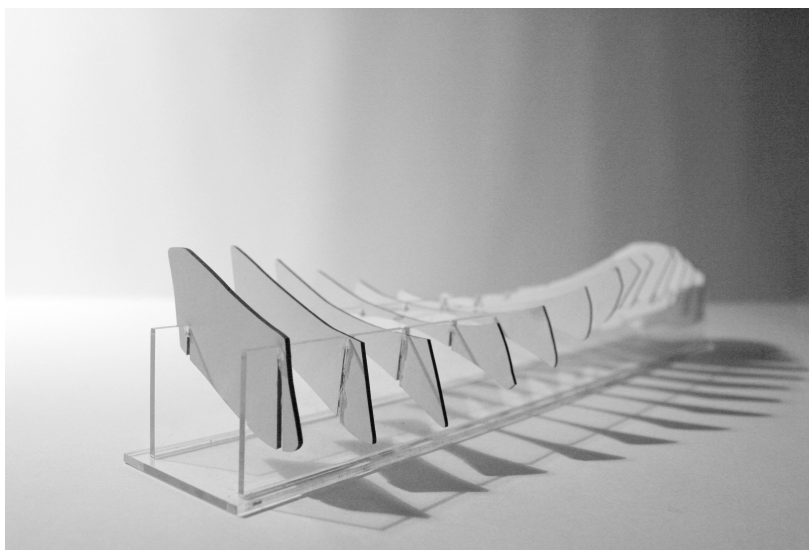
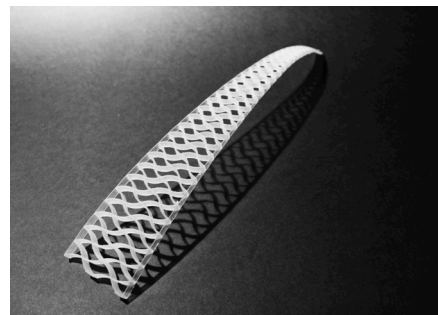
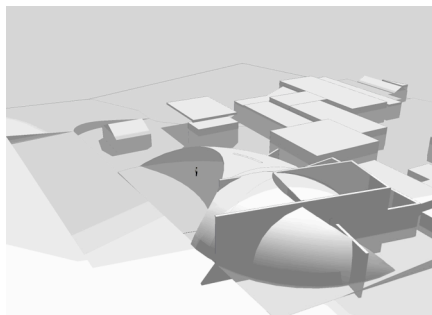
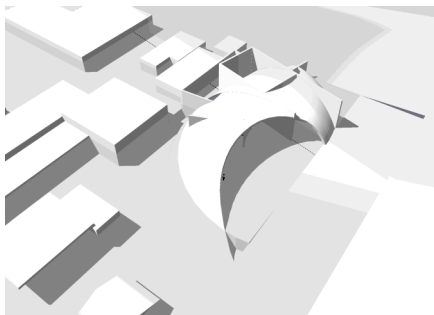
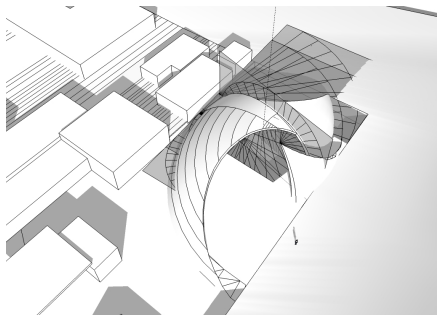
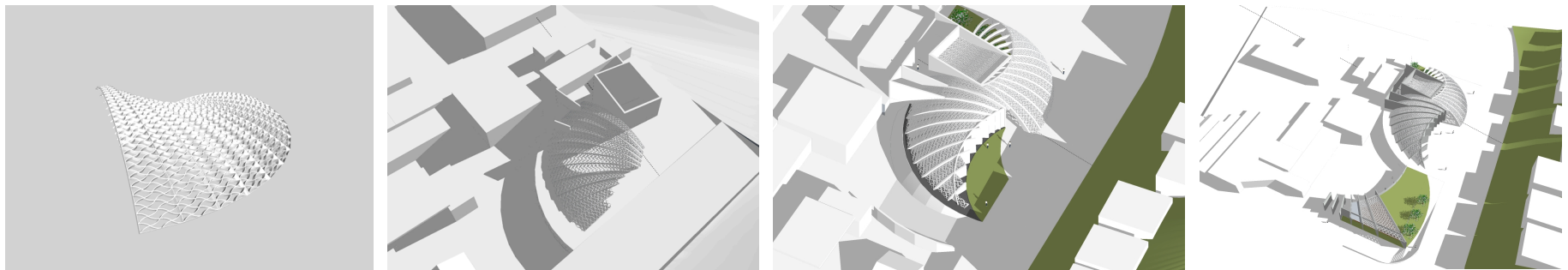


Fig. 84 | *3D conceptualization of the Spirograph series illustrated in Fig.83 above.*





Figs. 85-92 | *Development of the Kilbirnie Mosque. From Left: Initial manipulation of form illustrating the golden-section guides influenced by the model in Figs. 80 & 81; development of form; same stage of development illustrating central prayer space core; curved mashrabiyya component; manipulation of curved mashrabiyya component into form; subsequent application of this into the mosque; further development of the mosque with initial landscape design; further development of landscape and surrounding urban context, including childcare centre.*

The Kilbirnie Mosque, Wellington

The re-design of the Kilbirnie mosque acts as a cultural medium that responds to the concepts of socio-cultural sustainability. It maps the shift in culture that occurs through the process of migration, where the traditional mosque is challenged through both the role of the contemporary Islamic woman living in Western societies, and its urban appropriation with the Wellington context. This provides a new and contemporary mosque typology.

Spatially, the mosque draws its layout from the research conducted on the migrant home, as there are many perceived parallels between the home and the mosque within the migrant context. For example, the Islamic home is considered a sacred place where many rituals are performed, including prayers, which links it to the mosque. The interior of the migrant house, as discussed by Rapport and Dawson (1998) in Chapter 1.3 paragraph 2, acts as a site of cultural continuation that forms a connection to a refugee's homeland through memory and ritual. It's exterior, as discussed by Lozanovska (1997) in Chapter 1.3 paragraph 2, becomes a site of cross-cultural negotiation that can influence the perceptions of the host community towards the migrant culture. Therefore, the prayer space, as the interior core of the building, maintains its traditional spatial conception of gender segregation. The prayer space also uses the existing basement space that can be identified in the plans at the beginning of the chapter (Figs.72-75). The surrounding interior spaces and the street edge becomes the boundary of the communities, and acts as

a site of interaction. The ornamental and perforated façade allows for public views inside, which challenges the traditional introverted nature of the mosque.

The re-design of the Kilbirnie mosque is a community facility that programmatically supports the needs of Islamic refugees and the contemporary role of the Islamic woman. It consists of gender segregated prayer & ablution spaces, childcare facilities, multi-purpose space, classroom, office and toilets, indicated in Figs.93-95. As introduced earlier, Islamic women were traditionally orientated towards the home and were able to look after their children. In contemporary society however, these increasingly independent women are now becoming part of the workforce and are unable to care for their children during the day, as indicated by Mahfouz and Serageldin (1990) in Chapter 1.4, paragraph 3. Therefore, the mosque provides childcare facilities that allows the woman to work and also helps her children to interact with the wider Wellington community. Furthermore, the classroom space responds to the needs of migrants and refugees, who must often learn English and the way of life in New Zealand.

The re-design of the mosque challenges its traditional conception through its interaction with the surrounding urban context. Where the traditional mosque was an introverted space, the re-design challenges this and allows public access through the site, and views into the interior spaces through the perforated facade. This allows for a more porous boundary between the Islamic community and the wider Wellington context which helps to generate a more positive and open perception of Islam. The existing site, as analyzed in Chapter 2.1, is situated in a light industrial and commercial block of Kilbirnie. Its

proximity to the Shell Petrol Station to the north of the mosque demeans its significance as a religious building. Therefore, this site is redeveloped as part of scheme. Currently, the petrol station acts as a hub of the community, and this notion is retained in the redevelopment. The childcare centre replaces the existing petrol station site, as it is a community building that not only interacts with the wider community but also holds a more sensitive relationship to the mosque. The existing mosque occupies the back edge of the site, which is retained in the redevelopment as it holds a less prominent urban position but is still visible from the surrounding context. This responds to the importance of maintaining a sensitive urban appropriation in Western contexts, as addressed in the New York Mosque Case Study in Chapter 1.5. Landscaping, including trees, grass, shrubs and reflection pools, become an important part of the re-development of the site. This increases the quality of the surrounding environment, where the current site is lacking in any natural features. Landscaping and water features were also an integral part of many traditional mosques.

By negotiating the overall design through the ornamental detailing of the mashrabiyya, as outlined in the design concept, this reinterprets the mosque into a contemporary form that responds to the changing role of the Islamic woman refugee. As stated in Chapter 1.5, the mashrabiyya is traditionally not only a gender segregation device but also a climatic moderator. As the Wellington climate is significantly different to many Islamic countries, the climatic function of the mashrabiyya was renegotiated through the design. It maintains its traditional perforations but the use of a glass curtain wall beneath the ornamented structure provides for environmental shelter. This curtain wall has adjustable

louvers that can be used when necessary to allow for ventilation. Within the colder Wellington environment, the scale and shape of the perforations allow more sunlight into the space, while simultaneously preventing over-heating. The mashrabiyya's materiality also undergoes change through modern technology and its Western context. Traditionally, as outlined in Chapter 1.5 paragraph 4, mashrabiyya's were hand-constructed from either wood or stone; however, this is unresponsive to modern construction technologies and materials. Therefore, the mashrabiyya is constructed of a semi-translucent fibre reinforced plastic. This material also provides a more complex interaction between light and shade, and during the night will become illuminated.

The ornamented structural elements of the mosque are interwoven with the solid form of the concrete structure. These two elements are identified as both the feminine and masculine elements of the mosque respectively. The negotiation between the two maps the contemporary relationship between the Islamic man and woman, where the veil, or mashrabiyya, is considered a critical part of Islamic identity. The curved element is detailed so that it stands separately from the masculine structure, which reflects the increasing independence of the Islamic woman refugee. The solidarity of the concrete structure also allows for a sense of permanence in relation to the context of the refugee.

