

Cohousing for Women Baby Boomers:
Meaning and Belonging as Design Criteria

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ABSTRACT

Housing is important to Canadian women as they generally have lower incomes than men, they live longer, and are more likely to live alone (Hudson & Milan, 2016; Bohnert, et.al., 2015). Cohousing refers to intentional neighbourhoods designed to promote a sense of community for residents. The mix of private and shared spaces in cohousing projects allows residents to share resources and mutual support while maintaining independence. This is a housing option worth exploring for Canadian women seeking alternative housing arrangements as they age (Christian, 2003, Durrett, 2009; Horelli, 2013; McCamant & Durrett, 2013; Toker, 2010). The aim of this study was to discover if common areas in cohousing contribute to a sense of belonging for women baby boomers who are residents of cohousing. This exploratory research was based on an interdisciplinary review of literature in housing, architecture and design. As an exploratory study, a mixed methods approach was used which included personal interviews, a design workshop, and a Canada-wide survey of women cohousing residents over the age of 50. Findings suggest that for these women, the opportunity for a sense of belonging is created through the coalescence of many factors, including the common spaces, process, and people of the community, the meaning giving to common space and time. This research will be of interest to designers and architects currently involved in cohousing or interested in cohousing as one housing option for women baby boomers.

Key Words: cohousing, women, baby boomers, sense of belonging, meaning of space, common space, interdisciplinary

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TABLE OF CONTENTS

Abstract	ii
Acknowledgments	iii
Table of Contents	iv
List of Figures	vii
List of Tables	viii
List of Images	ix
List of Appendices	x

CHAPTERS

1. INTRODUCTION	1
1.1 Canada's aging population	2
1.2 Cohousing as a potential housing option for women boomers	3
1.3 Purpose of the study	4
1.4 Possible contributions	4
1.5 Scope and limits of the study	6
1.6 Structure	7
2. LITERATURE REVIEW	8
2.1 Overview of housing options for Canadian seniors	8
2.2 Cohousing	9
2.3 Cohousing attributes	11
2.3.1 Participatory process	14
2.3.2 Neighbourhood design	15
2.3.3 Common areas and social interaction	17
2.3.4 Sense of community and sense of belonging	20
2.4 Cohousing for seniors	21
2.4.1 A comparison of two Canadian seniors' communities	23
2.5 Cohousing and women	28
2.6 The meaning of common areas	29
2.7 The cohousing participatory process	31
2.7.1 Participatory design	32
2.7.2 Generative and consensus design	34
2.8 Summary	34
3. METHODS	37
3.1. Ethics	38
3.2 Personal interviews	38
3.2.1 Participants	39
3.2.2 Location	40
3.2.3 Data management and analysis	41
3.3 Design workshop	42
3.3.1 Participants	45

3.3.2 Location	46
3.3.3 Data management and analysis	46
3.4 Survey	46
3.4.1 Participants	47
3.4.2 Data management and analysis	48
4. RESULTS	50
4.1 Interview findings	50
4.1.1 People	52
4.1.2 Process	53
4.1.3 Place	53
4.2 Design workshop findings	54
4.2.1 People	56
4.2.2 Process	56
4.2.3 Place	57
4.3 Survey findings	60
4.3.1 People	61
4.3.2 Process	62
4.3.2.1 Activities in meaningful areas	62
4.3.2.2 Governance	62
4.3.2.3 Decision-making	63
4.3.3 Place	64
4.3.3.1 Defining common and private space	66
4.3.3.2 Meaning of common areas	67
4.3.3.3 Sense of belonging	67
4.4 Summary	69
5. DISCUSSION	70
5.1 Cohousing Common areas	70
5.1.1 Indoor common areas	70
5.1.2 Outdoor common areas	71
5.1.3 Transitional zones	71
5.2 Meaning(s) attributed to common areas	72
5.2.1 Common spaces with positive meaning	73
5.2.2 Common spaces with negative meaning	73
5.2.3 Changes in meaning over time	74
5.3. Meaning and sense of belonging	74
5.3.1 People	75
5.3.1.1 Within the cohousing community	75
5.3.1.2 The surrounding community	77
5.3.2 Process	78
5.3.2.1 Social interaction	78
5.3.2.2 Governance	79
5.3.2.3 Decision-making	80
5.3.2.4 Time	81
5.3.2.5 Barriers to success	81

5.3.3 Place	82
5.3.3.1 Design of common areas	82
5.3.3.2 Use and function of common areas	84
5.4 Common areas on sense of belonging	86
5.5 Summary	87
5.6 Limitations	90
5.7 Proposals for future research	92
5.8 Contribution to the fields of design and architecture	93
5.9 Recommendations	94
6. CONCLUSION	98
6.1 Insights from findings of the research	98
6.2 Major insights of the study	99
6.2.1 Insights regarding meaning of common areas	99
6.2.2 Insights regarding common areas and sense of belonging	100
6.3 Relevance of findings for designers and architects	100
6.4 Primary recommendations for designers and architects	101
REFERENCES	102
APPENDICES	109

LIST OF FIGURES

Figure		Page
Figure 1	The interaction between design, personal and social factors in a cohousing community and its impact on social interaction	19
Figure 2	Workshop design of an ideal cohousing community	44
Figure 3	Summary of interview findings	51
Figure 4	Summary of workshop findings	57
Figure 5	Importance of common areas available to respondents	65
Figure 6	Sense of belonging as a function of positive interaction of people, place, and process	88

LIST OF TABLES

Table	Page
Table 1 Active Cohousing Communities in Canada	11
Table 2 Summary of interview categories relating to people	52
Table 3 Summary of interview categories relating to process	53
Table 4 Summary of interview categories relating to place	54
Table 5 Summary of workshop categories relating to people	55
Table 6 Summary of interview categories relating to process	58
Table 7 Summary of interview categories relating to place	58
Table 8 Considerations for design of common space	60
Table 9 Summary of survey findings	61
Table 10 Type of activities that take place in meaningful areas	62
Table 11 Participation in development and management activities	63
Table 12 Suggested adaptations to existing common areas	66
Table 13 Common areas to include in cohousing for women	69

LIST OF IMAGES

Image	Page
Image 1 Cranberry Commons courtyard	13
Image 2 Cranberry Commons site plan	13
Image 3 Creekside Commons common house	14
Image 4 Creekside Commons site plan	14
Image 5 View south down our main path	16
Image 6 Landscape plan on the main part of the site	16
Image 7 Quayside Village courtyard	17
Image 8 Quayside Village ground floor layout	17
Image 9 Middle Road Community common house	18
Image 10 Common house patio	18
Image 11 WindSong covered street	18
Image 12 Prairie Sky Cohousing street view	18
Image 13 Interior of the lodge	22
Image 14 Harbourside site plan	22
Image 15 Common kitchen and dining area	25
Image 16 One of six private bed-sitting rooms	25
Image 17 Common living room	25
Image 18 Common yard	25
Image 19 Wolf Willow garden	27
Image 20 Loving winter at Wolf Willow	27
Image 21 Common workshop [Wolf Willow]	27
Image 22 Common patio [Wolf Willow]	27
Image 23 Wolf Willow common house	28
Image 24 Living and dining area of a private unit	28
Image 25 Floor plan of the common house [Wolf Willow]	28

APPENDICES

	Page
A. Interview Letter of Invitation	109
B. Interview Consent Form	112
C. Interview Questions and Prompts	115
D. Workshop Email Letter of Invitation	119
E. Workshop Consent Form	122
F. Workshop Plan	125
G. Survey Email Invitation Letter	130
H. Survey Consent Form	133
I. Survey Questions	136
J. Indoor common areas with positive and negative meaning	141
K. Outdoor common areas with positive and negative meaning	143

CHAPTER ONE

INTRODUCTION

As their years progress, some women's conversations lead to contemplation of where they will live as they get older. Discussions frequently turn to creating a community where they can live with the support and company of friends while maintaining an independent lifestyle. The ideas bantered about in such conversations are similar to the defining principles of cohousing. Cohousing is intentionally planned housing with a mix of private residences and common areas, and where physical and social interactions are encouraged to create a sense of community among members (Christian, 2003; Durrett, 2009; Green, 2013; Horelli, 2013; McCamant & Durrett, 2011). The cohousing model is a housing option for some women wishing to create their own supportive community for aging.

While ideas around living in a supportive community and sharing resources are common, there seems some bewilderment and an ongoing struggle about how to create a cohousing community. Being a part of many such conversations it appears that since those planning to live together must design their own living arrangements, the process is anticipated to be long and difficult. This raises the question of whether it's possible to shorten the early planning and design process of cohousing for women over the age of fifty by knowing which shared resources or common areas should be included in the initial design. To determine what these areas might be, a start would be to look at cohousing common areas in order to determine the meaning they hold for women cohousing residents over the age of fifty and the affects of this meaning on a sense of

belonging to the community. Building on the insight and experience of current women residents over the age of fifty living in cohousing could provide a valuable stepping-stone for others starting out on this journey.

1.1 Canada's aging population

There is wealth of information about the growth of the population over the age of 65 in Canada. In 2013, people over the age of 65 represented 15.3% of the Canadian population (Bohnert & Statistics Canada, 2015). By 2063 seniors will make up approximately 25% of the Canadian population (Bohnert & Statistics Canada, 2015). Women will comprise more than half this group (Bohnert & Statistics Canada, 2015). 'Baby boomers' are a large cohort in Canada's aging population born between 1946 and 1965 (Milan & Statistics Canada, 2012). The leading edge of baby boomers entered the senior population around the year 2011; the rest of this large cohort will be over the age of 65 around 2040 (Bohnert & Statistics Canada, 2015). As approximately 30% of the Canadian population is made up of baby boomers, a significant portion of Canada's population is aging at the same time.

Women comprise more than half of all seniors (Statistics Canada, 2011). Canadian women generally have lower incomes than men, live longer and have fewer retirement benefits to carry them through their senior years (Hudon & Milan, 2016; Ontario Women's Network [OWN], 2009). More women live alone at every age than men (OWN, 2009). In 2006, almost 40% of women over the age of 65 in Canada lived alone compared to 17% of men (OWN, 2009). Combined, these factors suggest women will require affordable and long-term housing options as they age (OWN, 2009). For

women over the age of fifty (hereafter called women baby boomers¹ or women boomers¹) who do not wish to age in isolation or who are looking for ways to reduce housing costs, cohousing is a housing option that offers both social interaction and sharing of resources (Durrett, 2009; Horelli, 2013; McCamant & Durrett, 2011; Toker, 2010).

1.2 Cohousing as a potential housing option for women baby boomers

One of the fundamental principles of cohousing is the combination of private residences and shared common indoor and outdoor areas (Canadian Cohousing Network [CCN], n.d.-a; Durrett, 2009; Horelli, 2013; McCamant & Durrett, 2011; Toker, 2010). This arrangement of common and private space is based on models of cohousing housing developed in the 1960's, first in Denmark and then in Sweden (CCN, n.d.-a; Durrett, 2009; Horelli, 2013; Milman, 1994; Vestbro, 2000). Early cohousing models incorporated common facilities and outdoor areas to allow for sharing of chores, cooking, and childcare (Horelli, 2013; Toker, 2010). The intention was to lessen the burden of housework and childcare for women and to encourage greater equality in these tasks between women and men (Horelli, 2013; Toker, 2010). With the introduction of the cohousing model in North America in the 1990's, a focus on equality between members and recognition of the benefit of sharing resources continues (Durrett, 2009; Horelli, 2013; McCamant & Durrett, 2011; ScottHanson & ScottHanson, 2005; Toker, 2010). The rationale for cohousing is now as likely to be articulated as a means to reduce day-to-day living expenses, to promote equal participation of men and women in some chores and meal preparation, to create environmentally sustainable living arrangements, and to

¹Describing women as 'women boomers', 'women baby boomers', or 'women over the age of fifty' tends to homogenize the population. Women can also be distinguished by class, race, and ability, among other things.

create a supportive community (Durrett, 2009; Horelli, 2013; McCamant & Durrett, 2011; ScottHanson & ScottHanson, 2005; Toker, 2010). Current cohousing literature notes the importance of common areas as sites for interaction that can lead to the development of a strong community (Durrett, 2009; Horelli, 2013; McCamant & Durrett, 2011; Scott Hanson & ScottHanson, 2005). This research explores the interpretations women baby boomer residents bring to common areas in cohousing and how interacting in areas contributes to or inhibits a sense of belonging to the community.

