Under one Roof;
Multigenerational Spatial Arrangements for Montreal Households

Merey Ziyadina

School of Architecture
McGill University
Montreal

August 2016

A Report submitted to McGill University in partial fulfillment
of the requirements for the degree of
MASTER OF ARCHITECTURE

ABSTRACT

As Canada's elderly population is expected to rise in the next thirty-five years and living costs continue to increase, families, especially young couples, are facing a significant affordable housing challenge in small and large metropolitan areas. In addition, lifestyles are becoming more diverse and dynamic, requiring more flexible living arrangements. A solution to both challenges is a multigenerational housing arrangement (MGHA) where two or more households of the same extended family opt to live together under one roof in self-contained units so that each can maintain independence and privacy.

This study aims to describe good practices for the use of MGHA principles in Canada, including a discussion of places and situations where MGHA implementation would be most beneficial. Local and international examples of spatial arrangements and characteristics of multigenerational (MG) families will be derived from an extensive literature review. Interviews with four MG households have been conducted to identify how they use spaces and to pinpoint dominant, daily patterns of activities in the dwelling. The report will analyze the various typologies and practices of MGHAs, taking into account the diverse characteristics of families and housing needs.

The findings show how multigenerational houses can adapt to changing lifestyles. Characteristics of MG living observed from analysis of the case studies allowed to summarize and present fundamental criteria for design of spatial arrangements suitable for MGHAs.   The study offers important information and suggestions for people interested in the design and development of MGHA in Canada.

i

RÉSUMÉ

La population âgée du Canada continuera à croître dans les trente-cinq prochaines années, et les frais de subsistance ne cessent d'augmenter. Pour les familles, en particulier les jeunes couples, ces deux tendances entrainent un problème de logement abordable important tant dans les petites que dans les grandes régions métropolitaines. De plus, les modes de vie sont de plus en plus diversifiés et dynamiques, ce qui nécessite des modèles de logement plus flexibles. Une solution à ces deux défis est le modèle de logement multigénérationnel (MLMG) où deux ou plusieurs ménages d'une même famille élargie choisissent de cohabiter sous un même toit en unités autonomes qui permettent que chacun des ménages puisse maintenir son indépendance et sa vie privée.

Cette étude vise à décrire les bonnes pratiques dans l'utilisation des principes du MLMG au Canada, et inclus une discussion sur les lieux et les situations dans lesquels sa mise en œuvre serait la plus bénéfique. Des exemples locaux et internationaux d'arrangements spatiaux et les caractéristiques de familles multigénérationnelles seront tirés d'un examen approfondi de la littérature. Des entretiens avec quatre ménages multigénérationnels ont aussi été menés afin de déterminer comment ils utilisent l'espace et quelles sont les activités quotidiennes dominantes dans le logement. Le rapport analysera les différentes typologies et les pratiques de MLMG en tenant compte des diverses caractéristiques des familles et des besoins de logement.

Les résultats montrent comment les résidences multigénérationnelles peuvent s'adapter à l'évolution des modes de vie. Les caractéristiques de vies en ménages multigénérationnels observées à partir de l'analyse des études de cas permettent de résumer et de présenter les critères fondamentaux pour la conception d'arrangements spatiaux appropriés au MLMG. L'étude propose des informations clés et des suggestions pour les personnes intéressées à la conception et au développement de MLMG au Canada.

AKNOWELEDGEMENTS

I would like to express my sincere gratitude to all those who have contributed to this study and made this report possible.

It is my pleasure to express my deepest gratitude to my supervisor and mentor Professor Dr. Avi Friedman, for his patience and guidance throughout my tenure at McGill School of Architecture. His enthusiasm and support throughout this year have nourished my knowledge and interest to work on my current research. Professor Avi's continuous coordination and suggestions have provided a possibility to grow my initial idea to a completed work.

I would like to express my special thanks to Dr. Nik Luka, Dr. Robert Mellin, Professor Vikram Bhatt, and to Ms. Marcia King for sharing their knowledge and for their support to lead a successful studentship at McGill.

I would like to extend my sincere appreciation to my friend and classmate Isabella Rubial, without whose support and company, conducting interviews and visiting different families would not be as interesting and successful process as it was. I am grateful to all my friends from UDH class, for their support and optimism during our studies.

It is my privilege to thank the Government of Kazakhstan that provided me an opportunity to acquire my master's degree in one the best universities in the world, by granting me "Bolashak" scholarship.

I am deeply grateful to my parents, siblings, in-laws, for their support and encouragement to continue my architectural practice and research.

And, last bot not least, I am profoundly thankful to my best friend and loving husband Madi Anas, for his interest, advice, editorial help and support throughout my master studies.

TABLE OF CONTENTS

LIST OF FIGURES

Chapter 3

Chapter 1

Introduction to Multigenerational Housing Arrangement (MGHA)

Introduction

Current economic, social, and demographic structures of societies are going through significant changes. The proportion of elderly people in the population is increasing, and growing housing prices are driving people to live in multigenerational housing arrangements (MGHA). Even families for whom multigenerational living is not a culturally common, are finding it more beneficial in many ways.

Multigenerational housing is still an uncommon practice for the majority of Western countries, but it is a common concept in Eastern cultures. Multigenerational living benefits retirees by guaranteeing a longer stay in a community with a warm, familiar environment. Young couples benefit from MGHA by receiving financial and emotional support. When both families share housing expenses, everyone concerned benefits. Studying and developing a multigenerational type of housing, where the needs of multiple families can be satisfied, and the independence and privacy of each family maintained, will contribute significantly to the development of the housing industry.

The purpose of this study is to investigate MGHA housing with a focus on the spatial arrangement and cultural background aspects of multigenerational living. By considering the importance of privacy and independence for each family member, this paper aims to prove that multigenerational housing can be suitable for families, depending on their unique characteristics. This chapter will examine the key issues that lead to research questions, together with objectives and methodologies for the study. Based on several research reports and books (Danigelis, & Fengler, 1991, Newman, 2010, Zhao, 2001,) author defines MGHA as follows:

A multigenerational housing arrangement (MGHA) is a living arrangement where two or more self-sufficient units are located in one house with certain connections between each other but are independent. It satisfies the need to maintain family privacy and inclusion at the same time.

1.1 Rationale for the study

Important issues, such as the relative growth of the elderly population, shifting social patterns, and growing housing prices alongside limited salary increases, all play a role in housing design. Demographic, economic, and social aspects affect housing choices of Canadians (CMHC,1988). Changing family structures, growing housing prices, and other modern trends have contributed to the increase in demand for new forms of contemporary housing to meet needs of present-day families. Overcoming social and economic challenges with positive changes in people's lifestyles is a key focus for both older and younger generations. Maximizing housing choices that incorporate good design to respond to these factors, introducing multigenerational housing to the wider public, can improve the quality of life for families, and especially for seniors.

1.1.1 Demographic aspects

Canada's population is expected to grow over the next 50 years, reaching between 40.0 million and 63.5 million people by 2063 (Statistics Canada, 2011, [fig. 1.2]). Similarly, the senior population will continue to grow, with rapid growth over the next two decades (fig. 1.1). Today, a growing aging population is a worldwide phenomenon. A startling United Nations report on global aging has revealed that there

will be more pensioners than children in the world by 2050, when the number of people

aged 60 or over will hit two billion (WHO, 2013). Over the next two decades, a

proportion of seniors aged 65 years and over will grow rapidly as the large baby-boom

(1946 to 1965) cohort reaches age 65 and over. Thus, by 2030, the year in which the

youngest baby boomers will reach age 65, close to one in four persons in Canada will

be aged 65 years or over, 22.8% in a medium-growth scenario, compared with 15.3% in

2013 (Statistics Canada, 2014).
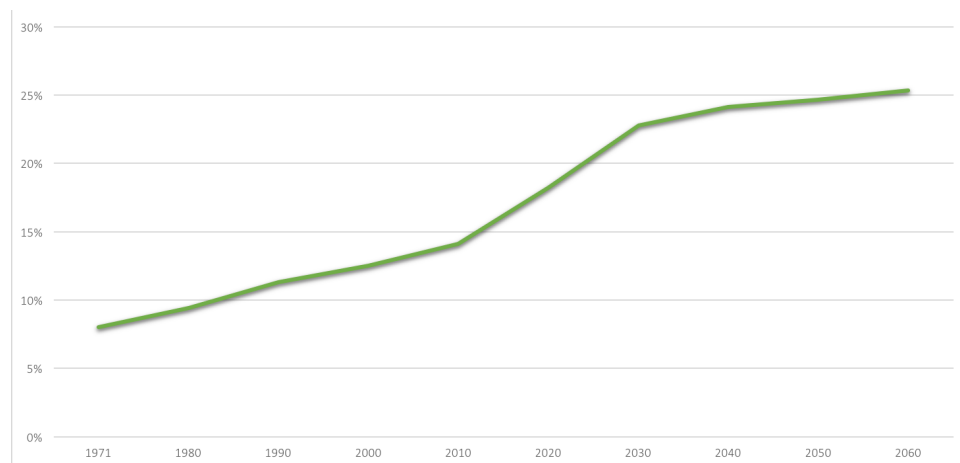
Figure 1.1. Population 65 years and over in Canada, historical (1971-
2015) and projected (2016-2060), adapted from *Statistics Canada* (2011).*The
Canadian Population in 2011: Age and Sex* (catalogue number: 98-311-X-
2011001). Retrieved November 15, 2015 from Statistics Canada website
http://www12.statcan.gc.ca/census-recensement/2011/as-sa/98-311-x/98-311-
x2011001-eng.cfm
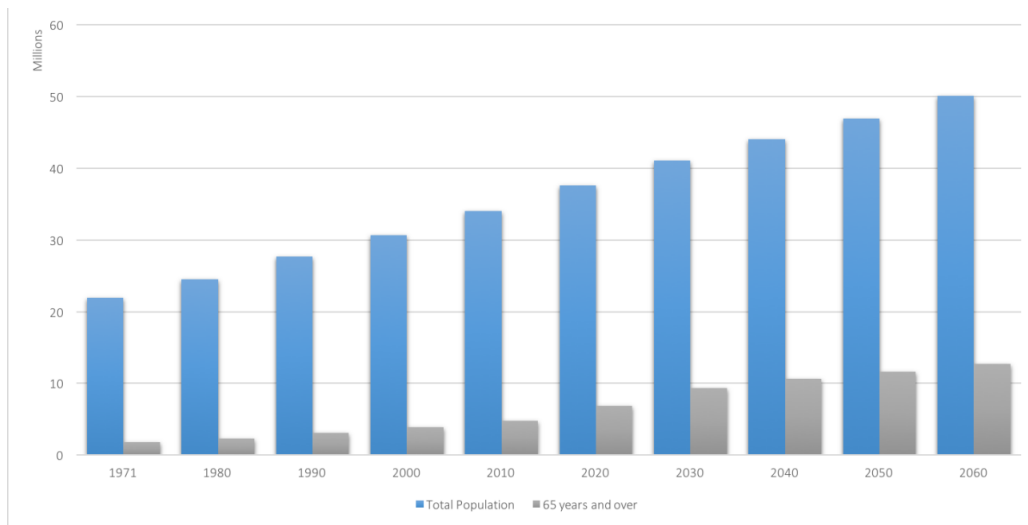
Figure 1.2. Population 65 years and over in Canada, historical (1971-2015) and projected (2016-2060), adapted from *Statistics Canada* (2011).*The Canadian Population in 2011: Age and Sex* (catalogue number: 98-311-X-2011001)

Census reports from Statistics Canada reveal a gradual, relative growth of the elderly population over the last two decades, and that growth is expected to continue. Thus, over the ten years since 1991, the percentage of Canadians aged 65 increased from 11.46% to 12.62%. (Statistics Canada, 2011). By 2015, this figure had risen again to 16.12%. Life expectancy levels are also changing and have increased as a result of improved sanitation, education, and health care. Between 1921 and 2005, average life expectancy at birth rose substantially in Canada, from 58.8 to 78.0 years for males and from 60.6 to 82.7 years for females (fig. 1.3). Currently, lifespan in Canada is 79 years for the male population and 83 years for females. According to future projections, based on assumptions of average population mortality, the life expectancy at birth of Canadian

males and females will reach 81.9 and 86.0 years respectively in 2031 (Statistics

Canada, 2005).
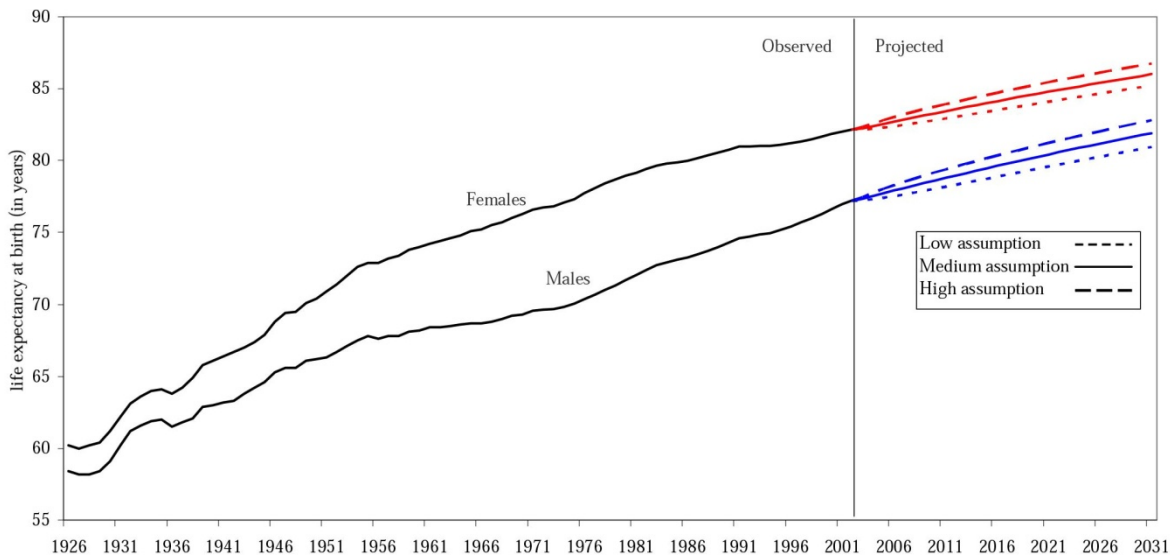
Figure 1.3: Life expectancy at birth by sex in Canada, 1926-2031.
Adapted from Statistics Canada (2006). Report on the demographic situation in
Canada 2003 and 2004(Catalogue number 91-209-XIE), Statistics Canada(2005)
Population Projections for Canada, Provinces and Territories, 2005-
2031,(Catalogue number 91-520-XIE), and Health Statistics Division. Retrieved
February 14, 2016, from http://creastats.crea.ca/natl/index.htm

Today, in general, the health of elderly people has improved compared to the

previous century. Lower proportions of retirees lose their physical activity due to

disability, especially young-elders and mid-elders (Danigelis & Fengler, 1991). In 1996,

the Preamble of the Habitat II Conference stated that older people should have

opportunities to fully participate in their community and society, and they are entitled to

lead productive and fulfilling lives (Brink, 1998). In countries, such as Canada, where in

a couple of decades one in five people in the population will be aged 65 or more, it is

likely that every family will have an elderly person. Therefore, there will be an

exceptional demand for developing housing strategies that provide appropriately

designed dwellings for families, characterized by occupants with increasing longevity.

Another demographic change that significantly affects housing choice is marital age shift, which results in an increase of single-household dwellings. As more people postpone marriages, the number of young adults staying with their parents has relatively increased. Similarly, the number of "single-parent" households has increased, as Canada's 2011 census reveals. It is important to emphasize that "multiple-family households" increased by 16.4 percent between 2006 and 2011. All these nontraditional family types require specific housing arrangements to ensure privacy and independence. To sum up, social changes are currently happening among both senior and younger generations, and modern housing design methods should adjust and offer more solutions to the population.

1.1.2 Economic aspects

The economic situation in the housing market is one of the key factors affecting house preferences and affordability for both young and senior families. As the income of elderly declines by one third to one half after retirement, it is difficult for them to maintain accustomed standards of living. Major sources of income for seniors are pensions and social security benefits (Hanncock, 1987). Even though most elderly homeowners have paid off their mortgages and own their homes, maintenance of roomy assets can be costly and requires physical strength.

It is becoming increasingly difficult for Canadian families to own a home as affordability is expected to get worse going forward, according to the Royal Bank of Canada (2014). On average, housing prices are growing rapidly in Canada (fig. 1.4). Many young adults face difficulties to afford a decent dwelling and may settle in houses

that do not meet their needs, hoping to change their financial situation in the future.

Even though family income grows steadily, housing market prices tend to increase at a

faster pace. Hence, from a financial point of view, the multigenerational living

arrangement is more affordable due to more people bearing the cost.
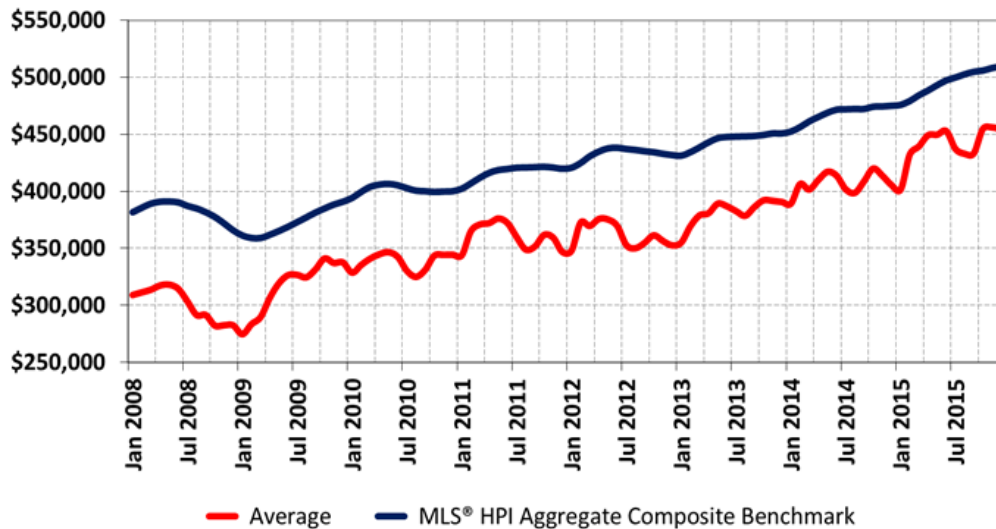
Figure 1.4: Average residential price in Canada, 2008-2015, Retrieved
from January 20,2016, *CREAstats Canada* (2015).
http://creastats.crea.ca/natl/index.htm

1.1.3 Social aspects

Changing lifestyles and an aging population create more obstacles and require

social adaptability to current situations. An aging population means that society must

face the challenge of providing more care and appropriate facilities since the number of

elderly people will continuously grow. In the industrial period, taking care of aging

parents was the responsibility of a whole family. Adult children would undertake the

main duty of looking after old parents (Baum & Baum, 1980). However, family principles have changed and separate living has become the norm in recent decades.

Another social aspect is related to young adults, both male and female, who began to focus more on their careers. Family life patterns are in flux; the pursuit of career goals takes adults to different cities and continents. As a result, young parents do not want to spend long periods of time on parental leave, but, at the same time, after having a child they want the child to be looked after by its own family. Many other adults practice telecommuting or have to do long-commute jobs where they constantly travel and leave their houses unsupervised. In these scenarios, both the elderly population and young adults, single or married, would mutually benefit from a multigenerational living arrangement. In addition, research suggests that most seniors want to remain in their homes for as long as possible (Close to Home - Canada, 2015). Multigenerational families could be more functional, for both individuals and society. "The extended family is in principle a perfect example of diachronic solidarity. It provides an unbroken chain of obligations between the generations extending through all time" (Baum & Baum,1980, p.26). Relatives living close to each other can visit one another frequently and give vital support at times of sickness and misfortune (Towers, 2005). Living close to each other in MGHA is beneficial for all members of extended families.

In sum, we can address all demographic, economic, and social issues in the development of a living arrangement that is suitable for family members of all generations. Families live together in close proximity, while, at the same time, maintaining their privacy with each owning an independent unit. This type of household suggests a mutual support between generations in both financial and social terms.

1.2 Rediscovering MGHA

According to Mills, multigenerational family living together is not a new concept (1990). However, historically, such way of life was more common for Eastern cultures. Danigelis and Fengler (1991) suggested, that two interrelated families living under one roof may interfere with one another's life, and, therefore, they proposed an intergenerational house to be a house of non-related people of different generations. Nevertheless, time has passed and concept of multigenerational living is gaining popularity even in the North American context. Because of economic downturn and many other possible reasons, families were encouraged to move in together and today are rediscovering benefits of extended family living (Niederhaus & Graham, 2007). Today, researchers from different fields in the area of multigenerational living would agree that related families of different generations living together may better embody the significance of multigenerational housing. Such an arrangement also enhances the functions of families as noted in the work of Société d'habitation du Québec (SHQ) from 2000. In Professor Susan Newman's book "*Under one roof again: All grown up and (re)learning to live together happily*" this phenomenon was given the name of "sandwich generations." This means that couples take care of their children whilst living with and looking after their older parents (2010). Nonetheless, the arrangement of space in a multigenerational house should be carefully designed with appropriate separations, considering the privacy of each family.

1.2.1 Theoretical framework

The topic of the MGHA is now gaining popularity since more newspaper articles are being published and guidelines are being written about multigenerational (MG) living. Mention of MG houses can be found under several different names, such as "in-law suites," "granny houses," and "intergenerational houses." Susan Newman, for instance, is a social psychologist and her book *Under One Roof Again* (2010) focuses on the psychological aspect of multigenerational living, suggesting that, recently, families are rediscovering the importance of intergenerational ties. There are several practical guideline books that talk about probable issues of MGHA and intend to help families that are new to this practice. For example, Niederhaus and Graham (2006) see issues such as financial and legal considerations as complex questions for extended families.

From a design point of view, there are four housing opportunities suitable for multigenerational living in the current market, as summarized in *Housing Choices for Older Canadians* by CMHC (1987). These are "accessory apartments," "garden suites," "flexible-Use Housing," and "bi-Family Units." Montreal's "plex houses" are also a good option for multigenerational families and the arrangement of units in them can either consist of up-and-down or side-by-side relations. MGHA is a contemporary topic, and it is expected to gain popularity in the near future. This expectation is evident in a large number of articles related to the experience of extended family living across North America and the growing demand for new housing designs for bigger families (fig. 1.5).

Figure 1.5: Media clippings describing to MG living trend and MG projects

1.3 Research question

A focal point of this research will be on the relationship between family members of different generations and the role of culture and privacy in such families. Hence, the central question of this research is:

How do Montreal households, who live in multigenerational housing arrangements (MGHA), maintain privacy while engaging in common activities, and how should these environments be designed to be adaptable throughout changes in the family lifecycle?

It will be useful to understand possible connections between MGHAs and the cultural backgrounds of families in order to draw a full picture of multigenerational practices in Montreal. In addition, to develop criteria for future MGHA design, the author will investigate examples of good practice in multigenerational housing, developed in different countries. Therefore, these sub-questions follow the main question of this research:

- What contemporary design ideas and solutions have been introduced by architects for MGHAs?
- Does cultural background affect families' willingness to practice the MGHA in contemporary society?
- What types of design strategies can be used to make dwellings more adaptable throughout their lifecycle? How is the MGHA suitable for a modern lifestyle?
- In what ways can the MGHA make housing more affordable?
- How can architectural design enable families in MGHA to help preserve common areas while protecting each family's private zone?

- What kinds of prototypes have been developed by architects around the world to address MGHAs?

1.4 Objectives

The primary objectives of this study consist of four subdivisions. The first is to examine existing multigenerational (MG) housing practices in North America and other nations as an alternative to housing for MG families. The second is to analyze the space and spatial arrangements of four MG households in Montreal. The next objective is to describe good practices for the use of MGHA principles in Canada and suggest places and situations where MGHA implementation would be most beneficial. The last is to suggest methods of designing new housing and adapting existing housing to the MGHA.

1.5 Intended audience

Since living in multigenerational arrangements is gaining popularity in modern society, the author believes that there will be a demand for the development of new design strategies suitable for extended families. Hence, the intended primary audience for this research will be architects, housing industry developers, and researchers. Other valuable investigations of this research paper include interior space arrangement and use, which means that this study could benefit interior designers as well.

Considering that this research deals with cultural aspects of family relationships and other sensitive topics, such as personal privacy and independence, it will be useful for anthropologists and sociologists. Study of MGHAs will also benefit researchers from

different fields since this topic has direct connections to society, economics, and culture. Interdisciplinary studies between these fields may be needed to achieve greater success in improving investigations.

1.6 Methodology

There will be two main methodologies used in this research paper - a literature review and case studies of several existing multigenerational families by interviewing them. The second chapter of the research will derive findings from extensive literature scanning. One of the main goals of the literature review section is to learn about existing housing solutions for MGHA living by analyzing benefits and issues of adapting homes for nontraditional households and learning features of housing design for extended families. Other than statistics and collections of publications from CMHC, some primary theoretical frameworks are Friedman's *The Adaptable House* (2005), Hillier & Hanson's *The social logic of Space*, and Danigelis & Fengler's *No place like home: Intergenerational Home Sharing Through Social Exchange*. The chosen references address the topic of housing from an architectural point of view.

Another focus of the literature review is to explore the practice of multigenerational living in different cultures where it is a common practice. To some extent, the different national and cultural backgrounds of families explain why some families find the idea of MGHA dwellings palatable, while others, in contrast, find them inappropriate and unsuitable for their household. Therefore, the author intends to investigate cultures familiar with MGHA living on an everyday basis and reveal contemporary solutions for extended family housing in those cultural groups. Hofstede's

Cultural Dimensions' theory (1980) will help to build a framework to better understand the driving factors behind the differences accumulated in certain cultural groups throughout history.

Furthermore, a series of interviews will be conducted with Montreal families living in MG households. One of the goals of interviews is to understand how families use space on a daily basis and to determine dominant activities and spaces that families aim to use both individually and in groups. Another focal point will be on the privacy of family members, as the provision of privacy for its occupants is an undeniable characteristic of a good home. Thus, by investigating levels of privacy and independence in MG houses the author will be able to evaluate levels of comfort of such arrangements, and emphasize criteria for new design developments that are related to maximum comfort in terms of privacy.