The minaret within the design undergoes a significant transformation in the Wellington context. The minaret is traditionally used as a tower where the call to prayer is announced, where the architectural form is greatly influenced by the stairs or ramps leading to the top. In Western contexts; however, the call to prayer is not used which

challenges its traditional conception. The design therefore re-conceptualizes the minaret as a sculptural element that acts as a visual symbol of the mosque. Its form is derived from the ornamentation of the mashrabiyya and, like traditional minarets, is orientated towards Mecca. Its position retains its original location on the linear axis of Bay Road, which is a heavily populated retail street. This acts as the mosques most dominant interaction with the urban centre of Kilbirnie, where it is a subtle yet respectful acknowledgement of the mosque within the surrounding context.

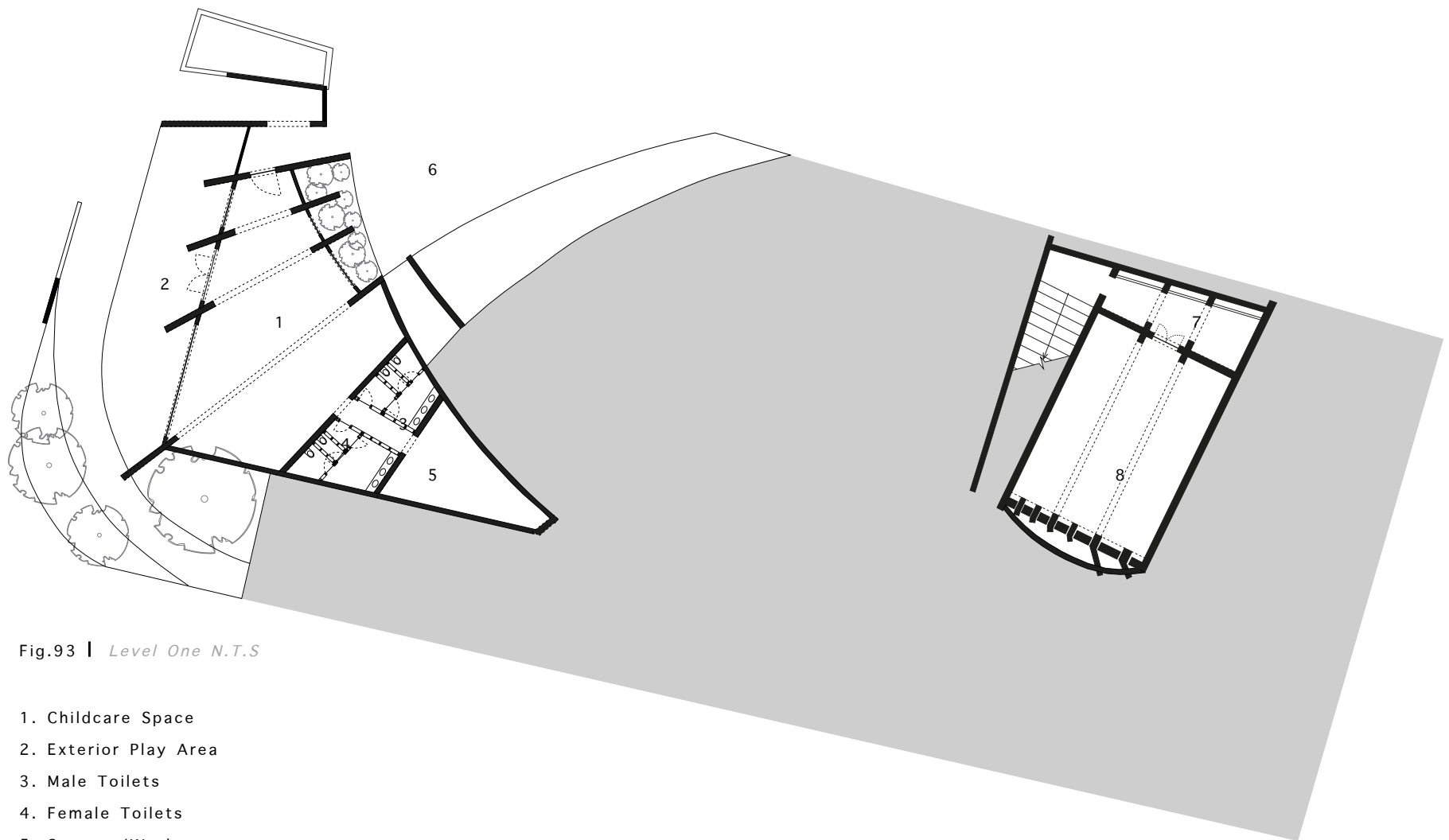


Fig.93 | *Level One N.T.S*

1. Childcare Space
2. Exterior Play Area
3. Male Toilets
4. Female Toilets
5. Storage/Kitchen
6. Carparking
7. Men's Ablution
8. Men's Prayer Space



7.5m

22.5m

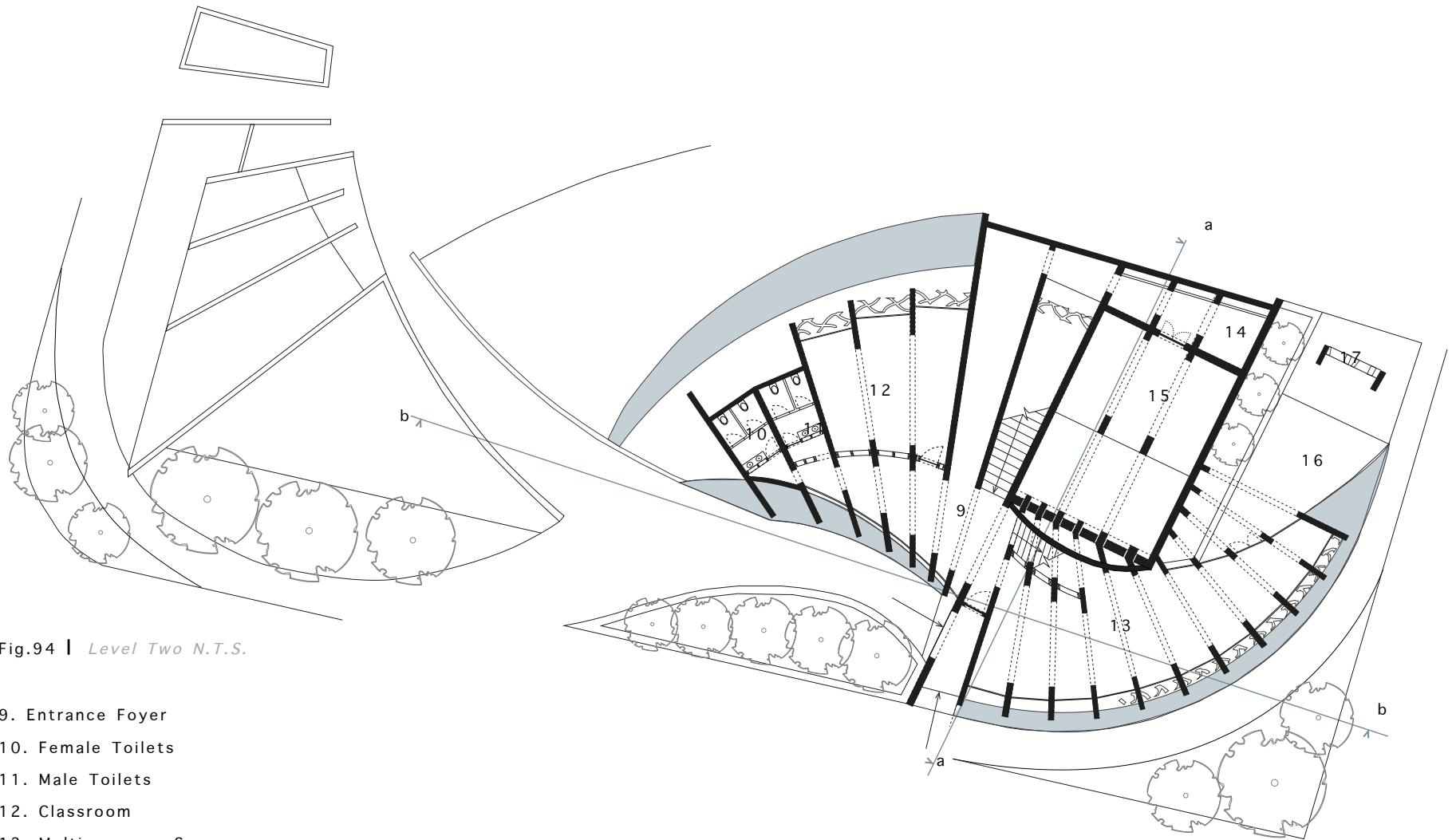
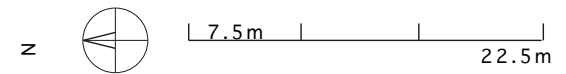


Fig.94 | *Level Two N.T.S.*

- 9. Entrance Foyer
- 10. Female Toilets
- 11. Male Toilets
- 12. Classroom
- 13. Multi-purpose Space
- 14. Women's Ablutions
- 15. Women's Prayer Space
- 16. Exterior Courtyard
- 17. Minaret