1.3 Purpose of the Study

This exploratory research aims to gain insights about the meaning of common areas in cohousing and the possible interaction between that meaning and sense of belonging for women baby boomer residents. The primary research question is, “How do common areas in cohousing communities contribute to a sense of belonging for baby boomer women residents?” Flowing from this question are four sub-questions:

- i. What are the intentional and unintentional common areas of some cohousing communities?
- ii. What meanings do women residents of cohousing attribute to common areas?
- iii. What is the relationship between the meaning(s) of common areas and a sense of belonging?
- iv. Does the built environment facilitate or inhibit a sense of belonging in cohousing communities?

1.4 Possible Contributions

The research question is based on a review of the literature. It is intended to add to the current literature on cohousing and the cohousing participatory process. The research identifies the meaning women baby boomers in some cohousing communities give to common areas and their experiences of a sense of belonging, as these issues are not

strongly identified or differentiated in the literature. The underlying assumptions are that women baby boomers ascribe meaning to common areas, that this meaning affects whether they feel they belong to the community when they use common areas, and that some aspects of the built environment contribute to or inhibit this sense of belonging.

As this research focus encompasses both the physical and social community aspects of cohousing, an interdisciplinary approach is appropriate. Studying the literature on participatory design and co-design in the discipline of design provided understanding of the processes involved in the creation of cohousing. Studying literature in the field of architecture provided consideration of the relationship between the physical environment and social interaction of cohousing members that might lead to sense of belonging, the relationship between meaning and time, as well as the production of meaning through creation of physical environments. Literature on cohousing was taken primarily from the field of economics, which provided consideration of the creation and benefits of shared resources. Looking at the research question through these disciplines allowed for insights that might not have emerged if the study was completed through only one discipline.

As an interdisciplinary research study, these findings will be of interest to those in the fields of design and architecture to assist in their design considerations. Results may also be of interest to women baby boomers planning cohousing. The research findings feature the collective experience of meaning and belonging of a group of women baby boomers involved in cohousing. The findings may help designers and architects involved in developing cohousing by highlighting potential interactions between meaning of common areas and the sense of belonging for cohousing residents (collective referred to as the cohousing community). Findings could also indicate effective points for designers

and architects to be involved in the participatory design process. It is possible that awareness of the relationship between meaning of cohousing common areas and a sense of belonging could save time in the cohousing planning process by providing a starting point for resident design discussions.

1.5 Scope and Limits of the study

Cohousing is one housing option that might be of interest to women as they age. The principles and goals upon which cohousing is developed are central to this research. However, this study is not an evaluation of cohousing, rather it is a consideration of the meaning and affect of common areas unique to cohousing. There are other options for independent and collective housing for women baby boomers specifically, and seniors generally, that are not included in this research. There is also a significant body of literature exploring the connection between home and aging; only the literature from this field that relates to the meaning of common areas in a housing environment is relevant in this study. The cohousing model intentionally creates physical, social, and financial support for residents. For this study, the focus is on the physical and social aspects of cohousing. Literature in architecture and design that address these areas is used. The focus of this research is not to look at all aspects of aging and housing for all seniors but rather to focus narrowly on the physical and social aspects of cohousing as experienced by women baby boomers.

This research started with a focus on housing options for senior women. Through a review of the literature it became apparent that senior cohousing included those over the age of fifty, not sixty-five. As this is also the age of the youngest baby boom cohort, this

research focus was adjusted to the population of women baby boomers over the age of fifty.

1.6 Structure

This study took place in 3 phases. Phase one consisted of interviews with 5 women residents of a local cohousing community or members of a cohousing-planning group. Phase 2 involved a design workshop with 2 current cohousing members who had each participated in an earlier personal interview. Phase 3 was a survey of women baby boomer residents of cohousing communities across Canada as selected from completed communities listed on the Canadian Cohousing Network website (Canadian Cohousing Network [CCN], n.d.-b).

The focus of this research is introduced in chapter 1 of this thesis. The review of academic literature in the fields of design, economics, and architecture relevant to the research question is described in chapter 2. The research methods are outlined in chapter 3. Research findings are described in chapter 4 and followed by a discussion of the study findings and recommendations in chapter 5. Chapter 6 concludes with a summary of significant findings, limitations of the study, contributions to the fields of design and architecture, and suggestions for potential future research.

CHAPTER TWO

LITERATURE REVIEW

The literature review for this study was conducted to explore the connection between meaning of common areas and a sense of belonging. The review is divided into 4 sections. The 1st section briefly considers the literature on housing for seniors in Canada. The 2nd section looks at the cohousing through literature drawn primarily from the field of economics. The 3rd section addresses the meaning of architecture and built environments as described in the field of architecture. The final section looks at the participatory process of cohousing through the field of design with focus on the participatory design process.

2.1 Overview of housing options for Canadian seniors

Older people do not see the current range of housing options for seniors in Canada as desirable (Dickinson, 2008; Murray, 2007; Vestbro, 2000; Wagner, et al., 2010). Research indicates that Canadian baby boomers prefer to continue living in their own communities and in their own homes for as long as possible, even if support services and renovations are required to do so (Canadian Mortgage and Housing Corporation [CMHC], 2012; Murray, 2007; Vestbro, 2000; Wagner, 2010). Home modification and community support programs, home-sharing, sharing space with children or other family allow seniors to stay in their own home with some adaptation (CMHC, 2012; Green 2013). These options are considered “aging-in-place” as they allow the older person to stay in their existing home (CMHC, 2012).

Other aging-in-place options include adult communities, life lease suites, or assisted

living in rental suites with care services that allow seniors to remain in one home even as they care requirements increase (Green, 2013, p. 184). Downsizing to more easily managed homes, cohousing, congregate seniors' housing, supportive housing, residential care, and retirement residences are options for seniors who wish to move (Green, 2013; Wagner, et al., 2010). In contrast to the relative abundance of literature on housing designed for seniors, there is a scarcity of literature on the involvement of North American seniors in the creation of their own housing for their later years (Dickinson, 2008; Murray, 2007; Vestbro, 2000; Wagner et al., 2010). This shortfall would suggest that seniors are not strongly involved in shaping their own housing options for later years (Dickinson, 2008; Murray, 2007; Vestbro, 2000; Wagner et al., 2010).

2.2 Cohousing

Cohousing is a form of collective housing where privately owned residences are clustered around collectively owned areas and residents share activities and amenities (Brenton, 2013; CCN, 2016; Christian, 2003; Durrett, 2009; Green, 2013; Horelli, 2013; McCamant & Durrett, 2011; Vestbro, 2000). Cohousing is based on the collective housing 'bofaellesskab' (shared accommodation) that first appeared in Denmark in the 1960's (Brenton, 2013; Christian, 2003; Durrett, 2009; Green, 2013; Vestbro, 2000). The 'bofaellesskab' design was a reaction to the perceived impracticality and isolation of traditional single-family houses and apartments for women who were working and raising children (Durrett, 2009; Toker, 2010). It included autonomous private dwellings and common areas intentionally created to support a sense of community (Durrett, 2009; Vestbro, 2000, pp.165-166). Each inter-generational 'bofaellesskab' had some shared

facilities (often kitchens), shared services (often cooking) and shared or hired responsibility for housework (Vestbro, 2000, p.165).

Similar collective housing, under the umbrella title 'kollektivhus' (collective house or cohousing), was developed in the late 1960's in Sweden (Brenton, 2013; Christian, 2003; CCN, 2016; Durrett, 2009; Green, 2013; Horelli, 2013; McCamant & Durrett, 2011; Vestbro, 2000). 'Kollektivhus' emerged as women entered the workforce in greater numbers and no longer had time to independently take care of all responsibilities of running a household (Vestbro, 2000). The primary models developed at this time were the BiG ('Bo i Gemenskap' or 'Live in Community'), 'New Everyday Life', and 'New Living Approach' (Horelli, 2013). BiG communities were based on the philosophy that housework and childrearing were natural and necessary aspects of women's culture and these were more enjoyable when shared (Horelli, 2013). Housing was developed to allow togetherness through common work (Horelli, 2013). This model was also known as the 'self-work' model as the women of the community did not hire out services but shared these responsibilities (Horelli, 2013). The 'New Everyday Life Approach' sought to address the double burden of women (work and home) by advocating equal share of responsibilities by men and women (Horelli, 2013, p. 50). The 'New Living Approach' included environmentally sensitive housing, services, employment, formal and informal economy and activities to support residents of all ages (Horelli, 2013, p. 50-52). Soon after, collective housing with common kitchens and/or collective hired services spread to Germany and Norway (Vestbro, 2000, p.168).

Cohousing based on these Scandinavian models reached the US and Canada in the 1990's when a number of mixed-aged cohousing communities were developed in the

USA then in Canada (Brenton, 2013; CCN, n.d.-a; Durrett, 2009; Green, 2013). There are now 11 active cohousing communities in Canada (Table 1). The first mixed-generation cohousing project in Canada, WindSong Cohousing of Walnut Grove, opened in Langley, British Columbia in 1996 (WindSong Cohousing Community [WCC], n.d.). The first senior-only cohousing in Canada, Wolf Willow Cohousing, opened in Saskatoon, Saskatchewan in 2012 (Green, 2013, p. 141; Smillie, n.d.). The most recent cohousing community (officially opened January, 2016) is Harbourside Cohousing for seniors in British Columbia (Harbourside Cohousing (HC), n.d.). Most cohousing communities in Canada are of mixed aged and most (8 of 11) are in British Columbia.

Province	Community	Move-in Date	Type of Community
BC	WindSong Cohousing of Walnut Grove	1996	Mixed-generations
BC	Middle Road	1996	Mixed-generations
ON	Terra Firma Cohousing	1997	Mixed-generations
BC	Quayside Village	1998	Mixed-generations
BC	Cranberry Commons	2001	Mixed-generations
AB	Prairie Sky Cohousing Cooperative	2003	Mixed-generations
BC	Robert's Creek Cohousing	2004	Mixed-generations
BC	Creekside Commons	2007	Mixed-generations
BC	Pacific Gardens Cohousing Community	2009	Mixed-generations
SK	Wolf Willow Cohousing	2012	Senior
BC	Harbourside Cohousing	2016	Senior

Table 1: Active Cohousing Communities in Canada. Canadian Cohousing Network. (n.d.-b). Completed Communities. Retrieved from <http://cohousing.ca/places/completed-communities/>

2.3 Cohousing Attributes

Cohousing has several components considered essential to creating and supporting a community. The consistent application of these principles is what makes cohousing unique from other collective housing options (Durrett, 2009, p. 19). The components are:

1. Participatory process with all residents involved in planning, designing, and making decisions
 2. Deliberate neighbourhood design to encourage a strong sense of community
 3. Extensive common facilities to support the community and to supplement private living space
 4. Resident management of all aspects of community
 5. Non-hierarchical leadership structure with all decisions shared by all adults
 6. Separate income sources with no generation of income by the community and contribution to common areas by all residents
- (Durrett, 2009, p.27)

The ownership of private, self-sufficient residences combined with collectively owned common areas combines the benefits of autonomy with the advantages of living in a community (CCN, n.d.-d; Christian, 2003; Durrett, 2009; Green, 2013; Horelli, 2013; McCamant and Durrett, 2011). Private units have all the amenities of ‘traditional’ homes (including full kitchens) but are often intentionally smaller (Christian, 2003; Durrett, 2009; Green, 2013; McCamant & Durrett, 2011). Outdoor common areas can include walkways, covered atriums, decks, terraces, and central gathering spots (Images 1, 2) (Durrett, 2009, p. 27-28). Gathering spots or ‘gathering nodes’ such as path-side picnic tables, play structures, and widened areas on pathways are also common (Durrett, 2009, p. 27). Transitional zones between private and common areas such as stairways, elevators, large porches, or gardens between homes are also typical (Horelli, 2013, p. 48). Parking areas are usually situated on the periphery of the project and accessed by common walkways (Durrett, 2009). As the desired relationship between private and common areas can be difficult to achieve in retrofit housing, cohousing projects are often new builds (Durrett, 2009).