In order to elaborate a deeper analysis of the case studies of different families, plans of houses and separate units will be studied and compared. Through a profound analysis of house plans and occupants' responses, the author will be able to make connections between the ordering of spaces in houses and the relations of family members with each other.

In the process of study, both quantitative and qualitative research data will be used to enhance the purpose of the paper. Although a considerable amount of quantitative data will be used from Statistics Canada, CMHC and other sources, most of the methodology and findings will be qualitative.

1.7 Scope of research

The phenomenon of MGHA living can be related to many cultures in all geographical contexts, however, the primary geographical area of this study will be the City of Montreal. In order to understand why MGHA practices are more popular in some cultures than they are in others, the author will study this phenomenon in different national contexts through literature review as mentioned earlier. Subsequently, four multigenerational households living in the Montreal (Quebec) area will be interviewed, to investigate living arrangements in the families.

In the North American context, MG living was not a very popular housing solution in the past. However, this situation is changing and this analysis will be both novel and beneficial in terms of architectural study. To establish a stronger theoretical framework for the evaluation of the case studies, the author does not put any limitations on sources that will be used in this project. The primary intention is to thoroughly review existing sources and arguments thus enhancing the structure of the study.

This topic is interdisciplinary, relating to subjects in the humanities, psychology, and economics. Therefore, the author consults related articles in those disciplines as well.

1.8 Outline of the report

In chapter 1 the author provided the rationale for this study by introducing the main reasons for the growing popularity of multigenerational housing. After discussion on demographic, economic, and social aspects, the author brings some background

information and discusses the current state of the issue in North America. Goals and objectives of the research are presented together with the theoretical framework. Another part of this chapter reveals methodology, research questions and scope of the work.

Chapter 2 provides an overview of multigenerational living practices in several cultures where this phenomenon is a common way of living. The chapter will examine family structures, typology of houses and the spatial arrangement of units. This section also discusses Canadian practices and solutions for multigenerational living.

Chapter 3 will analyze a series of case studies and is the most important portion of this study. Four different cases of multigenerational living will be presented. The report will focus on the spatial arrangement of houses and privacy of residents in each household. Findings of interviews and house plans will be presented for each case study.

In Chapter 4 the findings and conclusions from the case studies and literature review will be summarized and analyzed. Finally, design criteria and solutions for the development and adoption of multigenerational living arrangements will be offered.

Chapter 2

The Practice of Multigenerational Housing in Different Cultures

2.1 Cultural aspects of living in MGHAs

When looking back into the history of MG households the author can see that, to some extent, the culture and traditions of nations are at the root of this phenomenon. This research addresses "culture" defined as collective programming of the mind which makes members of one group of society distinguishable from another (Hofstede, 1984). In the first part of the second chapter, the author will provide connections and correlations between MGHA living and cultural features based on family origins. Subsequently, cultural analysis will provide a possible explanation for different family values in relationship to three-generational living. The author believes that in order to conduct a high-quality study on the spatial arrangement of physical space in MGHA dwellings and to offer a certain level of privacy in the house, we first should understand people's cultural values that drive their preferences on these topics.

In the second part of this chapter the author will look at the typology of MGHA houses in Canada and other countries. A house is physical setting for life's events, as well as an arena for residents to express their emotions. Two leading factors of house design are the architectural dimensions of the dwelling and personal lifestyles. Design of physical space in the house directly affects the amount of privacy available for residents (Danigelis and Fengler, 1991). Architectural space refers to actual physical space in cubic meters provided to residents; lifestyle space, on the other hand, refers to action freedom and characteristics of everyday life patterns, that offer a potential space for interaction and privacy. Having these two dimensions of space in the house is vital for the well-being of residents; the improper layout of physical space may lead to loss of

privacy and confusion in residents' lifestyles, especially in the MGHA house. Therefore, several modern solutions for MGHA family housing offered by some architects and companies will be discussed in the second part of this chapter. An analysis of typology and solutions for MGHAs will provide a strong base for later investigations of case studies in Montreal.

2.1.1 Historical overview; The path of change

Historically, extended families used to stay together; in fact, until the beginning of 20th century, the younger generation would rarely leave the village home because families tried to stay in close proximity, remaining within a ten-mile radius of their parents' houses. In subsequent years, after the Great Depression, migration brought serious social change to North America, and families started to disperse (Newman, 2010 et al.). During those years, young and old were forced to find jobs wherever they could. Independence was crucial for families in the 1960s, and, for the majority of Americans, it was "unthinkable" to have their adult children or parents move in with them or return to their family homes. The American social psychologist, Susan Newman, states that, if offspring did not grow up to live on his or her own and find jobs, they could be viewed as failures (2010). Moving in with your adult children or parents would happen only under exceptional circumstances, such as the death of a family member or the need for family health care.

Today, household standards are changing again; families are reuniting under the same roof in significant numbers across North America, rediscovering the importance of

intergenerational ties. Examples of people moving in to live with relatives, known as *boomerang* children, can be found in every city. Even the traditional meaning of the term boomerang has changed from the idea of the college graduate returning home to live with their parents to any person returning home. Moreover, that person is much more likely to be a forty-year-old parent or a sixty-year-old grandparent. In general, researchers say that it is easier on an emotional level for today's young adults to live with their parents, than it was in the 1970s, due to a less disruptive generation gap (Litchfield, 2011, Newman, 2010). This means that generations of parents and children are more tolerant today, to each other's choices, and lifestyles.

Even though changes in the development and increase of MGHA households are being recorded nationwide, there are differences in attitudes to extended family living between different cultural groups. According to research reports by Hofstede (1984) and Newman (2010), living in extended families is more common for some cultures and less so for others. Thus, most of the second and third generations of immigrant families in America do not move far from their parents, remaining faithful to their ethnic culture. A survey by The Pew Hispanic Center showed that seventy-nine percent of first- and second- generation Latinos believe that "it is better for their children to live in their parent's home until they get married" (Newman, 2010, p.36). Immigrant families of Asian origins tend to have similar attitudes toward MGHA living. Thus, a contrasting image can be observed: while some immigrant families remain together for decades, others spend years working to raise self-sufficient children who will manage to live on their own and create nuclear families. In Susan Newman's study, one of her

participants, who lives in an MGHA asked some philosophical questions in order to

express her frustration and confusion on this topic:

> What's wrong in our culture that we Caucasians don't get along with our families? Immigrant families from many cultures - Latino, black, Asian - have had the generations living together forever. Why can't the rest of us love and support our relatives in the same way? A lot of people are sharing living expenses with friends; why not move in with your family? (2010, p.10).

Her questions are very natural when one compares cultures, and there should be some

reasonable explanations for them. The author aims to distill the driving factors of this

phenomenon to better understand the philosophy of MGHA living. Figure 2.1 illustrates

a relationship concept of MGHA living.
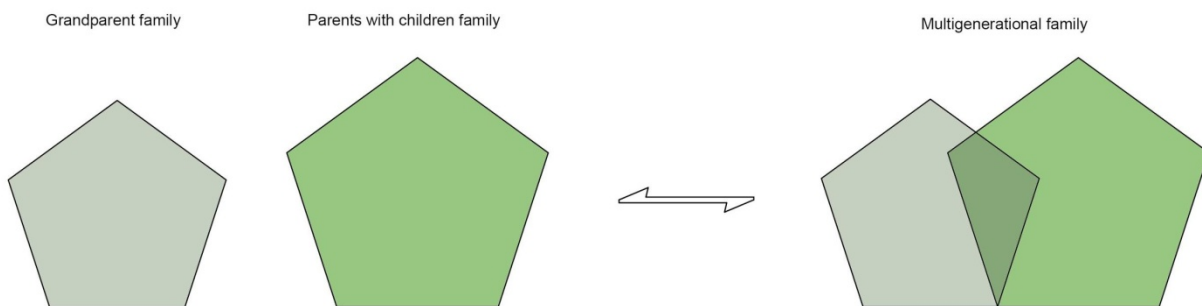
Figure 2.1. The Concept of multigenerational living: A spatial relationship
in MGHA (right). Left – single detached households

Note: All images in the report, that do not have any source references, were
created and/or taken by the author.

2.1.2 Cultural dimensions in family structure

The nature of family values is culturally specific. In order to discuss and show the

differences in family values from a cultural point of view, the author will address Geert

Hofstede's (1984) framework of cultural dimensions' theory. This framework is used to

analyze cultures and patterns of behavior at work and in society, and how cultural

values can relate to people's behavior. Hofstede used factor analysis to examine the results of a worldwide survey and proposed four dimensions to analyze cultural values. Those dimensions are: individualism-collectivism; uncertainty avoidance; power distance (strength of social hierarchy) and masculinity-femininity (task orientation versus person-orientation). For MGHA research, the dimension of individualism-collectivism is of particular interest and can help to explain differences of family values and attitudes toward MGHA on a cultural level.

Geert Hofstede applied the ideas of individualism and collectivism in his own way to social and behavioral science and the humanities in the 1980s. His aim was to analyze human nature and the relationships between human beings. Individualist societies are defined as those in which people's self-image is defined as "I", and people are expected to take care only of themselves and their immediate family. Family relationships in such societies tend to be less close-knit. In contrast, in collectivist societies people are expected to look after their relatives and closely related groups in exchange for unquestioning loyalty. People's self image is defined as "We", and family relationship consists of a tightly connected social framework. Thus, when we relate the findings of Hofstede's study to MGHA practices, we can see that nations in which living in extended families is more common, tend to place less importance on individualism. In other words, collectivist countries tend to be more familiar with MGHA living and people from such countries are more agreeable with the MGHA concept. In the Figure 2.2, scores of Individualism in different countries are shown, based on Hofstede research.

Choice of countries is based on data from Statistics Canada on Top ten countries of immigrants to Canada in 2013.
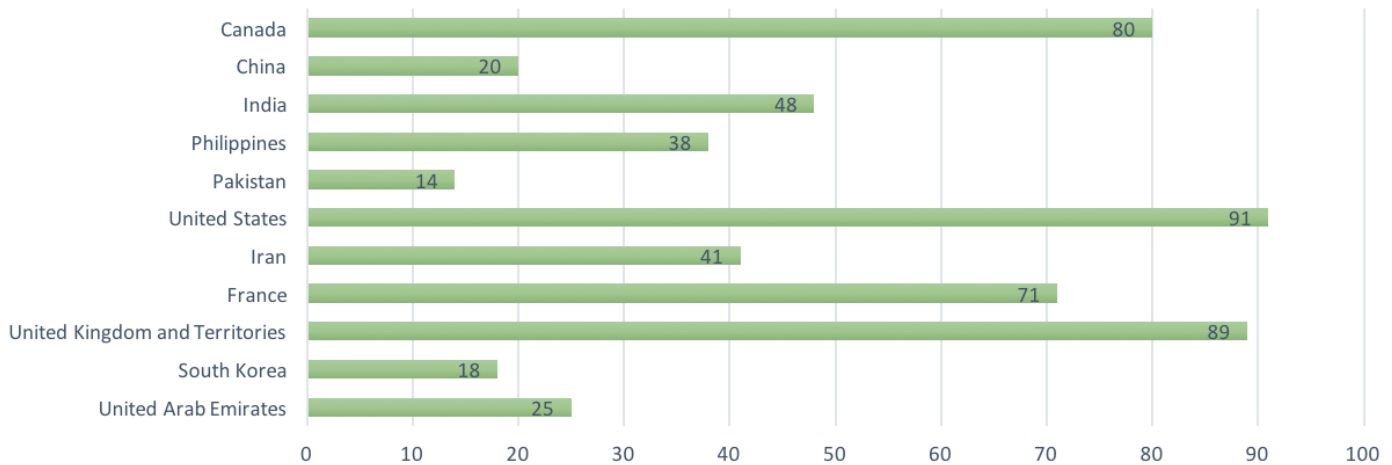
Figure 2.2. Individualism scores. Source: geert-hofstede.com,. Retrieved from https://geert-hofstede.com/national-culture.html Statistics Canada, 2013. Retrieved November 22, 2015.

Countries with lower individualism scores tend to have more collectivist values, where people act in the interests of the group and not necessarily for themselves. In relation to MGHA living, in collectivist cultures adjusting to extended family living can be easier since values or people are community-based. Moreover, in some nations extended family living tends to be a primary option for housing senior parents and is considered a traditional practice of living.

This framework of Hofstede's individualism and collectivism can be one explanation as to why immigrant families tend to stick together. From this perspective, family values are different in individual MGHA households, depending on country of origin. This means that required levels of privacy may vary from case to case.

2.1.3. Characteristics of multigenerational families: space and privacy

Since there are two or more generations of one family living together under one roof, multigenerational families are structurally different from ordinary nuclear families. In addition to individual, family, and community levels of social interaction (Hiller and Hanson, 1984), there is a mutual relationship between units of family members. It results in a new four-level tier of family relationship, consisting of individual, immediate family, extended family, and the residential community.

In an MGHA family, residents of each unit want their own privacy while living together. In order to reach a desired level of privacy, clear interior space divisions are needed for every member of the family and for each unit. There are several possible space division practices in families that have been outlined in different sources. Referring back to the collectivism/individualism frameworks, in Korean families, which are highly collectivist in nature, family line and hierarchy play an important role and it is the duty of the adult children to take care of senior parents (Cha, 1994). A similar situation can be observed in Japan (Brown, 2003; Yamaguchi, 1994) and other Asian and South Asian countries. The physical space of houses in traditional families may be totally shared/blended, with no separate entrance for each family unit. Another situation is where young adults, along with their children, are forced, through lack of finances, to move in with their senior parents to a house that is not adjusted for two-unit occupation. Therefore, a family that has just arrived may reside in one or two bedrooms but share the same entrance and main rooms of their parents' house (Newman, 2010), living in

the shared house with private bedroom/s. Lastly, a preferred option for MGHA families is to have the necessary amount of independent units, with private entrances and facilities for living in each unit (fig. 2.3).
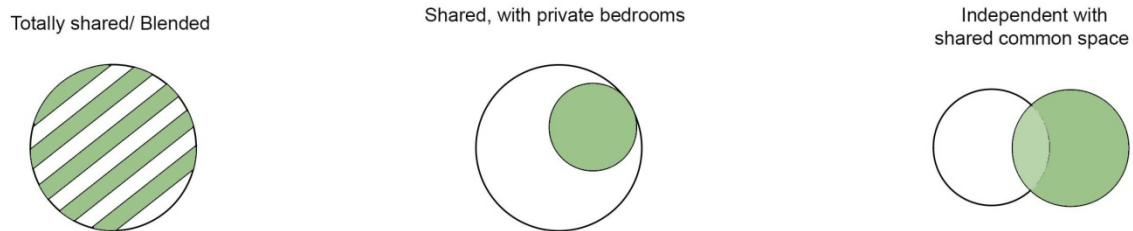
Figure 2.3. Types of spatial relationship between units/ two families

For MGHA families from collectivist cultures, it can be easier to share space and adjust to the amount of privacy they are offered. Making those adjustments can be more challenging for families with individualist values. Those from collectivist cultures, who regard themselves as a part of an extended family unit, rather than a nuclear family, are more open to sharing their personal space. In any case of spatial relationships, there are probable spatial sacrifices that one has to make. However, as Newman says they will not loom large, as the positive aspects of MGHA living will outweigh the negatives (2010).

MGHA families have some special arrangement requirements to meet the needs of residents of different generations. According to research by Société d'habitation du Québec (SHQ, 2000), the residential requirements of MGHA families are as follows:

1. Independence: each unit of the house should have independent, direct access to the street or an exit that leads outside.

27

2. Completeness: in respect to different lifestyles, every family unit should

have its own facilities and a self-contained living space.

Privacy: In MGHA families well-balanced interaction and privacy play a vital role,

especially privacy between different units of the same house.

3. Interaction: to enhance intergenerational ties and mutual care between

families, it is important to provide some shared space for common activities.

4. Adaptability: The structure of MGHA families is not very stable, as

generations will pass and others may move on, for example, to pursue employment.

Given these possibilities, the MGHA house should be easy to merge, separate or

dismantle in order to adapt to new functions.

5. Adaptation to old age: one of the units in the MGHA house is meant for

elderly people, who may need a flexible home with some arrangements for their

health care, such as barrier-free access and wheelchair accessible appliances.

2.1.4 Current cultural shifts

MGHA-type households are growing in numbers across North America. Older

adult children return to live with their aging parents not only due to life obstacles or

financial struggles. Many return voluntarily, of their own volition, as it makes practical

sense (Newman, 2010). For young adults with children, this option can be a lifesaving

step. Many children residing in MGHA houses with their grandparents showed higher

school-entry scores, comparing to those living in nuclear families (Pilkauskas, 2014).

Just at the time when elderly parents are retired and believe that their parenting days

are over, they come back to help, caring for their grandchildren. Grandparents ensure

that family history is passed on; they can offer wisdom and tradition, and they can be

highly supportive for both adult children and grandchildren in the MGHA house. One

case of multigenerational living that has made the MGHA type of household fashionable

in recent years concerns President Obama's mother-in-law, Marian Robinson. She

moved into the White House to take care of her grandchildren. While Michelle Obama

and Barack Obama were busy campaigning and extensively traveling, Marian Robinson

became a lifesaver for the busy parents. People say that the First Grandma unleashed

a flurry of interest among grandparents to help adult children in coping with job

demands and financial problems (Newman, 2010 et al.). In general, the primary interest

of seniors is to continue to live independently in the community and preferably in their

own homes. People may now start to change their negative attitudes toward moving

back in with their families and experience a great opportunity to be a part of the "current

cultural shift" (Litchfield, 2011; Newman, 2010).

2.2 Typologies of MGHA

In light of the growing popularity of MGHA living on the North American continent, there are several types of housing that can be highlighted as suitable for extended family living or as secondary living spaces. In terms of government sources, a 1987 CMHC research report defined a typology for MGHA households: accessory apartments, garden suites, plex housing, bi-family Units, and flexible-use housing. Some of these options are drawn from existing configurations of houses, others need some modifications to existing, traditional houses to make them suitable for unique family structures and needs. These types of MGHA houses can be observed in many regions and countries in a variety of configurations and interpretations. However, one common feature for all of them is the existence of two or more self-sufficient units. On the principles of its physical locations and mutual relations to each other, these units can be categorized into four types (fig.2.4).

A. Side-by-side   B. Accessory apartment   C. Up-and-down   D. Garden suites
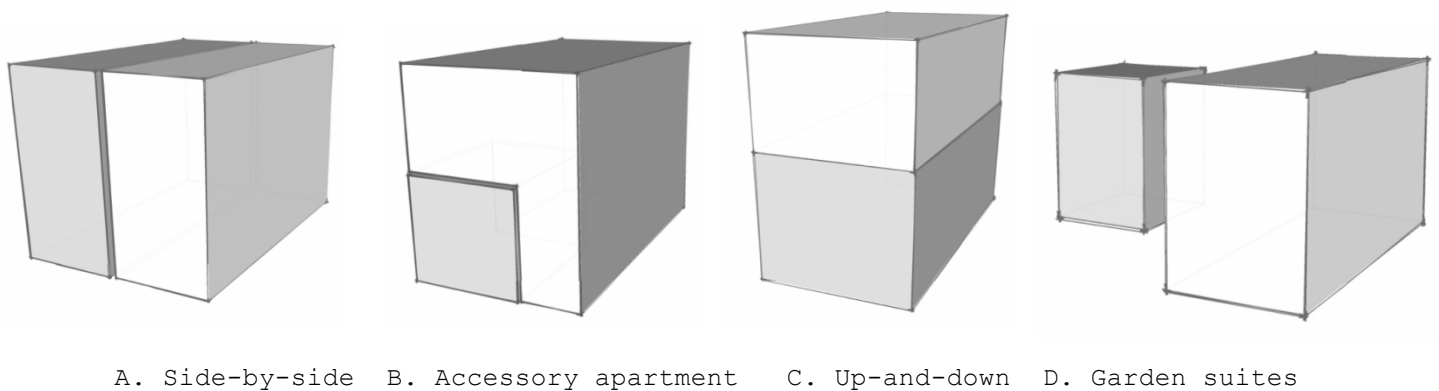
Figure 2.4: Typology of MGHA houses

A. Side-by-side units usually have ground level entrances and a wall separating them. They can be in the form of a townhouse, sharing one wall or two detached houses located next to each other.

B. Accessory apartments involve the modification of one particular area on one floor of the house, with the provision of independent access from the outside.

C. Up-and-down apartments are separated by a ceiling or floor and have direct access from the ground level, either directly or via stairs, such as traditional Montreal plexes.

D. Garden suites are independently located on the same lot of land and are connected only by a garden or existing exterior landscape.

When we think of an MGHA house, we cannot avoid a possibility of apartment building units being modified and used in such a living arrangement. Moreover, we cannot limit unit spatial location options in the given house to the four types mentioned above. For example, in his book Litchfield (2011) identifies six types of MHGA houses: basement, attic and garage conversions, carve-out suites, bump-out additions, and free standing cottages, even though, technically, the spatial relationship of the units can still be combined and distributed under the four CMHC highlighted types. In this research, the author refers to these types of houses as MGHA although they are also known as in-law suites, mother-in-law apartments, elder cottage housing opportunity (ECHO), kangaroo apartments (Australia), granny flats (in the UK and Canada), sidekicks, and secondary dwelling units or accessory dwelling units (Litchfield, 2011). Earlier in this report, the author mentioned the possibility of using the vacant unit as rental property,

and evidently in some sources these units are called "outlaws" (Gros, 2008; Moffat, 2004). In this subchapter, the author will discuss several types of MGHA housing options, highlighting their benefits and drawbacks for MGHA living.

2.2.1 Side-by-side units

Side-by-side units are a type of MGHA arrangement where two units are located next to each other, each having ground level access (CMHC, 1987). This type of housing (fig. 2.5) was named bi-family housing and originally developed in Quebec (SHQ, 1989). In places where there are restrictions on the construction of new houses, this type of housing can be an appropriate solution for an MGHA family and can be created by combining two semi-detached houses or townhouses. It is proven to be one of the least expensive types of conversion (Litchfield, 2011). In addition, both units are identifiable from the outside as separate single family houses.
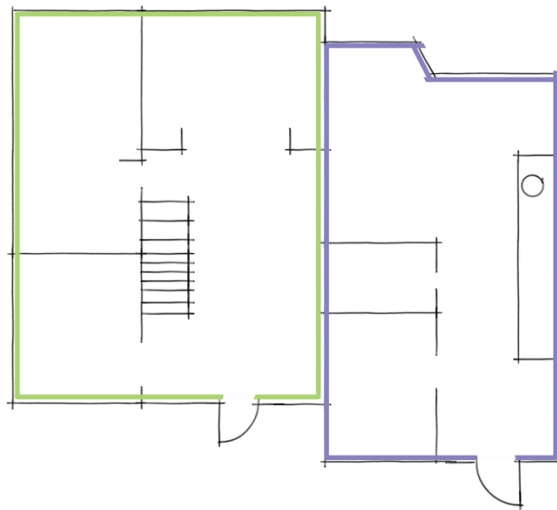
Figure 2.5. Side-by-side units

Depending on family needs, inter-unit connections can be added in preferred locations. At the same time, units can remain completely independent. In this configuration, units can be easily incorporated into one another, creating one big house, when the second unit is no longer needed for parents' or adult children's use. In addition, the self-contained nature of the second unit allows it to be rented out or modified into a complementary office space.

2.2.2 Accessory apartments

An accessory apartment is a self-sufficient secondary living unit that is created by building into or attaching a partition to an existing single family dwelling (Litchfield, 2011). Secondary units are usually smaller in size but can provide an efficient amount of space for a small family that includes older parents or young couples.

Accessory unit within main house
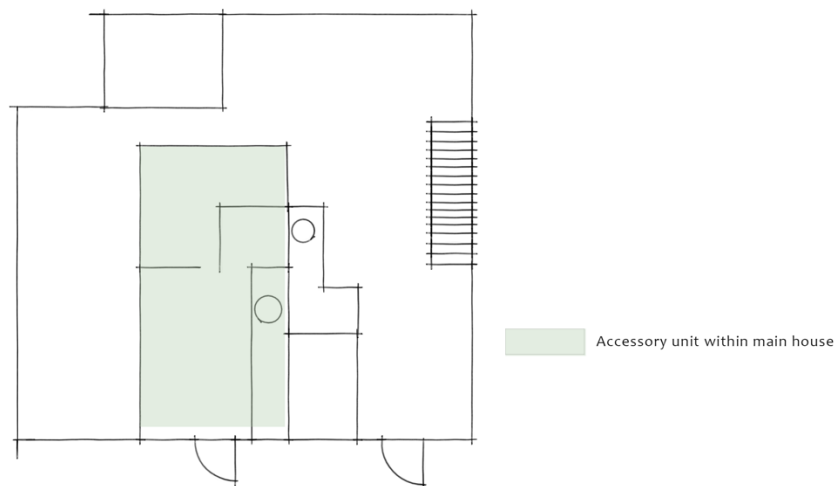
Figure 2.6. Accessory unit.

Accessory units can be built from an idle space (fig.2.6) of an existing house in any area and level, or it can be added as a moderate attachment to the main house. In

his book, Litchfield highlights two types of accessory units: bump-outs and carve-outs (2011, [fig.2.7]). A bump-out unit is a small addition to an existing house and a way to create an MGHA house while conserving land use and construction materials. This type of secondary unit offers the advantage of having its own courtyard, which increases privacy. However, privacy between units and the acoustic insulation of the units can be inadequate and lead to conflicts.

A. Bump-out unit   B. Carve-out unit

Figure 2.7. Accessory unit types. Adapted from *In-laws, Outlaws, and Granny Flats* (p.31,34), by M. Litchfield,(2011), Newtown, CT: The Taunton Press.

A carve-out unit is another way of referring to a secondary unit that is built within the main house, containing a certain area and adding an independent entrance. On one hand, carve-outs are fast to construct and they require less significant modifications. On the other, this type of unit is the most spatially intimate arrangement and maintaining privacy may be problematic.

2.2.3 Garden Suite

Garden suites are independent, detached, and relocatable units that are placed in the side or rear yard of the main house lot for varying periods of times (Mills, 1990). This arrangement enables relatives to live in close proximity, in order to help each other when needed. The garden suite concept originated in Australia in 1974 and at the time they were referred to as "movable units" (Mills. 1990). Due to the different size and shapes of the yard, there can be several location and layout configurations of garden suites. Clearly, it would be easier to locate a garden suite in spacious suburban yards, with vacant spots in the back yard, corner yard or side yard, however, it does not mean that garden suites can not to be suitable in an urban context. Figure 2.8 illustrates four types of garden suite locations in the back yard.