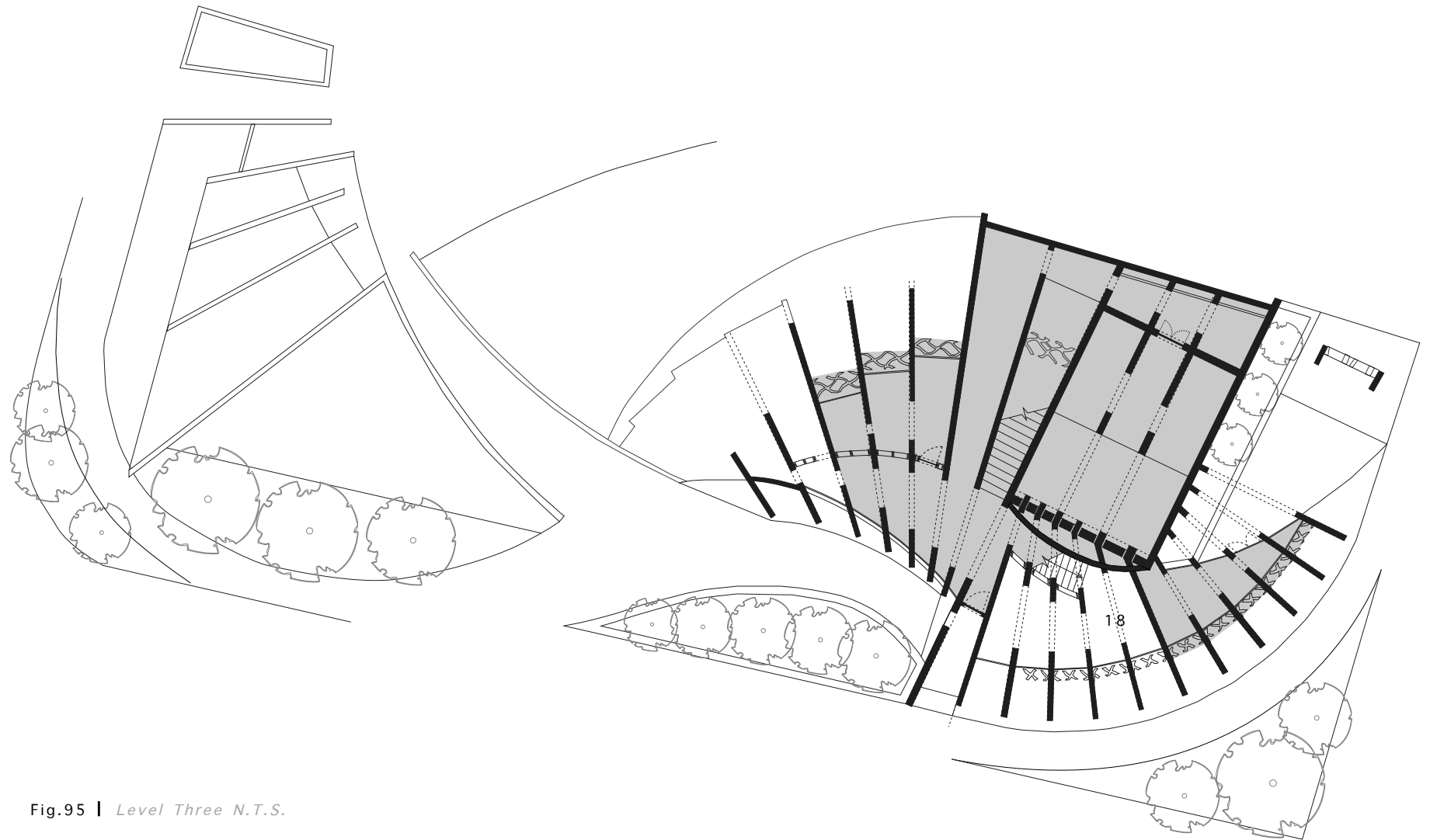
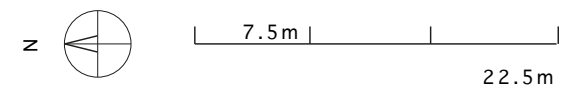


Fig.95 | *Level Three N.T.S.*

18. Office



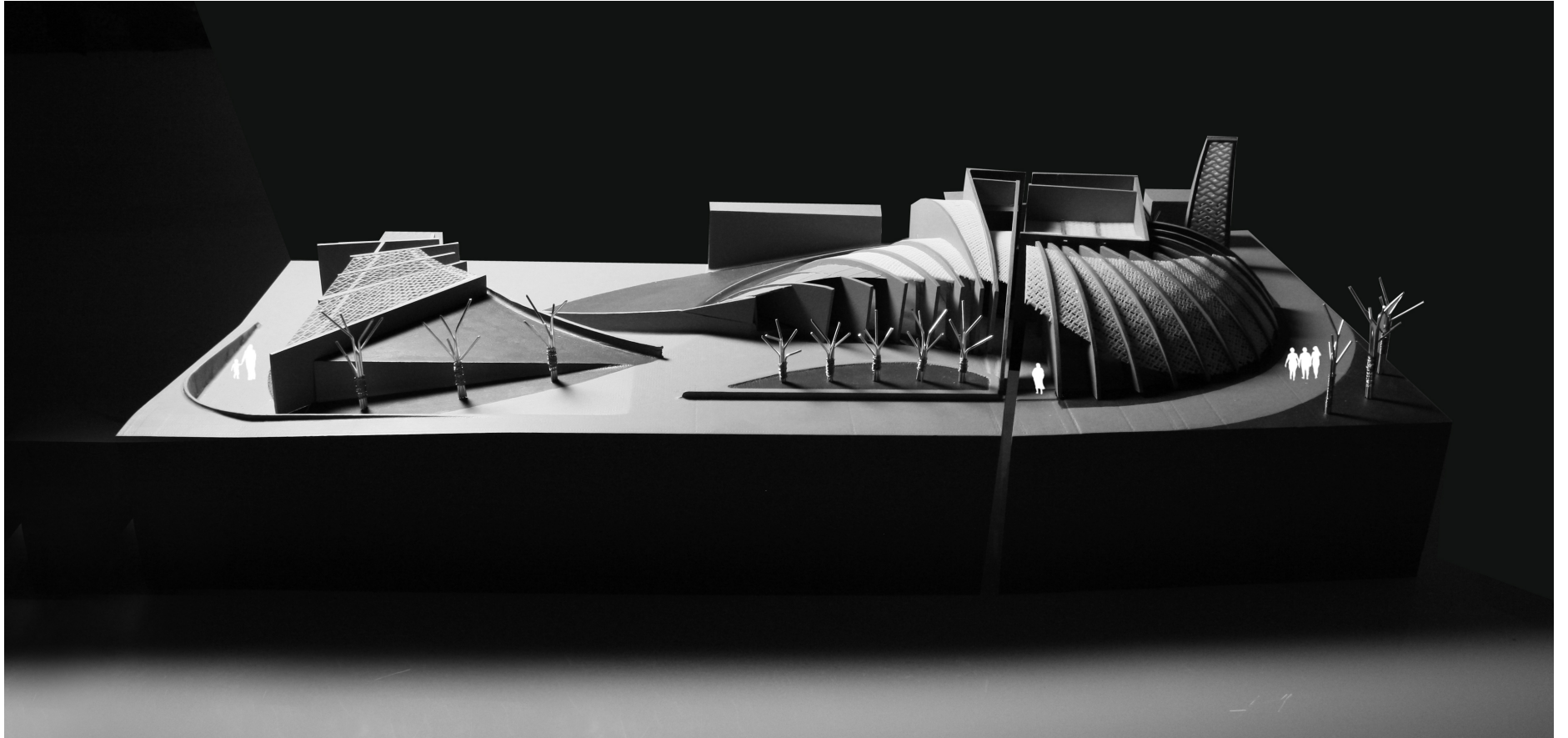
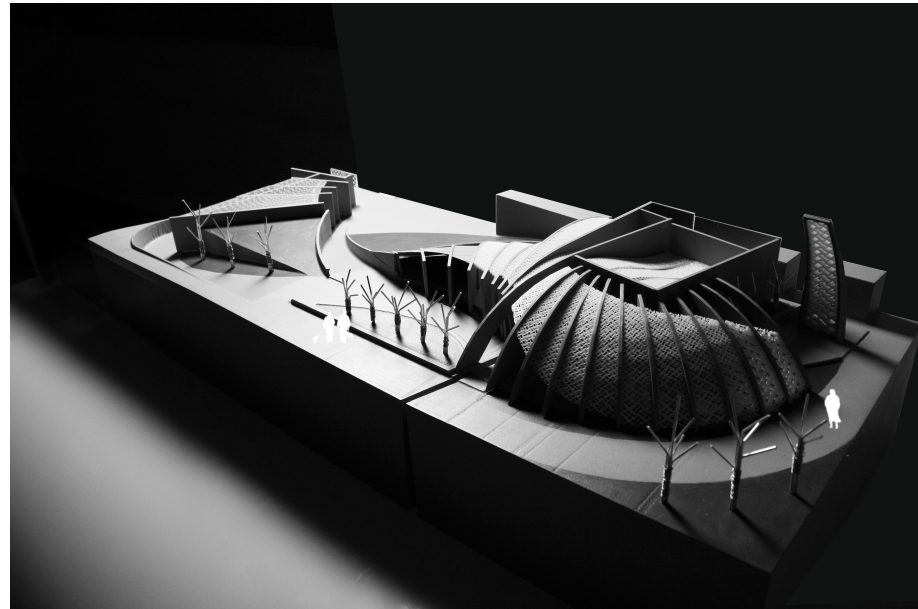
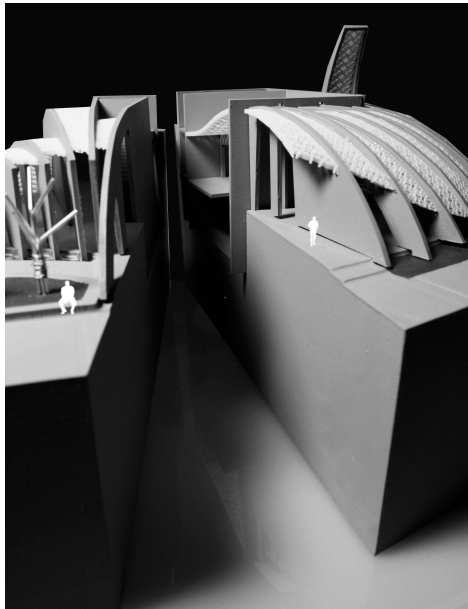
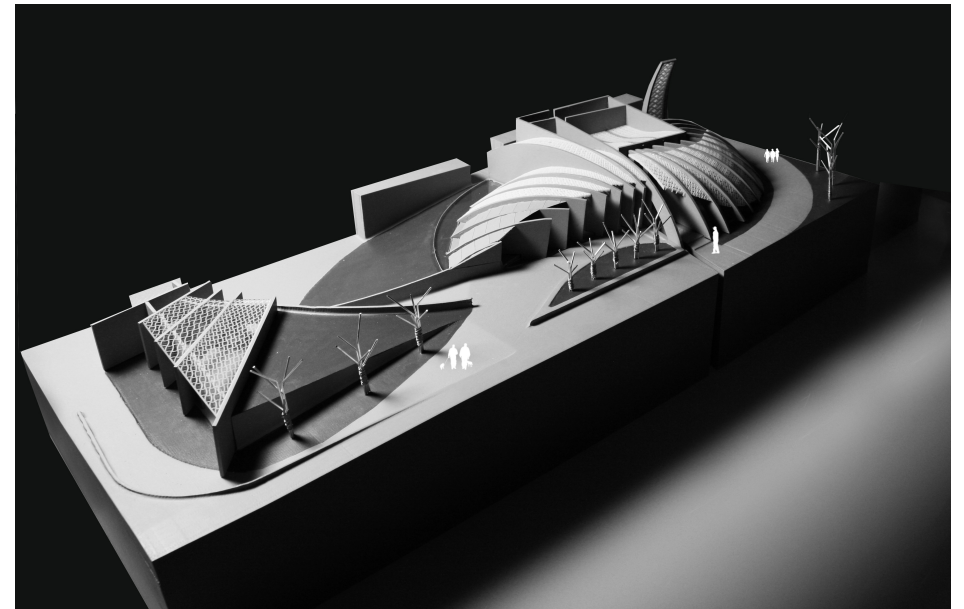
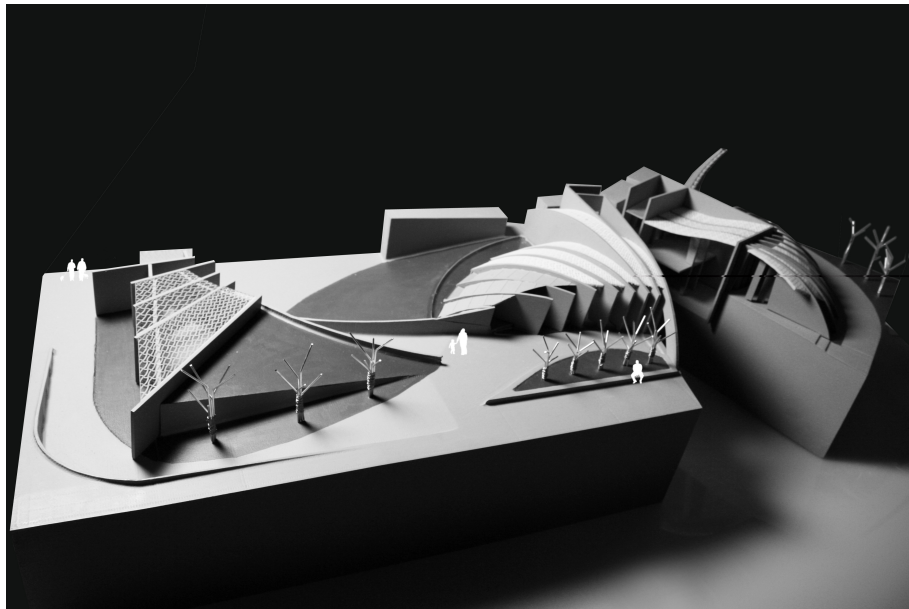