1.

Image 1: Cranberry Commons courtyard

Cohousing Development Consulting. (n.d.-c). Cranberry Commons. Retrieved from http://www.cohousingconsulting.ca/proj_20Cc.html

Image 2: Cranberry Commons site plan

Cohousing Development Consulting. (n.d.-c). Cranberry Commons. Retrieved from http://www.cohousingconsulting.ca/proj_20Cc.html



2.

A unique shared facility called the common house is considered central to cohousing communities (Images 3, 4) (Durrett, 2009; Horelli, 2013). The common house is designed by the residents, is often centrally located, and may include hobby rooms, guest rooms, shared laundry areas, play areas, workshops and other amenities (i.e. hot tubs, saunas, pools or games rooms) (Durrett, 2009; Green, 2013, p. 142; McCamant & Durrett, 2011). The common house is also likely to contain a large kitchen, dining area and living area that can accommodate full group gatherings and shared meals several times a week (Durrett, 2009; Green, 2013; McCamant & Durrett, 2011). It is financed by and available to all residents of the community (Brenton, 2013; Durrett, 2009; Green, 2013; McCamant & Durrett, 2011). The common house is intended to support the formal and informal interaction of members (Brenton, 2013; Durrett, 2009; Green, 2013).



3.

Image 3: Creekside Commons common house.

Cohousing Development Consulting. (n.d.-d). Creekside Commons. Retrieved from http://www.cohousingconsulting.ca/proj_20Cs.html



4.

Image 4: Creekside Commons site plan

Cohousing Development Consulting. (n.d.-d). Creekside Commons. Retrieved from http://www.cohousingconsulting.ca/proj_20Cs.html

2.3.1 Participatory process

The intentional group responsibility for planning, developing and managing their own project is another distinguishing feature of cohousing (Brenton, 2013, p. 4; Durrett, 2009). There is often variation in the number and type of participants from planning to development of the project (i.e. the group may consult cohousing experts or developers and may lose or gain future residents) but it is the future residents who direct the process (Durrett, 2009, p. 20; McCamant & Durrett, 2011). According to Brenton (2013), this process creates community and can also lead to member equality through active participation. Although the process from planning to building can be long, it is through decision making, problem solving, and overcoming setbacks that a sense of community develops (Brenton, 2013; Christian, 2003; Durrett, 2009; Green, 2013, p. 141). Once complete, residents manage all aspects of the cohousing project (Brenton, 2013; Christian, 2003; Durrett, 2009; Green, 2013; McCamant and Durrett, 2011). Ongoing management of the complete project is based on mutual support, self-governance and active participation and these are viewed as necessary to the long-term success of the

community (Durrett, 2009).

The planning of a cohousing project evolves in stages. Generally the stages are feasibility study (research and planning), design, and construction (Durrett, 2009). During the planning and building stages, the group develops a feeling of community (Brenton, 2013; Durrett, 2009; McCamant & Durrett, 2011). While working towards a common goal of building homes (which usually takes several years), future residents are also building experience and decision-making skills through participatory actions (Durrett, 2009, p. 26). This experience becomes part of the history of the group, which builds on the sense of community.

Once built, the principles of participation continue through the equal participation of all members in decisions regarding the community (Durrett, 2009; McCamant & Durrett, 2011; Vestbro, 2000). Participation is based on democratic processes (Brenton, 2013; Christian, 2003; Durrett, 2009; Green, 2013; McCamant and Durrett, 2011; ScottHanson & ScottHanson, 2013). This process is often consensus decision-making, which involves actively listening to, and valuing each member as this is believed to foster a sense of community (Day & Parnell, 2003, p. 13). Decisions made by consensus can be difficult and time-consuming but are more likely to create buy-in from all residents (Brenton, 2013). Nonetheless, Durrett (2009) suggests that communities sometimes operate on the principle of consensus when it makes sense, but have super-majority voting as a back up to decide issues when time is critical (2009, p. 277).

2.3.2 Neighbourhood design

One goal of cohousing is to support the formal, informal and spontaneous social

interaction of residents (Brenton, 2013; Durrett, 2009; J. Williams, 2005). The project design is expected to support feelings of group cohesion that were developed in the planning and building stages (Durrett, 2009, p. 23). In part, this is achieved by having the design reflect the shared ecological and social values of residents and encourage cooperation with neighbours (Christian, 2003; Durrett, 2009). J. Williams (2005) notes design factors such as density, clustering, visibility, peripheral parking and defensible space encourage interaction among residents (Images 5, 6). The number of units suggested for positive density ranges from 10 to 40 households (Christian, 2003; Durrett, 2009). What is important is that the group is small enough for full-group discussions and decision-making yet large enough to allow for diversity of personalities and sharing of financial responsibilities (Durrett, 2009).



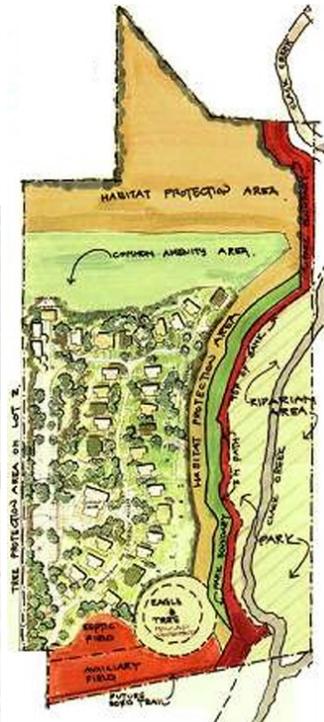
5.

Image 5: View south down the main path.

Roberts Creek Cohousing. (n.d.-a). Home. Retrieved from <http://www.robertscreekehousing.ca/street.jpg>

Image 6: Landscape plan on the main part of the site.

Roberts Creek Cohousing. (n.d.-b). Our Community. Retrieved from <http://www.robertscreekehousing.ca/community.html>



6.

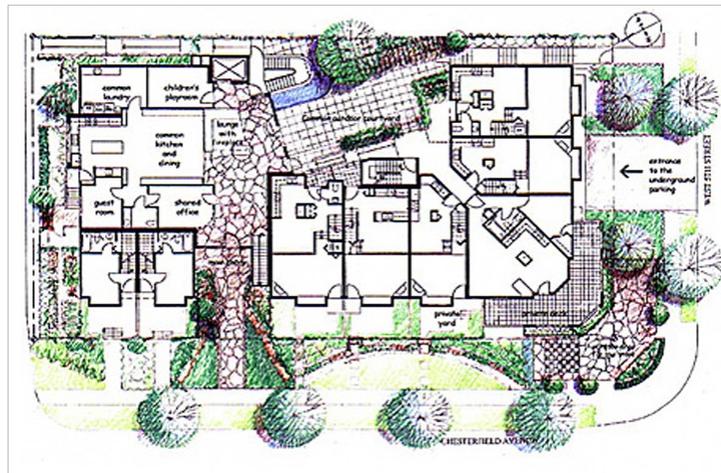
2.3.3 Common areas and social interaction

While common areas are central to the design of co-housing, their importance may not be fully understood (Horelli, 2013, p. 48). Common areas (Images 7, 8) support the activities of the community but are not enough on their own to create community (Horelli, 2013, p. 61). The common house (Images 9, 10) in particular can either facilitate or inhibit interaction of members depending on the stage of the community and the individual members (Horelli, 2013). Where members of the community do not share common values and vision, the common house may become the source of community disintegration (Horelli, 2013). Where residents have collective values and vision, the common areas allow collective action and communal culture to evolve so that these areas become the “supportive infrastructure of everyday life” (Horelli, 2013, p. 60).



7.

Image 7: Quayside Village courtyard



8.

Image 8: Quayside ground floor layout

Images 7, 8 from Cohousing Development Consulting. (n.d.-d). Quayside Village. Retrieved from http://www.cohousingconsulting.ca/proj_20Qv.html



Image 9 (top left): Middle Road Community common house. Canadian Cohousing Network. (n.d.-e). Middle Road Community. (n.d.-e). Retrieved from http://cohousing.ca/places/canada/british-columbia/nelson/bc_cohousing/middle-road-community/

Image 10 (top right): Common House Patio. Pacific Gardens Cohousing Community. (2015). Community Photos. Retrieved from <http://pacificgardens.ca/galleries/gallery/community-photos/>

Image 11 (bottom left); WindSong covered street. WindSong Cohousing Community. (n.d.). Homes for Sale. Retrieved from http://windsong.bc.ca/living_at_windsong/homes_for_sale.php

Image 12 (bottom right): Prairie Sky Cohousing street view. Prairie Sky Cohousing. (2012). Home. Retrieved from https://prairieskycohousing.files.wordpress.com/2012/04/img_1659.jpg

Common facilities in cohousing are an extension of private residences (Images 9, 10, 11, above and Image 13, below) (Durrett, 2009; McCamant & Durrett, 2011; ScottHanson & ScottHanson, 2005). Outside common areas, on the other hand, are elements of the intentional neighbourhood design of cohousing (Durrett, 2009; McCamant & Durrett, 2011; ScottHanson & ScottHanson, 2005). Both are sites for

planned and spontaneous interactions, which are assumed to foster and support the building of community (CCN, n.d.-d; Durrett, 2009, Horelli, 2013; McCamant and Durrett, 2011; ScottHanson & ScottHanson, 2005). This interaction is summarized by Horelli (2013) in the three roles of shared space: as an arena for action where the group can congregate, as a producer of meaning reflecting the social and cultural nature of the community, and as a medium of integration or disintegration for the community (p. 60). J. Williams' (2005) model shows the inter-relationship of design, personal factors (such as similar values and norms), formal social factors (such as collective management and maintenance for the common areas) and informal social factors (such as social dynamic of relationships between individuals and the group) on as equally important factors in establishing opportunities for social interaction which lead to development of community (see Figure 1).

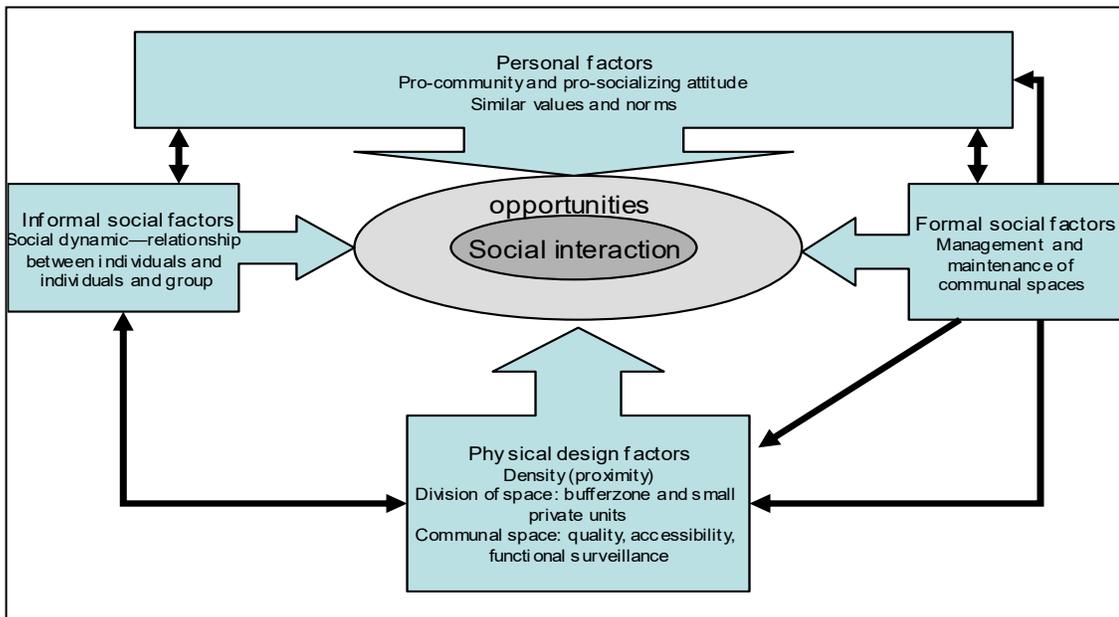


Figure 1: The interaction between design, personal and social factors in a cohousing community and its impact on social interaction. From Williams, J. (2005) Designing neighborhoods for social interaction: The case of cohousing. *Journal of Urban Design*, 10(2), 195-227.