A. Back yard   B. Side by side

C. Corner yard   D. Attached
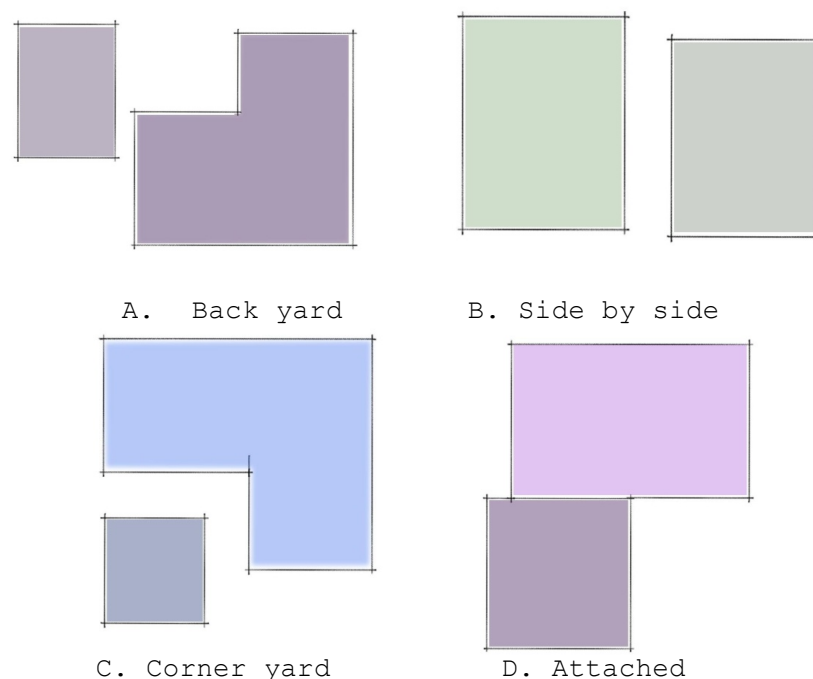
Figure 2.8. Locations of garden suites. Adapted from: A,B: SHQ, 1995; C: CMHC, 1987; D: Finger, 2000

This type of housing is a popular solution for many MGHA families and in different countries we can find them under various names, such as the "granny annex" in the United Kingdom, "ECHO" housing in the United States. The "in-law Cottage" (fig.2.9) is another name given to the same concept of the secondary unit in the yard by Litchfield (2011). Garden suites offer the best amount of privacy and sound separation for MGHA family members. They offer the greatest amount of design options, and can be a very desirable rental unit. Some of the drawbacks of these type of units include more expensive construction costs, the reduction of open yard space and the possible requirement for more sophisticated utility runs to reach the unit.
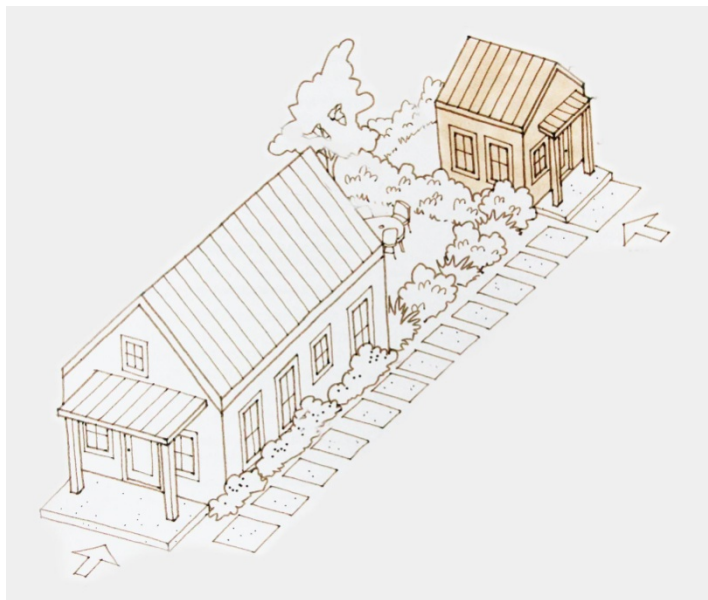
Figure 2.9. Granny annex. Adapted from *In-laws, Outlaws, and Granny Flats (p.40)*, by M. Litchfield, 2011. Newtown, CT: The Taunton Press.

Litchfield (2011) discusses a noteworthy phenomenon whereby independently standing garages are often converted into secondary units of MGHA housing. When analyzing the spatial relations of a garage conversion unit and the main house, we can

classify it as a side-yard garden suite (fig. 2.10). As a result of simple framing and the

generally unfinished conditions of garages, they are among the easiest structures to

convert into an MGHA unit. Reconstructed garages can bring all the benefits of

movable, newly constructed garden suites, providing good, natural lighting and

ventilation. Nevertheless, it may result in a scarcity of parking spaces, as well as health

and safety concerns, if hazardous and dangerous smells are present.
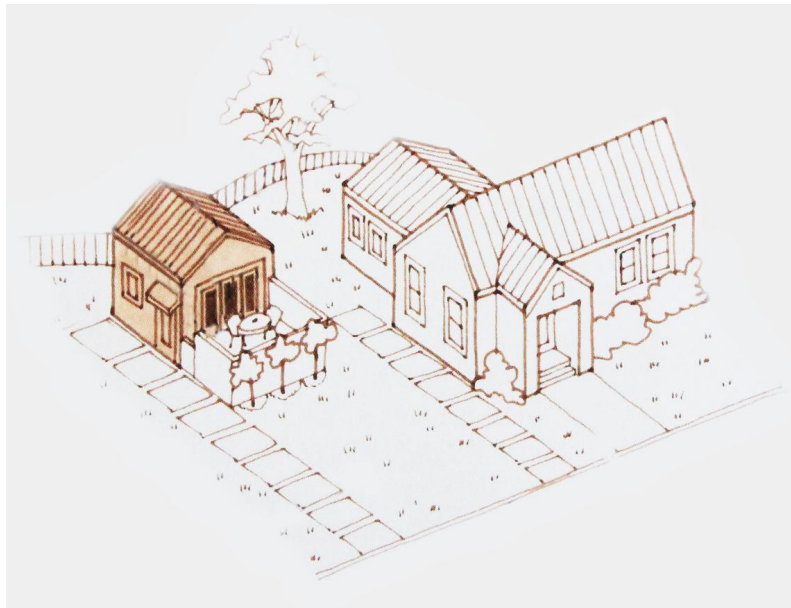
Figure 2.10. Garage conversion. Adapted from *In-laws, Outlaws, and Granny Flats* (*p.27*), by M. Litchfield, 2011, Newtown, CT: The Taunton Press.

In general, garden suites are a very comfortable option for MGHA families, since

they create an ideal platform for being together with the whole family unit while

maintaining privacy and spatial division. These types of units have been implemented in

Australia, Great Britain, the United States, and Canada with varying degrees of success

(Mills, 1990). Garden suites can positively affect the quality of life and relationships

between older and younger family members.

2.2.4 Up-and-down units

This concept in MGHA housing refers to the placement of units on top of each other, having some vertical connections between them, as well as separate entrances. Montreal's plex houses belong to this category and fit the purpose of MGHA houses very well. Houses with basement or attic can also be used to create up-and-down type of housing (fig. 2.11).

Preferably, older generations would live on the ground level with easier access to the unit and a wheelchair ramp, if necessary. The provision of an adequate amount of natural lighting and ventilation can be a major issue in the case of basement conversion units. In addition, not having enough headroom in the basement, can lead to high costs. The attic conversion type of MGHA house may suit an adult couple without children due to the limited and somewhat obstructed space. Noise from the unit above or below can generally be a problem in every case of up-and-down units.
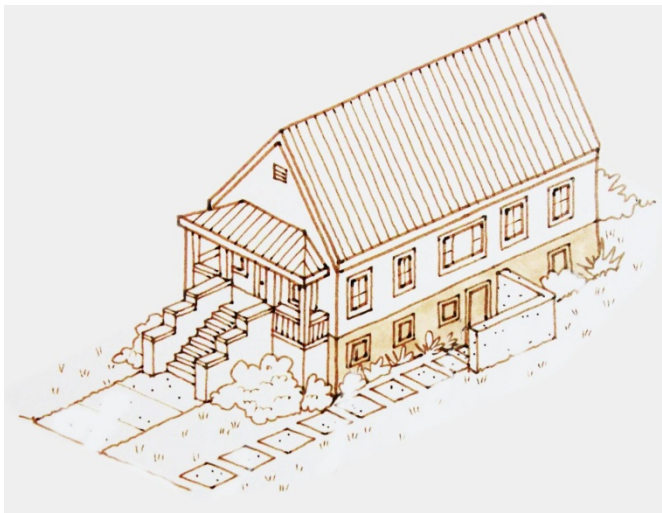
A. Basement conversion   B. Attic Conversion

Figure 2.11. Up-and-down types of units. Adapted from *In-laws, Outlaws, and Granny Flats* (p.23,36), by M. Litchfield, 2011, Newtown, CT: The Taunton Press.

The duplex and triplex configuration of units, with independent street access to each unit, a street view facade and individual postal addresses make them an attractive and appropriate MGHA housing solution. Units can be exploited by combining several levels or using each level independently. These characteristics of plex houses make them suitable to for the changing lifestyles of the owners' family (Lavigne, 1988). The transformation pattern (fig. 2.12) by Friedman (1996) illustrates the cycle of family structure changes and use of the up-and-down concept.

A. Household: multigenerational	B. Household: Two non-related families	C. Household: single-family
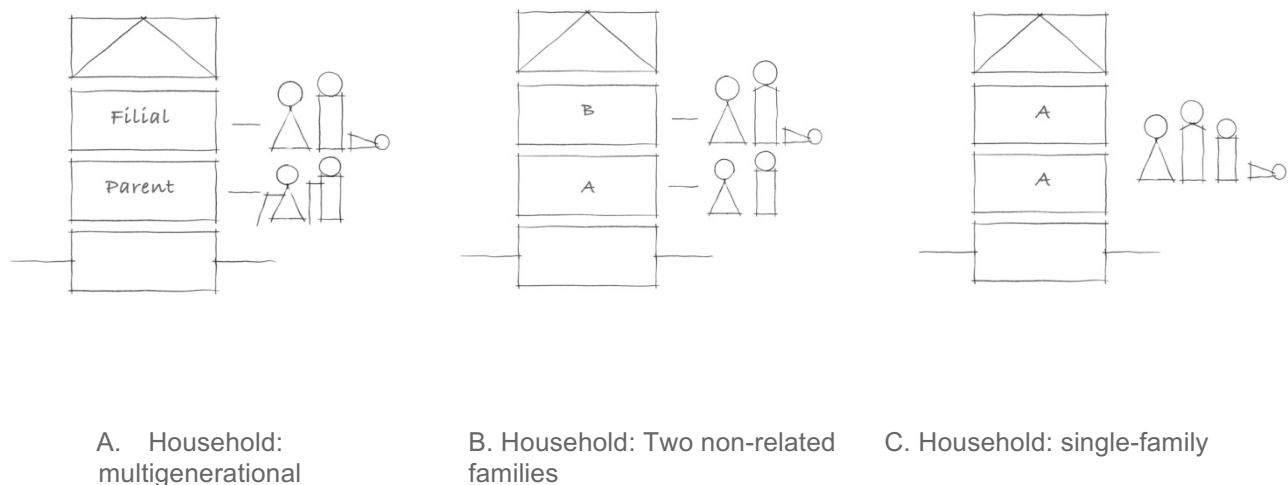
Figure 2.12. Transformation pattern of plex housing. Adapted from *The Next Home*, *by* A. Friedman, 1996, McGill University, School of Architecture, Affordable Homes Program.

In plex housing, many aspects of privacy and the spatial relationships between units depend not only on plans of the units but also on the locations and configurations of vertical connections, such as stairs. Traditional plex houses have outdoor stairways, interior stairways and a combination of interior and exterior stairways. Outdoor

stairways are used as the main access route to the upper units, in order to preserve interior space. However, in this case, the units of one plex building lose any interior connections between each other, maintaining a typical demarcation between neighbors. Interior stairway plexes seem to be more convenient for the MGHA family, as they offer a link between two units, usually located near the entrance hall. However, the most attractive plexes in terms of independence and free interaction are those with both, exterior and interior stairways. This configuration allows family members to maintain independence, using outdoor stairways and control interaction levels, when desired, by interior stairs.

To sum up, the up-and-down type of MGHA housing is a flexible form of living that offers the choice of interaction by means of different vertical connections between locations. In the Montreal context, this type of MGHA housing seems to be most suitable in densely populated central city areas. Owners have the opportunity to subsequently modify their houses as family needs change (Friedman, 1996). Last but not least, this type of house is very desirable for potential renters.

Aside from independently standing houses and plexes with a direct connection to the outside, there are existing apartment buildings that can also be modified. Furthermore, design solutions for MGHA living in new condo buildings can be added to development strategies. One example of an MGHA apartment plan in Taiwan is presented in figure 2.13. Blue and red colored spaces represent independent units, while the green color represents the common shared space in the house.
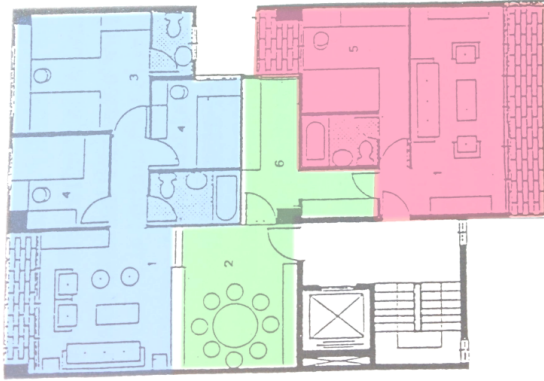
Figure 2.13. The proposed plan of an Apartment for Multigenerational Households. Adapted from *Housing older people: An International perspective* (p.42), by S. Brink, 1998, New Brunswick, N.J., U.S.A.: Transaction Publishers.

2.2.5 Right place to land

The MGHA living concept is gaining popularity year-by-year and the various options suitable for different families are also diversifying, depending on available resources and facilities. It is important to remember that the main purpose behind the concept is the peaceful coexistence of extended family members under one roof. Appropriate architectural solutions can ensure that the spatial arrangement and levels of privacy are carefully planned from the very beginning. Each of the aforementioned types of MGHA has its own characteristics, advantages and disadvantages, and we cannot say which one is the most appealing. The most common characteristic of MGHA houses is their adaptability and flexibility for future family structural changes. They also provide the opportunity for members of different units to assist and interact with each other, while independently coexisting.

Chapter 3

Case Studies

3.1 Introduction

In this chapter, the author presents findings from four case studies of families living in MGHAs. The analysis of the cases is based on questionnaires used for the interviews. In order to study the diverse views of the MGHA living concept, the author aims to analyze families from different cultural backgrounds, living in different types of MG houses. The description and analysis of each case study will follow a standard structure. First, the study will present a short story of a family, indicating the size of the household, the ages of the family members and the years of MG living experience. In regard to the MGHA house, the author will focus on a number of units, when they were built, and length of occupancy by a family, as well as on the kinds of alterations made to the house. The cultural aspects of traditional living arrangements relating to the family's culture of origin will also be discussed. Next, activities and the use of space in the house will be introduced. Finally, the examination will outline privacy level ratings with some highlights of interviewees' personal MGHA experiences. For confidentiality purposes, the identities of participants will not be revealed and all of the names used in the chapter were replaced.

3.2 Methodology

The research methodology that was used to gather the information on the MG living experience involves interviewing family members, visiting the house, drawing plans and observing locations of units in relation to each other. From each family, the author will interview two representatives, one from a generation of young professionals

and one from the elder parents' generation. Each person was interviewed individually, in order to avoid potential harm to other family members from the discussion of sensitive topics. In terms of domestic space and activities in those spaces, the author aims to analyze dynamic relationships between family members. The availability of private areas in each household is another aspect of the interview, in order to understand levels of satisfaction with privacy among the different generations in the house.

The author drew sketch plans of the houses, as a basic method to explore the spatial arrangement in MGHA houses. Another method that is used to investigate the spatial arrangement of case study houses is photography. Photos of house exteriors and common space arrangements inside and outside, where applicable, will be presented together with interview findings for each case study.

3.3 Case Study 1: Live-work house

MGHA house type ……………………… Duplex with up-and-down units

Number of independent units …………….……………………… three

Date of occupancy: 1999

* Duration of MG living: ……………………………….…….. 4 years*

Each unit has independent entrance ………………………………… yes

Major reconstruction was done …………………..…………..………... yes

3.3.1 The extended family

Since 2012, Rosie, her husband Richard, her three daughters and her grandson live together in a duplex. Rosie's elder daughter Chloe moved into her parents' house after a separation from her husband, and, with her small child, they occupy a two-bedroom, one-bathroom unit on the second floor. There is one more similar size unit that is being rented out for a extra income. On the first floor, Rosie lives with her husband and her two student daughters. There is a basement that has a multipurpose room with a working place and a big TV for leisure activities. The other half of the basement has been redesigned as a daycare center where Rosie works during the weekdays.

Rosie's five-year-old grandson represents the youngest generation of the family. His mother Chloe is in her thirties, and the other two sisters, who represent the second generation of the family, are in their twenties. Rosie and Richard represent the first generation of the household and they are in the age range of 55 and 60 years. In total, the duplex unit is being occupied by six of Rosie's family members, and a tenant's family of two.

Before moving into their current house in 1999, the family was renting a triplex in Montreal. After moving to their current duplex, the family undertook a major remodeling of the garage and bachelor unit in the basement. As a result, all spaces and floors in the house are being actively used. First, the main unit together with one accessory unit provides a shelter for the family; second, the former garage provides a workspace for Rosie's daycare; third, another accessory unit provides a source of extra income. Chloe, who lives in one of two accessory units with her young son, combines work and study,

46

and living close to her parents helps to take care of her son. However, being a young single mother, she would prefer to have more space for herself and her son, thus, she does not deny a desire to change the living arrangement in near future.

3.3.2 The House

Figure 3.3.1. Basement plan. Before (left) and after (right) remodeling

The "Live-work" house was built in 1958, and when the family bought the house in 1999 it already had three independent units and a garage, which approximately makes up 242 m^2 (2600 ft^2) of living area. A full remodeling was done to the basement, which had a bachelor apartment and a garage before the conversion (fig. 3.3.1 left). The bachelor unit was turned into an open-space layout multipurpose room and garage became a usable daycare space (fig. 3.3.1 right). In the multipurpose room the family

added stairs to connect the first floor and the basement. Before this change, access to the first floor and basement was available only through outside entrances. In figures 3.3.4-3.3.6 plans of the house are presented, with color codes of the units.

Other than basement remodeling, there were no principal renovations made to the house by Rosie's family. In Chloe's unit a wall between two rooms was demolished by previous tenants and the new layout was very convenient to Chloe and her son, therefore they kept the open layout (fig.3.3.2). Insulation levels were kept the same and only some minor touch ups were conducted to the interior. Regarding the costs of the renovations, Rosie and Richard were lucky to have their friends, who helped them with their work. Even though, nobody among their friends was experienced in renovation work, the result was quite impressive and saved a substantial amount of money.

Figure 3.3.2. Two bedrooms in Chloe's Unit unit with a demolished wall in between

Figure 3.3.3. Kitchen in Chloe's unit

Storage room

Kitchen

Rosie's Daycare

Family multispace
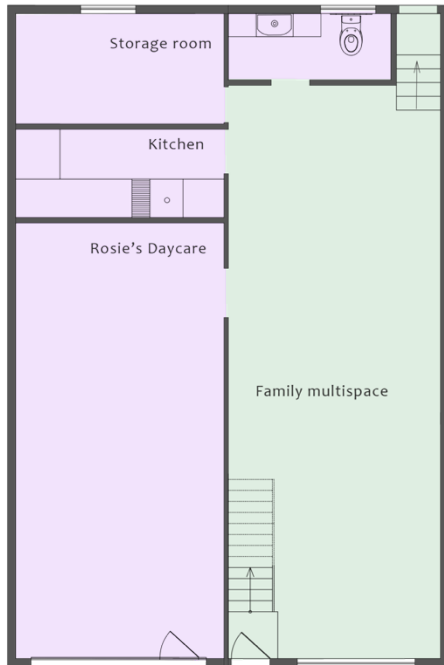
Figure 3.3.4. Basement plan (top)

Figure 3.3.5. First floor plan (bottom left)

Figure 3.3.6. Second floor plan (bottom right)

Main unit
Daycare

Master bedroom

Kitchen dining room -

Dining room

Family room

Bedroom

Chloe's unit

Tenant's unit

Kitchen

Grandson's bedroom

Chloe's bedroom

1   2   3   6
meters

Rental unit
Accessory unut

49
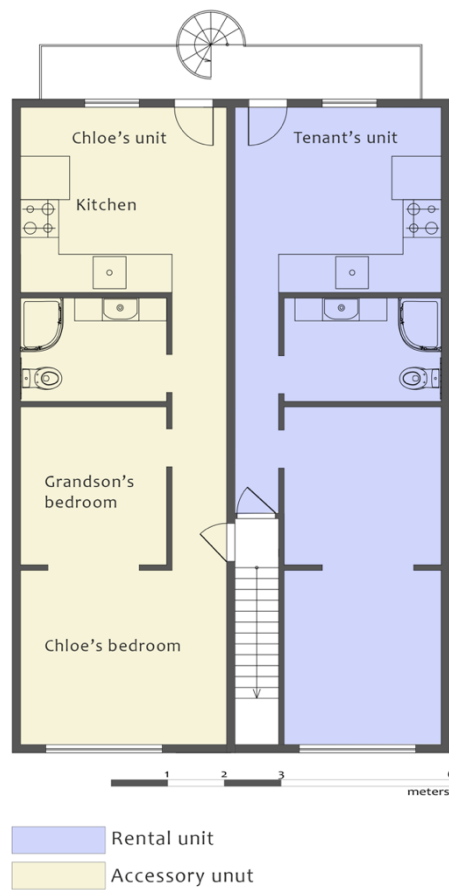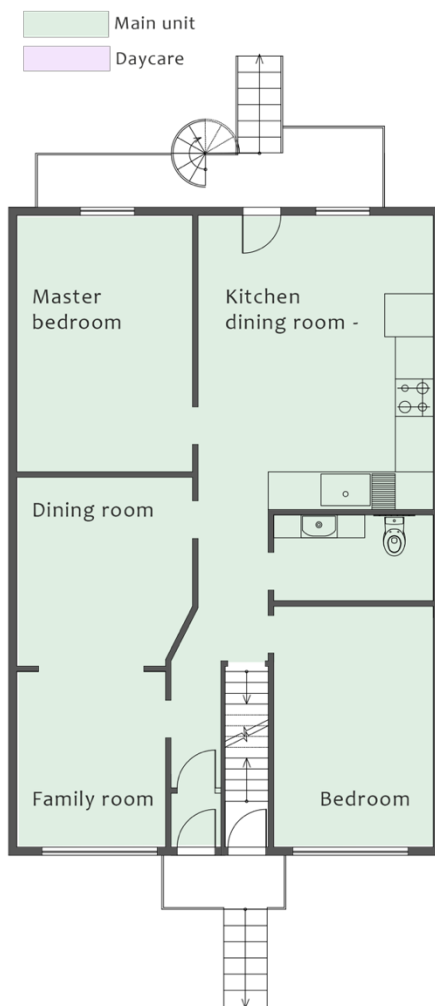
Each unit of the structure, including the daycare in the basement, has independent entrances from the outside, and there are four different street numbers. According to the municipal bylaws, Rosie was not allowed to make any changes to the facade of the building. Thus, the garage door was not altered and access to daycare is possible by a walk-through a garage door. The front of the house provides separate access to the main unit and to the daycare facility (fig. 3.3.7). Chloe's and the tenant's two bedroom units on the third floor are accessible by walk-ups in the backyard of the house (fig. 3.3.8). From the backyard, there are additional entrances to the main unit and the basement. Since the family does not have members with reduced mobility, there is no need for additional access to the upper units.

Figure 3.3.7. The front facade   Figure 3.3.8 Rear stairs and backyard

The small backyard and patio are actively used as a common space (fig. 3.3.9).

Some day care activities also take place in the backyard. Besides the backyard,

common spaces for family gatherings include the main unit's family room, the kitchen

and a multipurpose room in the basement. Even though the layout of the house seems

to work well for the occupants of each unit, minor noises and footsteps can be heard

between up-and-down units. However, according to Rosie, that is not an issue.

Figure 3.3.9. The backyard

3.3.3 Culture & traditions

Figure 3.3.10 Souvenirs from Chile

In Rosie's culture, multigenerational living is not a common arrangement. Families might live in a close proximity, houses but never under the same roof. Rosie's family moved to Montreal in 1992 from Chile. In Chile people are very independent and mostly live on their own from a young age right up until their senior years. Living in an MG arrangement for Rosie's family is mostly an adaptation to current family needs rather than a cultural way of living. However, these adaptations have created very strong bonds among family members, especially grandparents, and the grandchild.

Today, when Chloe mentions the idea of moving out someday, her son automatically reacts by adding: "and we are taking grandparents with us." So, Chloe understands that separation is going to be hard. Interestingly, the arrangement that was so alien for Chloe and her parents is now a social norm of living for the small boy, and

he definitely benefits from MG living, receiving love, joy, and wisdom from the environment and people around him. Possibly, the openness of Chilean culture and the close relationships between relatives leads to less formality in family relations, and, therefore, family members, by their nature, are already well adapted to the shared living of the MGHA.

3.3.4 Activities and spaces

In Rosie's family everybody is occupied with their jobs and studies, and there is no one at home during daytime. However, almost every day during the week the family spends one-two hours together in the evening, sharing their news while having dinner together in the parents' main unit. Chloe has a busy lifestyle. She combines studies and work, thus, she does not have enough time to cook. For her, it is a big help living close to her parents, who can cook and help out at times. Figures 3.3.11 – 3.3.14 show the interior of the main unit.

Figure 3.3.11. The hall of the main unit (left)

Figure 3.3.12. The Kitchen-dining room of the main unit (right)

Every Sunday the family spends time together, gathering for lunch or going out to eat. This is a good family tradition that takes place often on the patio during the warm season. Nevertheless, Chloe sometimes spends Sundays with her friends or doing some activities with her son. As she says, the only challenge is to always tell her parents whenever she is leaving, which makes her feel less independent.