Fig.96 | *Photograph of model, illustrating overall design.*





Figs. 97-100 | *Photographs of model. From Left: Section through Prayer Space; View from South-West Corner; Section through Model; View from North-West Corner.*

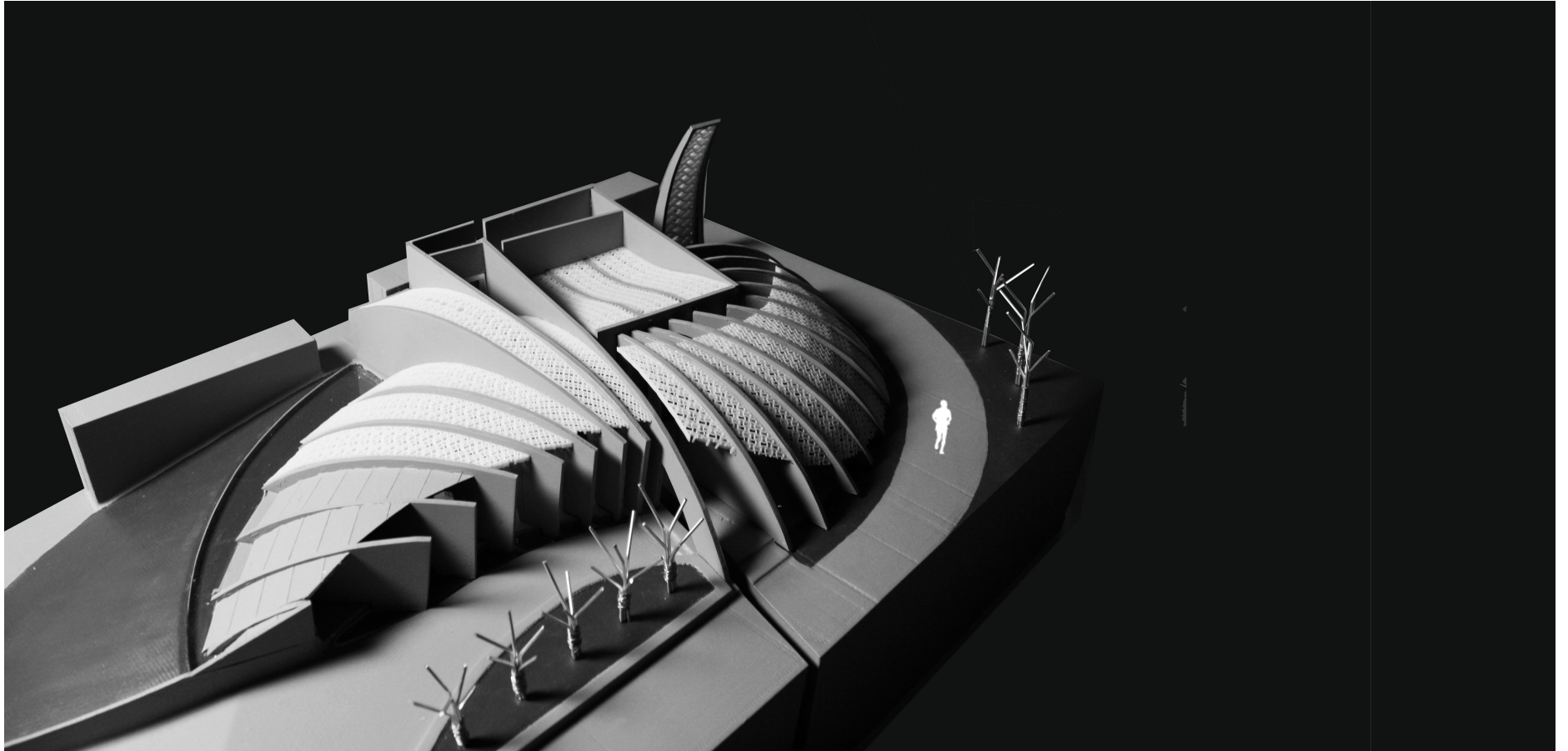


Fig. 101 | *Close-up of Mosque, illustrating roof form.*



Fig. 102 | *View towards the Mosque from the corner of Queen's Drive and Coutts Street.*

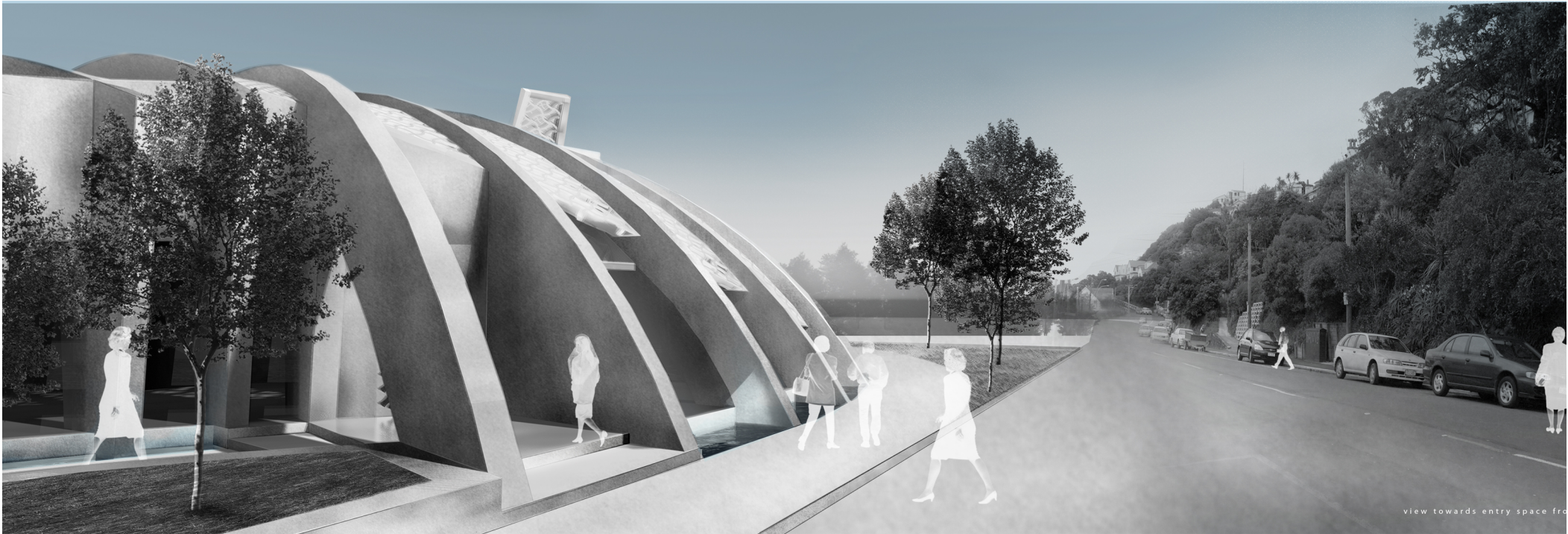


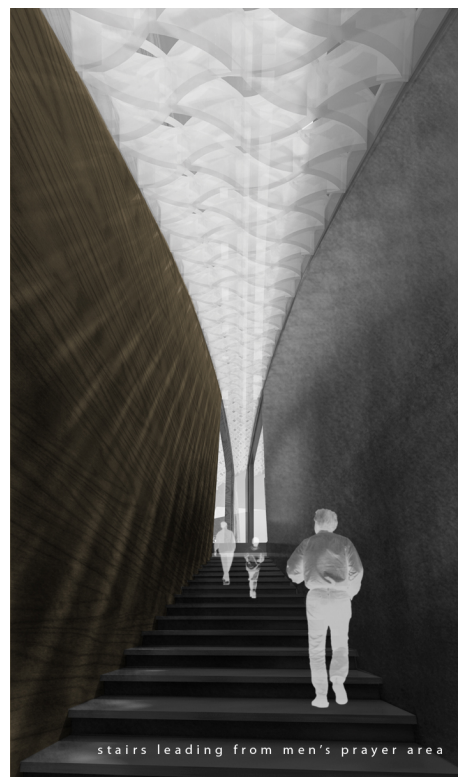
Fig. 103 | *Exterior Perspective of Entrance from Queen's Drive.*



Figs.104-106 | *Exterior Perspectives. From Left: South Courtyard Space; Minaret; View into Childcare Centre.*



Fig. 107 | *Exterior Perspective of the Western Façade.*



Figs. 108-110 | *Interior Perspectives. From Left: Multipurpose Space; View ascending stairs from men's prayer space; Entrance Foyer.*