2.3.4 Sense of community and sense of belonging

The creation of community is a primary objective of cohousing (Christian, 2003; Durrett, 2009; Green, 2013; McCamant & Durrett, 2011; ScottHanson & ScottHanson, 2000). In cohousing literature the term ‘community’ is used liberally yet seldom or consistently defined (Day & Parnell, 2003; Horelli, 2013; Talen, 2000; Vestbro, 2000; J. Williams, 2005; R. Williams, 1983). Community is defined both as a geographically bound group and as the relationships that contribute to the group’s social organization (Bullock, et al., 2000; J. Williams, 2000, p. 181; J. Williams, 2005, p. 76). In cohousing literature, community may be used to refer to a specific physical cohousing project, the neighbourhood in which the cohousing exists, and the group of resident members living in a particular cohousing project (Horelli, 2013; Vestbro, 2000). In planning literature, Talen (2000) finds the use of the term ‘community’ falls into three categories:

- Community as design (a sense of community developed through social interaction facilitated by common areas)
- Community as description (of sense of belonging and sense of place and as outcome of citizen participation in the planning process), and
- Community building (community collaboration on non-planning projects aimed at increasing social interaction and problem solving) (Talen, 2000, p. 173-174).

Community is used in this thesis to mean a group of people diverse in characteristics but who share geographic location, social ties, common perspectives and who participate in joint action (MacQueen et al., 2001, p. 1936). This definition covers both the physical and social aspects as commonly noted in cohousing literature (Christian, 2003; Durrett, 2009; Green, 2013; McCamant & Durrett, 2011; ScottHanson & ScottHanson, 2005).

In cohousing literature, sense of community is based on the residents’ perception of how much they share values and identify with their neighbours as well as the commitment they have to their neighbourhood (McMillan and Chavis, 1986). For Talen

(2000), the term describes the “interrelationship between the individual and the individual’s social structure”, as well as the link between the social and emotional components of community (p. 174). McMillan and Chavis (1986) define sense of community as the feeling of membership in a group, that members of group matter to each other and that the needs of members will be met by their commitment to act as group (McMillan and Chavis, 1986, p.9-10). The main components of the sense of community are membership, influence, integration, fulfillment of needs, and shared emotional connection (McMillan & Chavis, 1986, p. 9). It is a dynamic feeling influenced by changing values and other forces (i.e. economics, media) over time (McMillan & Chavis, 1986, p. 19).

Sense of belonging is closely related to sense of community and may also have multiple meanings. McMillan and Chavis (1986) define sense of belonging as feeling part and accepted by the group and committing to sacrifice for the group (p. 10). The emphasis is on reciprocal identification of the group and the person as member of the group (McMillan & Chavis, 1986). The root of the emotional and social factors affecting sense of community, according to Mihaylov and Perkins (n.d.), are trust, shared concerns and values and social bonding which lead to cooperation amongst neighbours (p. 68).

Sense of belonging is feeling a part of group.

2.4 Cohousing for seniors

Cohousing may be inter-generational or senior only for residents over the age of fifty (Brenton, 2013, p. 3; Durrett, 2009; McCamant & Durrett, 2011). Senior cohousing permits residents to live where the issues of others the same age are priority, to remain

active and healthy, to access options for informal care as they age, and to downsize in an age-proof environment (Brenton, 2013, p.3). The focus is on aging in community where residents design and manage the project themselves (CCN, n.d.-c). They can rely on neighbourly mutual support (co-care) and can jointly hire resident caregiver(s) as needed (CCN, n.d.-c). Communities are designed and managed by the residents with a focus on physical accessibility plus financial, environmental and social sustainability (Durrett, 2009).



13.

Image 13: Interior of the lodge (Harbourside common house)

Harbourside Cohousing. (n.d.). Home. Retrieved from <http://www.harbourside.ca/index.html>



14.

Image 14: Harbourside site plan

Harbourside Cohousing. (n.d.). Home. Retrieved from <http://www.harbourside.ca/index.html>

Durrett (2009) notes mixed-generation projects appeal to those who enjoy the energy of being around children but that priorities of most families will differ from those of many seniors. Cohousing designed around seniors ensures the specific needs of seniors are addressed (Durrett, 2009, p. 31). Residents in senior cohousing are generally over the age of fifty or fifty-five with intentional staggering of ages to avoid having residents move into old age at the same time (Durrett, 2009).

Cohousing literature includes design considerations specific to senior cohousing such as locating kitchens at the front of house to allow interaction with passing neighbours, clustering houses close together, building private residences smaller than normal, and designing homes to encourage and support social interaction of the

community (Durrett, 2009, p. 275). The literature is also fairly detailed in outlining differences between senior cohousing and mixed-generation projects. These include, items such as agreements on type and limits of co-care, inclusion of senior appropriate design and group building methods, detailed emergency planning, and projection of future needs for caregiver living areas) (Durrett, 2009, p. 34).

2.4.1 A comparison of two senior communities

A comparison of two different types of housing for seniors illustrates the principles of seniors' cohousing and misconceptions about what cohousing is. Brechin Manor in Brechin, Ontario is an example of collective housing for seniors (CMHC, 2014). The home is identified on the Canadian Housing and Mortgage site as co-housing (with a hyphen) as six seniors would each hold 1/6th ownership of a rural bungalow (CMHC, 2014). Residents each own a bedroom, sitting room, and 4-piece bathroom (Image 16) (CMHC, 2014). Residents share ownership and use of the separate kitchen, dining areas, living room, basement storage, yard and patio (Images 15, 17, 18) (CMHC, 2014). This is not the kind of cohousing that this study focused on. This is a variation on a condominium or strata housing development where residents own their own unit and share ownership of common property (Green, 2013).

Brechin Manor was built in 2013 as a developers' project (Trailview Homes and Steenhof Building Services Group) using a Solterra Co-housing Ltd. home in Bracebridge, Ontario as the model (CMHC, 2014). The home was built without committed buyers/residents, as "... the first purpose-built shared home in Ontario"

(CMHC, n.d., para. 1). Originally administered by Solterra Co-housing Ltd., the home is currently being marketed privately by the developer (Solterra, n.d.-a).

While not involved in the initial design of the house, residents are free to decorate their private rooms and furnish the common areas (CMHC, 2014). As co-owners, residents set and contribute to the monthly operating budget which covers heat, hydro, property taxes, water and sewage, propane, home insurance, and general household operations such as staffing, meals, and outdoor maintenance (CMHC Brechin, para.15). Hired staff includes a “house mother” who takes care of household cleaning and maintenance, shopping, and cooking (CMHC, 2014). A second house is planned for an adjacent lot and, once occupied, residents will share the “house mother” (CMCH, 2014).

Brechin Manor is described as a new model of supportive housing for seniors offering autonomy and financial security (CMHC, n.d., Para 1.) This model provides somewhat more affordable housing than an average single-family home (the initial selling price in 2013 started at \$150,000.00 (Solterra, n.d.-a).

Cohousing for Women Baby Boomers



Image 15 (top left): Common kitchen and dining area.

Image 16 (top right): One of six private bedroom and sitting rooms.

Image 17 (bottom left): Common living room.

Image 18 (bottom right): Common yard

Images 15, 16, 17, 18 from Solterra Co-housing Ltd.. (n.d.-a). Brechin. Retrieved from <http://solterrace-housing.com/property-item/brechin/>

In contrast, senior cohousing does not present a pre-finished development to potential residents. Rather, the project is developed through meaningful and cooperative participation of the seniors who will be the residents (Durrett, 2009, p. 5; McCamant and Durrett, 2011, p. 300). This means future residents establish the vision, goals, and priorities of the project that are translated into the design criteria (design program) and dictate the final design of the common areas and private houses (Durrett, 2009, pp. 142-143; McCamant and Durrett, 2011). This is important as community is being developed at the same time as the building places (Durrett, 2009, Green, 2013; McCamant & Durrett, 2011). This strong sense of community continues into later maintenance and management phases of the project (Durrett, 2009, McCamant & Durrett, 2011).

Senior cohousing also differs from Brechin Manor in the application of the 5 principles of cohousing. Future residents initiate the cohousing project and remain actively involved in the process (Green, 2013, p. 141). Co-housing is self-managed from the beginning and throughout the life of the project (Durrett, 2009, McCamant & Durrett, 2011). For example, Wolf Willow Cohousing for seniors started with conversations between 2 groups of friends (Smillie, n.d., para. 1). The newly formed group met monthly for 18 months to develop a vision statement, goals, priorities, and processes for consensus-decision making (Smillie, n.d., para. 3). After this time a smaller core group remained and hired architects and a cohousing development consultant, arranged a mortgage to purchase land and to build, and secured approval for the development (Smillie, n.d., para. 3-4). The group worked with the architects and the consultant over this time to develop the design of the project and monitor the construction.

The final design was typical of cohousing in that each household has a fully outfitted private home, including full kitchen and dining facilities (Durrett, 2009, p. 25). The Wolf Willow Cohousing project contains 21 fully accessible condominium units (Images 19, 20, 22, 24, 25) (Wolf Willow, n.d.-a). The only unit currently for sale is priced at \$395,000.00, which makes this a less affordable option than Brechin Manor (Wolf Willow, n.d.-b). The common areas include a common house with large kitchen and dining areas, a lounge, an office, several multipurpose meeting rooms, 2 guest rooms, laundry, workshop, exercise room, and sauna (Images 21, 23) (Wolf Willow, n.d.-a). Outside common areas include decks and gardens, parking and access to the elevator (Images 19, 22) (Wolf Willow, n.d.-a)

Cohousing for Women Baby Boomers

In co-housing, residents also take turns preparing shared meals that take place several times a week in the common house (Durrett, 2009, p. 25). While Brechin Manor encourages cooperation among the six adults living in the house this does not extend to meal preparation. Wolf Willow residents, on the other hand, participate in regularly preparing and sharing meals (Wolf Willow, n.d.-c). Residents believe this is an important part of maintaining a sense of community among the twenty-seven members (Wolf Willow, n.d.-c). In addition, all members attend regular meetings and contribute to the ongoing maintenance and administration of the project (Wolf Willow, n.d.-c).