Figure 3.3.13. Living room of the main unit

Figure 3.3.14. Dining room of the main unit

For big celebrations, such as birthdays or new year, the family gathers with friends and relatives in the basement, adapting the daycare space. Independent entrances allow Rosie's daughters to host parties in the basement, without bothering their parents. As she provides government-subsidized daycare for the local community, Rosie is obliged by the government to keep the place in constant operation. During the periods when Rosie is on vacation or visits relatives in Chile, her daughters take care of the business. The basement space is very flexible and serves family needs very well. During the day it is only used for daycare, in the evening it becomes Richard's workplace and a TV room (fig. 3.3.17-3.3.19).

54

In general, the family lives in a close proximity to each other not only in terms of physical space but also through close relationships. By sharing everyday dinners and activities, the family provides mutual support for each other. When Chloe's son was younger he also used to go to her grandmother's daycare facility (figures 3.3.15 & 3.3.16), but now he goes to the other one since he is a little older than other children from Rosie's daycare center. However, the family still helps Chloe by picking him up from daycare or looking after him when his mom is late at work. The boy has all the attention and love of his grandparents and he is very attached to them. On a weekly basis, he asks his mom if he can spend a night with his grandparents.

Figure 3.3.15 Rosie's daycare interior

3.3.16. Rosie's daycare interior

Figures 3.3.17-
3.3.19. The
interior of the
basement
multipurpose room

3.3.5 Privacy

In terms of privacy, opinions differ largely from generation to generation. On the one hand, Rosie, who lives on the first floor, rated her privacy as ten out of ten, referring to the independent access to the units. On the other hand, Chloe rated her privacy as four out of ten, because sometimes her parents may make decisions over her son, without Chloe's agreement. Another aspect that Chloe mentioned was the noise. "You can hear everything!", - she says, suggesting a need to add noise barriers (Chloe, personal communication, May 10, 2016).

The principal aspect of privacy that Rosie talked about was that they have independent entrances and nobody disturbs them: "If there were no independent entrances we would not be able to rent the upper unit to people other than my daughter." (Rosie, personal communication, May 10, 2016) In contrast, according to Chloe, separate access was not exclusive enough especially for moments when privacy was needed: "Sometimes I need a little bit more space and more independence," she says. However, Chloe's plans to move out soon to another place are not primarily driven by MG living's inconveniences, but because she wants to move closer to better schools for her son.

3.3.6 Analysis

From the experience of MG living in a "live-work" house, the need to provide good acoustic insulation in the original design is clearly as important as the basics, such as independent entrances, kitchens, and bathrooms. Another concern is that the two-

bedroom and single bathroom unit size is too small to accommodate a young mother with a child, and Chloe emphasized that an additional room or two would be ideal for her small family. Yet, Chloe does not see the MG arrangement as a long-term solution. Rosie understands her daughter's wish since Chloe is young and wants more privacy. Thus, from this case, we can conclude that the younger generation has a higher demand for privacy in the MG arrangement and values privacy more compared to the older generations.

Despite some obstacles that the family faces, everyone understands that, in the current situation, MG living works well for all of them and, most importantly, they can rely on each other. One of the principal advantages that was emphasized from both sides, was that they can always personally check on each other's well-being and be sure that everything is well with the children and the grandchildren. After four years of the MG living experience, Rosie says: "I cannot imagine how we will be living without my grandson in this house, after they move out [...] "If not for Chloe's parents and sisters, taking care of her son would be costlier."

Rosie's family and their way of living is a perfect example of social changes that are happening right now in the society. It is a proof that there is a demand for adaptable multi-unit houses in the city. Moreover, this case provides an example of how perceptions of what a house is have shifted from a fixed object to a tool for a better, flexible life.

3.4 Case Study 2: The house in the woods

MGHA house type ……………… *Detached house with accessory unit*

Number of independent units ……..…………………….…… *two*

Date of occupancy: *2006*

Duration of MG living: ………………………………….. *Seven years*

Each unit has independent entrance ……………………….. *yes*

Major reconstruction was done …………….………..…………. *yes*

3.4.1 The extended family

In 2009, Cher's family welcomed two baby boys, making it a family of six. Cher already had two girls under the age of six and, with the boys, she became even busier and needed a lot of help. At this point in life, her 70-year-old mother Jane, who was a widow for some time, started visiting and helping her daughter with the newborns more often, staying overnight in the daughter's suburban house. For Cher, it was getting harder to visit her mother at her condo, in downtown of Montreal, as often as she wanted. As a result, the family felt a need to be closer. Cher says: "We needed her help, and in time we worried she is going to need our help" (May 18, 2016).

Cher and her husband decided to build a three-floor addition to their house, including a first floor which is the mother's unit. Today, Jane is 80 years old, Cher and her husband are in the age range of 40-49 years, and they have two teenage daughters who are 10-15 years old and twin boys, who are now seven. It is their birth that pushed the process of the MG settlement forward. At first, when Jane moved in with Cher's family, she used to occupy a room on the second floor, while the addition was being built. However, climbing stairs was a challenge for her. Today, she lives in her unit on the first floor, and spends a lot of time in the main unit, helping with housekeeping chores on the first floor without going up or down to the basement.

A few years ago, Jane had a health issue with her eyes, later she had surgery on her knee, and, in light of these issues, Cher says it was important and very helpful to be able to provide care and be next to each other. The environment of three generational living is interesting and challenging. During the interview, Jane mentioned several aspects of how modern children and schools differ from the time of her childhood, and

how the mindset of her grandchildren is so unfamiliar to her at times, even though they have lived together for seven years. During all these years, Cher benefited a lot from her mother's presence and she says that it makes things easier with taking care of young children while working full time. Cher's husband has a good relationship with his mother-in-law and understands that Cher is the only daughter and that it is her duty to provide care for the mother.

3.4.2 The House
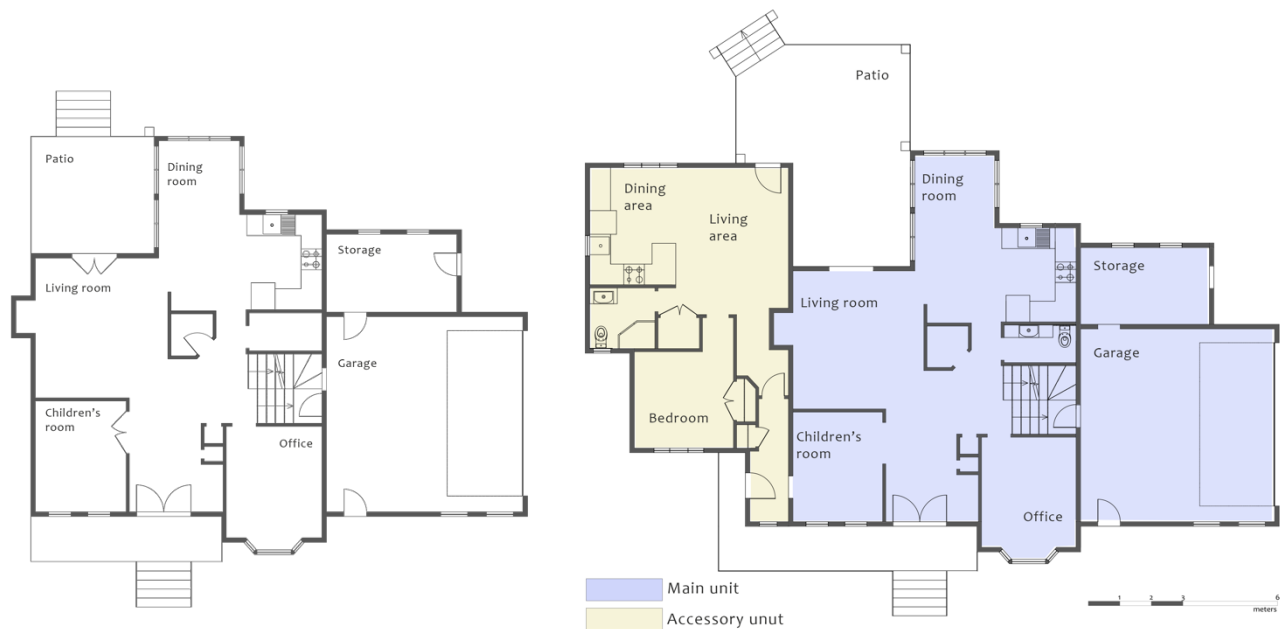
Figure 3.4.1. Plan of the first floor before (left) and after (right) the construction of the addition

The "in-the-woods" house was built in 2004 and Cher's family bought the house in 2006. In 2009, when Jane moved in with her daughter's family, they decided to build a three-floor addition to the house. The first floor of the new addition includes Jane's unit with studio space and kitchen, living room, bedroom, and her bathroom. On the

61

second floor of the addition, there are two bedrooms for children with a wide hall, while the basement has a big playroom and a storage room. This new addition made a significant change to house's appearance, as well as its usable area, making it a 550 m^2 (6,000 ft^2) mansion from previous 380 m^2 (4,100 ft^2) (fig. 3.4.1).

Two units of the house have an interior connection, as well as two independent entrances from the outside. Local regulations did not permit having two entrances in front of the building, thus, Jane's independent entrance is located on the side of the house, but there are no separate street addresses for the two units (fig. 3.4.2). Nevertheless, neither Jane nor her family members enter the house from the side entrance. They only use the front entrance to access both units. To build the addition onto the house, Cher invited the original builder of the property, and they worked together with the plans that were designed by Cher's husband. Construction of the addition was costly but Jane covered the expenses herself. Moreover, Cher says her mother helps a lot financially, even today.

Figure 3.4.2. The front of the house with the main and side entrances

In the current layout, the house has four bedrooms, three bathrooms, and one more bedroom, used as a movie room, on the second floor (fig. 3.4.5). On the first floor of the main unit, there are two family rooms, one study room, a dining room, a laundry room and one kitchen (fig. 3.4.4). In addition, the basement has the husband's office, two storage rooms, a family room and a kids' game room (fig. 3.4.3). The family did not add any ramps or elevators since Jane mostly uses the first floor. In the near future, Jane plans to have knee surgery done and, subsequently, the family hopes that the mother will be fully healthy and there will be no need to construct additional access.
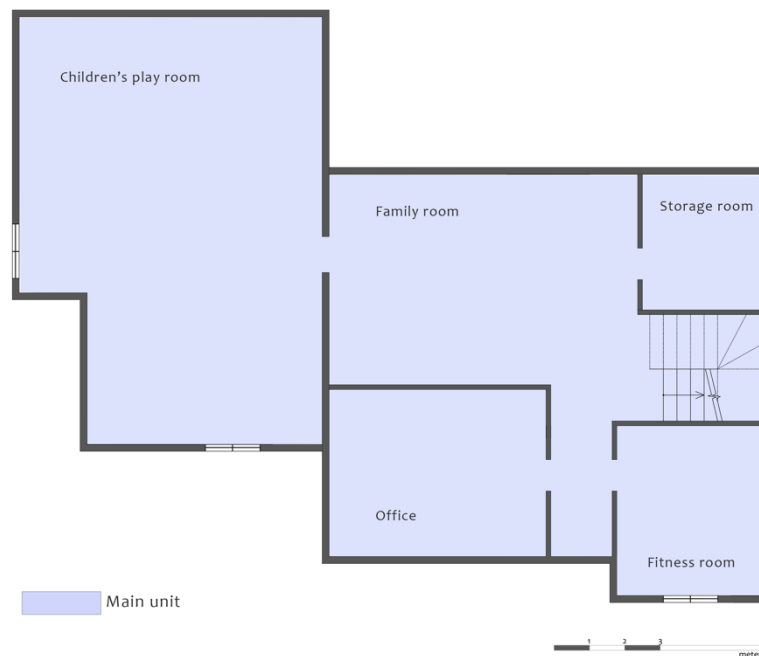
Figure 3.3.3. Basement plan

Dining area

Living area

Patio

Dining room

Storage

Living room

Garage

Bedroom

Children's room

Office

Main unit

Accessory unut

1 2 3 6 meters

Children's bedroom

Study area

Bedroom

Master bedroom

Bedroom

Movie room

Guest bedroom
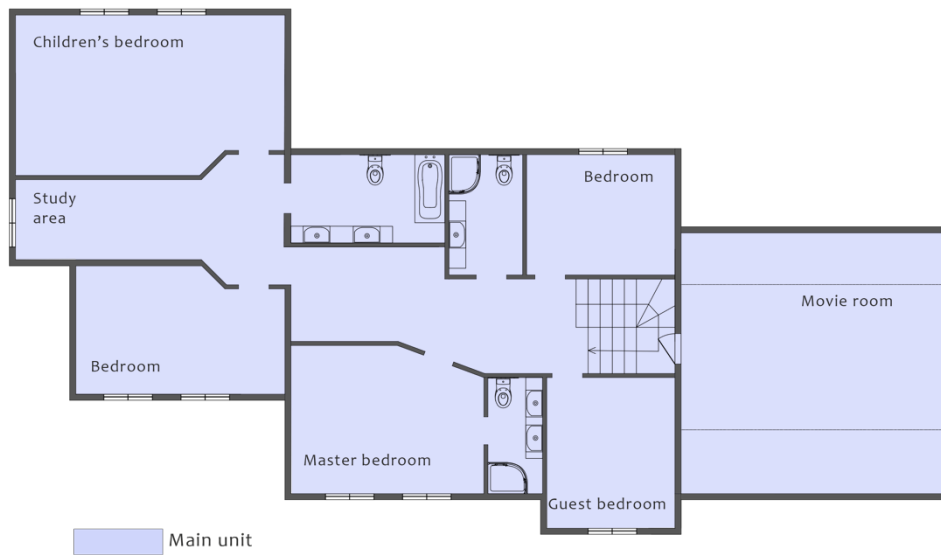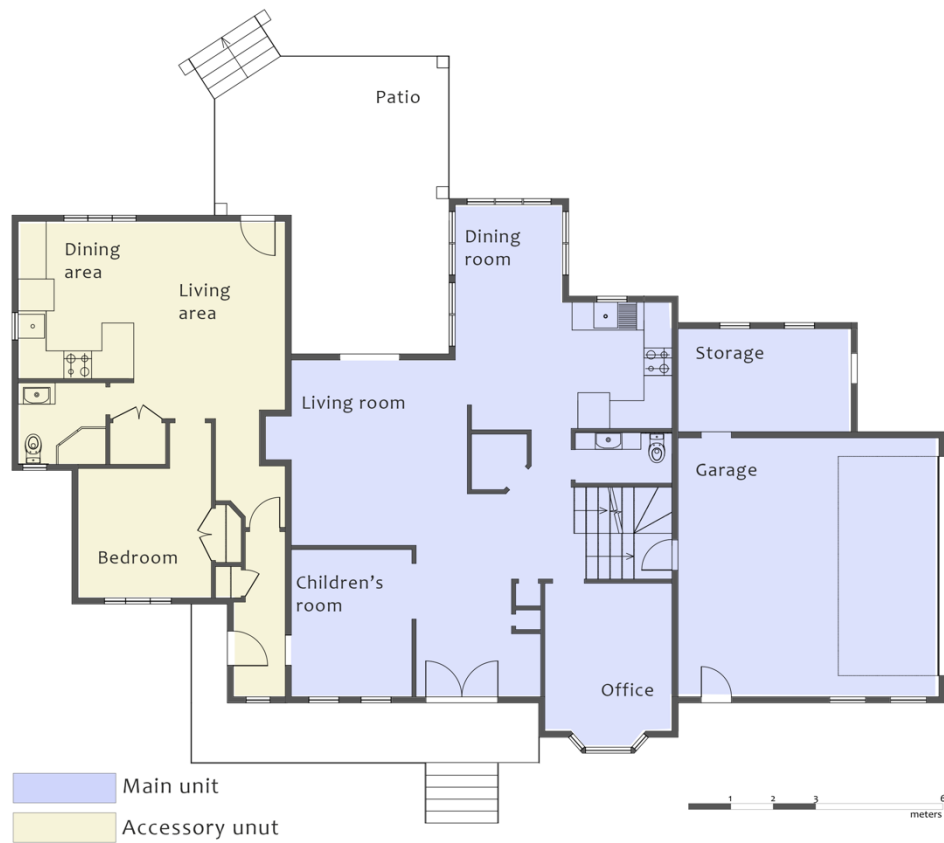
Main unit

Figure 3.4.4. First-floor plan (top)

Figure 3.4.5. Second-floor plan (bottom)

64

All of the family's common spaces are on the main unit's first floor. There are common spaces for the family in the basement and on the second floor, however, Jane does not go up and down the stairs. During the warm season, the family spends most of their time outside in the backyard, which has a playground, with a patio and a big swimming pool (fig. 3.4.6-3.4.8). For the cold season, children have a games room in the basement, under the grandmother's unit (fig. 3.4.9). In the new addition of the house, the basement is not finished yet, and there is no insulation between the first floor and the basement (fig. 3.4.10). The sound of children playing downstairs can be heard in Jane's unit, but grandmother does not spend a lot of time in her unit and the children do not play until the late hours. However, Cher keeps in mind that if there will be other people living in the accessory unit, they will need to fix the sound proofing properly.

Figure 3.4.6. Backyard playground (top left)

Figure 3.4.7. Patio (top right)

Figure 3.4.8. Backyard swimming pool (bottom)

65

When Cher's family was starting the construction of the addition, they had to sign documents stating that the new unit is for family members only, meaning they are not allowed to rent it out. However, Cher referred to several MG families living in the neighborhood and said that people are renting their units, even though it is illegal. Cher commented that she may do the same in the future.

Figure 3.4.9. Interior of Jane's accessory unit (top)

Figure 3.4.10. Basement playroom with unfinished sound insulation (bottom)

3.4.3 Culture & traditions

Figure 3.4.11. Cultural decorations

To some extent, MG living is a culturally accepted concept for Cher's family. On

the one hand, Jane's family is from Jamaica and, as a child, she grew up living under

one roof with her grandparents and mother. Thus when the current MG house was

established, Jane was the one who had had experience in such an arrangement. On the

other hand, Cher and her husband were born in Canada and MG living was a totally

novel living arrangement for them. In their situation, it was probably more challenging

for her husband who was not against living in an extended family but needed some

adjustments.

In Cher's and Jane's experience, the most challenging part for both of them was

an adjustment to generational differences. For instance, Jane disagrees with the way

her daughter raises her children. Jane, as a person from a more controlled school

background with uniforms and more formal standards of social behavior, is very

enthusiastic to share her experience and impressions. She says: "It is nice to see them adjust to the present age, to the present generation. These children are more casual and I had to get used to that" (Jane, personal communication, May 18, 2016). Also, Jane talked about self-sufficiency and independence of her grandchildren, bringing an example of them fixing snacks for themselves and not asking for any help, even though they are only seven and 11 years old. During the interview, she talked a lot about her grandchildren, comparing their attitudes to her own childhood and sharing amusing stories.

Cher's family MG has adjusted well to MG living. Regardless of any obstacles in the MG arrangement, the family endured all the challenges and have shown the younger generation wisdom and the value of family ties and inter-family support. There is no formality in the relationships between Jane and the younger members of the family. Even though there is a physical division between the two units, they live as one big family, sharing everything. Cher says: "If we decided to be a family, we were to be a Family. So, when my kids draw pictures about their families it is always seven people."

3.4.4 Activities and Spaces

Cher and her mom Jane share all the activities they do, from household chores to guest dinners. Cher says that whenever there is a party happening in the big unit, Jane becomes a part of it. On an everyday basis, the family shares dinners and spends time together, mostly in the main unit. The kitchen is a family hub, where family and mostly mother and daughter spend their time together. The big backyard becomes the

main communal space for the family in the warm season. Some photos of the main unit's first floor are presented in figures 3.4.12 - 3.4.15.

Figure 3.4.12. Kitchen (top left)

Figure 3.4.13. Living room (top right)

Figure 3.4.14. Dining area (bottom left)

Figure 3.4.15. Study room (bottom right)

Cher and her husband work full time and all the children go to school so Jane stays home alone during the weekdays. While her daughter is not home, Jane does all the housekeeping on the first floor, cleaning the kitchen after kids' busy mornings, keeping clean all the living spaces and folding the daughter's laundry. These activities keep Jane active, as well as help Cher a lot so that she can work and not worry about

the house: "Having my mother here, allowed me to do things, that I would not be able to do without her. Especially, when children were young, I could go shopping, even just for groceries."

Now the children are older and more independent, but having grandmother Jane around is still beneficial. For instance, when Cher is staying late at work, she lets Jane know about it. By the time Cher comes home, the children will be fed, they will have done their homework and they will be ready to go to sleep. If not for Jane, Cher would need to hire a babysitter. Another benefit for the children is that they have no need for a key since somebody is always home to safely meet them. Nevertheless, grandmother's presence benefits the family not only as a personal babysitter but also as a school tutor. Jane remembers with a smile that, at first, the children did not think that their grandmother would be able to answer their complicated questions and explain things. For example, Jane did music lessons for a long time and knows how to teach music. Once, she saw the children struggling and offered her help, surprising them with her skills. Since then the children come to their grandmother more often for help.

When it comes to providing care for Jane, Cher and her husband take her to visit a doctor when she needs it. Jane drives a car herself, thus she is quite independent and can do her own shopping. Jane does not cook anymore, but when she did her Jamaican specialties were loved by all. Once a week, Jane goes to play "Bridge" in the community center. She also goes to church on Sundays.

Family activities fit in well with the current layout of the house, providing everyone with the opportunity to enjoy the company of others or be alone, when desired. Yet, for Jane, opportunities to interact with her age-mates, or people who share

her interests, are lacking in this MG house. The house is located quite far from the city and it is difficult for her friends to visit her, and Jane herself is not confident anymore to drive far away, thus, they communicate mostly by phone. As Jane says: "That phone gets a workout!". Jane mentioned in her interview that she has friends from senior houses who do activities all day along, such as movies, games, and dances. Therefore, Jane would benefit from communal facilities in the area where she could meet for meals or other activities with her age mates.

3.4.5 Privacy

Figure 3.4.16. Second-floor movie room (top left)

Figure 3.4.17. The hall on the second floor (top right)

Figure 3.4.18. Basement family room (bottom)

Occupants of the two units rated privacy levels of their houses, and the results indicate significant differences. Cher, who lives in the main unit with her husband and four children, rated her privacy on a level of three out of ten. Whereas, Jane, the elderly mother from the accessory unit, said that this arrangement is quite private for her and gave a score of nine out of ten. In Cher's case, having four children already means less privacy, a fact she acknowledges herself, but as the MG arrangement also reduces privacy she sometimes feels powerless. For example, she states: "It's difficult to fight with my husband, it's hard to have private conversations. You need to wait until night." Nevertheless, Cher and her family understood what they were getting into, before moving in together. Sometimes there were cases when grandmother was being too strict with the children or expected more from them, getting into private lives of the teenage daughters. In these cases, Cher talks to her mom afterwards, explaining that she went too far and that it is not what she is expected to do. Figures 3.4.16 – 3.4.18. show private spaces on the second floor and in the basement of the main house.

Figure 3.4.19. The in-the-woods house

In Contrast, Jane felt private enough with the MG arrangement. She states: "they know after supper it is all my time," meaning that if children want to come over, they ask for permission and there will be no unexpected interruptions. Not only in the evenings but if in the day time she feels like being alone, she can always escape to her small unit. Respect for each other's time and space is an accepted way of dealing with the MG arrangement's challenges in Cher's family. From the youngest to the oldest in the family everyone is able to live a relatively independent life. Hence, Cher's family serves as a good example of the MG arrangement.

Figure 3.4.20. The backyard patio and Jane's

Figure 3.4.21. Make shift play area

3.4.6 Analysis

The lesson learned from this particular case study is that many aspects must be talked through before a family moves in together. In terms of both the physical layout of the MG house and the units' relationship to each other, everything was to Cher's satisfaction. She says: "We designed the house, so it is good for us." However, in

Jane's unit, the bedroom was a little bit small and both women suggested that if they had the chance, they would make the room bigger - this shows that the size and scope of every room in an MG dwelling matters. Having elderly access, such as ramps and elevators, is needed in MG houses with older people as Jane's experience shows. Another important element to consider when designing an MG house is the neighborhood itself and whether or not there are facilities for elderly people to socialize. These might include, for instance, "multipurpose rooms," as Jane called them that are in close proximity to the MG house. This leads to another level of thinking about MG living. To create a sustainable environment for elderly people, the density of MG houses in the neighborhood, with a good number of senior people, becomes an important topic itself.

Currently, after living under one roof for seven years, both mother and daughter remember their experience and decision to move in together with appreciation. Cher says: "We could not have such a good experience with our four kids, without her. And now, I think, we are helping her a lot." The mutual understanding and support that family members provide for each other, outweighs all the minor negative experiences in the MG house. Children in the family also benefit from having their grandmother close to them. Cher agreed that her children take grandmother Jane for granted, not understanding how lucky they are. She referred to the well-known saying "familiarity breeds contempt," in support of her point that, right now, the children do not appreciate the fact that their grandmother is always there for them and ready to help. Perhaps the value of today's MG experience will only be understood later by the grandchildren.

Cher's family has lived in their "in-the-woods house" for seven years and they plan to live there for as long as possible, sowing the seeds of a new MG tradition in their

family. Interestingly, Cher mentions: "I tell always my kids, there is [sic] four of you, and you can live wherever you want, but I will spend three months in each of your houses". Both women are willing to suggest MG living for people in similar situations to theirs. In terms of Jane, one phrase describes her experience of MG living the best: "I am never lonely!". This case study shows us more than just another type or layout of MG living, it shows us the power of the grandparent - grandchild relationship that works as a youth serum for Jane, in this case, keeping her active and challenging her to keep her mind young.