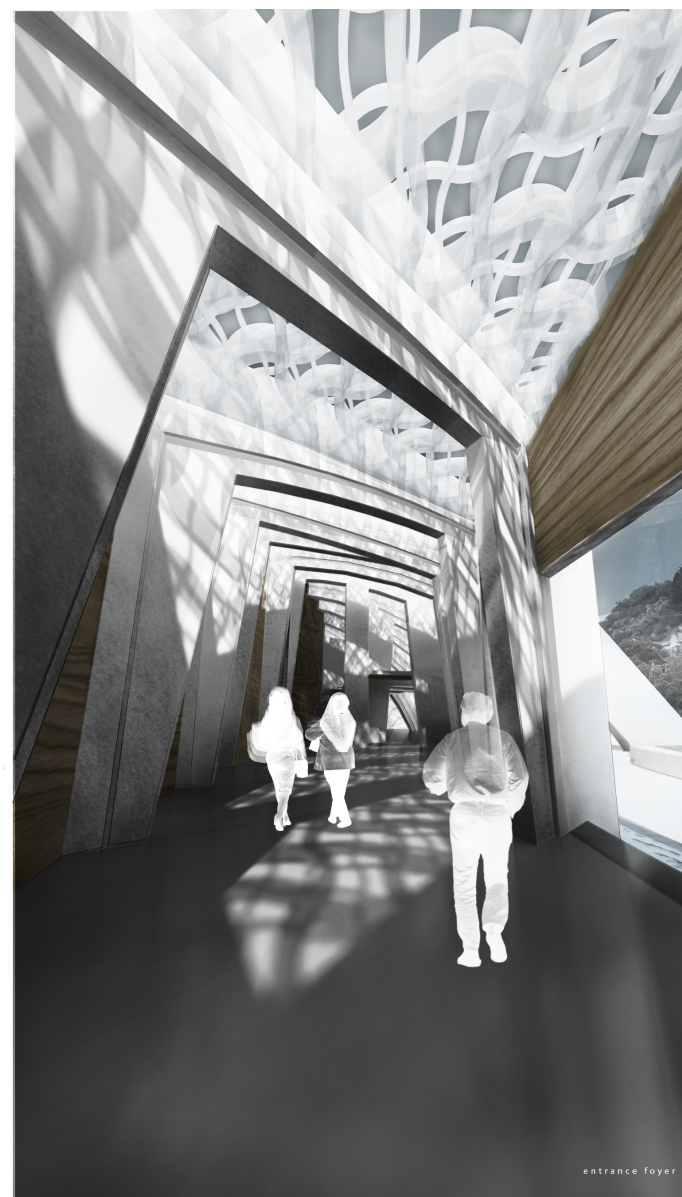




Fig. 111 | *Section B-B through Multi-Purpose space and office.*

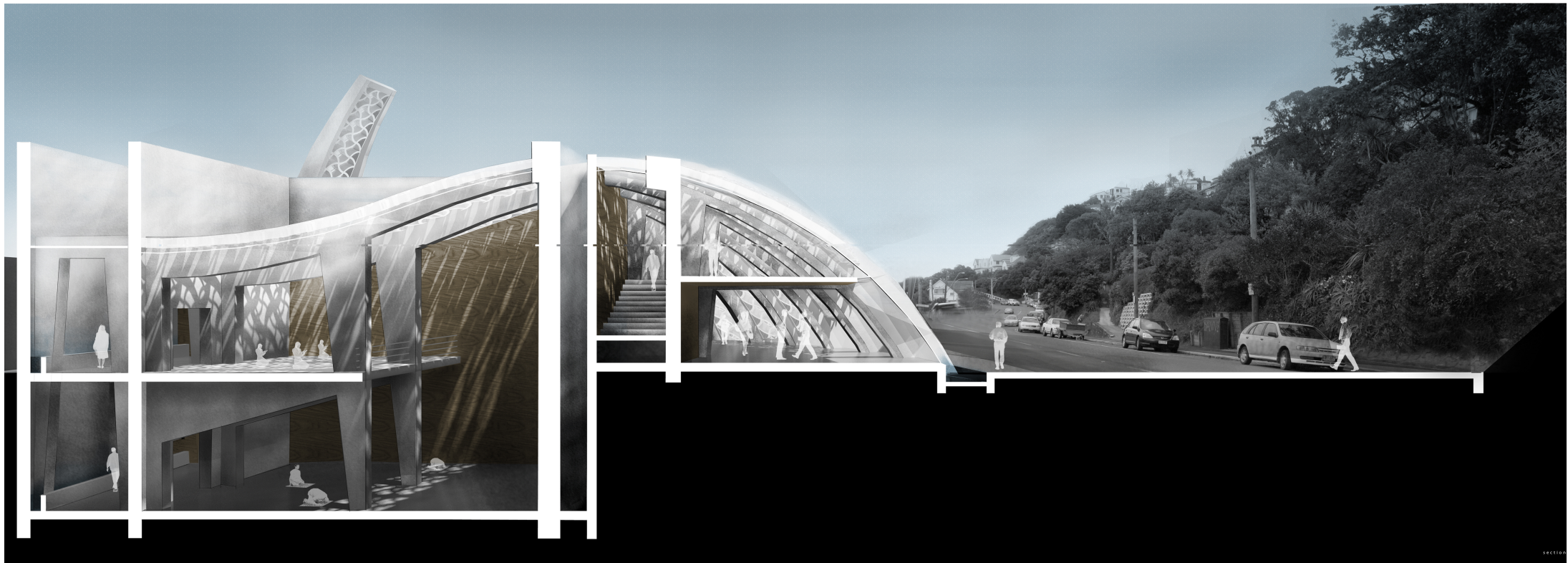
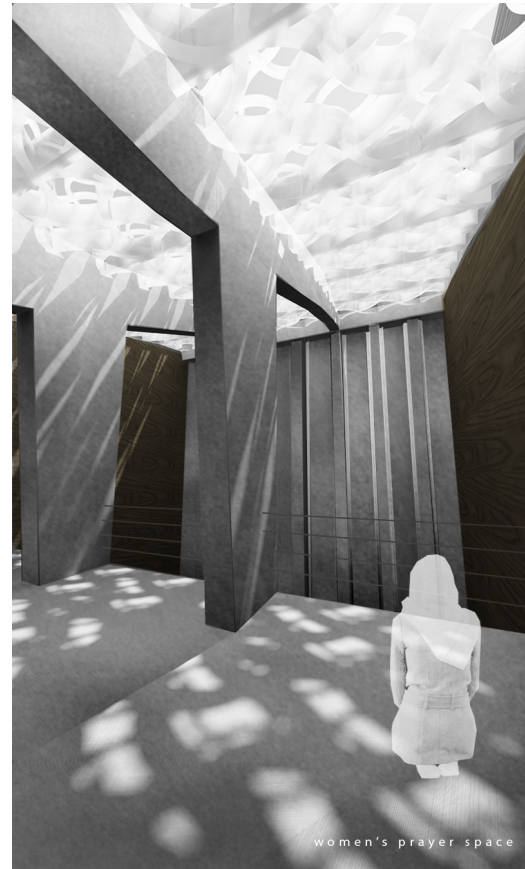
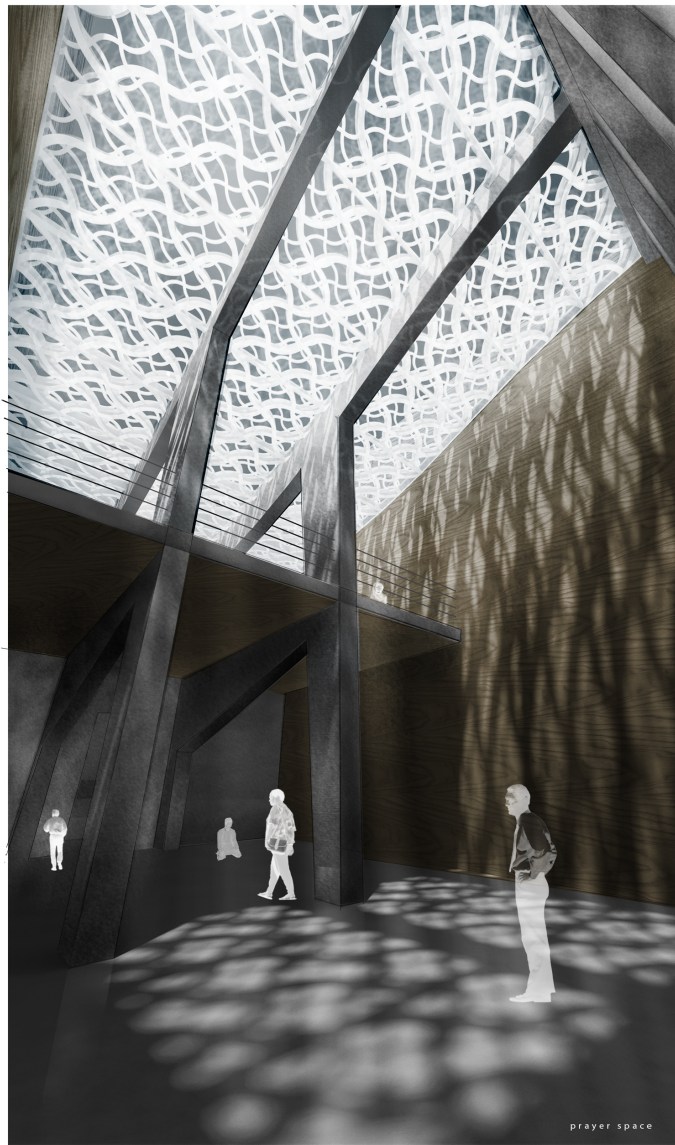


Fig. 112 | *Section A-A through Prayer Space and Multi-Purpose Space.*



Figs. 113-115 | *Interior Perspectives. From Left: View within Prayer Space from Lower Level; View within Prayer Space from Women's Area; View within Women's Ablution Space.*