Image 19 (top left): Wolf Willow Garden

Image 20 (top right): Loving Winter at Wolf Willow

Image 21 (bottom left): Common workshop [Wolf Willow]

Image 22 (bottom right): Common patio [Wolf Willow]

Images 19, 20, 21, 22 from Cohousing Development Consulting. (n.d.-b). Wolf Willow Cohousing. Retrieved from http://www.cohousingconsulting.ca/proj_20Ww.html/



Image 23 (left): Wolf Willow Common house

Image 24 (right): Living and dining area of a private unit [Wolf Willow]

Images 23, 24 from Cohousing Development Consulting. (n.d.-b). Wolf Willow Cohousing. Retrieved from http://www.cohousingconsulting.ca/proj_20Ww.html

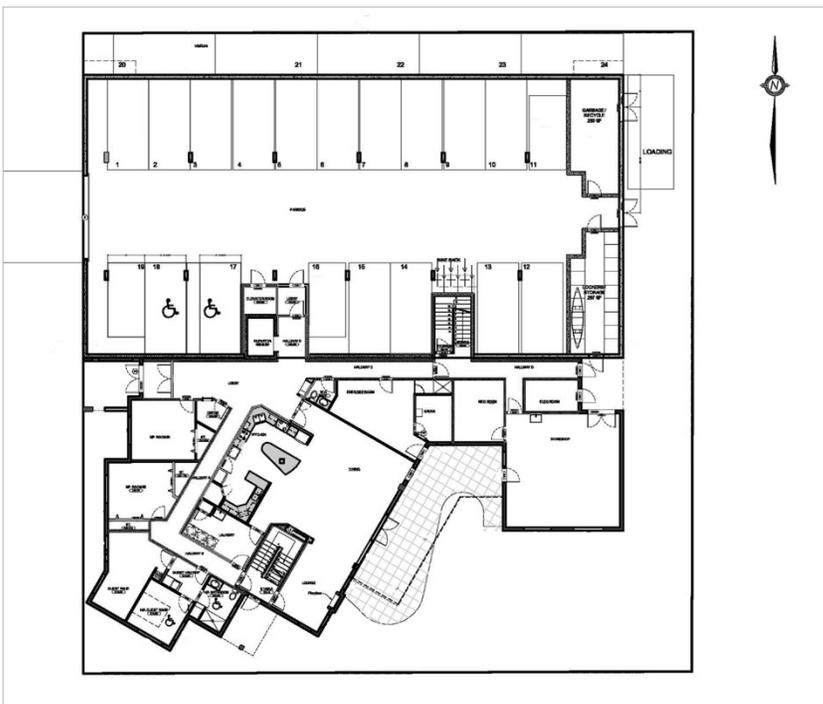


Image 25: Floor plan of the common house [Wolf Willow Cohousing].

Cohousing Development Consulting. (n.d.-b). Wolf Willow Cohousing. Retrieved from http://www.cohousingconsulting.ca/proj_20Ww.html

2.5 Cohousing and women

The cohousing literature accessed is more specific in addressing the unique concerns and needs of all seniors than of women specifically. There were few sources in the cohousing literature directly addressing the ways in which cohousing affects or

benefits women (Christian, 2003; CCN, n.d.-a; Durrett, 2009; Green, 2013; McCamant and Durrett, 2011). Horelli (2013) looks at the capacity of cohousing dwellings to entrench or expand already established, socially and culturally constructed gender roles (p. 61). That research shows that men and women of one cohousing community share tasks most equitably in the visible common areas than they do in private residences. Toker (2010) looks at the configuration of private residences in cohousing and new urbanism developments, as indications of how environments might relieve (or not) the burden of homemaking for women.

There is an overall lack of focus in the cohousing literature accessed on women's assignment of meaning on the common areas in their community and their sense of belonging. Since this focus has not been significantly explored in the cohousing literature reviewed, it is difficult to know if common areas in cohousing in North America contribute to a sense of belonging for women baby boomer residents. A review of literature in the field of architecture lends insight into the experience and interpretation of place. This includes exploring how meaning is attached to and taken from place, how a sense of place is created and how architecture helps people make sense of their environment(s). While this literature is not applied directly to cohousing, it can be applied to the research question.

2.6 The meaning of common areas

Cohousing literature encompasses the use of indoor and outdoor common areas, the social and cultural meaning of the common areas, and some positive and negative outcomes of interacting in these areas (Durrett, 2009; Horelli, 2013; McCamant and

Durrett, 2011; ScottHanson & ScottHanson, 2005). However, it does not address how the meaning of shared areas may differ for individual residents. The architecture literature provides a perspective that addresses the connection between environment and meaning.

Architectural forms and surfaces are meaningful in that they allow people to emotionally connect with the built environment by providing a focus of reflection (Fascari, 2010, p.90). The meaning of architecture is more than the structure or the cultural processes that lead to the formation: meaning is also found in the social relationships and interactions, experiences, memories, thoughts and feelings of the user that take place over time within a structure (McClay, 2014; Psarra, 2000, p. 3). This accumulation of meaning is related to the passage of time and is therefore a dynamic process (Amato, 2014; McClay, 2014; Massey, 2005; Rapoport, 1982; Tuan, 1977). Massey (2005) contends that space is the result of continuous interactions with the environment around us and that this constant action creates simultaneous and diverse realities (“coexisting heterogeneity”) where people independently and continuously create meanings (Massey, 2005, p. 10).

Rapoport (1982) suggests the unique meaning each person attributes to an environment dictates his or her reaction to that environment (p. 13). Thus meaning is the reciprocal interaction between the connections and memories a person brings to a place and his/or her emotional experience of that place (Andersson, 2011; Fascari, 2010; Massey, 2013; McClay, 2014; Rapoport, 1982; Tuan, 1977). McClay (2014) sums up the relationship between meaning and place in the statement “...we shape the place as much as the place shapes us” (p. 251). The built environment also acts to reflect and clarify social roles and relations (Tuan, 1977) in that it is designed by people and so promotes an

understanding of self (Andersson, 2011, p. 572; Psarra, 2000, p.2). It is not then just sensing through the body (physical) and emotion/thinking (abstract) but also the interaction of change over time that brings meaning to and through architecture (Psarra, 2000, p.3).

This literature suggests that cohousing residents will uniquely interpret the meaning of common areas and facilities in their community and these meanings will change over time as interactions take place in these areas. It is hypothesized that meaningful areas will be associated with positive memories, expectations, and activities: the areas that hold negative or no meaning are hypothesized to be those that suggest negative/narrow expectations or recall negative interactions. As in the discussion above regarding the creation of new meaning, it is hypothesized that areas that are meaningful are the sites of activities that women enjoy, that make their lives easier, where social activities take place, that remind them of positive past events, or that confirm their involvement in the community.

2.7 The cohousing participatory process

Residents' participation in all stages of organizing and design of cohousing is one aspect of cohousing that sets it apart from other housing forms (Durrett, 2009; Green, 2013; McCamant & Durrett, 2011; ScottHanson & ScottHanson, 2000). The cohousing literature suggests the participatory design process is one way to ensure that housing meets the needs, values and expectations of residents (Durrett, 2009; McCamant & Durrett, 2011; Murray, 2007; Vestbro, 2000). The architecture literature suggests users should be included in the design so that the outcome reflects their uniqueness and distinct

preferences and will therefore have a positive affect on those using it (Sanoff 2000; Tuan, 1977).

2.7.1 Participatory design

The cohousing participatory process includes resident involvement in the design of the project. The type and level of involvement in cohousing design is similar to processes described in design literature. The term ‘participatory design’ first appeared in the 1970’s in Europe and has since become known as co-creation and co-design (Sanders & Stappers, 2008). Co-creation is any creative act undertaken by two or more people: co-design is creativity that results from designers and others untrained in design undertaking a creative process together (Sanders & Stappers, 2008, p.6). Both co-creation and co-design take place in the design of cohousing as residents create amongst themselves and also work with architects, developers and cohousing/design consultants (Durrett, 2009, McCamant and Durrett, 2011). Cohousing design development is not strictly co-design as not all groups work with architects or consultants in the early design stages and when professionals are involved, the process is collaborative as residents take the lead (Durrett, 2009; McCamant & Durrett, 2011). The expectation of professionals in the cohousing design process closely resembles what Sanders & Stappers (2008) projected to be the future of co-design: Designers work on projects with a specific purpose, with a view of the lifespan of the project, and with specific responsibilities at points throughout the process (for example, to facilitate communication between disciplines) (Sanders & Stappers, 2008). Currently, the professional team for cohousing projects is likely to have a project manager, an architect, an accountant, an attorney, a process consultant (i.e. to develop consensus decision-making processes) and perhaps a cohousing consultant

(Durrett, 2009, pp. 225-227). Designers are not currently included as regular professional team members but could bring much to the cohousing design process at various stages using their experience of working with various disciplines and the tools of co-design.

The participation of residents and senior residents in the design of their own housing is found in literature outside of cohousing, although this participation is different (Botero and Hyysalo, 2013; Chapin, 2013; Christiansson et al., 2008; Sanoff, 2000).

Christiansson et al. (2008) works with user-driven design innovation in the architectural construction process to encourage construction innovation. Information is gathered through design processes of behaviour mapping, focus groups, and scenario writing, which are used to suggest improvements to the process of constructing housing. Unlike cohousing, the end-user needs and expectations are used in conglomerate, rather than reflecting individual needs and expectations. Botero and Hyysalo (2013) describe a long-term co-design housing process in Helsinki that connected seniors and designers in a process that included education, planning, design and development of future infrastructures of their own housing. Architect Ross Chapin uses design focus groups very early in the design process of creating small-scale communities with housing for seniors (Ross Chapin Architects, 2013). On a wider urban scale, 'Imagination Lancaster' undertakes user-group research in the UK through interactive design activities to plan parks and other public areas (Imagination Lancaster 2013). Activities that help residents express needs and design ideas for local parks or neighbourhoods might include story telling, affinity mapping, art projects, user mapping and experience mapping (Imagination Lancaster, 2013).

2.7.2 Generative and Consensus Design

The participatory process of creating cohousing is also related to generative and consensus design (Day & Parnell, 2003; Sanders & Stappers, 2008). Generative design is the collective production of ideas and insights with all stakeholders from the beginning of the design process (the fuzzy front end) (Sanders and Stappers, 2012, p. 300). Generative design tools (i.e. collage, story-telling and photo story-telling, or sketching) are intended to facilitate equality amongst users to allow for shared ownership of the design (Sanders and Stappers, 2013, p. 289.) Tools such as sketching or building site models are part of the early design stages of cohousing led by architects or cohousing consultants (Durrett, 2009). Consensus design grew in parallel to co-design (Day & Parnell, 2003, p. ix). It is defined simply as “...a group of people who strive for consensus through design and includes anyone involved in any way in the design (Day & Parnell, 2003, p. ix). Consensus decisions help groups avoid polarizing opinions while harnessing the wisdom of the group (Day & Parnell, 2003, p. 12). Both consensus decision-making and generative design take the end-user into consideration. Consensus design, in particular, offers insight into the process and benefits of the consensus decision-making process common in cohousing groups.

2.8 Summary

The literature review provides an understanding of the principles and practices of cohousing. The cohousing literature includes the focus on development of community and the interaction between people and design. The community building that takes place in the early stages of cohousing development sets the stage for members to experience a sense of belonging. The participatory process that involves residents in the design and

management of their cohousing project allows each person to bring their personal meaning to common areas and to generate new meaning through interaction in these areas.

There is a gap in current cohousing literature around the relationship between meaning and the architectural environment. As such, the experiences of women baby boomers in common areas and the meaning they bring to common areas are not evident in the cohousing literature accessed for this study. The literature suggests common areas support the community by providing an arena for interaction without differentiation of the form of these areas, the activities that take place in common areas or the interaction of others using the area. From the cohousing literature reviewed, it is difficult to determine if common areas have specific meaning for women or if this meaning leads to a sense of belonging in the community.

Literature in the areas of architecture and design bridge these gaps. Architectural literature considers the creation of meaning in and through architecture, although not specifically related to cohousing or women boomer residents. Design literature provides understanding of the way participatory processes lead to end-user satisfaction, but is also not specific to the creation of cohousing environments. These findings call for more study of how women baby boomers describe the meaning of the common areas in their cohousing communities and how this does or does not affect their sense of belonging in those communities.