3.5 Case Study 3: The artist's house
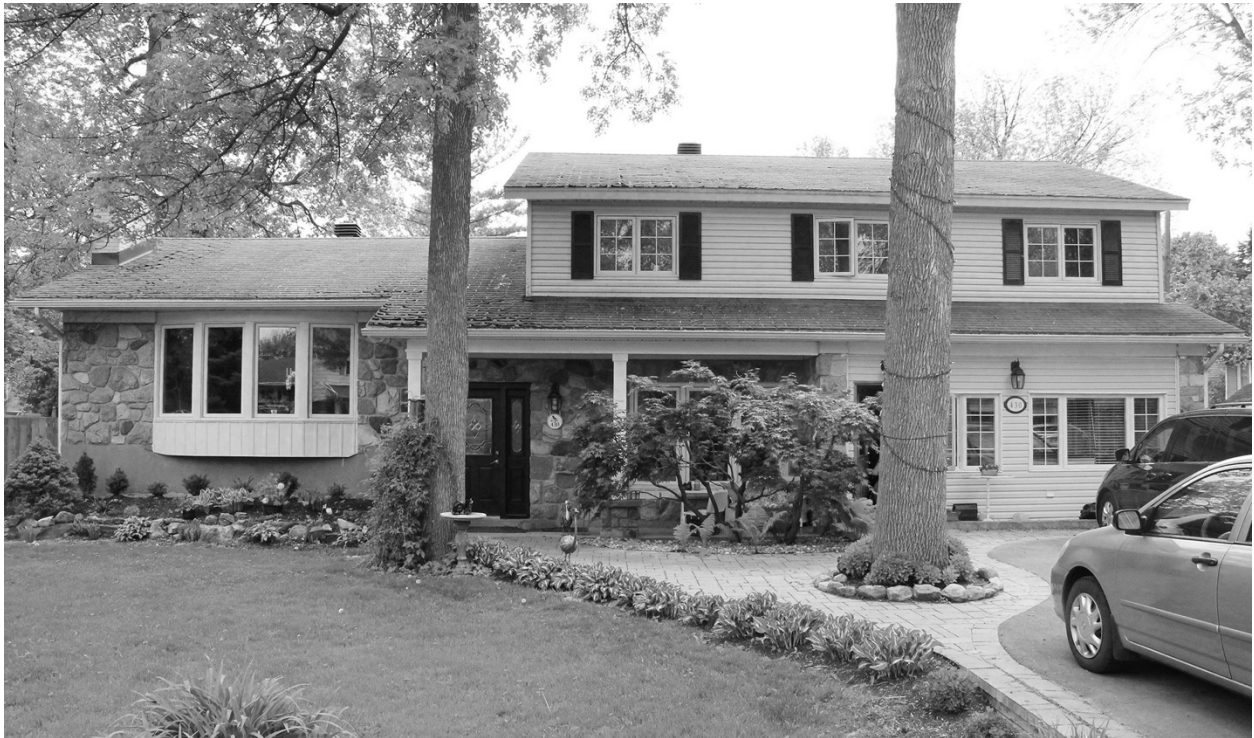
MGHA house type …………………Detached house with accessory unit

Number of independent units …………….…………………........ two

Date of occupancy: 1999

Duration of MG living: …………………………………..……… 10 years

Each unit has independent entrance ………………………………… yes

Major reconstruction was done ………………..………..…………… yes

3.5.1 The extended family

This case study talks about the MG experience of a family of four people who live under one roof with an older sister-in-law, who has limited mobility and uses a wheelchair. Monica lives in the main unit with her husband and two sons. Her sister-in-law Gwen has lived in an accessory apartment in the house, for ten years. Before starting MG living, Gwen used to live in a rented apartment in the city, on her own. At that time, she was more mobile and had an opportunity to manage her everyday life. In 2006, Monica and her husband decided to give Gwen a chance to stay in a place, where it would be easier for her to get around.

The family consists of five people. Monica and her husband are in their 50s, they have two sons who are in the age range of 20-29 years alongside the husband's sister Gwen, who is in her early 60s. The oldest son is now working downtown and comes to the house only on weekends. The youngest son studies at university and continues to live with his parents. Monica and her husband work full time, and Gwen is alone in the property during the weekdays. Monica's family has two dogs who are close friends with Gwen's two cats and the two families take care of each other's pets when one family is not at home.

Monica's husband and Gwen are from a big family of seven siblings. The reason they moved into an MGHA was due to the health issues that Gwen was having. To accommodate Gwen's needs, other brothers and sisters helped out financially to remodel the house. One of Gwen's other sisters lives in the same neighborhood and this is very helpful for the family when it comes to providing care for Gwen. The layout of the house

is convenient for the family and provides a feeling of inclusion for Gwen. The family does

not plan to change their living arrangement in the near future.

3.5.2 The house

Figure 3.5.1. The house before the
remodeling of the garage. Photo from 2005

Figure 3.5.2. The house after the
remodeling of the garage. Photo from 2016
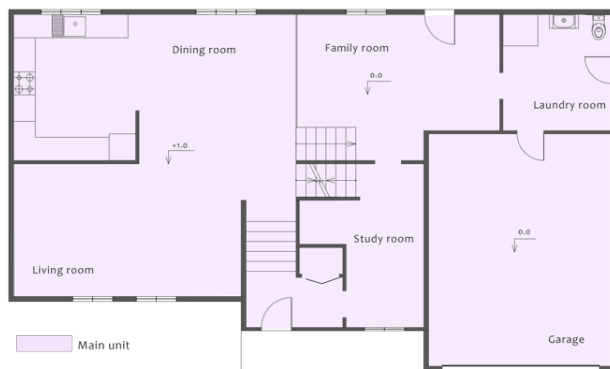
Figure 3.5.3. The first-floor plan before
remodeling
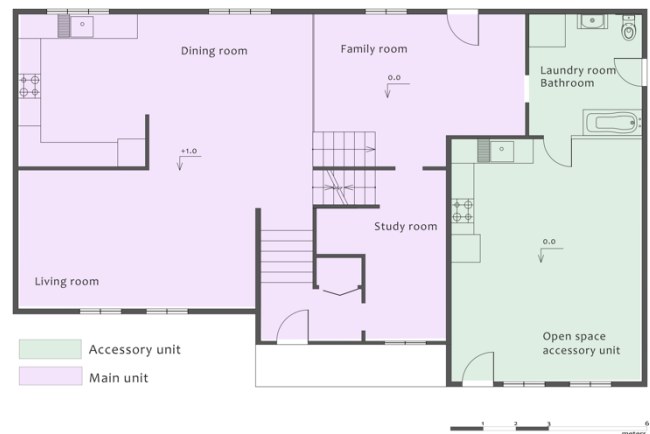
Figure 3.5.4. The first-floor plan
after remodeling

Monica's house has been occupied by her family since 1999 and was originally built in 1964. For the last 10 years, the house consisted of two independent units, compared to the original one-unit layout (fig. 3.5.3 - 3.5.4). To create a double unit layout, Monica's family carried out a major reconstruction of the two-car garage and organized a ground level unit that is easily accessible by wheelchair. Gwen's unit does not have any stairs inside the unit, or stairs to access it from outside. Two units share a laundry room and are connected through that room.

Gwen's unit is a big room, approximately 55 m^2 (600 ft^2) , with an open space layout, where the bedroom corner and the living space are divided visually by a furniture arrangement. Unlike the other case studies, for this property, two entrances were allowed at the front facade of the building. The former garage door façade became two windows and a front door (fig. 3.5.1 - 3.5.2). However, there is only one address for both units. The main unit of the house is approximately 260 m^2 (2,800 ft^2) in area, without a basement. Common areas, where the family gathers are all living spaces on the first floor in the main unit. The house has a spacious backyard with a patio and a swimming pool that is accessible from the back exit of the main house. An additional exit to the backyard is available through the shared laundry room. Plans of the house are presented in figures 3.5.5 - 3.5.7.

For the remodeling work, an architect was hired. The cost of the remodeling was $20,000 in 2006. At first, there was a wooden ramp near the front door of the new unit, for Gwen to access her house. After five years of living with a ramp, the family renovated the pavement in front of Gwen's unit and the level of asphalt was raised at the entrance to the house. All the doors and pathways in the house were already wide

enough to accommodate a person in a wheelchair, therefore, no remodeling works were

needed in the main unit.
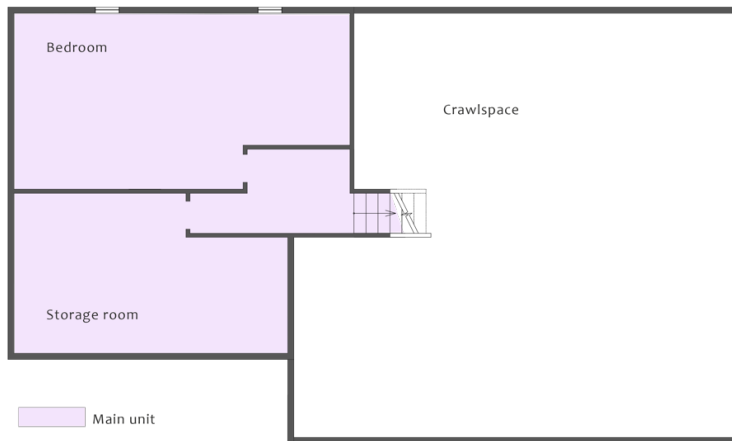
Figure 3.5.5. Basement plan

Figure 3.5.6. First- floor plan

Figure 3.5.7. Second floor plan

Recently, a wall was demolished between the kitchen and the hall leading to Gwen's unit, and that space became even more spacious and lighter (fig. 3.5.8). As a result, the kitchen became more open for Gwen to see and be with a family, even though the level of that part of the house is one meter higher and not available for Gwen to access on her own. For both units' house cleaning chores, Monica has a person who comes weekly and does all the cleaning, because Monica works full time and she is not able to do the work alone. As Monica says, the house is still not ideal for a person in a wheelchair, and the family will remodel Gwen's kitchen when they have an opportunity. Also, Monica would like to modify the backyard so that Gwen can freely move between the yard and the interior of the house. Photos of the common rooms in the main unit are presented in figures 3.5.9 - 3.5.13. The interior of Gwen's accessory unit is shown in figures 3.5.13 - 3.5.14

Figure 3.5.8. The hall between the two units with an exit to the backyard and a view to the kitchen

Note: Most of the photos of the house were taken in the presence of and in the company of the two family dogs

Figure 3.5.9. The Main
unit. Living room and
kitchen

Figure 3.5.10. The Main
unit. Study room
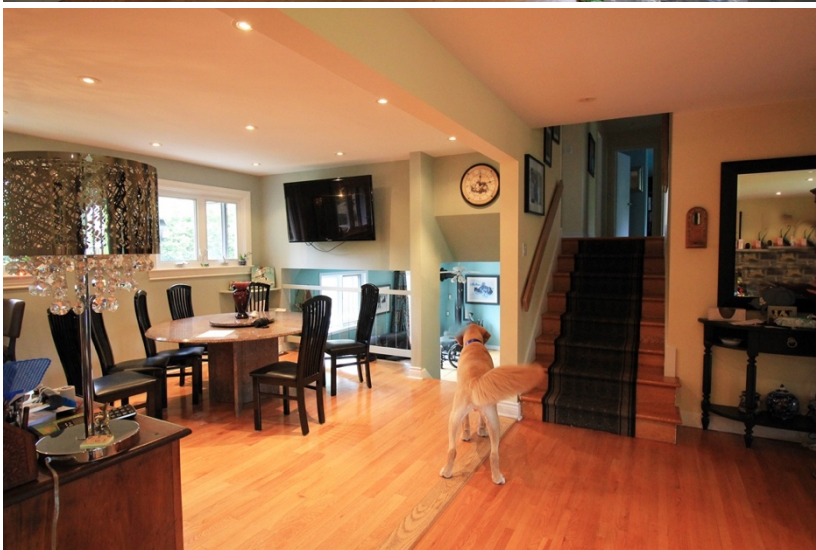
Figure 3.5.11. The Main
unit. Dining area

3.5.3 Culture & traditions

Figure 3.5.12. Decoration of the door

Monica and her sister-in-law Gwen are both originally from Canada and none of them had experience of MG living previously in their lives. However, growing up in a big family of seven siblings, Gwen and her brother always had close relationships with their relatives and lived within walking distance from at least one brother or sister. Today, there is Gwen's sister living three houses away from their MG house, and this allows the sisters to be as close, as with Monica's family, with whom Gwen lives under one roof.

Both women say that not everybody can live in an MG house. "You need to know each other very well" - says Gwen (Gwen, personal communication, May 25, 2016). Before moving in together, Gwen already used to stay overnight at Monica's house to help with the small kids, therefore, both women knew what it would be like to live together. Moreover, when there was a discussion about MG houses, where one shares

the dwelling with an elderly parent, Monica immediately denied the possibility of her,

living in a similar arrangement with her father. She says he is very different, and she

would not ever agree to live in an MG house with her father because she thinks it would

not work out. After ten years of extended living, Monica, her kids, and her husband have

developed a special relationship with Gwen and established a good tradition of MG

living that is no longer alien to the family.

Figure 3.5.13. Accessory unit. Living area

Figure 3.5.14. Accessory unit. Kitchen and sleeping area

3.5.4 Activities and spaces

Everybody in the family lives an active life, each with their own lifestyle. Gwen

has her friends over to visit her, and she is free to travel on her electric wheelchair to

her sister's place or other places in the neighborhood. Regardless of how busy they are,

all family members find the time to gather once a week for a dinner. During the week,

there can be spontaneous coffee gatherings, or sisters can come to visit. In these

terms, the relationships in the family are quite open.

In the house, most of the common spaces are located on the first floor. Thus some TV noises can be heard between the two units. Noise from parties and gatherings in the big unit is not a problem for Gwen, as she always takes part in them. Furthermore, all the family is used to loud noises in the house because they have two big dogs that bark throughout the building.

Everyone in the family is artistic. Monica likes fine arts and has a small studio room where she paints and creates different art works in her spare time (figures 3.5.15-3.5.17). Her sons like music, so one can often hear the sounds of the guitar and piano which are located close to Gwen's unit. However, Gwen is very positive about the fact that there are noises and sounds in the house, saying: "There is a life […] it does not seem dead in here. It is nice to have a life in the house."
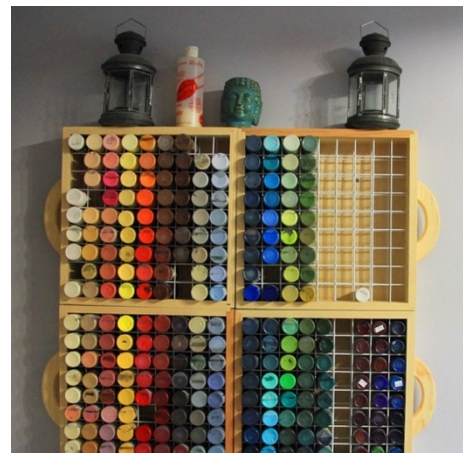
Figure 3.5.15. Monica's art room and appliances (top left)

Figure 3.5.16. Art appliances (top right)

Figure 3.5.17. Monica's table with her works (bottom)

In the summer season, the backyard with its deck and pool becomes the main common space. Monica does gardening in the backyard and front yard of the house and Gwen likes swimming in the summer. Thus, living in the MG house and being from a big family means togetherness, the sharing of spaces and good memories. For instance, one Christmas they had 49 extended family members to stay in the house: "When everybody gets together it is a lot of people and we like it," - says Gwen.

3.5.5 Privacy

Two sisters-in-law had quite a similar opinion on the privacy of their arrangement. Monica and Gwen both rated their privacy as high, giving nine and ten scores respectively out of ten. According to Monica, one can be as private as they want in this house, and as inclusive as they want, when there is a desire for that. In addition, to the separate layout of two units, maybe an explanation for their satisfaction is the small age gap between Monica and Gwen and their similar values.

Monica spends a lot of time in her art studio on the second floor, and that is her "escape place" from anything. Photos of second-floor rooms and the backyard are presented in figures 3.5.18 - 3.5.21. Gwen, on the other hand, lives in a different part of the house, coping with everyday chores and living her own life. Families do not interrupt each other often, respecting each other's privacy. Everyone has bad days and not very cheerful moods, and the sisters know that when one of them is in a bad mood they just need to give some space and privacy to each other. The sisters say that not everyone can live in an MG arrangement and it takes time to get used to it, and as Monica says: "We try to make sure that it works. We try and give each other privacy and respect."

Figure 3.5.18. The main unit. Second-floor hall

Figure 3.5.19. The main unit. Second-floor family room

Figure 3.5.20. The main unit. Master bedroom

Figure 3.5.21. The main unit. Bedroom

Figure 3.5.22. Backyard swimming pool

Figure 3.5.23. Living room

3.5.6 Analysis

Monica's family's experience of MG living is unique in several cases. First, it is an example of a family sharing a house not with elderly parents but with a sister-in-law. Second, this case illustrates how families adjust not just to MG living, but also to the need to accommodate a person with a disability. Some of the primary tips that we learned from Monica's family on MG house design include the importance of accommodating the needs of each and every individual in the family. To have common spaces at a reachable distance and level is important to foster a sense of inclusion for all family members. As the interviewees pointed out, every family is different, and it is important to know what kind of person you are going to live with. Ideally, one should conduct interviews with all MG family members before construction or reconstruction work of any kind.

Undoubtedly, this family's experience has significant educational value not only for professionals who work with MG families and houses but for family members too. Monica agrees that her children being part of a big family from their early years is in itself a valuable learning experience. Moreover, Monica emphasizes that to have somebody with a disability - "just shows them the real life […] hopefully we are teaching them that you don't just take everything for granted, life is about caring, about family members and doing things to help other people."

The layout of the house is perfect for the independent living of two families, and Monica has considered the option of somebody else living in that accessory unit, if it is ever needed. Nevertheless, for now, the family does not plan to change their living arrangement or family members with whom they share one roof. Even renting the unit in

the future seems a little unimaginable now for Monica because, in such a close living arrangement, she would prefer to have someone close to the family. For instance, if one of her friends' children, who live in Europe, were to come to Montreal to study, she would host them. In sum, Monica states: "Honestly, what we have is special, but the offer is not open for everyone."

Figure 3.5.24. Main house entrance

Figure 3.5.25. View from the backyard

3.6 Case Study 4: The Westland house

MGHA house type ……… Detached house with Accessory apartment

Number of independent units …………….…………………….. two

Date of occupancy: .... Summer 2002

Duration of MG living: …………………………………..…….. 14 years

Each unit has independent entrance ……………………….... yes

Major reconstruction was done ……………….………..………… yes

3.6.1 The extended family

In 2002, Nora and her husband, now deceased, bought a detached house with a garage for two cars in Montreal's Westland suburbs. Nora's mother, Dori, was coming over to Canada from Belgium and since she was a single woman she could not afford to live on her own. The house was initially purchased to be remodeled to have two units. The first unit was for Nora's own family of five, and the second unit was for her mother Dori. When this MG family first moved into the Westland house, the family consisted of grandmother Dori, living in the accessory unit, and Nora and her husband, with their two adult sons and a teenage daughter.

Now, in 2016, Nora's children are grown-ups and have their own independent lives. The two sons are in the age range of 35-40 and live in Europe, and only the youngest child, the daughter Mary, who is now 27 years old, has remained to live with her mother and grandmother in the Westland house. Nora's husband passed away less than a year ago and since then the house has been occupied by the multigenerational family of three people, sharing a house with a big backyard. Nora is in her late 50s, and her mother Dori is 77 years old.

Nora is the only daughter, and that is why she wanted her mother to live close to her. Prior to coming back to Canada in 2002, the family lived in one neighborhood within a five-minute walking distance of each other. After coming back from Belgium, Nora's family started to look for houses suitable for MG living. The idea of buying a house with a big garage and converting it into a separate unit was Nora's husband's initiative, and she mentioned with a smile that, luckily, her husband had a good relationship with his mother-in-law.

Nora's family lived in an MG arrangement for 14 years, and, in the light of the loss of a family member and Dori's mobility problems, the family faced the necessity of changing their living arrangement. At the time of the interview, Westland house was on the market, and Nora's mother has moved to a senior residence because she could not climb the stairs of her unit. This family's MG experience is an example not only of living under one roof but of a family structure changing over the years and adapting to those changes.

3.6.2 The House

Figure 3.6.1. Ground floor plan. Before (left) and after (right) alterations

Westland house was originally built in 1975, and at the moment of purchase, in 2002, the house had approximately 4400 ft^2 of living space and a two-car garage (fig. 3.6.1 left). Major alterations involved converting the garage into a living room with a kitchen for the mother (fig. 3.6.1 right), altering the studio room above the garage to a bedroom with its own bathroom and a walk-in closet and building a stair connection

between these two floors. Dori herself sponsored the reconstruction of her future unit. Thus one sixth of the house officially belonged to her. The family tried to do a low-budget reconstruction, and, after the completion of the unit, the total price of the alteration was 50,000 dollars in 2002. For the design of the mother's unit, an architect was hired and the alterations were in-line with official regulations. Plans of the first and second floors of the house are presented in figures 3.6.4 and 3.6.5.

The house has a big backyard. On the house's east side backyard, Dori had a small garden of her own and independent access to her unit through the garden. During the summer, Dori and her visitors would enter the house through the independent side entrance (fig. 3.6.3), passing the beautiful vegetation planted by Dori in her small yard. However, during the winter season, the whole family used the main front entrance (fig. 3.6.2), and the senior mother would go to her unit through the shared mudroom that connects the two units. According to Dori, they only recently started to use one entrance in the winter. In previous years, when she was younger, she always tried to shovel the snow, so that her visiting friends would not bother her daughter's family.

Figure 3.6.2. The main entrance to the house, with a west side fence

Figure 3.6.3. Facade of the accessory unit with a fence entrance
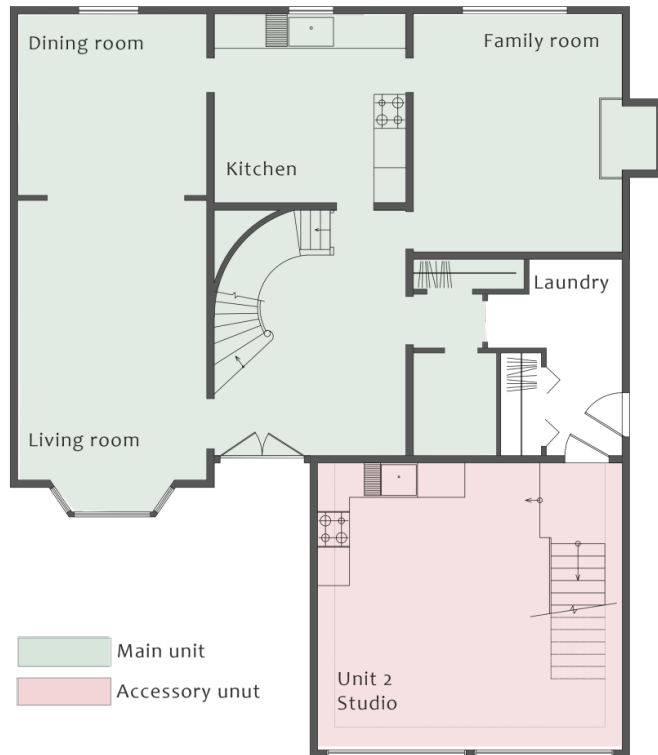
Figure 3.6.4. Ground floor plan. Alterations made: the two-car garage was converted to a studio room with a staircase going to the upstairs bedroom
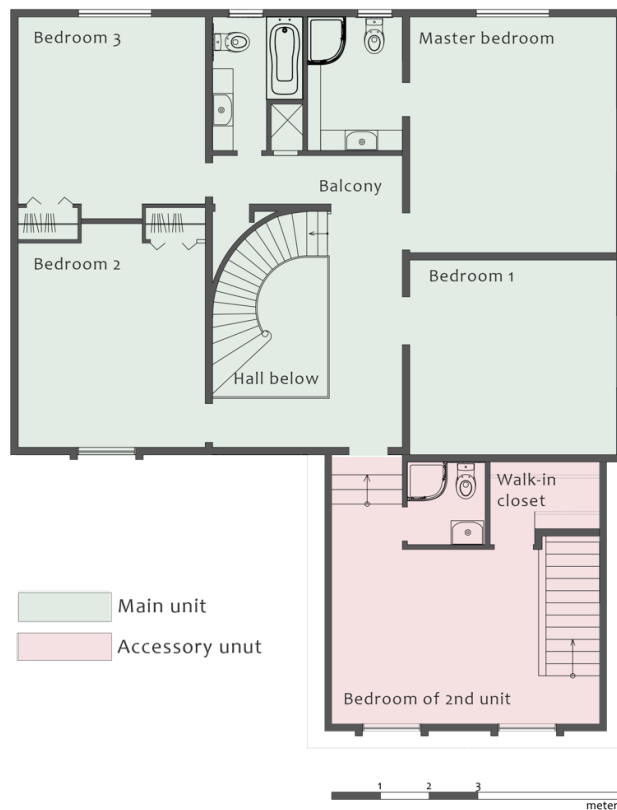
Figure 3.6.5 Second floor plan. Alterations made: The big studio room was redesigned to become an independent bedroom with a walk-in closet and a bathroom. The room has a direct connection to the balcony of the main unit
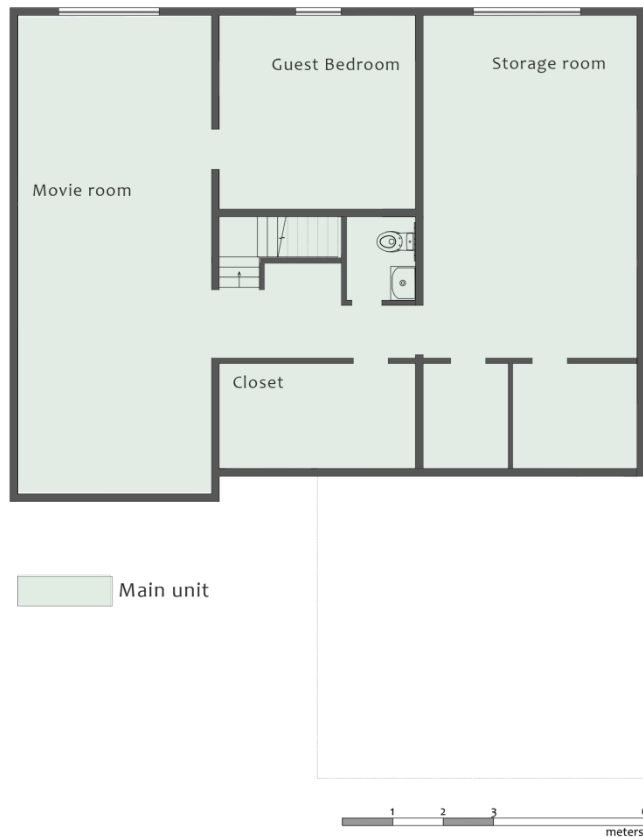
Figure 3.6.6. Basement plan. The basement was part of the main unit and was used as a common family space. This floor was most often occupied by the youngest generation (Nora's daughter), and was called the "party floor"

Unfortunately, one challenge that the family faced, converting the house to an MGHA, is that they could not have two street number addresses for their two-unit house. This was due to city regulations and they could not even split their number to 567-A and 567-B. Thus, under the same street address, there were two units with two independent forms of access: the bigger one is the main unit with common spaces on the first floor, four bedrooms on the second floor and an additional bedroom and movie room in the basement (fig. 3.6.6); the smaller unit is the two-floor unit for the mother, with one big studio on the first floor and a bedroom. It also has a connection to the second-floor balcony of the main house. Nora says that having direct access to her

mother's bedroom has been a very useful feature because she can check almost every night that her mother is feeling fine.