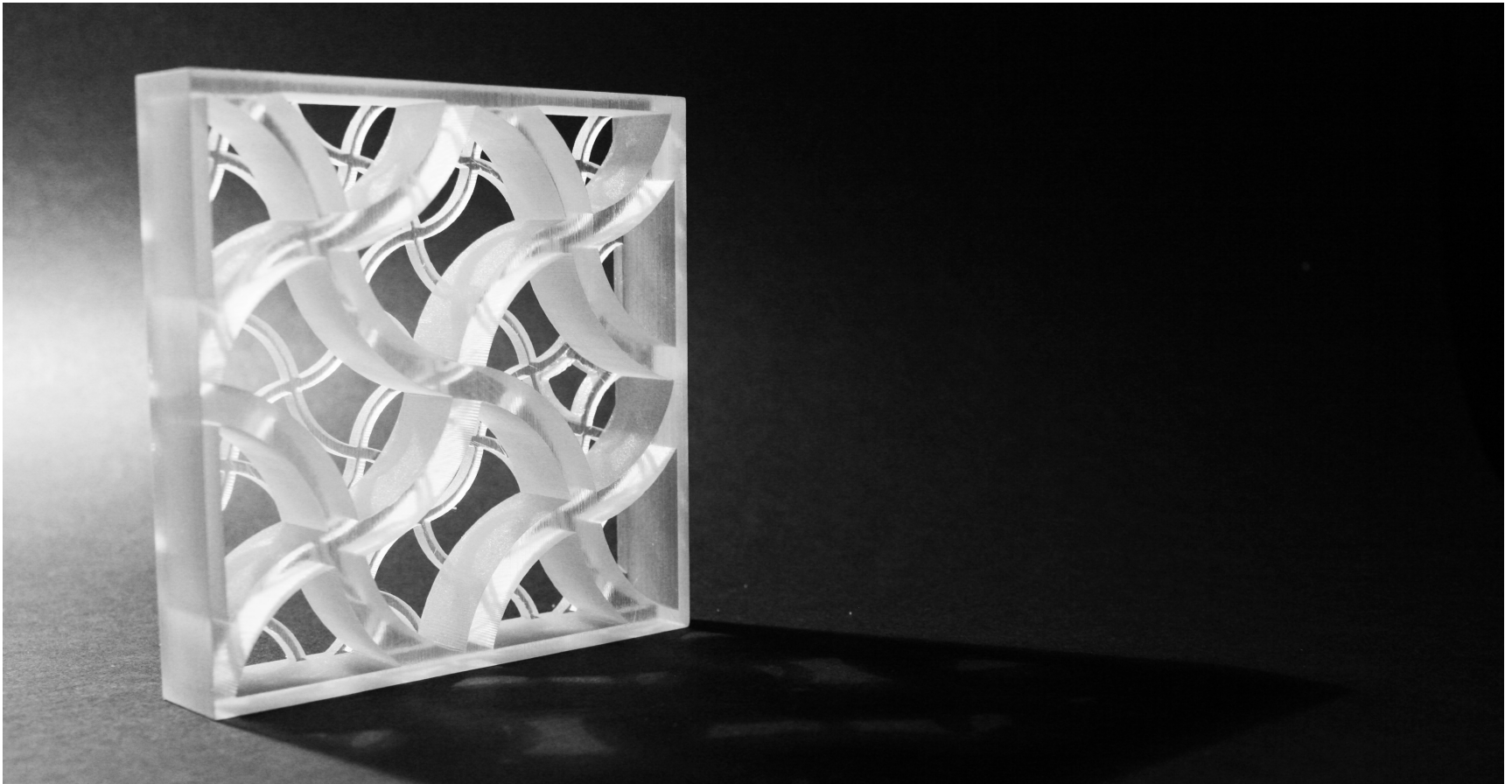


Fig. 116 | *Photograph of screen detailing, illustrating semi-translucent materiality.*

DISCUSSION & CONCLUSIONS

This thesis set out to understand the role that architecture could play in the socio-cultural sustainability of Islamic women refugees. As introduced earlier, this is essentially concerned with maintaining cultural traditions while simultaneously allowing for change, and decreasing conflict associated with misperceptions between ethnic groups. This was explored through two architectural typologies that have a significant relationship to the Islamic woman refugee – the house and the mosque. Although the research focused predominantly on the house it was found that the mosque, as the most dominant architectural symbol of Islamic identity in Wellington, held the greater authority to influence the perceptions towards the community. The mosque was able to take on many elements of the home, such as the role of the interior as maintaining cultural continuation, and the exterior as a site of perception and negotiation between cultures. The house provided more limited design outcomes due to the restrictions imposed by HNZC and the refugee housing process. The house was also found to exist more as a symbol of an individual rather than of a cultural group, therefore it held less influence over the perceptions towards the Islamic community compared to the mosque. The impact of these negative perceptions towards migrant cultures was found to have a significant impact on the resettlement process, therefore this was critical to address through the design.

The research uncovered that housing for recently arrived refugees is largely governed by Housing New Zealand (HNZC), who preferably places them in state properties but due to a lack of availability often places them in private rental properties. These houses are

generally designed for the average New Zealand family, and are unresponsive to the unique socio-cultural requirements of the Islamic woman. This is typically due to their traditional need for privacy and gender segregation. Their open plan layouts force these women to wear the veil within the house, where this space was traditionally designed to allow for the removal of the veil. Therefore, these homes were found to negatively impact their resettlement process, as they did not support their cultural requirements. Due to the limitations imposed by HNZC, the refugee housing process, financial implications and the size of the Islamic community in Wellington; providing Design Guidelines for the specific needs of the Islamic Woman was the most feasible solution. As indicated in the design case study, removable screening that could be installed into existing properties to help maintain privacy and gender segregation was one solution that could be used. Therefore, this provides a practical outcome that could be used by HNZC and designers to help to improve housing conditions for this community.

The Kilbirnie Mosque, as a cultural medium that can help influence the Western perceptions towards Islam, became the more dominant design case study. The anthropological investigation conducted in Chapter 1.4 uncovered that the perceptions towards the Islamic community were often based on the frequently negative portrayal of the group by the media. Although not necessarily intentional, this portrayal fails to recognize the majority of the group who remain peaceful and willing to embrace aspects of their host community. The contemporary repositioning of traditional Islamic gender roles, as further identified in Chapter 1.4, provided a critique to the conception of the traditional mosque which usually reflects traditional gender roles in its design. This chapter also addressed the need for

reduced confrontations between cultures, as refugees were found to not only experience trauma in their homeland but also in their host community, which greatly influences their resettlement process. Therefore, this further determined the importance of the mosque as a cultural medium that can help influence the perceptions towards this group; as a refugee's interactions with the wider community can significantly affect their re-settlement process. It can be concluded that religious and community spaces, rather than housing, offer greater potential to address the wider concerns of socio-cultural sustainability within the context of the refugee.

Through research into both contemporary and traditional Islamic architecture in Chapter 1.5, it was uncovered that the notion of the veil could be found within the architectural screening device, the mashrabiyya. This was found to have a direct relationship to the veil, the woman, and her need for privacy; and its patterning was found to relate to the key principles of Islamic art. The mashrabiyya was therefore used as the key design driver of the Kilbirnie mosque, where it was critiqued in relation to the repositioning of the Islamic woman in migrant contexts. Its role within architecture therefore shifted from being an attachment to becoming a key structural element and a driver of the overall form of the mosque. The mashrabiyya, which can be considered as a feminine artifact of traditional Islamic architecture, was negotiated alongside the masculinity of the concrete frame, where their relationship marks the contemporary position of Islamic gender relations within migrant contexts. Therefore, the design provides a new interpretation of the mosque that challenges its traditional conception and subsequently the perceptions towards the Islamic community. It can be concluded that there exists many parallels

between architecture and culture, and therefore architecture can successfully act as a medium that can both influence and reflect change.

By developing the research through the anthropological perspective, this helped to inform how architecture could act as a cultural medium in the context of the Islamic woman refugee. This implies that architectural research that investigates anthropology as a means to influence design could play a greater role in contemporary architectural discourse, as it provides a closer relationship between architecture and its surrounding cultural context. The research focused predominantly on the Islamic woman refugee and her position within Western contexts. To some degree this neglected her contemporary relationship to the Islamic man, which could be investigated through future research to gain a richer understanding of the relationship between genders within Islamic communities and how this influences architecture. Therefore the Housing Design Guidelines for Islamic Women would need to be further investigated through the needs of the Islamic man in order to gain a more holistic model. Additionally, as these guidelines are a researched proposal for the adaptation of the house, actual testing on site and user feedback would help establish them as a relevant and workable solution for HNZN.

BIBLIOGRAPHY

REFERENCED SOURCES

- Ager, A., & Strang, A. (2004). *The Experience of Integration: A Qualitative Study of Refugee Integration in the Local Communities of Pollokshaws and Islington*. London: Home Office.
- Armstrong, H. B. (2002). Landscapes of Hope: Migrant Spaces on the Margins. In S. Akkach (Ed.), *De-Placing Difference: Architecture, Culture, and Imaginative Geographies* (pp. 203-215). Adelaide: The Centre of Asian and Middle Eastern Architecture, The University of Adelaide.
- Aroche, J., & Coello, M. (2004). Ethno-Cultural Considerations in the Treatment of Refugees and Asylum Seekers. In J.P. Wilson and B. Drozdek (eds.), *Broken Spirits: The Treatment of Traumatized Asylum Seekers, Refugees, War and Torture Victims* (pp.53-80). New York: Brunner - Routledge.
- Bousquet, G. (1987). Living in a State of Limbo: A Case Study of Vietnamese Refugees in Hong Kong Camps. In S. Morgan and E. Colson (Eds.), *People in Upheaval* (pp.34-53). New York: Centre for Migration Studies.
- Busch, A. (1999). *Geography of Home: Writings on Where We Live*. New York: Princeton.
- Cairns, S. (2004). Drifting. In S. Cairns (Ed.), *Drifting: Migrancy and Architecture* (pp. 17-47). London: Routledge.
- Casimiro, S., Hancock, P., & Northcote, J. (2007). Isolation and Insecurity: Resettlement Issues Among Muslim Refugee Women in Perth, Western Australia. *Australian Journal of Social Issues*, 42(1), 55-71.