As noted in the previous chapter, this literature review began with the overriding question: “How do common areas in cohousing communities contribute to a sense of belonging for baby boomer women residents?” The gaps and insights identified in this

chapter have clarified the need for more study to provide definitions for the four sub-questions introduced in Chapter 1, which are:

- i. What are the intentional and unintentional common areas of some cohousing communities?
- ii. What meanings do women residents of cohousing attribute to common areas?
- iii. What is the relationship between the meaning(s) of common areas and a sense of belonging?
- iv. Does the built environment facilitate or inhibit a sense of belonging in cohousing communities?

CHAPTER THREE

METHODS

This chapter describes the methods that are appropriate for exploring the questions arising from the literature review pertaining to the meaning of common areas and sense of belonging for women baby boomers living in cohousing. The study takes a constructivist approach; its goal is to gain insight by constructing knowledge about meaning and belonging through the subjective perspectives of the participants (Creswell, 2013). This approach is suitable for collecting the varied and complex meanings held by participants, for allowing patterns of meaning to emerge through the researcher's interpretation as the project progresses, and for allowing the findings of each phase of the study to inform the next phase (Creswell, 2013, p.24- 25; Ponterotto, 2005, p. 130).

Research took place in 3 phases. Phase 1 included personal interviews with 5 women residents over the age of fifty who are residents of a local cohousing community or were members of a cohousing-planning group (Appendix A; Appendix B). The interview was semi-structured with open-ended questions and prompts (Appendix C). Phase 2 was a design workshop with two current cohousing members, each of whom first participated in a personal interview (Appendix D; Appendix E; Appendix F). Phase 3 was a qualitative survey of women over the age of fifty who are residents of the cohousing communities across Canada listed on the Canadian Cohousing Network website (CCN, n.d.-b) (Appendix G; Appendix H). Survey questions can be found in appendix I. Details of each phase are described later in this chapter.

Triangulation of data sets allowed for verification of findings by comparing data

from each of the three phases (Martin and Hanington, 2012, p. 188). This was done by using the categories from coded data of the first two phases to create the questions for the survey, thus allowing comparison of categories across methods. This also allowed for the corroboration of results between the larger data set of the survey where there were more participants with the focused data sets of the interview and workshop where there were fewer participants (Martin and Hanington, 2012, p. 188).

3.1 Ethics

Ethical Approval for the research, including interview questions, the design workshop script and program, and survey questions, was approved by Carleton University Research Ethics Board B (CUREB-B).

The research data collection and storage was designed to maintain participants' anonymity. Interview transcriptions identified participants by number and did not include any names mentioned in the interview. Interview transcriptions, the transcriptions of the workshop, and the results of the survey are stored on the researcher's password-protected computer and on a memory stick kept in a locked cabinet at the home of the researcher. Recordings of taped interviews and signed permission forms are stored in a locked cabinet in the home of the researcher. Recordings and permission forms will be destroyed at the completion of the thesis.

3.2 Personal Interviews

Semi-structured personal interviews were conducted with 5 women of one cohousing community between the dates of January 12 and February 9, 2015. Personal

interviews were chosen as the best method to find out what issues about common areas women living in cohousing felt were important. Findings were to provide a comparison to the literature on cohousing common areas as well as provide a starting point for generating questions for the later survey. Interview questions were semi-structured to allow the women to provide information they felt most relevant (see Appendix C for the interview questions). The questions were prepared with prompts to allow the researcher to probe for more detail. The questions encouraged participants to reflect on the commonly accepted elements of cohousing (shared meals, shared or common areas, participation in design of or changes to common areas, maintenance of common areas, privacy, distinction between private and common areas, and process for decision making and conflict resolution) as found through the review of literature. Probe questions were included in the interview to encourage participants to comment on sharing of information relating to common areas, what meaning participants attributed to cohousing common areas, and if these areas facilitated or hindered a sense of belonging in the community.

3.2.1 Participants

Interview participants currently reside in a cohousing community or were members of group planning a cohousing community. The women were over the age of fifty. All lived with partners, some had children, and some had grandchildren. Most did not have children still living at home. All participants had some of experience with collective living prior to becoming members of the cohousing community. Initial contact for the first two interview participants was made through the thesis supervisor. Targeted ‘chain sampling’ was used to find additional participants as interviewees: following each

interview participants were asked to pass on information about the research to other women in their community they thought might be interested in being interviewed (Morrow, 2006, p. 255). This method was selected as participants with specific cohousing experience were sought. Following the first two interviews, participants contacted other women friends and neighbours in the cohousing community who then expressed their interest in participating in an interview by email. An email of introduction was then sent to interested potential participants. The email contained the formal letter of introduction as outlined in the ethics protocol. The consent form was also included to allow participants the opportunity to review it and prepare questions they might have in advance of being interviewed. A convenient date and time for each interviewee was determined by email.

3.2.2 Location

Three of five interviews took place in the private homes of participants, one took place in the Ottawa cohousing community common house, and one took place in a popular coffee shop close to the cohousing community. To maximize the comfort of the participants, each was asked to select the location they wished for their interview. Interviews in homes and in the common house were relaxed and informal. While the interview that took place in the coffee house was also informal, it was much more animated, in part due to surrounding activity and the high volume of background noise. Each interview was between forty-five minutes and one hour in length.

3.2.3 Data Management and Analysis

Interviews opened with an overview of the interview process, a review of the consent form and the opportunity for participants to ask questions about any part of the research or process they did not understand. Questions were then asked and participants were free to talk at length on the issues and topics of most importance to them personally. Probe questions were asked as necessary to clarify information given, to encourage the participant to provide more or deeper information, or to encourage comment on shared areas and meaning. Additional questions probed for thoughts on transitional zones between private and common areas in the cohousing community and between the cohousing project and the public areas of the adjacent neighbourhood.

Interviews were audio-recorded with the permission of the participant. Minimal hand-written notes were taken as backup as it was distracting to be writing while the participant was speaking. Each recording was uploaded and transcribed in NVivo (a software package for qualitative research that supports the organization, coding, and analysis of data) (QSR International, n.d.).

Participants were not identified on transcription. Each participant was assigned an interview number and all names were omitted when transcribing. The interviews were transcribed verbatim to preserve the nuances of hesitations and pauses that might be helpful in interpreting the meaning of responses. Repeated words, pauses, and grammatical errors were removed when quoting participants in the results. Handwritten notes are scant and were not transcribed.

NVivo was selected as the transcription tool as it allowed the recording and the transcription to be synchronized - a feature assumed to be helpful in the analysis stage

when verification of comments might be needed. Once transcribed, interview coding took place in NVivo. In first level coding, nodes were created based on interpretation of comments in interviews and also on knowledge of concepts found in the literature review on cohousing, on meaning of community, and on belonging. For the most part, the codes were data driven in that they were created to describe each discrete idea expressed in the interview as per the exploratory nature of research. The coded nodes of the interviews were reviewed for internal homogeneity and external heterogeneity (Braun and Clarke, 2006) and then re-organized into broader, 2nd level categories which will be discussed in the findings segment of this thesis.

Use of NVivo allowed coding to be applied quickly and consistently. This was the case particularly in the primary analysis of results where coded responses could be sorted and viewed in categorical groups. Following transcription of all interviews, a summary of the categories was created. A simplified graphic summary of the categories of findings was created for use in phase two, the workshop (See Figure 3 in chapter 4). Further analysis of interview data and integration with other data sets proved to be difficult in NVivo. The decision was made to move to manual sorting for further analysis. Following the summary of categories, interview transcripts were printed, a summary of each comment was transferred to sticky notes and these were compiled and sorted.

3.3 Design Workshop

The 2nd stage of the research was a three-hour design workshop. The workshop was selected as a method to pull out any other issues and thoughts about cohousing common areas that were not articulated in interviews. Workshops provide an opportunity

for tacit thoughts to emerge as participants are working through problems they may not have articulated earlier. In addition, cohousing groups commonly use design workshops as a method of generating ideas and developing plans for cohousing projects (Durrett, 2009). The workshop was planned in 3 parts. The first part was a presentation of the conglomerate results of the phase one interviews. This allowed for some validation of the results of interviews as workshop participants had each participated in an interview. Discussion of results was followed by a presentation of images of shared common areas in seniors' facilities to provide context for the session. This is also a common method for cohousing design workshops (Durrett, 2009).

The second part of the workshop involved a short collage-making activity. This common design method was selected as it provides a way for participants to visually express ideas or feelings that might be difficult to articulate, it provides a focus for discussion, and it sensitizes participants for upcoming activities (Martin & Hanington, 2012). Participants were provided with poster board, scissors, glue and a variety of magazines (lifestyle, nature, home and garden, etc.) and asked to create a textual or visual collage that answered the question, "What does community mean to me?" Participants were given 15 minutes to complete their collage and 15 minutes for discussion. In the follow-up discussion participants were asked to share the reasoning behind the choice of words and images on their collage while describing what community meant to them so that each was aware of the meanings and interpretations of the other.

For the final exercise participants were asked to work as a pair to design a cohousing site with emphasis on the common areas they felt would most enhance their sense of belonging to the community (Figure 2). Architects and cohousing consultants

use design exercises to facilitate cohousing planning and development stages (Durrett, 2009). This activity was adapted from co-design activities for designing interior hospital spaces described by Sanders and Stappers (2008) and participatory cohousing site design sessions described by Durrett (2009) and McCamant & Durrett (2011).

In the cohousing context such design activities would follow careful definition of group vision, goals, and intentions for the project (Durrett, 2009). As the workshop participants were current cohousing members and had extensive experience defining community vision, goals and values, they opted to build upon the existing agreements of their own community in order to complete the design exercise. Anticipating there would be many common areas included in the design, participants were asked to assume they could immediately include the top five priorities for common areas in their plan and could add remaining priorities at a later date (See Appendix F for full activity instructions).

Participants were provided with a variety of drawing and building materials for this task, including large sheets of paper, pens, markers, and various wood blocks.

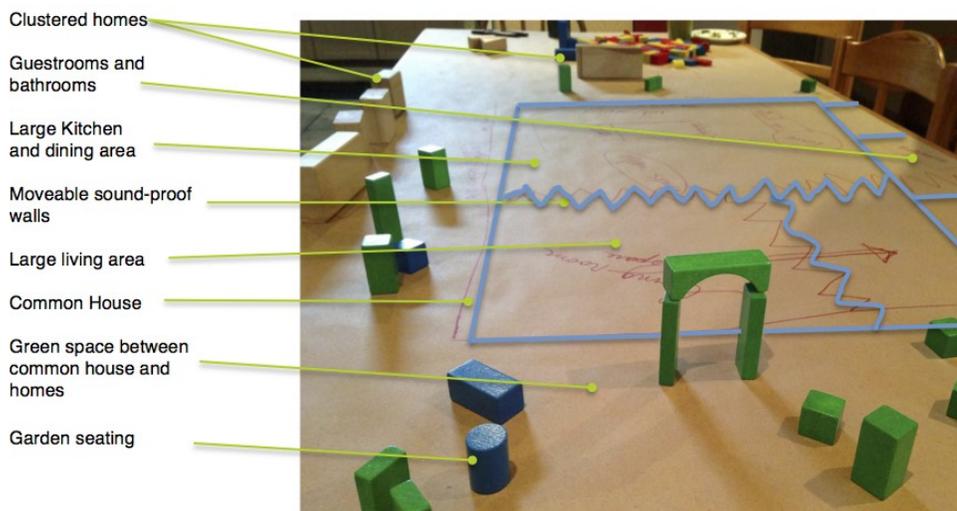


Figure 2: Workshop design of an ideal cohousing community [descriptions added]
The plan shows the common house (original version sketched in red) surrounded by garden structures and clustered residences.