The shared space of both units is a big backyard with a patio and a swimming pool that the family built after moving into the house in 2002. Inside the house, gatherings and family activities took place mostly in the family room or in the dining room of the big unit and sometimes in the mother's studio. When Nora's mother came over to Canada, there was no need to build special access to the house for Dori, such as ramps or elevators because she did not have mobility problems. In the last year, after Dori's knee injury at the Christmas party, she struggled with the stairs in her unit and ended up living in the family room of her daughter's unit, before moving to an apartment in a senior residence. The stairs at the entrance and connection stairs inside the accessory unit are shown in figures 3.6.7 - 3.6.9.

Construction of special elevators and ramps in Dori's unit would have been very costly and a decision not to take lightly. According to Nora, if the house had been owned by her mother, Quebec province would have sponsored the cost of the necessary adaptations. However, because the house was officially Nora's, they were not eligible for that sponsorship. Thus, the family had to look for another solution to accommodate Dori's living requirements.

Figure 3.6.7. Accessory unit facade with entrance door to the yard

Figure 3.6.8. Independent entrance to the accessory unit through the side garden

Figure 3.6.9. View from the living space of second unit

97

3.6.3 Culture & traditions

Figure 3.6.10. The dolls from Belgium

In the years before the family lived together in the MGHA house, the various

family members lived in Europe in close proximity to one another but never under the

same roof. In Belgium, where Nora's family originally came from, the MG living

arrangement is not a traditional way of living. In fact, it is very rare to see elder parents

living with their adult children and having their own unit within a house. In some cases,

one might find a family where an elder parent lives together with adult children but only

occupying a room in the house. Traditionally, in Nora's family, parents and children are

very independent and are used to taking care of themselves. Nora mentioned that living

in Canada may have eased the adaptation to MG living since the community is so

multicultural and there are always families, mostly of south Asian origins, who live in

such arrangements. However, families who live in MGHAs in Montreal are not as common as Nora thought they would be.

Traditionally, elderly parents live in a senior residences or retirement homes, hence parents and children have very independent relationships. Similarly, Nora's mother Dori says that being able to live an independent life was an important aspect for her, before moving into the MG arrangement. The eldest person in the family, Dori, says:

> If you live in the same unit, you have to always be balancing out even the simplest things, like who wants to watch what on TV. If our MGHA house was in one shared unit, my daughter wouldn't be able to do that, I wouldn't be able to do that. Nobody would be able to do that (Dori, personal communication, May 1, 2017).

3.6.4 Activities and Spaces

Family members were very close and engaged in activities and gatherings together quite often. Dori liked cooking, and she invited her daughter's family over for dinner regularly, however, Nora herself liked to cook for big parties, such as Thanksgiving, Christmas, Easter and birthdays. For the household activities, such as cleaning, cooking and laundry, each unit's occupants took responsibility for their own living spaces. For shopping two families would always go together because the neighborhood of Westland House was suburban, with no shopping places in walking distance and the bus station was quite far away.

Mostly, family gatherings took place in the common rooms of Nora's house, because it was bigger to host all the family (fig. 3.6.10 - 3.6,13). In the summer time, the family would spend time together in the backyard patio or in Dori's garden. Dori shared a story about her garden, explaining that there was just grass there before she started planting flowers. Her love and attachment to the place were obvious from her warm memories. Nora, on the other hand, shared her garden experience from a humorous point of view, telling how in the planting season she would work together with her mom there, continuously digging as many holes as her mom requested.

Figure 3.6.11. Family room, first floor (top left)

Figure 3.6.12. Living room with dining area (bottom left)

Figure 3.6.13. Movie room. Basement *(top right)*

Figure 3.6.14. Kitchen (bottom right)

The family used to have a lot of guests, and very often from Europe, who stayed in their house. When visitors came, all the guests, even those visiting Dori, had to stay in the big house because of the small size of the grandparent unit. Dori's granddaughter also used to have parties in the house, inviting friends over, and it did not cause problems for other family members because of the good sound insulation and separation of units.

In some cases, when Dori needed to see a doctor about her eye problems or other types of consultations, Nora or her husband were the ones to drive her to the clinic. In days, when everybody was busy, Dori would use the volunteer services available in the neighborhood to have a ride to the places she needed. Thus, the senior person of the family did not require much help and was quite independent. In fact, Dori is a member of the "Rug Hooking Guild" and has a very active life, with weekly gatherings of friends at her place, exhibitions and crash courses that they give. Hence, it was very important to have her own entrance, so her visitors would not bother Nora's family. In figure 3.6.14, some of Dori's work is presented.

Even from the beginning, Nora's children were old enough and there was no need for baby sitting, however, Nora agrees that she had help from Dori in small things, such as sewing some clothes, shortening pants and little things in the household routine. Similarly, Dori says that having her daughter's family around was beneficial, especially when she was unwell. They would take care of her and bring soup and medication.

Figure 3.6.15. Dori's Rug works

3.6.5 Privacy

In terms of privacy, both families rated the MG arrangement of their house to be very private. Nora rated her privacy to be at the level of "eight" on a scale from one to ten, and Dori rated hers at the maximum level of privacy of "ten" out of ten. Nora says that one needs time to get used to the MG arrangement, especially for families like hers, with no such previous experience. There were some moments, she says, when she would not be in the mood or would come home tired from her work, and her mom would come to see her, but these kinds of situations are common in every person's life, not only MG living ones.

For Nora's mother, the MG arrangement was very comfortable and private. She enjoyed her private life while, at the same time, being aware of her daughter's well-being. All family members respected the independence of others and wanted the same

in return. In response to a privacy question, Dori states: "We invited each other for a meal. We never had a meal together when we were not invited. It was very private and separate." In addition to this comment, Doris says something very important:

> When you're getting older – your body is getting older, your mind is not necessary getting older! Unless you have dementia or Alzheimer's, but your mind is not getting older. You want your own activities; you want your own friends, watch your own TV programs and to have all the privacy.

3.6.6 Analysis

At the end of the interview, Nora's family offer some suggestions to improve the design of future MGHAs. They propose having an elder unit flat but with no elevations, as well as independent entrances and as much separation between the two units as possible. In the kitchen of the elder unit, it is important that the cupboards should be easy to reach. Finally, good MGHA planning should ensure that such houses are as close to public transport stations as possible.

In sum, the Westland MGHA house was a good fit for Nora's family and her elderly mother, until Dori acquired a mobility problem and the house was not suitable anymore for her. In addition, after Nora's husband died, maintenance of the house and the big yard (fig.3.6.15 - 3.6.16) was a challenging and expensive task for one person. These difficult family conditions forced Nora to make a decision on changing her family's living arrangement and selling the house. However, it is important to remember that the decision to move out is not because of the inconveniences of MG living. Moreover, the family had a very positive experience of life together for fourteen years under the same roof. Nora and Dori both agreed on the beneficial impacts of MG living,

such as having your family close, seeing each other often and being sure that people close to you are feeling well.

After fourteen years of the MG experience, Nora is positive about suggesting that other families in similar situations move into an MG house. However, the personality of the family members is very important. She would say that not every family has good relationships with in-laws and it would be better to find other solutions in some cases. Another important characteristic for MG families is respect for each other; it is only with respect that harmony in the family can be achieved. So, in their family's situation, Nora says: "We did not do it for us, we did it for my mom," and Dori's overall summary of her experience was: "It is good having your family near. Under one roof, but in separate units. There is nothing better than that!"

Figure 3.6.16. The house

Figure 3.6.17. Backyard with a patio and a pool

3.7 Conclusion

Evidence of MG living from the four case studies shows that there is a social change happening in society, and there is a demand for new house design strategies. Familiar to many cultures, the MG living concept is reinventing itself in North American society. Case studies show, that the physical relationship of units to each other, their sizes and MG houses themselves are as diverse as the houses' occupants. To create a pleasant and functional environment for MG families to live in, MGHA design requires an attentive approach and a consideration of many aspects of the house and neighborhood.
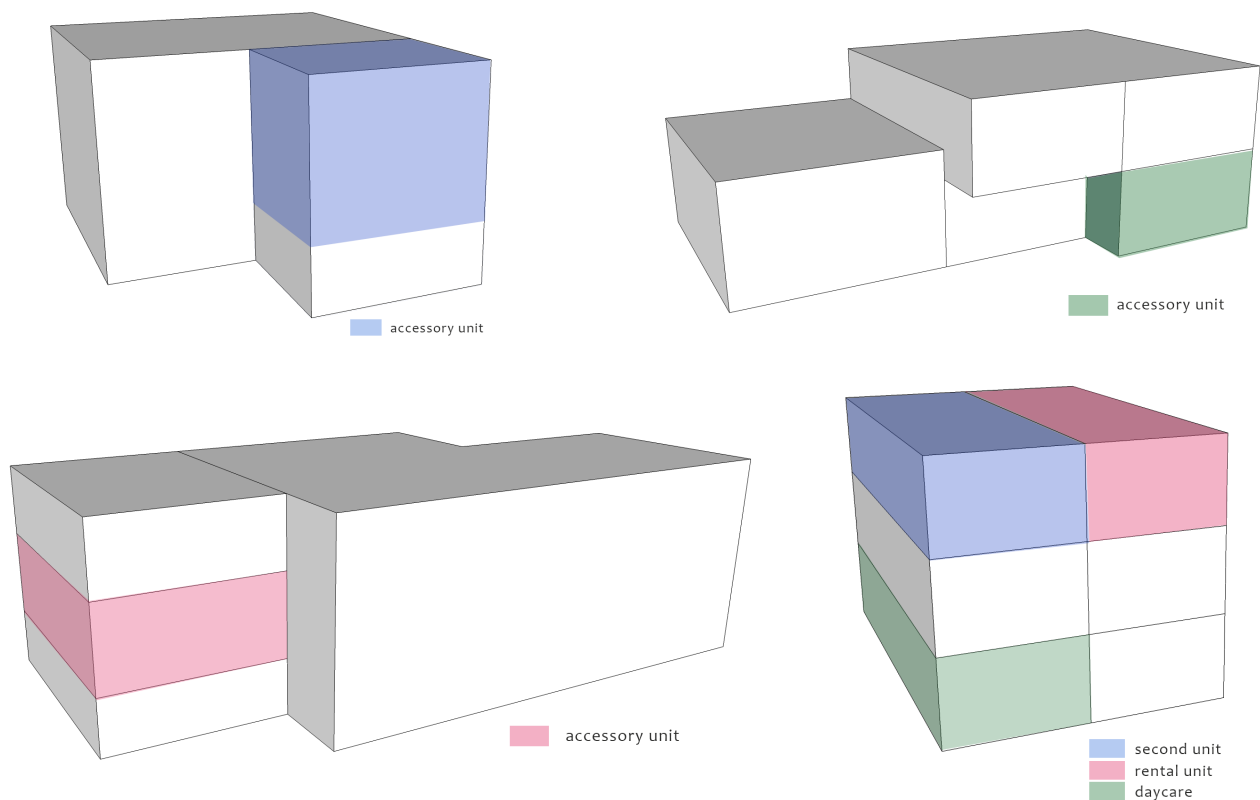
Figure 3.7.1. Graphic of unit location in MGHA case studies

The initial goal of interviews and house visits was to analyze the spatial arrangement and space use in MG houses to further develop criteria for MG house design. However, after meeting the families, it was clear that the positive living experience in MG houses was directly linked to the environment of the neighborhood and facilities that were surrounding the house. Therefore, in Chapter 4, the author will discuss design criteria on both a macro-urban design level and a micro-house design level, according to findings from interviews.

Chapter 4

Design Criteria for MG houses

4.1 Introduction

In this chapter, the author presents criteria for the design of MG houses, suggesting that the general space needs of MG families point to similar basic preferences. It is important to remember that the design criteria presented in this study are not an obligatory guideline but rather suggestions for those interested in the development and design of MG houses. From case studies, we have learned that there are different family types and situations preceding the MG living arrangement, thus, restrictive standards will only hinder freedom of choice for MG families. Currently, as evidence from the case studies and census data shows, society is facing a shift in the housing industry and witnessing a significant growth of MG households in North America. The primary purpose of the interviews was to study the MG houses and arrangement of interior spaces, however, the interviews revealed that experiences of the families in the houses are directly connected to surrounding neighborhoods and community spaces. As a result, the author decided to begin by applying criteria on the macro level of the MG community and overall neighborhood design, followed by targeted micro-level criteria for the design of an MG house.

Most residential design best practices are applicable to MG house design, however, there are also some aspects that are of distinct importance. In this chapter, the author presents the criteria for the design of the MG environment, divided into macro- and micro-level parts. The design process should start by considering all facilities, public spaces, house locations and roads that create a continuous network of

interrelationships, which is an important element of building a good environment for living. (Gehl, 2010; Whyte, 1980).

4.2 Macro level criteria

4.2.1 Government regulations adjustment. Zoning
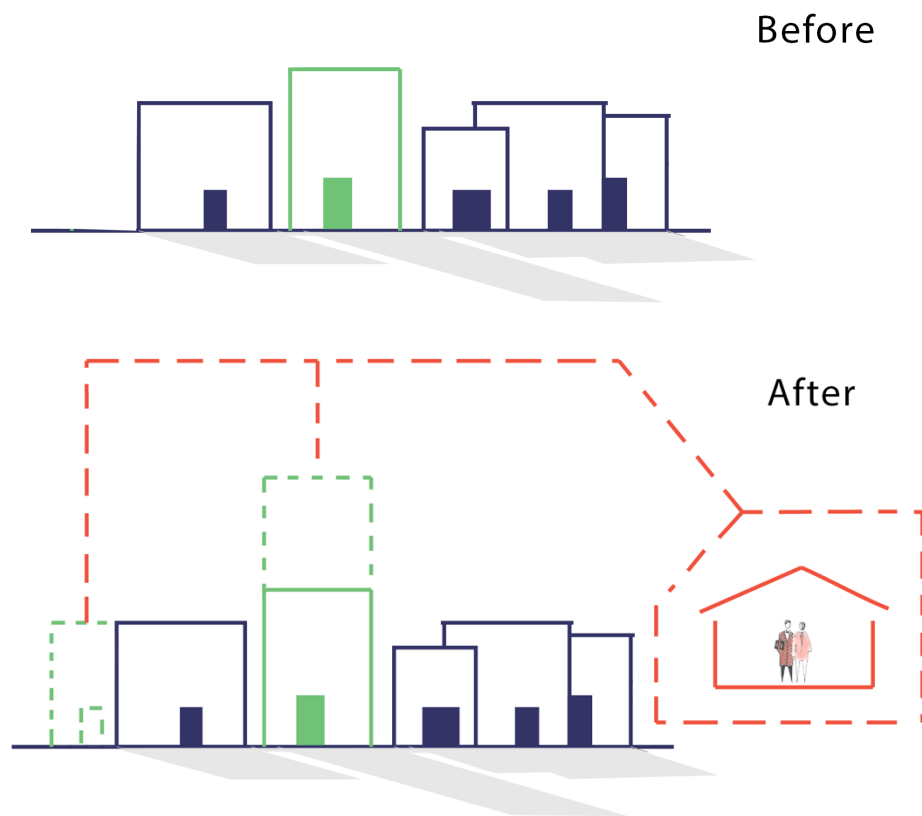
Figure 4.1 Zoning adjustment. Growth possibility for MGHA.

 Diagram "before" refers to existing strict regulations towards construction and reconstruction of existing structures. Diagram "after" shows a possible addition of secondary units to existing structures, making them suitable for MG families.

Observation

Building regulations are a prerequisite of the development and acceptance of big design ideas. According to the experiences of MG family interviewees, in the majority of cases province regulations prohibit having two or more independent units within one detached house. Moreover, in such cases, the regulations do not allow separate addresses or entrances at the front facade of the house. For some neighborhoods, there is a limitation that one house should be occupied only by members of one family, thus restricting the possibility of renting parts of the house. Such restrictions can be found under the following sections: "Obligations to private property," "Noise regulations" and "Use of Public Property and Safety" in the By-Law Beac-033 (Province of Quebec, City of Beaconsfield, March 2013). Therefore, the concept of MG living has obstacles on a government policy level that do not allow these type of houses to become a living option of full MG value.

Figure 4.2 Separate entrances and civic addresses of MG house

Figure 4.3 Addition built to an existing house with no separate address

Recommendations

  The regulations should less stringent and more flexible when it comes to the construction and reconstruction of houses into multiple-unit households. The possibility of adding or joining units (fig. 4.3), remodeling houses and having separate street numbers within one property (fig. 4.2) would support the growth of the MG living concept (fig. 4.1). Governments should consider the possibility of allocating a distinct part of a neighborhood or community to MG developments, where regulations would be more flexible towards multi-unit properties. Moreover, the encouragement of the MG living concept by the government would positively influence nationwide acceptance of the idea.

4.2.2 Location/Site selection

Observation

  The experience of older people in MGHA case studies suggests that the location of houses close to recreation sites, shopping, and services has encouraged them to actively participate in community life (National Advisory Council on Aging, 1992). The development of multi-unit houses appears to indicate a need to build on empty lots on the outskirts of a city, or less urban areas, where big families can live comfortably. However, MG families, in most cases, consist of members of different generations with various needs. The location of the MG house is a prerequisite for satisfaction with extended family living. Living in a quiet residential area is as important as being connected to a vibrant urban community. For elderly people, the location of their houses

plays a critical role in their opportunities to commute to and communicate with relatives and friends.

Recommendations

Families with children and elderly people should have effective and reasonable access to essential community services and recreational amenities. Planners and developers should ensure that the elderly population of the community gets all the necessary support and is not forced to move away from familiar surroundings. Providing a specific site for MG development within various communities should address the question of integration into the city, without overly concentrating MG houses in any one community.

4.2.2.1 Mixed use

Public institutions - schools, community centers
Retail, business developments
Housing developments

Figure 4.4 Mixed used community

Selected sites should be within 0.8 km walking distance from an elementary school with an outdoor play area, an after school care facility, a community center with

activities to accommodate elderly people, a daycare center, grocery shopping, and a playground. As in any other good livable neighborhood, in a community with MG houses, a diverse choice of public amenities should be provided (fig. 4.4).

4.2.2.2 Access to public transit
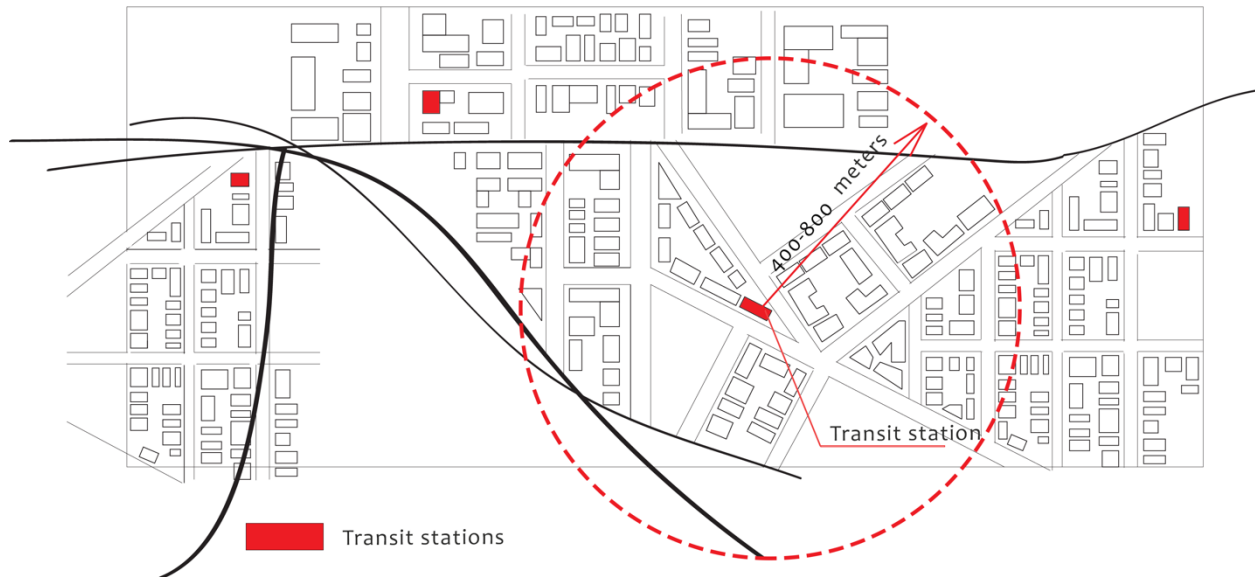
Figure 4.5 Access to public transport

It is important for the selected site of MG development to have a public transit station within walking distance (fig. 4.5). The level of independence of family members in a household is directly correlated to their opportunities to easily reach destinations without dependence on a family vehicle, especially for children and elder generations of the family.

4.2.2.3 Public space. Greenery

Figure 4.6 Shared public space in MGHA neighborhood

In a residential area, a clear division of private, semi-private and public spaces should be identified. Secure and safe outdoor areas should be provided to meet the recreational needs of residents of all ages (fig. 4.6). In communities with a mix of household types, not only public spaces and greenery but gardening options, such as urban agriculture and community gardens, should be offered to residents, especially if there are no private yards within a property.

Figure 4.7 Public square. Bois Franc neighborhood, Montreal
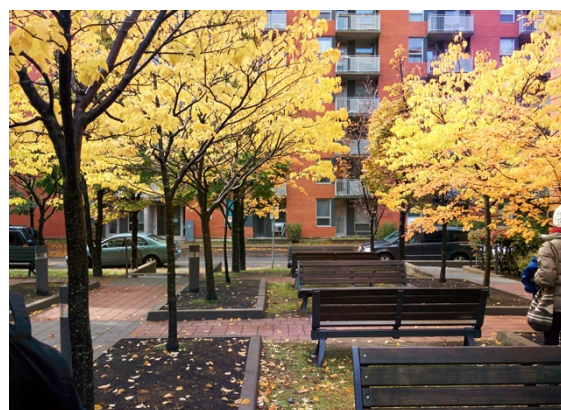
Figure 4.8 Public area. Benny Farm, Montreal

4.2.2.4 Pedestrian-friendly neighborhood

Figure 4.9 Pedestrian-friendly neighborhood

As in any other good and livable community, an MG neighborhood should be pedestrian-friendly, oriented to the slow movement of people and to be bicycle friendly (fig. 4.10-4.11). In the housing design for MG families, the needs of people with limited mobility should be considered on a neighborhood level. Many elder people, at some point, face mobility difficulties, therefore, pedestrian streets between essential amenities should accommodate wheelchair movement. Moreover, neighborhood developers should consider the installation of a good amount of benches for people to be able to stop and rest during long walks.

Figure 4.10 Walkway. Bois Franc, Montreal

Figure 4.11 Lake shore, Bois Franc Montreal

4.2.2.5 Signs

In neighborhoods where people of different age groups and physical abilities will live together, it is important to provide appropriate signs of directions and titles (fig. 4.12). Children and seniors can have trouble finding and remembering geographical locations and directions. Night-time lighting and the reflective coating of signs are important elements to be considered in signage design. In general, oversized letters are better than undersized, however, one style and size readable by all pedestrians should be managed in MG neighborhoods.

Figure 4.12 Street signs. Mile End, Montreal

4.2.3 Density of MG households

Observation

Having only one or two MG households with a single member of the elder generation in the neighborhood, might not provide enough socializing opportunities. As evidence from studies shows, having immediate family members around does not necessarily mean being involved in social life, as one wishes. Elder parents, who live

117

with their children, sometimes feel a sense of loneliness in their houses, lacking

socialization opportunities with their age mates.

Figure 4.13 Example of density of MGHA houses in the community

Recommendations

There should be a sufficient number of MG households in the neighborhood, to

give elders and children peers to socialize and play with and to encourage a sense of

community and integration (fig. 4.13). The density of MG houses in a neighborhood

might encourage other residents to consider adopting the idea thus resulting in the

spread of the concept.

4.3 Micro level criteria

Micro-level design criteria refer to the design of an MG house itself, where livable

and functional secondary units are designed in combination with the main unit and

together represent an integral family house. The following design criteria aim to encourage a design of MG houses that promotes togetherness for the occupants of separate units within one house and ensures the privacy of each family member. The subchapter on micro-level criteria will be presented in several subgroups. First, the analysis will examine the architectural look of the building and the spatial relationships between units together with the privacy aspects of the house. Next, the topic of aging in this context will be discussed, introducing all the elements of housing needed for an elder person. Finally, some design criteria to improve mobility access to the MG house will be put forward.

4.3.1 Architectural characteristics

4.3.1.1 Architectural look

The first impression of a house comes from its external appearance in most cases. One can distinguish a private house from other public facilities and properties. The architectural look of a house gives us primary information about house style, size and, possibly, an approximate age. Generally, single family houses share a common characteristic of integrity on the outside, and can be easily identified as the home of one family. When it comes to a house that hosts an MG family and it has several

independent units, the architectural look of the house should promote the integrity of all units.

Figure 4.14 MG house. Case study 4

Figure 4.15 Modern MG house designed by *Donald Chong*. Toronto

Recommendations

MG houses should be understood not as fixed built elements in the city, but as tools to support flexible lifestyles that people have in the 21st century. Throughout the lifetime of one family, an MG house can adapt to the changes in the family by shifting purposes and sizes of secondary units, as well becoming a big house in which a non-extended family can live. Nevertheless, internal shifts of units' purposes need not be reflected in the external look of the house. Good examples of MGHA's external integrity shown on Figures 4.14 – 4.15.