- Chiu, R. (2004). Socio-Cultural Sustainability of Housing: A Conceptual Exploration. *Housing, Theory and Society*, 21(2), 65-76.
- Cooper, C. (1974). The House as Symbol of the Self. In Lang. J., Burnette, C., & Moleski.W., (Eds.). *Designing for Human Behaviour: Architecture and the Behavioral Sciences*. Stroudsburg, PA: Dowden, Hutchinson & Ross.
- Department of Labour. (2009) Long-Term Settlement for Refugees: 4. Themes Emerging from the Research. Retrieved 18.03.2010, from <http://www.dol.govt.nz/publications/research/abltsr/abltsr-1-9.asp>
- Eliade, M. (1959). *The Sacred and the Profane: The Nature of Religion*. New York: Harcourt Bruce Jovanovich Inc.
- El Guindi, F. (1999). *Veil: Modesty, Privacy, and Resistance*. Oxford UK: Berg Publishing.
- Ganguly, K. (1997). Migrant Identities: Personal Memory and the Construction of Selfhood. *Cultural Studies*, 6(1), 27-50.
- Geron, A. (2010). The Mashrabiyya House: Residential House with Commercial and Studio. Retrieved 21.05.2010, from <http://europaconcorsi.com/projects/18116-The-Mashrabiya-House>
- Ghattas, R. (1999). Permanent Temporariness: Palestinian Refugee Housing. In S. Akkach, S. Fung & P. Scriver (Eds.), *Self, Place and Imagination: Cross Cultural Thinking in Architecture*. (pp. 18-25). Adelaide: Centre for Asian & Middle Eastern Architecture, University of Adelaide.
- Hadjiyanni, T. P. (2009). Sacred Places: Culturally Sensitive Housing Designs for Hmong

and Somali Refugees. *Journal of Family and Consumer Sciences*, 101(1), 30.

Halango, A. (2007). *The Housing Experiences of the Auckland Somali Population and their Impact on the Resettlement Process*. Unpublished Masters of Arts (MA) Health Services thesis, Auckland University of Technology, Auckland.

Holod, R., & Khan, H. (1997). *The Mosque and The Modern World: Architects, Patrons and Designs since the 1950's*. London: Thames & Hudson.

Housing New Zealand. (2004). *Pacific Housing Design Guide*. Retrieved 25.05.2010 from www.hnzc.co.nz/hnzc/web/housing-improvements-&-development/property-improvement/design-guidelines.htm

Ingraham, C. (2004). Architecture as Evidence. In S. Cairns (Ed.), *Drifting: Architecture and Migrancy* (pp. 61-81). London: Routledge.

Jorden, S., Matheson, K., & Anisman, H. (2009). Supportive and Unsupportive Social Interactions in Relation to Cultural Adaptation and Psychological Distress Among Somali Refugees Exposed to Collective or Personal Traumas. *Journal of Cross-Cultural Psychology*, 40(5), 853-874.

Kenzari, B., & Elsheshtawy, Y. (2003). The Ambiguous Veil. On Transparency, the Mashrabiyya, and Architecture. *Journal of Architectural Education*, 56(4), 17-25.

Lico, G R. Architecture and Sexuality: The Politics of Gendered Space. *Humanities Diliman* January-June 2001. 2:1, 30-44.

Lozanovska, M. (1997). Abjection and Architecture: The Migrant House in Multicultural Australia. In G. Nalbantoglu & W. Thai (Eds.) *Postcolonial Space* (pp. 101-131). New York: Princeton Architectural Press.

- Mahfouz, A., & Serageldin, I. (1990). Women and Space in Muslim Societies. In H. Salam (Ed.), *Expressions of Islam in Buildings* (pp. 54-79). Singapore: Concept Media/Aga Kahn Award for Architecture.
- Marranci, G. (2007). Migration and the Construction of Muslim Women's Identity in Northern Ireland. In C. Aithison, P. Hopkins & M.-P. Kwan (Eds.), *Geographies of Muslim Identities: Diaspora, Gender and Belonging* (pp. 79-92). Hampshire, England: Ashgate Publishing.
- Mazumdar, S., & Mazumdar, S. (2004). The Articulation of Religion in Domestic Space: Rituals in the Immigrant Muslim Home. In P. J. Stewart & A. Strathern (Eds.), *Contesting Rituals: Islam and Practices of Identity-Making* (pp. 22-39) Durham, NC: Carolina Academic Press.
- McAuliffe, C. (2007). Visible Minorities: Constructing and Deconstructing the 'Muslim Iranian' Diaspora. In C. Aitchison, P. Hopkins & M.P. Kwan (Eds.), *Geographies of Muslim Identities: Diaspora, Gender and Belonging* (pp. 29-56). Hampshire, England: Ashgate.
- New Zealand Immigration Service (2004). *Refugee Voices: A Journey Towards Resettlement*. Retrieved 19.03.2010 from <http://www.immigration.govt.nz/migrant/general/generalinformation/research/Refugees/refugeevoices/>
- Ozaki, R. (2002). Housing as a Reflection of Culture: Privatised Living and Privacy in England and Japan. *Housing Studies*, 17(2), 209-227.

- Peckham, D., Wallace, E., Wilby, C., & Nobel, J. (2004). *The Impact of Home Office Funded Services for Refugees: Findings from an Exploratory Survey of Clients*. London: Home Office.
- Rapoport, A. (1969). *House form and culture*. Englewood Cliffs, N.J: Prentice-hall
- Rapoport, A. (2001). Theory, Culture and Housing. *Housing, Theory and Society*, 17(4), 145 - 165.
- Rapoport, N., & Dawson, A. (Eds.). (1998). *Migrants of Identity: Perceptions of Home in a World of Movement*. New York: Berg Publishing.
- Robinson, J. W. (1991). Premises, Premises: Architecture as Cultural Medium. In G. Rockcastle (Ed.), *Type and the (Im)Possibilities of Convention*. Minnesota: University of Minnesota College of Architecture and Landscape Architecture.
- Salam-Liebich, H. (1983). *The Architecture of the Mamluk City of Tripoli*. Cambridge: The Aga Khan Program for Islamic Architecture.
- Salih, R. (2000). Shifting Boundaries of Self and Other. *The European Journal of Women's Studies*, 7, 321-335.
- Schrader, B. (2005). *We Call it Home: A History of State Housing in New Zealand*. Auckland: Reed Publishing.
- Schusky, E. L., & Culbert, T. P. (1973). *Introducing Culture*. New Jersey: Prentice-Hall.
- Serageldin, I. (1990). Contemporary Expressions of Islam in Buildings: The Religious and the Secular. In H. Serageldin (Ed.), *Expressions of Islam in Buildings (pp. 79-102)*. Singapore: Concept Media/Aga Kahn Award for Architecture.

Shahnawaz, S. (2003). Arabesque. Retrieved 6.07.2010 from www.victorynewsmagazine.com/Arabesque.htm

Sharify-Funk, M. (2008). *Encountering the Transnational: Women, Islam and the Politics of Interpretation*. Cornwall, Great Britain: TJ International.

Simonot, B. (2002). Strategies and Tactics. In M. Brayer & B. Simonot (Eds.), *ArchiLab's Futurehouse: Radical Experiments in Living Space*. New York: Thames & Hudson.

Thaman, K. H. (2002). Shifting Sights: The Cultural Challenge of Sustainability. *Higher Education Policy*, 15(2), 133-142.

Vahiji, S., & Hadjiyanni, T. (2009). The Spatiality of Veiling - Muslim Women Living Practices in Minnesota Housing. *International Journal of Architectural Research*, 3(2), 35-50.

United Nations World Commission on Environment and Development (1987). *Our Common Future*. Oxford: Oxford University Press.

UNREFERENCED SOURCES

Abdullahi, M. D. (2001). *Culture and Customs of Somalia*. Westport, CT: Greenwood Press.

Adam, R. (2008). Traditional Architecture: Why Communities Need It. In R. Adam & M. Hardy (Eds.), *Tradition Today: Continuity in Architecture and Society*. South Hampton, Boston: WIT Press.

Ajrouch, K. J. (2007). Global Contexts and the Veil: Muslim Integration in the United States and France. *Sociology of Religion*, 68(3), 321-325.

Albarn, K., Smith, J. M., Steele, S., & Walker, D. (1974). *The Language of Pattern*. London: Thames and Hudson.

Ater, R. (1998). Mental Health Issues of Resettled Refugees. Retrieved 18.03.2010, from <http://ethnomed.org/clinical/mental-health/mental-health>.

Awad, A. (2010, 14 January). Adam Awad: Refugees want to participate fully in NZ life. *The New Zealand Herald*. Retrieved from http://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid=10619991.

Azzam, K. (2008). Tradition in the Architecture of Islam. In R. Adam & M. Hardy (Eds.), *Tradition Today: Continuity in Architecture and Society*. South Hampton, Boston: WIT Press.

Bastea, E. (Ed.). (2004). *Memory and Architecture*. Albuquerque: University of New Mexico Press.

- Bell, B., & Wakeford, K. (2008). *Expanding Architecture: Design as Activism*. New York: Metropolis Books.
- Berg, P. (1997). Sustainability, Identity and the Redefinition of Self. *Transition* (56), 32-33.
- Bhui, K., Abdi, A., Abdi, M., Pereira, S., Dualeh, M., Robertson, D., et al. (2003). Traumatic Events, Migration Characteristics and Psychiatric Symptoms among Somali Refugees. *Social psychiatry and psychiatric epidemiology*, 38(1), 35-43.
- Bonder, J. (2009). On Memory, Trauma, Public Space, Monuments, and Memorials. *Places*, 21(1), 62-69.
- Borrini-Feyerabend, G., & Buchan, D. (1997). *Beyond Fences: Seeking Social Sustainability in Conservation*. Gland, Switzerland: IUCN.
- Boyle, E. H., & Ali, A. (2010). Culture, Structure, and the Refugee Experience in Somali Immigrant Family Transformation. *International Migration*, 48(1), 47-79.
- Bramley, G., & Power, S. (2009). Urban Form and Social Sustainability: The Role of Density and Housing Type. *Environment and Planning B: Planning and Design*, 36(1), 30-48.
- Bratt, R. G. (2002). Housing and Family Well-Being. *Housing Studies*, 17(1), 13-26.
- Bullock, K. (2002). Rethinking Muslim Women and the Veil: Challenging Historical & Modern Stereotypes. Herndon, VA: International Institute of Islamic Thought.
- Camino, L., & Krulfeld, R. (1994). *Reconstructing Lives, Recapturing Meaning: Refugee Identity, Gender, and Culture Change*. Basel, Switzerland: Gordon and Breach.