A pilot session was run prior to the actual workshop with research participants. Two women known to the researcher agreed to take part in a three-hour session. The participants were familiar with the concept of cohousing but were not residents of cohousing nor had they been involved with planning a cohousing community. The pilot was carried out to review the process, to test that explanations of activities were clear and easily followed, to ensure workshop activities were appropriately timed, to ensure proper resources were available for the workshop, and to see what else might be emerge. This pilot showed the introduction contained too much detailed information, the activity materials were appropriate but too numerous, and the sequence of activities did not set the context and facilitate discussion. Based on the feedback from the pilot session, a more general summary of research findings was created for the introduction to the workshop, more images of other common areas in cohousing were added, the explanation of the activities was adapted for clarity, and materials for the design portion of the workshop were edited.

3.3.1 Participants

Two women over the age of fifty who had previously been interviewed participated in the design workshop. Both participants were members of the cohousing community where the workshop took place. Participants were intentionally targeted for their involvement in cohousing. Researcher time constraints and participant availability led to a smaller group of participants than originally anticipated. It was determined that the same women who had been interviewed would be asked to participate in the workshop so that the data would reflect consistency of population (cohousing members), would allow

the participants to share their experience and knowledge of cohousing, and would eliminate confusion between what might be envisioned for a cohousing community versus what could realistically be accomplished.

3.3.2 Location

The workshop was held in the common house of the cohousing community. This location was selected for the convenience of participants who were residents. Participants would not have to travel for the session and one could do laundry between activities. The location was convenient as the room was large and appropriate for activities and equipment, and booking time was available.

3.3.3 Data Management and Analysis

The introduction of the workshop was audiotaped and the creative sessions (collage and co-design) were videotaped. It was the intention to upload and transcribe both the audio and video recordings of the session into NVivo for transcription and coding to allow synchronization of the video and the transcription. Technical difficulties were experienced uploading the video recording and it was not possible to correct the problem within the timeframe of the study. The video transcription was made in a word document with manually added time stamps, uploaded and coded in the same manner described for the personal interviews transcripts.

3.4 Survey

The final phase of data collection was a survey of women over the age of fifty

who belonged to cohousing communities across Canada. The survey was chosen as a way to collect data from a wider population of participants with cohousing experience. The survey asked a range of qualitative questions relating to cohousing common areas, design of common areas, meaning of common areas, and sense of belonging in the community. A few quantitative questions were included (Appendix I). The questions were based on the emergent themes from the interviews and the workshop to determine if these held true for a wider group (i.e. do women in other cohousing communities attach the same meaning to common areas in their own community) or if there were additional themes not uncovered in the earlier research phases. The survey also asked general demographic information (age as over or under fifty, gender, geographic region, and length of time involved in a cohousing community).

3.4.1 Participants

Women over the age of fifty currently living in cohousing were purposefully targeted as participants in phase 3. It was determined that surveying cohousing members would reflect consistency of population (cohousing members), would allow participants to share their knowledge of cohousing based on experience, and would eliminate confusion between what might be envisioned for a cohousing community versus what could realistically be accomplished. Contacts were located through the online list of current cohousing communities in Canada provided on the Canadian Cohousing Network website (CCN, n.d.–b). Email invitations about the study were sent with a survey link to these named contact for each cohousing community with a request that they forward to women residents of their cohousing community over the age of fifty.

3.4.2 Data Management and Analysis

The survey was administered through Fluid Survey, the Canadian Branch of US-based Survey Monkey. Fluid Survey was selected as it provides an easy-to-use survey tool for participants, it was free for the researcher, it ensured data collected remained on Canadian servers, and it allowed export of data as Excel files into NVivo for analysis. The online format allowed participants to respond to the survey confidentially and at the time most convenient to them. Confidentiality of respondents was maintained, as the only tracking established in the survey setup was the province of the respondent, and the time and date of completion.

The survey was deployed on June 25, 2015. Two changes were made immediately after the survey was deployed. The first was added prior to the receipt of responses (this change added a text box for elaboration of an answer). The second was the addition of “guest rooms” to question number 2 (ranking of importance of common areas) as this should have been included initially. As the research was exploratory and inductive, it was felt that adding the rooms would provide important information to subsequent interviews. Survey responses that had already been received were marked to indicate that they did not include guest rooms in the ranked list of common areas (the first 3 surveys of 13 received).

Following the close of the survey, it was discovered Fluid Survey did not allow direct export of results into NVivo without upgrading to a paid level (a point not stated explicitly on the Fluid Survey website at initial set-up). To overcome this obstacle, the results of each survey were manually exported from Fluid Survey into an Excel workbook. The composite results were then uploaded into NVivo for coding and

analysis. Once in NVivo, coded results could be compared and contrasted with results of the interviews and design workshop. Following first-level coding, printed reports of each thematic node were used for second-level coding. Each coded comment was summarized on a sticky note and added to compiled findings of the interviews and the workshop.

CHAPTER FOUR

RESULTS

Findings from the three stages of research generated insights into women's perception of meaning and belonging in their cohousing communities. These findings are presented in the order the research was undertaken: interviews, design workshop, and survey.

4.1 Interview Findings

The coded findings of the interviews with women baby boomers cohousing residents were organized into three broad categories of people, process, place, and process (Figure 3). Most responses fell into one of the categories but there is some overlap. For example, 'values' are mentioned in relation to individuals and the cohousing community (people), as well as in relation to conditions for effective decision-making (process).

This exploratory stage of research is intended to provide a starting point for developing the range of enquiry in subsequent phases of the study. Participant numbers in this phase are minimal (n=5), therefore findings reflect all comments from all participants.

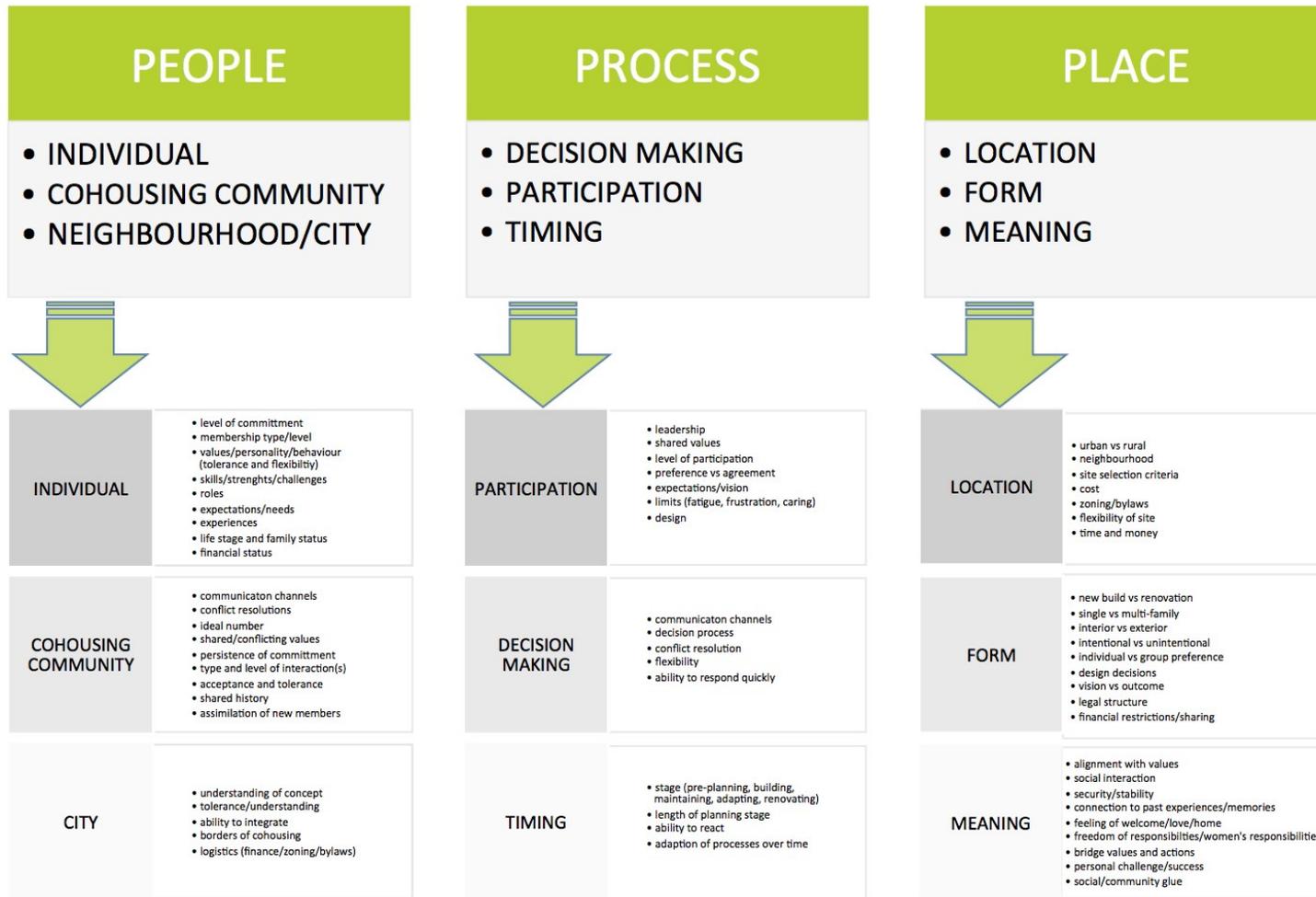


Figure 3: Summary of interview findings. This figure provides an overview of coded interview findings by categories and sub-categories.

4.1.1 People

The category ‘people’ encompasses findings about individuals, the cohousing community, and the broader community or the neighbourhood (Table 2). Each category contains factors interviewees identified as important to the day-to-day and longer-term success of their community. Individuals are discussed in terms of their traits, behaviours, values and commitment to the community, as well as their ability to exhibit tolerance and acceptance. The focus on the community as a whole includes relationships between neighbours, various levels of membership, commitment to the community and values. Values are discussed in relation to individuals and to the community: tolerance and acceptance are mentioned in regard to the cohousing community as well as the larger surrounding community.

Overall, the interview findings serve an exploratory function and direct the creation of questions for the later stages of the study. They also provide context for understanding what interactions in cohousing impact women’s sense of belonging.

PEOPLE		
Individual	Cohousing Group	Neighbourhood/City
Level of commitment Membership level Values Personality Behaviour Skills/strengths/challenges Roles Expectations/needs Experiences Life stage/family type/stage	Communication skills Conflict resolution skills Ideal number of residents Shared or conflicting values Persistence of commitment Type and level of interaction(s) Acceptance and tolerance Shared history Trust	Understanding of cohousing Tolerance and acceptance Ability to integrate Borders of cohousing Positive and negative interaction with neighbours

Table 2: Summary of interview categories relating to people.

4.1.2 Process

The ‘process’ category includes participation, decision-making and timing, as shown in table 3. Processes are the formal interactions (administration, meetings, consensus decision-making) and social interactions (shared dinners, events) of the cohousing community. Expectations, preferences and individual limits are some factors that determine how well the community functions socially and administratively. Decision-making and conflict resolution are both skills a group can develop through training and which strengthen the attributes of tolerance and flexibility. Time (the age of members, the maturity of the community and the stage of development) plays a role in all other interactions.

PROCESS		
Participation	Decision-Making	Timing
Leadership Shared values Level of participation Preference vs. agreement Expectations/vision Limits of (based on caring, fatigue, frustration, etc.) Design	Communication channels Decision-making process Conflict resolution Flexibility Ability to respond quickly Logistics	Life stage of residents Maturity of Community Stage of development Pre-planning Building Maintaining Adapting or renovating Length of planning stage Adaption of processes over time

Table 3: Summary of interview categories relating to process.

4.1.3 Place

Findings in the category of ‘place’ encompass the location of the cohousing project, the physical layout and the structure of the project and the meaning attributed to it (Table 4). Findings in this category point to a balance between vision for the project, preferences of each resident and the realities of the site. This also includes the meaning members bring to the project, and new meanings created through the process of building

structures and community. For participants in the study, the meaning of common areas is determined in part by how well they facilitate social interaction, create feelings of security and freedom from responsibilities, connect the site with memories, generate a feeling of welcome or home and reflect collective values.