4.3.1.2 Relationship between units

| Side-by-side units | Up-and-down units | Accessory unit. First floor | Accessory unit. Second floor |

| Side-by-side units with shared first floor | Side-by-side three unit MGHA | Mixed type three unit MGHA | Mixed type three unit MGHA |
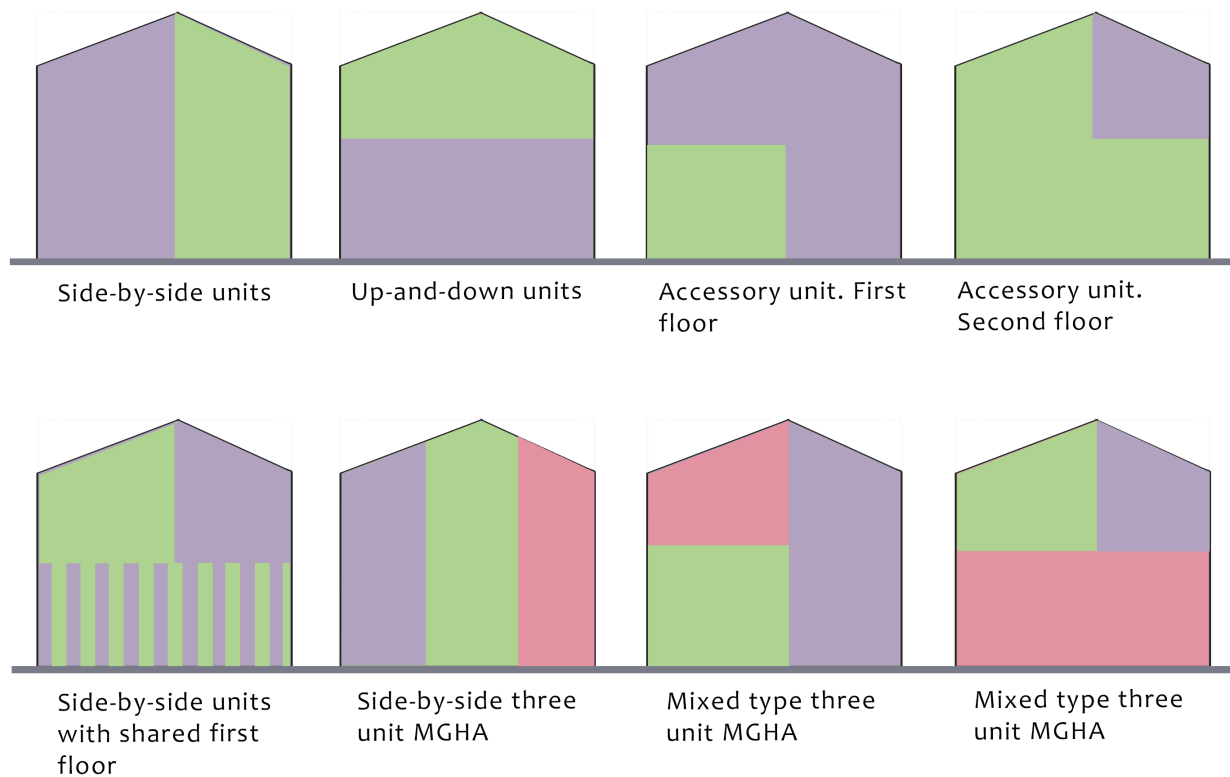
Figure 4.16 Variations of units' locations in a MGHA

There are a big variety of unit locations in the MG house (fig. 4.16), such as up-and-down locations, side-by-side locations, granny flats or the accessory units that were seen in most of the case studies discussed above. However, these are not the only unit location types that can be found in MG houses. In some cases, we can find a combination of different location variations or if it is an MG house in an apartment building, some novel variations can be used. The primary goal behind a careful approach to the design of unit locations is to provide privacy to all family members, as well as offering the functionally best space arrangements for each unit. Many aspects of house design affect levels of privacy and ways in which spaces are being used.

Furthermore, under each subchapter, the best criteria and recommendations are presented for separate elements of house design.

4.3.1.2.1 Entrances

Side by side MGHA units with independent front entrances and shared backyard exit
Two unit are link from the interior

Side by side MGHA units with front entrance to main unit and rear access to secondary unit
Two unit are link from the interior

MGHA with an accessory unit
Front entrance leads to the main unit. Second unit has a side entrance
Two unit are link from the interior

Figure 4.17 Examples of potential entrance locations

In an MG house, it is preferable to provide independent entrances to each unit from outside or a common corridor. Consideration should be given to the design of entrances with regard to privacy and unit identity. Each unit's occupants should be able to leave and come into their units without causing an interruption to other family members (fig. 4.17). As we have learned from case study exchange, according to City of Beaconsfield zoning regulations By-Law Beac-033, in many communities it is not permitted to have two entrances in front of the building (Province of Quebec, City of Beaconsfield, March 2013). Therefore, the entrance to the additional units might be designed for the side of the building, with its own pathway, which could give even more

privacy to family members. If there is only one main entrance from the outside that leads to several units, that entrance should not directly look into a private space of any unit. Other than the main independent entrances to a unit, the MG house should have an interior link between units, where feasible, to make it possible for family members to communicate easily when desired.

4.3.1.2.2 Transitional spaces
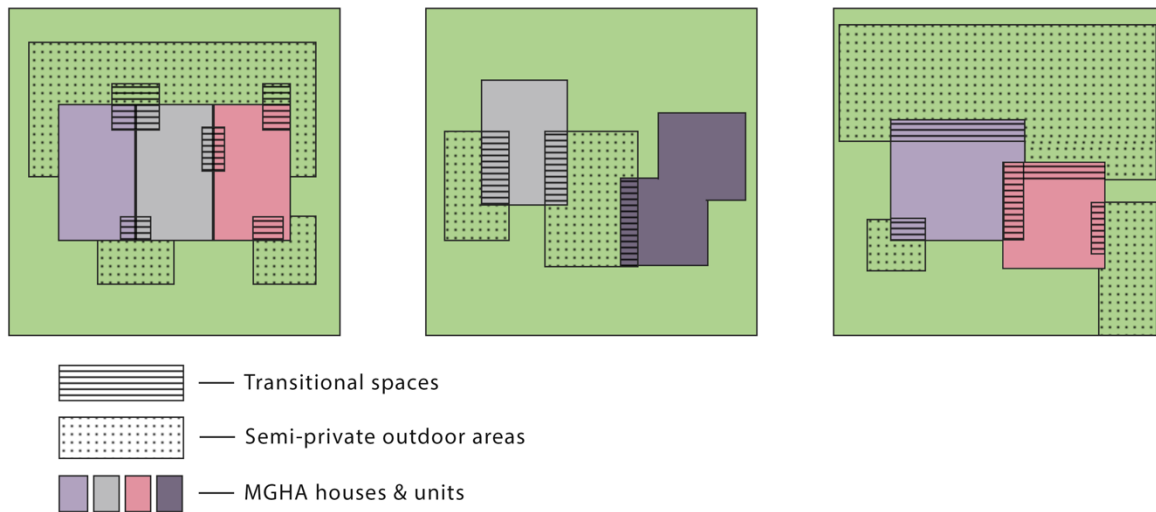
Figure 4.18 Examples of transitional spaces in and between MGHA

Transitional spaces offer a gradual passage from external to internal, from common and public to private spaces. The importance of such spaces increases in houses where there is more than one family living because they help to realize a change happening and to adapt to a new environment. The transitional spaces in MG houses apply not only to thresholds on the entrances to units but to transitional spaces between units (fig. 4.18). Transitional space between units is an intermediary space in

the interior of the house that serves as a buffer for noise insulation, a common meeting area for different unit occupants and simply an area to allow a shift from one environment to another. Transitional space examples include corridors, small halls, staircases or porches. Transitional spaces can be used to achieve the goal of dividing private, semi-private and common spaces in the house and units.

4.3.1.2.3 Space hierarchy. Private, semi-private, common spaces.
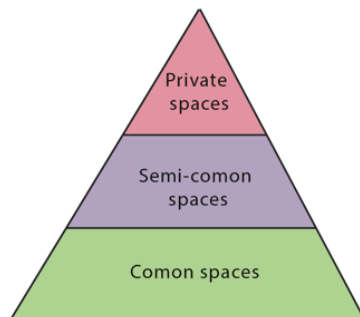
Figure 4.19 Space hierarchy in MGHA house

To ensure the privacy of each unit's residents, houses should have a clear hierarchy of spaces that distinguishes private, semi-private, semi-public and public spaces (fig. 4.20). It is probable that a secondary unit will be of a smaller size and have fewer rooms, therefore, this area should be designed to accommodate multiple functions. In cases where there are semi-public spaces in the house that are intended to be used by certain family members only, interior doors should be installed to prevent undesirable disruptions. The exchange of experience among different MG families has revealed that having a common area and a semi-common area only for the use of one unit's occupants helps to achieve the desired level of privacy and inclusion.

Vertcal space hierarchy in "In the woods house"   Horisontal space hierarchy in "Artist's house"

Private spaces   Semi-comon spaces   Comon spaces
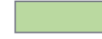
Figure 4.20 Examples of space hierarchy from two case studies

4.3.1.2.4 Unit levels/stairs
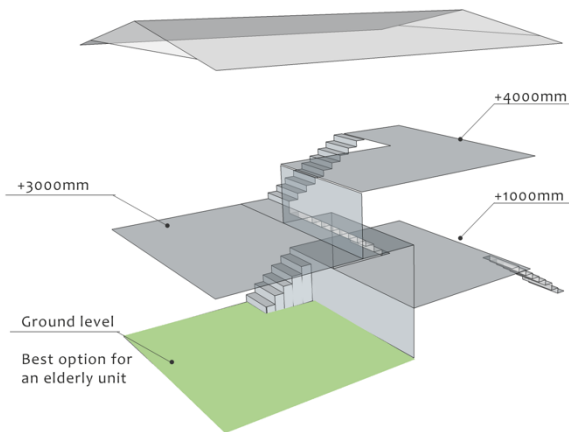
Levels of floors in the house   Potential location of MGHA units in the house
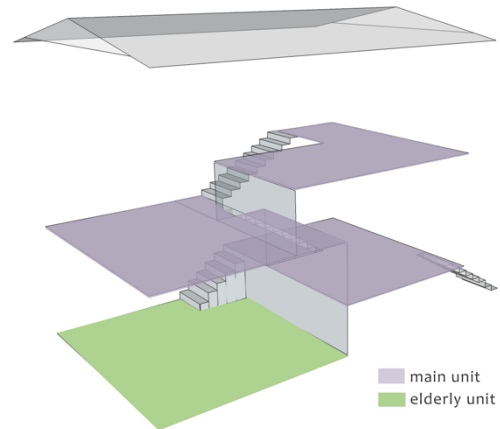
Figure 4.21 Levels in MGHA

125

In MG houses mobility challenges that might appear among seniors should be considered in the design. Access to the units and movement within the units should be supported by ramps and elevators. It is preferable for these types of units to be located level with the street, without any barriers, to easily accommodate those with mobility problems. Locating one unit only on the first floor might solve the problem of access to the unit, and rooms within it for mobility-limited people or an elder person, who could have mobility difficulties in the future (fig. 4.21). In the future, street-level unit usage would be more flexible and could even serve as a business space.

4.3.1.2.5 Size of each unit/room

1500

Amount of space required by
wheelchair user to turn 360 degrees

4000

Minimum width of a room
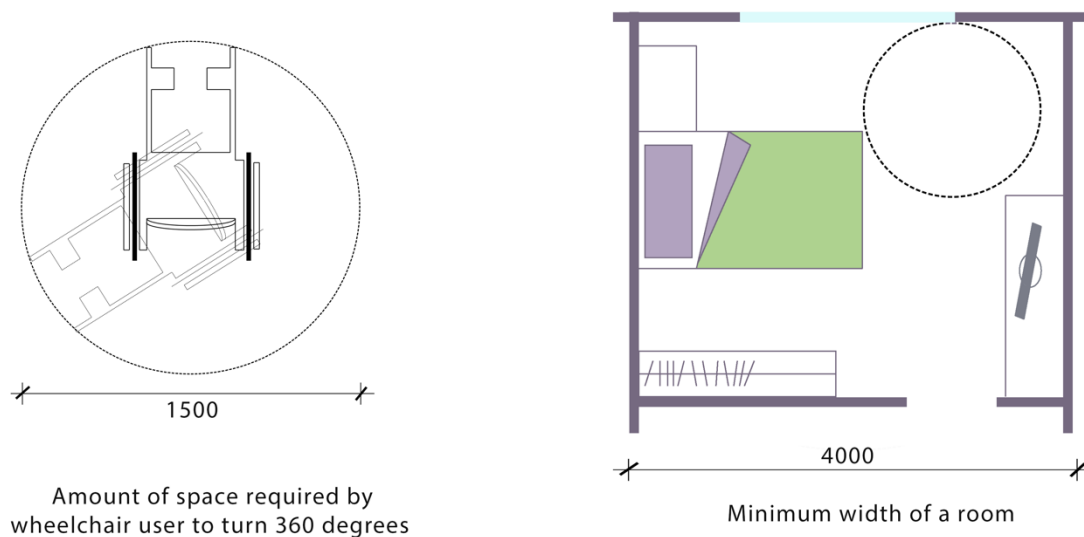
Figure 4.22 Minimum room size requirements

In the main and additional unit, sizes of living and sleeping spaces should not compromise one another. A minimum width of 3.5 – 4.0 meters should be given to every

sleeping room. Bedroom windows should allow for a healthy amount of natural light. Depending on the specific needs of family members and possible mobility problems, the design of each house should be case specific. However, a minimum width of corridors and rooms should be designed at the planning stage to accommodate a person in a wheelchair (fig. 4.22).

4.3.1.2.6 Acoustic insulation; Noise barriers

Direction of windows   Horisontal barriers
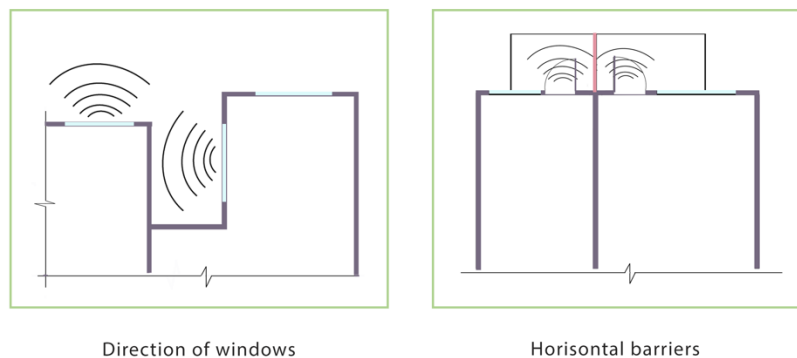
Figure 4.23 Noise barriers

One of the key aspects affecting quality of life in a multi-unit MG house is the acoustic separation between the main and secondary units. While primary sound insulation generally means preventing noise penetration through partitions between units, it is important to remember that windows and balconies may cause sound transfer as well. Windows and balconies should be placed carefully, to avoid adjacencies (fig. 4.23). Good inter-level insulation should be installed to prevent noise disruptions between levels if units are located in an up-and-down manner. As mentioned before, having transition rooms between private and common rooms would help to decrease levels of noise penetration to private zones.

4.3.1.2.7 Independent bathrooms

Independent bathrooms in the "Westland house"

Independent bathrooms in the "House in-the-woods"
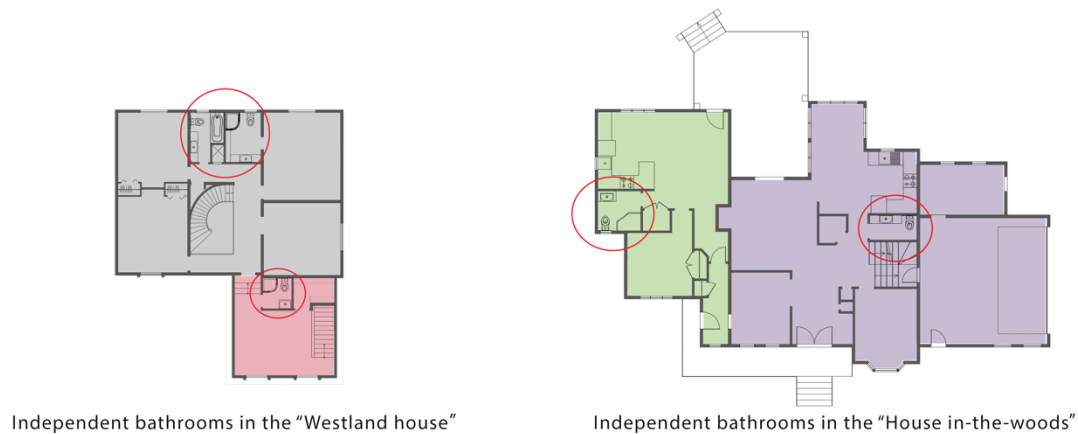
Figure 4.24 Bathroom locations in two case studies

Complete and autonomous bathroom amenities are required in each independent unit and they should ensure visual and acoustic privacy. The size of a bathroom depends on the design and location of it in the house. However, for people with special needs, bathrooms should be equipped with special support and have enough space to move in a wheelchair. Bathrooms in each unit should have their own toilet, sink, and shower or bath (fig. 4.24).

4.3.1.2.8 Independent kitchen

Independent kitchens in the "Artist's house"

Independent kitchens in the "Westland house"

Independent kitchens in the "House in-the-woods"

Figure 4.25 Kitchen locations in three case studies

128

Each unit should have a fully equipped, even if it is of a modest size, kitchen space that has a sink, heat source, counter space to prepare food and a refrigerator. In a unit of a person with special needs, either an elder person or a person with restricted mobility, the kitchen should be remodeled and adjusted to be accessible and functional. Figure 4.25 shows good practices of kitchen locations from three case studies.

4.3.1.2.9 Closets

Each unit, especially the smaller, secondary ones should have a good amount of closet space available to arrange all of the resident's belongings. Adults, who decides to downsize and move in with an adult child's family, in their senior years, probably has a large amount of personal belongings, associated with treasured moments and events. It is important to provide sufficient space at the new place for a person to be able to keep and recreate his/her home environment and surroundings.

4.3.1.3 Street visibility
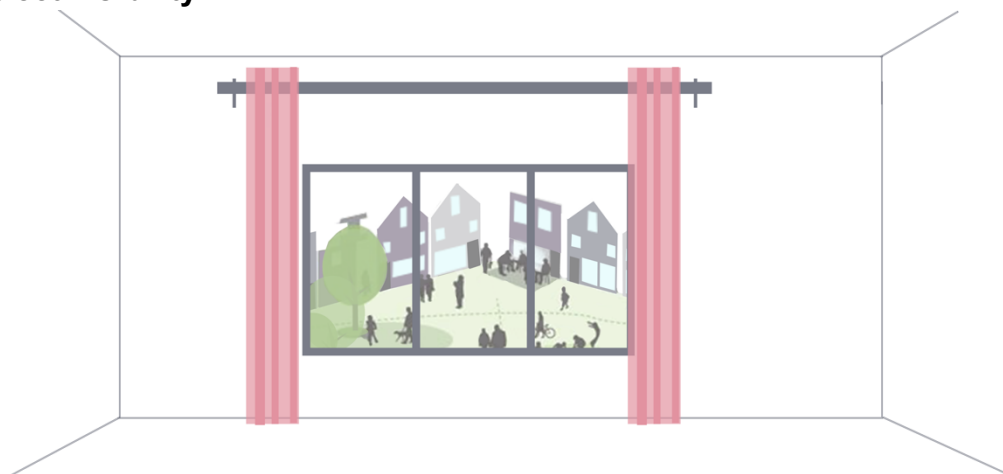
Figure 4.26 Street visibility from MGHA unit

When designing two or more units within one big house, it is important to provide a connection to the main street for each unit by means of a street-view window. Street visibility creates a sense of community for the occupants. In addition, it provides parents with the opportunity to observe their children playing outside. Designers should remember that the window view to the main street, or an actively used side of a house, serves as a principal connection to the social world outside, especially for those with restricted mobility in a family (fig. 4.27 – 4.28). Each unit in the MG household should have a reasonable view of the street and family members should not be marginalized by physical barriers. Views from the window play a significantly more important role for aging people. Criteria for the placement of windows and their effects on people will be discussed in the subchapter "Aging in Place".

Figure 4.27 Window view from Westland house

Figure 4.28 Window view from Artist's house

4.3.1.4 Sun path/orientation
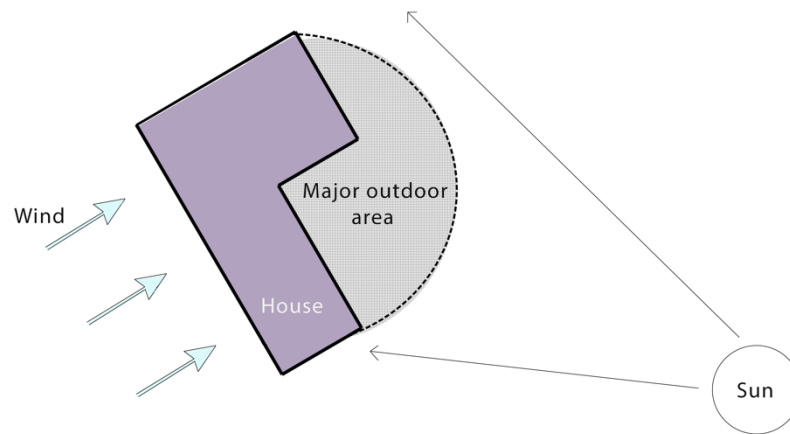
Figure 4.29 Sun and wind path

Access to natural light and ventilation is important in each unit. When deciding on

the location and the relationship of two or more units in MG house, architects and

planners should take into consideration that each unit should have an active sun path

into the unit and should not be oriented only to the north. Primarily, spaces that are

actively used during the day, such as the living room and kitchen should have direct sun

path access. In addition, location of the structure as shown at Figure 4.29, allows an

installation of passive solar energy systems. Moreover, residents of the house can

benefit from natural ventilation that wind provides in a warm season of the year.

4.3.1.5 Landscaping

Figure 4.30 Landscaping near MGHA

As this study of MG families has shown, gardening has a positive impact on the residents' well-being, particularly for elder generations. Gardening in the yard, or at least near the house, gives an opportunity to personalize the space and create bonds to a new MG house. Moreover, families should be able to have a small urban agricultural plant bed, if the yard space allows for it (fig.4.31 – 4.32). Such activity will keep families active. In addition, gardening offers a good platform for intergenerational family activities.

Figure 4.31 Community garden. Benny farm, Montreal

Figure 4.32 Urban agriculture. McGill, Montreal

4.3.1.6 Relations to front and back
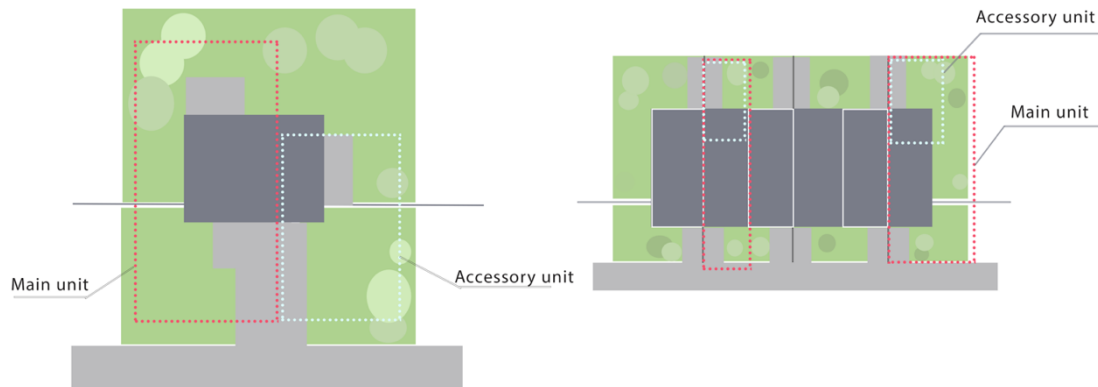
Figure 4.33 Yard access in detached MGHA and in a Plex MGHA

When it comes to considering how the front and back of the building relate to each other, it is important to remember that there are many types of houses, such as single detached houses, plex houses, townhouses and apartments. Any of these houses' types can be designed to become an MG house. If in detached houses, the configuration of a house at the front and back yards is more flexible at the planning stage, in other types this flexibility is not an option. If the house has front and back yards, access to the yards should be accessible for occupants of all units, through individual access from each unit or from shared common spaces and neutral transitional spaces.

Figure 4.34 Front yard. Outremont, Montreal

Figure 4.35 Back yard patio. Benny Farm, Montreal

133

4.3.1.7 Parking
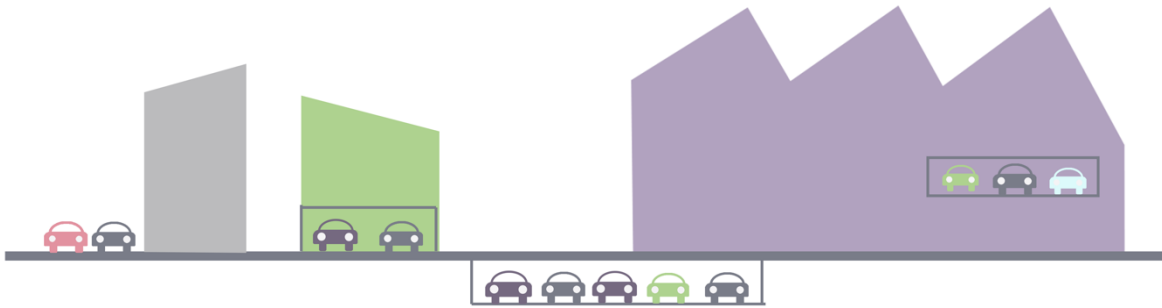
Figure 4.36 Examples of parking locations

When designing an MG house or converting an existing property into an MG building, parking needs of a family should be considered. Planners should provide at least one parking spot for a unit, according to the number of units in a house. If there is no space available for the addition of a garage to a house, an efficient space in a surrounding open area of a property or a distinct space in the neighborhood should be provided for parking (fig. 4.37 – 4.38).

Figure 4.37 Underground parking. Bois Franc, Montreal

Figure 4.38 Street parking. Bois Franc, Montreal

4.3.2 Aging in Place

Overall, elder family members' responses to interviews advocate staying with their family rather than in other senior housing options. The preference of seniors to stay in the community with their family and "Age in Place" implies a responsibility for the local government to support such a choice. To ensure that the positive experiences and benefits of living with an extended family reach fruition, innovative and attentive approaches should be taken to neighborhood planning and development.