- Carter, P. (2004). Mythforms. In S. Cairns (Ed.), *Drifting: Architecture and Migrancy* (pp. 82-98). London: Routledge.
- Carter, T. S., Polevychok, C., & Osborne, J. (2009). The Role of Housing and Neighbourhood in the Re-Settlement Process: A Case Study of Refugee Households in Winnipeg. *The Canadian Geographer*, 53(3), 305.
- Chan, E., & Lee, G. (2008). Critical Factors for Improving Social Sustainability of Urban Renewal Projects. *Social Indicators Research*, 85(2), 243-256.
- Chodikoff, I. (2006). Contemporary Identities. *The Canadian Architect*, 51(11), 82.
- Cooper-Marcus, C. (1995). *House as a mirror of self: Exploring the deeper meaning of home*. Berkeley, CA: Conari Press.
- Davies, M., & Webb, E. (2000). Promoting the Psychological Well-Being of Refugee Children. *Clinical Child Psychology and Psychiatry*, 5(4), 541.
- Dawson, A., & Johnson, M. (2004). Migration, Exile and Landscapes of the Imagination. In S. Cairns (Ed.), *Drifting: Architecture and Migrancy*. New York: Routledge.
- Day, C. (2004). *Places of the Soul: Architecture and Environmental Design as a Healing Art*. London: The Aquarian Press.
- De Jong, J. (2002). *Trauma, War, and Violence: Public Mental Health in the Socio-Cultural Context*. New York: Plenum Publishers.

- Ministry of Social Development. (2008). Connecting Diverse Communities Report on 2007/2008 Engagement. Retrieved 19.04.2010, from http://www.refugeeservices.org.nz/__data/assets/pdf_file/0018/963/Connecting_Diverse_Communities_Report-2007.pdf.
- Dickson, J. S. (2002). *Move: Sites of Trauma*. New York: Princeton Architectural Press.
- Downey, D. (2006). At the Border. *Planning*, 72(11), 26-30.
- Eisenbruch, M., de Jong, J., & van de Put, W. (2004). Bringing Order Out of Chaos: A Culturally Competent Approach to Managing the Problems of Refugees and Victims of Organized Violence. *Journal of Traumatic Stress*, 17(2), 123-131.
- Erricker, C. (2008). Religion and Tradition: Patterns of Migration, Conversion and Enculturation within Globalisation and Culture Change. In R. Adam & M. Hardy (Eds.), *Tradition Today: Continuity in Architecture and Society*. South Hampton, Boston: WIT Press.
- Evans, G., Wells, N., Chan, H., & Saltzman, H. (2000). Housing Quality and Mental Health. *Journal of Consulting and Clinical Psychology*, 68(3), 526-530.
- Frascara, J. (Ed.). (2002). *Design and the Social Sciences: Making Connections*. London: Taylor & Francis.
- Fry, T. (2009). *Design Futuring: Sustainability, Ethics and New Practice*. New York: Berg.
- Gandolfi, E. (2009). Spaces of Freedom. *Architectural Design*, 79(1), 78-81.

- Gijsberts, M., & Dagevos, J. (2007). The Socio-Cultural Integration of Ethnic Minorities in the Netherlands: Identifying Neighbourhood Effects on Multiple Integration Outcomes. *Housing Studies*, 22(5), 805.
- Grabar, O. (2006). *Islamic Art and Beyond, Constructing the Study of Islamic Art*. Hampshire: Ashgate Publishing.
- Groat, L., & Wang, D. (2002). *Architectural Research Methods*. New York: John Wiley & Sons, Inc.
- Hadjiyanni, T. (2007). Bounded Choices: Somali Women Constructing Difference in Minnesota Housing. *Journal of Interior Design*, 32(2), 13-27.
- Hefuna, S. (2004). *X-Cultural codes*. Heidelberg: Kehrer.
- Housing New Zealand (2006). Refugees. Retrieved 13.03.2010, from <http://hnzc.govt.nz/hnzc/web/rent-buy-or-own/rent-from-housing-new-zealand/refugees.htm>
- Human Rights Commission (2006). Wellington Regional Action Plan for Refugee Health and Well-being. Retrieved 14.03.2010, from http://www.ccdhb.org.nz/meetings/CPHACpapers/2006_09_14/8b_1_ActionPlanActionplanforrefugeehealthandwellbeing.pdf.
- Hunt, D. (2006). Pragmatic Futurism: Forecasting the Home of 2026. In J. Eisenbrand, G. Gerace & S. Jaschko (Eds.), *Open House: Architecture and Technology for Intelligent Living* (pp. 167-183). Weil am Rhein: Vitra Design Stiftung.
- Israel, T. (2003). *Some Place Like Home: Using Design Psychology to Create Ideal Places*. West Sussex: John Wiley & Sons Ltd.

- Jabareen, Y. (2005). Culture and Housing Preferences in a Developing City. *Environment and Behavior*, 37(1), 134-146.
- Jin, J. H. (1993). Home as Expression of Identity. In M. Butler & N. Teymur (Eds.), *Housing: Design, Research and Education*. Hants, England: Ashgate Publishing.
- Jodidio, P. (2007). *Under the Eaves of Architecture, The Aga Khan: Builder and Patron*. Munich: Prestel.
- Kamaldeep, B., Tom, C., Salaad, M., Nasir, W., Stephen, A. S., Graham, T., et al. (2006). Mental Disorders among Somali Refugees. *Social Psychiatry and Psychiatric Epidemiology*, 41(5), 400.
- Khan, F. R. (1980). The Islamic Environment: Can the Future Learn from the Past? In R. Holod (Ed.), *Toward an Architecture in the Spirit of Islam: proceedings of seminar one in the series Architectural Transformations in the Islamic World, held at Aiglemont, Gouvieux, France*. Geneva: Aga Khan Award for Architecture.
- King, J. (2009). Bringing Good Design. *Architectural Record*, 197(1), 50-50.
- Kivisto, P. (2001). Theorizing Transnational Immigration: A Critical Review of Current Efforts. *Ethnic and Racial Studies*, 24(4), 549-577.
- Lawrence, R. J. (1987). What Makes a House a Home? *Environment and Behavior*, 19, 154-168.
- Lawson, B. (2002). Healing Architecture. *Architectural Review*, 211(1261), 72-75.
- Lewcock, R., Sansoni, B., & Senanayake, L. (1998). *The Architecture of an Island: The*

Living Legacy of Sri Lanka. Colombo, Sri Lanka: Barefoot.

Macintyre, J. (2007). Fresh Start. *The NZ Listener*. Retrieved 18.03.2010, from http://www.listener.co.nz/issue/3482/features/8066/fresh_start.html.

Matheson, K., Jorden, S., & Anisman, H. (2008). Relations Between Trauma Experiences and Psychological, Physical and Neuroendocrine Functioning Among Somali Refugees: Mediating Role of Coping with Acculturation Stressors. *Journal of Immigrant and Minority Health*, 10(4), 291.

Mazuch, R., & Stephen, R. (2005). Creating Healing Environments: Humanistic Architecture and Therapeutic Design. *Journal of Public Mental Health*, 4(4), 48-52.

McMichael, C., & Manderson, L. (2004). Somali women and Well-Being: Social Networks and Social Capital among Immigrant Women in Australia. *Human Organization*, 63(1), 88-99.

Meager, Z. F. (2005). *The Home of Exile: Housing the Auckland Ethiopian Refugee Population*. Unpublished Masters of Arts in Sociology, The University of Auckland, Auckland.

Mifflin, E., & Wilton, R. (2005). No Place like Home: Rooming Houses in Contemporary Urban Context. *Environment and Planning A*, 37(3), 403-421.

Murdie, R. (2002). The Housing Careers of Polish and Somali Newcomers in Toronto's Rental Market. *Housing Studies*, 17(3), 423-443.

Murdie, R. (2008). Pathways to Housing: The Experiences of Sponsored Refugees and Refugee Claimants in Accessing Permanent Housing in Toronto. *Journal of International Migration and Integration*, 9(1), 81-101.

- Nasr, S. H. (1980). Toward an Understanding of Architectural Symbolism. In R. Holod (Ed.), *Towards an Architecture in the Spirit of Islam: Proceedings of Seminar One in the series Architectural Transformations in the Islamic World, held at Aiglemont, Gouvieux, France*. Geneva: Aga Kahn Award for Architecture.
- Immigration New Zealand. (2010). Immigration New Zealand Statistics Retrieved 18.05.2010, from <http://www.immigration.govt.nz/migrant/general/generalinformation/statistics/>
- Olwig, K. F. (1997). Cultural Sites: Sustaining a Home in a De-Territorialized World. In K. F. Olwig & K. Hastrup (Eds.), *Siting Culture - The Shifting Anthropological Object*. London: Routledge.
- Owen, G. (2009). *Architecture, Ethics and Globalization*. New York: Routledge.
- Phillips, D. (2006). Moving towards Integration: The Housing of Asylum Seekers and Refugees in Britain. *Housing Studies*, 21(4), 539-553.
- Pugh, C. (1996). *Sustainability, the Environment and Urbanization*. London: Earthscan Publications Ltd.
- Ravenscroft, V. (2008). *A Survey on the Living Conditions including Housing, Neighbourhood and Social Support of the Christchurch Refugee Community*. Unpublished Masters of Health Sciences thesis, University of Canterbury, Christchurch.
- RefNZ (2010). RefNZ Statistics: New Zealand Refugee Statistics. Retrieved 18.05.2010, from <http://www.refugee.org.nz/stats.htm>.

- Robson, D. (2002). *Geoffrey Bawa: The Complete Works*. London: Thames and Hudson.
- Ross, A. (2007). Housing, Immigration, and Fairness: Learning from San Ysidro. *Harvard Design Magazine* (27), 22-29.
- Rowlands, M. (1998). Trauma, Memory and Memorials. *British Journal of Psychotherapy*, 15(1), 54-64.
- Scott, J. W. (2007). *The Politics of the Veil*. Princeton, NJ: Princeton University Press.
- Sime, J. (1993). What Makes a House a Home: The Garden? In M. Butler & N. Teymur (Eds.), *Housing: Design, Research and Education*. Hants, England: Ashgate Publishing.
- Stichler, J. (2008). Healing by Design. *The Journal of Nursing Administration*, 38(12), 505-509.
- Thangarajah, C. Y. (2003). Veiled Constructions: Conflict, Migration and Modernity in Eastern Sri Lanka. *Contributions to Indian Society*, 24(4), 141-162.
- Tigerman, S. (1988). *The Architecture of Exile*. New York: Rizzoli International Publications.
- Townroe, P. M. (1996). Urban Sustainability and Social Cohesion. In C. Pugh (Ed.), *Sustainability, the Environment and Urbanization*. London: Earthscan Publications Ltd.
- Tribe, R. (2002). Mental health of Refugees and Asylum-seekers. *Advances in Psychiatric Treatment*, 8(4), 240.

Immigration New Zealand. *Settlement and Housing. Phase 1: Auckland Regional Settlement Strategy*. Retrieved 12.04.2010 from <http://www.immigration.govt.nz/NR/rdonlyres/6E7AFA93-442C-4A82-A9AC-50FC62C385DD/0/Goal6SettlementandHousingPDF.pdf>.

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