The process of aging involves a psychological aspect that also affects the housing needs of people. With age, people's occupational and family roles change and that leads to the transition of activity patterns. Older people tend to spend more time at home, which makes its effective design all the more critical. Seniors' distinct lifestyles and qualities should be allowed and supported by the living environment.

4.3.2.1 Support services
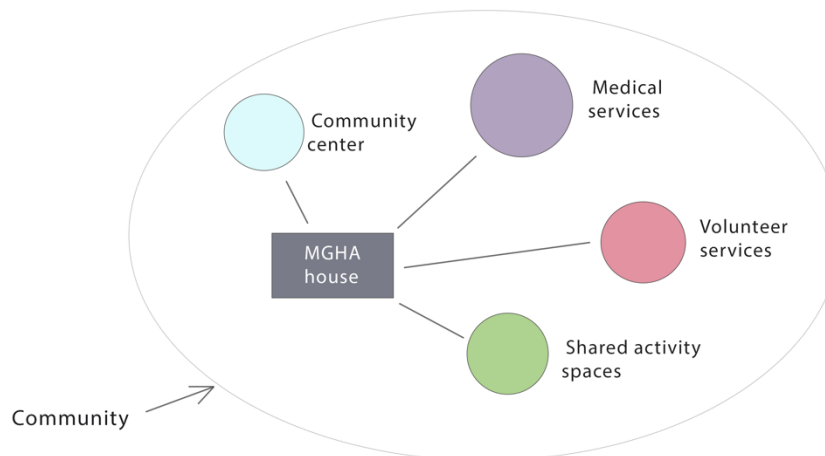
Figure 4.39 Support services near MGHA

It is important to remember that senior people will require more assistance with their daily chores, as they age. The provision of physical support systems, the

convenient pattern of spaces in the house and the right choice of materials are

elements that can be guaranteed by architects and designers. Nevertheless, to maintain

an independent style of living, people's requirements for support services increase with

age. Thus, planners should not overlook the need for service agencies that provide the

services of homemakers, caregivers, transportation volunteers, meals-on-wheels

services, and medical care services available in the neighborhood with MG houses and

for the seniors living in those houses (fig. 4.39).

4.3.2.2 Materials - Environmental design

Concrete ramp   Metal mesh ramp   Wood ramp
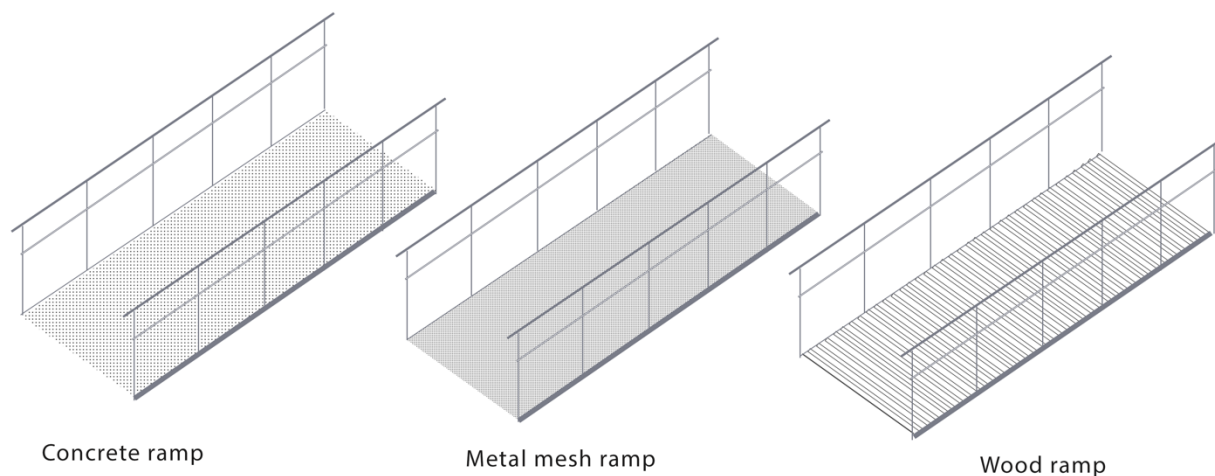
Figure 4.40 Ramp materials

An important element of housing design for aging people is a consideration of

future possible changes in functional capacity. Even though the rate of changes of all

human senses fluctuates among people of the same age group, in general, there is a

tendency to experience sensory impairments or reductions in older ages.

An environmental approach to design could compensate for many of these

losses. Sound reflecting walls and floors can help people with impaired hearing to keep

up with conversation. Well-diffused and strong lighting can minimize shadows and

136

advance depth perception, helping someone to clearly see the next step (fig. 4.40).

Furniture should be arranged in a way that allows people to sit close enough, to hear

and see each other easily (National Advisory Council, 1992).

4.3.2.3 Levels and stairs
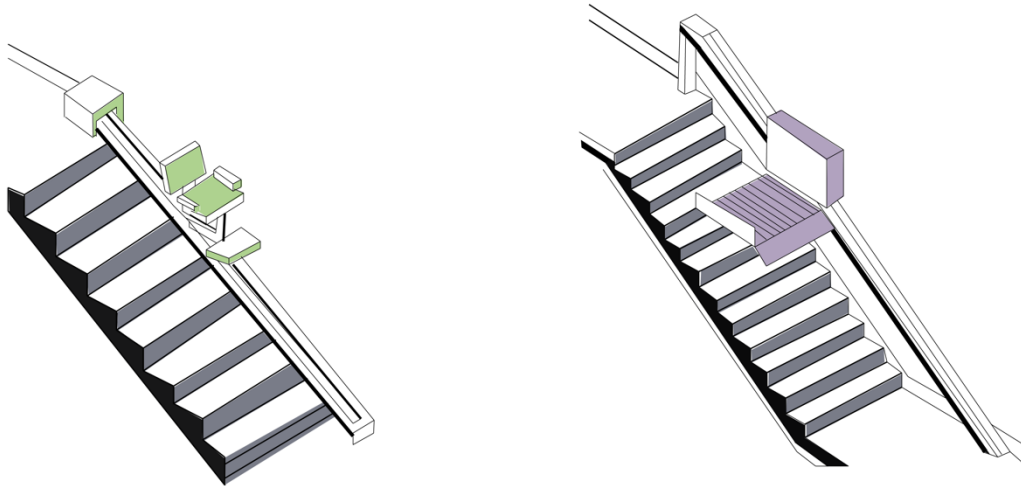
Figure 4.41 Examples of stair climbing support elements in an elder unit

The tendency of elder people to experience a decrease in mobility capacity is

high even though some seniors may never experience any mobility problems. The living

environment should be designed to meet the needs of seniors and not create additional

barriers. As interviews with elder people from the case studies revealed, senior family

members prefer to live on one level, with no stair barriers, since with age climbing stairs

can be challenging. Therefore, in the MG house, it is best if the elderly unit is designed

to be on the ground level, leaving more space on the upper and lower levels for the

other generations. In a situation when it is impossible to avoid stairs in a unit, support

constructions, elevators and ramps should be provided to an elderly unit (fig. 4.41).

4.3.2.4 Private indoor spaces

The psychological environment, as well as the physical environment of the house, plays an important role. The generation gap between the eldest and the youngest family member may cause some level of discomfort to those family members, limiting their sense of freedom and privacy in the house. Senior family members should have isolated private spaces, including private living areas and bedrooms, to avoid disruption and noise from other family members.

4.3.2.5 Views/windows
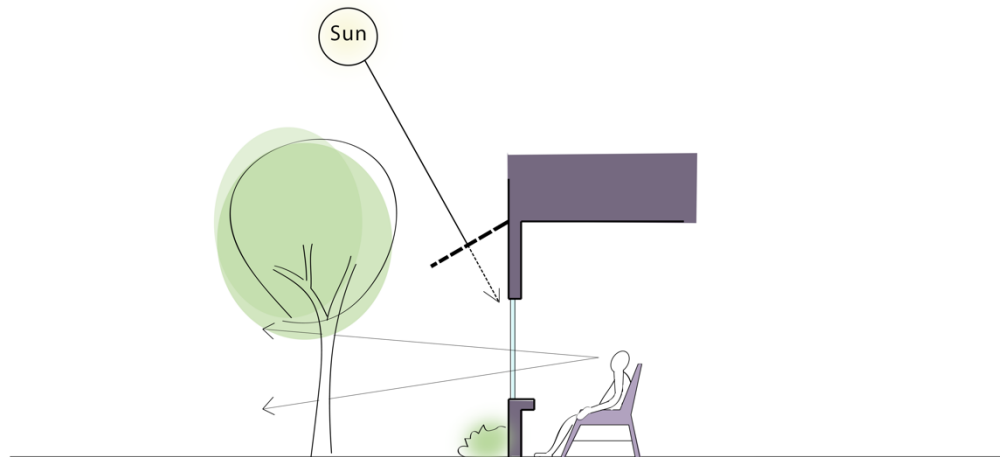
Figure 4.42 Window view from an elder unit

Many older people tend to spend time observing the outdoors from a seated position near the window. Every elderly person unit should have a moderate to large size window, with a good opening to plants, that frame a good view (fig. 4.42). Windows should be equipped with glare reducing elements to enhance viewing. Preferably, the window should be oriented toward an active side of the building with a view of the everyday life in the neighborhood

Summary table of MGHA design criteria

Macro level criteria	Government regulations adjustment. Zoning
	Location/Site selection
	Mixed use
	Access to public transit
	Public space. Greenery
	Pedestrian-friendly neighborhood
	Signs
	Density of MG households
Micro level criteria	Architectural characteristics
	Architectural look
	Relationship between units
	Entrances
	Transitional spaces
	Space hierarchy. Private, semi-private, common spaces
	Unit levels/stairs
	Size of each unit/room
	Acoustic insulation. Noise barriers
	Independent bathrooms
	Independent kitchen
	Closets
	Street visibility
	Sun path/orientation
	Landscaping
	Relations to front and back
	Parking
Aging in Place	Support services
	Materials - Environmental design
	Levels and stairs
	Private indoor spaces
	Views/windows

4.3.3 Conclusion - Adaptability

To conclude, considering all the findings and criteria listed in chapter four, we can say that MGHA design implies a broad concept that includes most of the aspects of living environment design. Summarizing major criteria of MGHA design author suggests to look at it under a description of barrier free design. Barrier-free design refers to environments with no architectural, design or psychological features that might prevent a person, able-bodied or impaired, from using the environment to the full extent of her or his abilities (National Advisory Council on Aging, 1992).

There are many known ways of making environments more accessible for people with functional impairments, such as ramps, wider parking spaces, and stair elevators. Depending on the financial position of residents, accessibility modifications to an existing home can range from the addition of a few aids to full retrofit works on remodeling a kitchen, bathroom and the construction of lifts and ramps for inter-level exchange. However, at the design stage of MGHA development, there is an opportunity to prevent barriers before they are built.

Designing with MGHA design criteria refers to preventing the design of small hollow bedrooms, tiny bathrooms or narrow doorways and corridors. In the design process of an MG house, developers should take into account the full range of physical needs and, as a result, this design will respond to the demands of the greatest amount of occupants. Good space arrangement and the provision of privacy through the thoughtful physical design of a house provides a foundation of a positive MG living experience.

The four different stories of MG living gathered in this report represent a valuable example and proof of the social shift in housing demands currently happening in society. Architecture is a powerful tool to help solve social and economic problems in light of these changes. The criteria for MG design, listed in chapter 4, provide an opportunity to create spaces for continuous utilization, and adaptation to the functional change of space and family structures that may occur throughout the time.

Bibliography

Angel, R., & Tienda, M. (1982). Determinants of Extended Household Structure: Cultural Pattern or Economic Need? *American Journal of Sociology, 87*(6), 1360-1383.

Bengtson, V. L. (2001). Beyond the Nuclear Family: The Increasing Importance of Multigenerational Bonds : THE BURGESS AWARD LECTURE[*]. *JOMF Journal of Marriage and Family, 63*(1), 1-16.

Berry, J. W. (1998). *Social Behavior and Applications*. Boston [u.a.: Allyn and Bacon.

Brink, S., & International Federation on, A. (1998). *Housing older people : an international perspective*. New Brunswick, N.J., U.S.A.: Transaction Publishers.

Brown, N. (2003). Under one roof: The evolving story of three generation housing in Japan. *Demographic change and the family in Japan's aging society*, 53-71.

Burholt, V., & Dobbs, C. (2014). A support network typology for application in older populations with a preponderance of multigenerational households. *Ageing and Society, 34*(7), 1142-1169. doi:10.1017/S0144686X12001511

Canada, M., & Housing, C. (2006). Accessory Apartment Regulations in census metropolitan areas in Canada Règlements visant les appartements accessoires dans les régions métropolitaines de recensement du Canada.

Carstens, D. Y. (1985). *Site Planning and Design for the Elderly: issues, guidelines, and alternatives*. New York: Van Nostrand Reinhold.

Cha, J.-H. (1994). Aspects of individualism and collectivism in Korea. *Individualism and collectivism: Theory, method, and applications*. (pp. 157-174). Thousand Oaks, CA, US: Sage Publications, Inc, xix, 338 pp.

Danigelis, N. L., & Fengler, A. P. (1991). *No Place like Home : intergenerational homesharing through social exchange*. New York: Columbia University Press.

Easthope, H., Liu, E., Judd, B., & Burnley, I. (2015). Feeling at home in a multigenerational household: The importance of control. *Housing, Theory and Society, 32*(2), 151-170. doi:10.1080/14036096.2015.1031275

Friedman, A. (1996). *The Next Home*: McGill University, School of Architecture, Affordable Homes Program.

Friedman, A. (2002). *The Adaptable House: Designing Homes for Change*. New York: McGraw-Hill.

Gabay, R. (2013). *Long-Term Household Growth Projections: 2013 Update*. Retrieved from Ottawa, ON, CAN: http://site.ebrary.com/lib/mcgill/docDetail.action?docID=10840729

Geert, H., & Michael, H. B. (1984). Hofstede's Culture Dimensions : An Independent Validation Using Rokeach's Value Survey. *Journal of Cross-Cultural Psychology, 15*(4), 417-433.

Hancock, J. A. (1986). *Housing the Elderly*. New Brunswick, N.J.: Center for Urban Policy Research.

Hillier, B., & Hanson, J. (1984). *The Social Logic of Space*. Cambridge [Cambridgeshire]; New York: Cambridge University Press.

Hofstede, G. (1984). Cultural Dimensions in Management and Planning. *Asia Pacific Journal of Management, 1*(2), 81-99. doi:10.1007/bf01733682

Hofstede, G. (2016). National Cultures in Four Dimensions: A Research-Based Theory of Cultural Differences among Nations. *International Studies of Management & Organization International Studies of Management & Organization, 13*(1-2), 46-74.

Howell, S. C. (1980). *Designing for Aging: Patterns of Use*. Cambridge, Mass.: MIT Press.

Jacobson, M., Silverstein, M., & Winslow, B. (1990). *The Good House: Contrast as a Design Tool*. Newtown, CT: Taunton Press.

Kashima, Y., Yamaguchi, S., Kim, U., Choi, S., & Al, E. (1995). Culture, gender, and self: A perspective from individualism^collectivism research. Journal of Personality and Social Psychology, 69(5), 925-937. doi:10.1037/0022-3514.69.5.925

Liebig, P. S., Koenig, T., & Pynoos, J. (2006). Zoning, Accessory Dwelling Units, and Family Caregiving: Issues, trends, and recommendations. *Journal of Aging and Social Policy, 18*(3-4), 155-172. doi:10.1300/J038v18n03_11

Litchfield, M. (2011). *In-laws, Outlaws, and Granny Flats*. Newtown, CT: The Taunton Press.

Litchfield, M. W. (2011). *In-laws, Outlaws, and Granny Flats: your guide to turning one house into two homes*. Newtown, CT: Taunton.

Liu, E., Easthope, H., Burnley, I., & Judd, B. (2014). *Multigenerational households in Australian cities: Evidence from Sydney and Brisbane at the turn of the twenty-first century.* Paper presented at the 7th Australasian Housing Researchers' Conference, AHRC 2013: Refereed Proceedings.

Mathur, S. (2014). Impact of Urban Growth Boundary on Housing and Land Prices: Evidence from King County, Washington. *Housing Studies, 29*(1), 128-148. doi:10.1080/02673037.2013.825695

Moffat, D. (2004). Accessory Dwelling Units - Santa Cruz, California [EDRA / Places Awards, 2004 -- Planning]. *Places, 16*(3).

Mukhija, V., & Loukaitou-Sideris, A. (2014). The informal American city: Beyond taco trucks and day labor: MIT Press.

National Advisory Council on, A. (1992). *Housing an Aging Population: guidelines for development and design*. Ottawa: Govt. of Canada, National Advisory Council on Aging.

Newman, S. (2010). *Under one roof again: All grown up and (re)learning to live together happily*. Guilford, CT: Lyons Press.

Niederhaus, S. G., & Graham, J. L. (2006). Together Again: A Creative Guide to Successful Multi-Generational Living: M. Evans.

Nichols, J. L., & Adams, E. (2013). The Flex-Nest: The accessory dwelling unit as adaptable housing for the life span. *Interiors: Design, Architecture, Culture, 4*(1), 31-52. doi:10.2752/204191213X13601683874136

Pilkauskas, N. V. (2014). Living with a grandparent and parent in early childhood: Associations with school readiness and differences by demographic characteristics. *Developmental Psychology, 50*(12), 2587-2599. doi:10.1037/a0038179

Zhao, J. (2001). *Intergenerational living and housing*. A Report submitted to McGill University in partial fulfillment of the requirements for the degree of master of architecture.

Websites

CREAstats - National Statistics. (n.d.). Retrieved January 24, 2016, from http://creastats.crea.ca/natl/index.htm

Statistics Canada. (n.d.). Life expectancy. Retrieved January 24, 2016, from http://www.statcan.gc.ca/pub/82-229-x/2009001/demo/lif-eng.htm

Statistics Canada. Families and Households Highlight Tables, 2011 Census Retrieved January 24, 2016, from http://www12.statcan.gc.ca/census-recensement/2011/dp-pd/hlt-fst/fam/Pages/highlight.cfm

Population projections: Canada, the provinces and territories, 2013 to 2063. (2014, September 17). Retrieved January 24, 2016, from http://www.statcan.gc.ca/daily-quotidien/140917/dq140917a-eng.htm

Press, T. (2014, May 27). Housing affordability getting worse, Royal Bank. Retrieved November 4, 2015, from http://www.cbc.ca/news/business/housing-affordability-getting-worse-royal-bank-says-1.2655339

World Health Organization. "Ageing" Retrieved December 5, 2015, from http://www.who.int/topics/ageing/en/

Appendix 1: The experience of selling the MG house and moving to a senior residence. Dori's story

From this case study the author was able to learn not only about the MG living experience but also about the market situation for MG houses, and a comparison between senior living in a residence with that of an MG house. The interview with Nora's mother Dori was conducted in her apartment in a senior residence to where she moved recently. Thus Dori was able to compare and share her experiences.

First of all, the apartment in the residence is designed for senior living and has wide doors and corridors to easily move about in a wheelchair, if needed, with additional support in the bathroom, which Dori says is very helpful. There are no stairs or barriers that she needs to step over. On the one hand, Dori says that she felt closer to her family when they lived under one roof, but they still enjoy activities together. Her daughter visits her often, and they still do shopping together. In the residence, Dori has more of a social life since there are everyday lunches in the dining room, activities organized for residents, and, most importantly, she has 24/7 professional supervision. In Nora's opinion, even if her mother now misses their MG house, in the residence, she has more social contact. However, when they lived together she was alone all day with only the cat to keep her company. Dori mentions jokingly: "People here are mostly with walkers. Before, I didn't want to use a walker because I found it humiliating. but, since everybody has one, I also have one now." In terms of her community activities, everything has stayed the same. Dori still meets up with friends on a weekly basis from the "Rug Hooking Guild," she continues to knit rugs and has the same Internet contact with her friends abroad through her own laptop.

145

Selling the MG Westland House was not an easy task and it took nine months to find a buyer. According to Nora, there was no high demand in the market. Moreover, because the second small unit had replaced the garage, people were sometimes less interested. As a result of the failure to sell the property, Nora had to lower her price. In terms of MG clients, she says the main problem was the stairs, and, in some cases, people were thinking about opportunities to rent the unit, because they did not want to consider sharing the house with their elder parents. Many options of possible conversions of the second unit were presented by the agent to potential buyers. However, Dori quotes the agent as saying: "When there are buyers, there are no houses available, when there are houses available, there are no buyers!" So, it seems to be rare when those two factors come together. Before putting the Westland house on the market, Dora thought that there would be a big demand since this house is ideal for big families, but the reality was quite different. There are many possible explanations for this situation, one of them is possibly the distant location of the house from the downtown area. Another might be the high price range of this big house with a big yard because if families are pulling resources they are probably looking for a more affordable MG house. Nevertheless, Dora has now successfully sold the Westland house and is preparing to size down and move into a condo apartment of her own.

Appendix 2. Interview questionnaire

Family

1. Name of the family member, relation to family _____

2. What is the family structure living in this house?   What are the age ranges of family members?

Age range/ Number of persons	0-9 years	10-19 years	20-29 years	30-39 years	40-49 years	50-54 years	55-59 years	60-64 years	65-69 years	70-74 years	75-79 years	80 years +
First generation												
Second generation												
Third generation												

3. How many self-sufficient units are in this house? (*meaning with separate entrance; Side-by-side, accessory apartment, Up-and-down, Garden suit*)

4. For how long have you been living together?

5. What are the reasons behind Multi-generational household type choice?
    a. economic
    b. family status change reasons (marriage/divorce)
    c. loss of a family member
    d. health conditions, need to take care of each other
    e. other _____

6. Before moving together, what was your living arrangement?

Family A	Family B
a. rented apartment	e. rented apartment
b. condominium dwelling	f. condominium dwelling
c. smaller detached house	g. smaller detached house
d. other _____	h. other _____

House

7. Do you know when was this house built?

    ☐ yes _____ ☐ don't know

8. How long you have been living in this house?   _____ years

9. What is an approximate size of each unit?

10. Does every unit have its own kitchenette?

      ☐ yes ☐ no

11. Did you make any alterations to make the house more suitable for your family?

      ☐ yes _____ ☐ no

      a. **If yes,** what are the changes you made? List below:

      b. Where those changes costly?

      ☐ yes _____ (amount) ☐ no

12. How is the sound insulation of this house? Do you feel acoustic noise?   ☐ yes

      ☐ no

13. Does every unit have a separate access (from the street)?

      ☐ yes _____ ☐ no

      a. How it is used?

14. Does the house have an accessible entrance for elders, such as ramps of elevators, if they need one?

15. Is there a common room for all the family members?

      ☐ yes _____ ☐ no

      a. How often and by whom mostly those spaces are used?

16. How about the shared spaces in the house? Use of a garage, basement and garden. What are some other shared spaces, if you have some? (privilege for one family or shared)

Culture & Tradition

17. Is MGH a common arrangement in your culture? (in the country of your origins, in your culture)

      ☐ yes _____ ☐ no

      a. **If yes,** please tell me how popular is this practice today

      b. In traditional MGH homes in your country, are there separations between different units? (do they have private entrance, kitchenette)

     c. **If no,** what is a culturally acceptable place for elders to live (alone, retirement homes, etc)?

18. Do you spend all the year together in this house, or members of one unit: young adults or elders, travel to some other places during the year? (Second option: Is your living arrangement temporarily or permanent throughout the year?)

     a. For instance, travelling to other city and stay in a different place for a certain time

Activities & Spaces

18. What are the common activities you do with all your family members? (annual celebrations, events or daily basis conversations, TV watching)

19. On a daily basis how often do you have a chat or do something with other generation of your family members? (Frequency of face to face interaction with family)

     a. every day 1-2 hours

     b. every day 3-5 hours or more

     c. once in two days

     d. once a week

     e. other _____

20. Where do these activities take place?

21. Do families cook for each other?   ☐ yes _____ ☐ no

     a. If yes, is there an order to units/kitchens or one is a primarily used?

22. What kind of help and response do you get from each other? (meaning two households)

     a. housekeeping

     b. child care support

     c. health surveillance

Privacy

23. How do you rate your own privacy in the scale of 1 to 10 in this house? (10-most private, 1-least privacy)

1	2	3	4	5	6	7	8	9	10

24. Do you feel loss of privacy and independence in some degree living in this arrangement?

□ yes _____ □ no

       a.   When you need some privacy, do you get it?)

25. Are you able to hold private conversations in your house?

□ yes _____ □ no

a. What is that private space?

Future plans

28. Would you choose to maintain MGH settlement for long term living? □ yes □ no

       a.   Do you plan to do so, or your future housing goals are different?

29. Do you feel satisfied with this living arrangement? □ yes □ no

       a.   Please explain why

30. In your opinion, what could improve levels of privacy and in general functional arrangements of for each unit?

31. What kinds of changes would you want to do to the house? Would you prefer to make some? □ yes □ no

       a.   If yes, what are those changes? (Please give a detailed description)

32. Do you consider future changes for the house (units), if your family structure changes? (Please give a detailed description) (**do you consider adaptability of the house/unit for other purposes in future?)**

For instance:

       a. to rent out one unit

       b. to reconstruct it for work use purposes

       c. other _____

33. What are, in your opinion, some positive and negative aspects of multigenerational living?

positive aspects	negative aspects

Additional questions for seniors

1. Marital status at present
    a. married
    b. widowed
    c. divorced
2. Are there any extra care or help needed because of health conditions?
    a. Walking
    b. Eating
    c. Getting dressed
    d. Problems of bladder or bowel control
    e. Going to the doctor
    f. other _____
3. What is your age range?

Age range	40-49 years	50-54 years	55-59 years	60-64 years	65-69 years	70-74 years	75-79 years	80 years +
Checkmark								

4. Does anyone do shopping for you?   ☐ yes _____ ☐ no
    a. If yes, please specify _____
5. Do you cook by yourself?
6. What is your Support Network? (Family, Friends)
    a. Are you an active member of community? Who takes you to activities?
    b. Do you invite your friends to visit you? Is it convenient, since you live with your relatives?

Do you think MGH is a good option for families and do you think it can be a good solution for

housing problems?   ☐ *yes* ☐ *no*   *(please explain why)*