PLACE		
Location	Meaning	Form
Urban vs. rural Neighbourhood Site selection criteria Cost Zoning/bylaws Flexibility of site Time and money	Alignment with values Social interaction Security/stability Connection to past Experiences/memories Feeling of welcome/love/home Freedom from women's responsibilities Bridge between values and actions Personal challenge/success Community 'glue'	New build vs. renovation Single vs. multi-family Interior vs. exterior Intentional vs. unintentional Individual vs. group preference Design decisions Vision vs. outcome Legal structure

Table 4: Summary of interview categories relating to place.

4.2 Design Workshop Findings

The workshop activities built upon findings from the interviews with activities designed to add to or verify the findings. Workshop findings are based on the continuous dialogue between participants that took place throughout the exercises and are summarized in figure 4. As in the previous stage, participant numbers are low (n=2). Therefore, all comments are included in these findings. Where there was disagreement between participants, both opinions are included.

4.2.1 People

There was some initial confusion regarding the focus of the exercise. It was important to clarify whether the community focus was the people in cohousing community or the cohousing project. The focus chosen was on the needs of the people in cohousing. Based on this choice, the design created by the workshop participants was fit the needs of their own community members. This made the project easier as this group has already undertaken the work of community building and has a strong commitment to maintain this community. As mentioned, workshop findings suggest any common areas design be tailored to the community (Table 5). This includes sensitivity to number, age, life-stage, abilities (current and anticipated) and values of residents. The common areas created include detailed plans for cooking, serving, dining activities prioritized by participants.

PEOPLE		
Role	Relationship	Sense of Community
In household In community In larger community Shared / conflicting values	Tolerance and acceptance Flexibility	Benefits of Commitment to Feeling of belonging Conflict resolution

Table 5: Summary of workshop categories relating to people.

One workshop participant defined community as “a group with deep connections to one another and a willingness to grow together”. Both participants agreed clear values, confirmed commitment to the community and effective communication, conflict resolution and decision-making processes are the foundations of the community. Participants suggested that residents of cohousing were expected to approach living in the community with good intentions, an open mind, and tolerance. Without this, participants

thought interactions of those living in close proximity could become negative.

4.2.2 Process

Stages of development, social interactions and maintaining the community fall under the category of 'process'. Findings in this area include expectations for residents' participation in the day-to-day and future life of the community (Table 6). Under focus on the group, participants expressed a sense of belonging to the community even when common house facilities were not available to them for many years. The process of creating the new common house years after they had moved in was a way to re-build their sense of community. The result was pride of accomplishment. The process of development can strengthen group communication, decision-making and problem solving skills. Both individuals and the community mature over time; member commitment to grow with the community is also seen as important. As the community and individuals mature, the work of decision-making and creating becomes easier.

Participation is important to both the individual and the community. Workshop participants felt that lack of participation in community events such as meals community could inhibit integration into the community. However, tolerance and understanding dictate that individual differences in this respect are acknowledged and participation be seen as voluntary and varying.

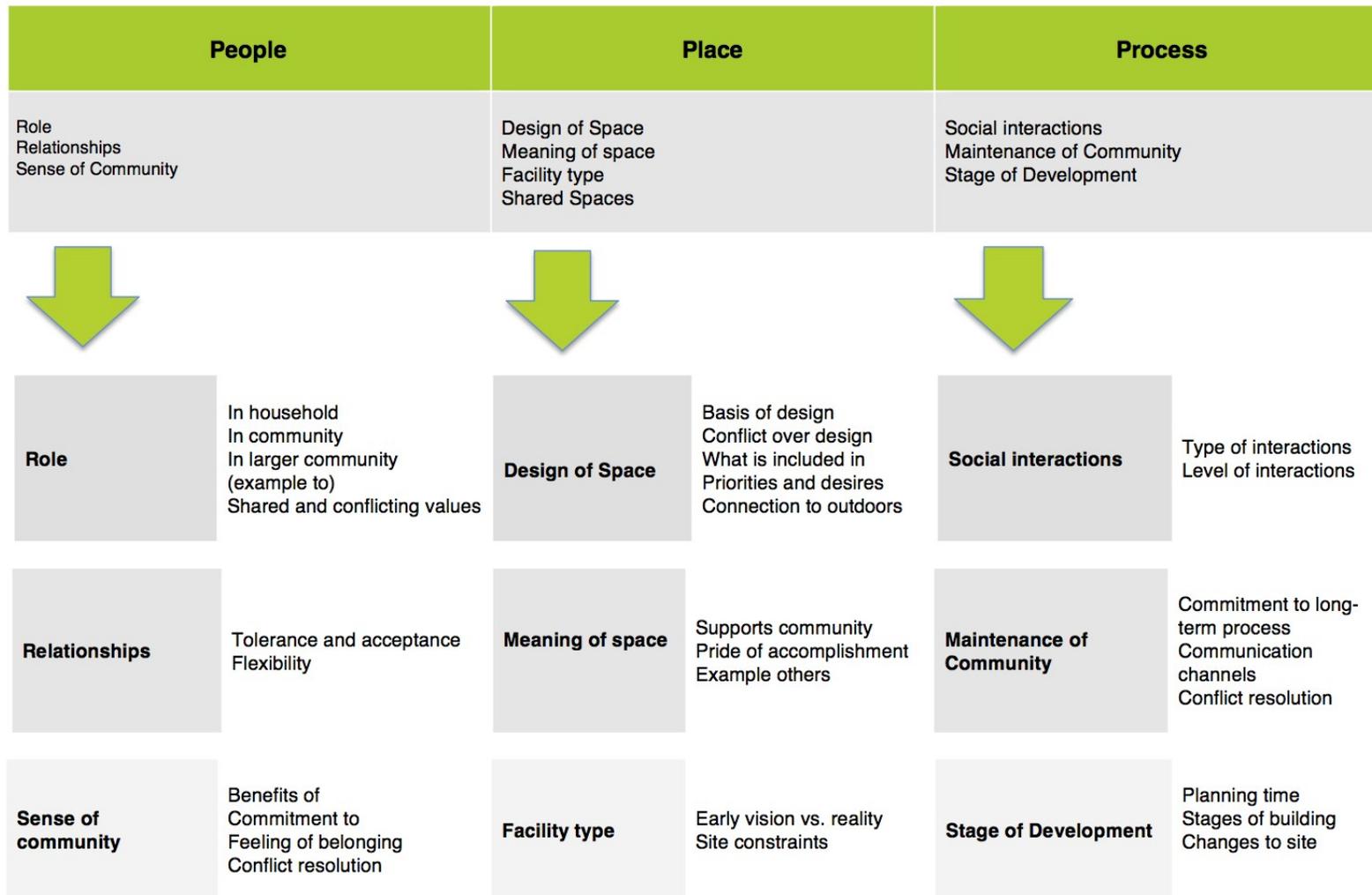


Figure 4: Summary of workshop findings.

PROCESS		
Social interactions	Maintenance of Community	Stage of Development
Type of interactions Level of interactions	Commitment to long-term process Communication channels Conflict resolution	Planning time Stages of building Changes to site

Table 6: Summary of workshop categories relating to process.

4.2.3 Place

The category of ‘place’ includes the design, meaning, and facility type (Table 7).

Facility is affected by many factors. The site itself, the number of residents in early stages of community, finances, are among the issues that can create disconnect between the original design goals and the reality of the finished project. The category ‘meaning’ includes the way in which the project supports the community; the pride members take in the accomplishment and the example it provides to others. Findings on process suggest the meaning of common areas is found in the intention of the people using the space and their long-term commitment to the group. Participants acknowledge common areas can hold both positive and negative meaning over the course of time. For example, teen’s spaces may cause stress to parent if they are used at times for parties.

PLACE		
Design of Common Areas	Meaning of Common Areas	Facility Type
Basis of design Conflict over design What is included in Priorities and desires Connection to outdoors Social interactions	Supports community Pride of accomplishment Example others	Early vision vs. reality Site constraints

Table 7: Summary of workshop categories relating to place.

The function of the area is tied to accessibility, flexibility and group behavior.

The degree to which these factors can be included in the design is impacted by the availability of space and funding, the degree to which accessibility is included in early design plans, as well as the number and life-stage of residents (i.e. young vs. mature community). Envisioning future uses of the common areas early in the design process can help determine what will be essential common areas. Thus the design should reflect the site, the stage and size of the community, the current and future priorities of the community. In the co-design exercise participants expressed the desire for casual outdoor common areas and bright, comfortable indoor common areas. The aesthetics of the common areas were deemed important as this would encourage use of the common areas and therefore increase spontaneous interaction.

Accessibility was a top priority for the design of the project. All access points to the common house, the common kitchen/dining/living areas, pathways, garden beds, play areas and washrooms were mentioned as areas that should be fully accessible.

Flexibility, another priority for the common areas, refers to multi-use capability of indoor space for various functions. The overall area was big enough to accommodate the full membership but easily divisible to allow for simultaneous smaller group activities (See Figure 2). Control of sound in open and smaller areas was mentioned as an essential consideration.

Design decisions made during the design session were based on the physical site, the people who will be using the areas, and anticipated activities (summarized in table 8). The design includes moving walls in the common house to allow simultaneous use for different activities, a large kitchen space designed with cooking and serving large groups in mind, direct physical and visual access points to the outdoors, a variety of outdoor

spaces to sit or gather, and visual connection between private residences and the common house.

Design Considerations for Common Areas	
Focus of the design	Individuals – benefits, work to do, feeling of belonging, acceptance and tolerance Community: life stage, number, family structure, finances, commitment, and time Group – work of community forming/creating
Design considerations	Site Connection to outdoors Accessibility Size - Adequate group space for whole group to gather Preferences of individuals and preferences of the group Anticipated activities/uses Anticipated future abilities of residents Flexibility Noise control Aesthetics
Functionality and use of common areas	Accessibility Flexibility/Adaptability Size Support or inhibition of interactions Space for whole group to eat and gather together Agreement or conflict over use

Table 8: Considerations for design of common areas. This summary is based on the considerations affecting design choices for participants of the design workshop.

4.3 Survey findings

The survey was selected as the final method of the study to determine if women baby boomers in other cohousing communities share findings of the interviews and workshop, and to uncover additional insights about meaning of common areas and sense of belonging. Survey findings were similar to both the interview and workshop findings in that they could be broken down into categories of people, place, and process.

The categories of meaning and sense of belonging were more prominent in the findings of the survey so these were added as coding categories. The summarized survey findings are in table 9.

People	Process	Place	Meaning	Sense of Belonging
Neighbours Community Professionals	Social Activities Governance	Ideal Common areas Boundaries	Interactions with others Memories	Interaction of people, place and process

Table 9: Summary of survey findings

4.3.1 People

Of interest in the survey findings is the complexity of relationships between people in the cohousing communities of respondents. Interactions between immediate neighbours, the larger cohousing community and surrounding community, and professionals are discussed in terms how they contribute to the community. For example, one respondent stated that, “Friendships flow at different levels, changing with shared interests and in dealing with issues arising both within and outside the community.” Others responses suggest cohousing for women over the age of fifty be integrated into the broader community and be based on the roles, family structure, abilities, and need to age in place of the individual women who will live there.

4.3.2 Process

4.3.2.1 Activities in meaningful areas.

The Survey findings indicate that meaningful interactions taking place in common areas fall into three categories: solitary activities (mediation, contemplation), interaction with others (socializing, conversing) and interaction with nature (enjoying the natural world, feeling connected to the land) as detailed in Table 10.

Type of Activity	Activity
Interaction with nature	Campfires, enjoying nature, gardening
Interaction with others	Cooking, food preservation, enjoying others, exercising, hobbies and repairs, listening, meeting, movies, presentations, concerts, workshops, playing, sharing meals, sharing ideas, silent auctions, singing, small group clubs (i.e. book club, knitting club), small group socializing/talking, large group socializing, parties, talking, spontaneous gatherings, visiting, playing, watching children, gardening, working
Introspective and solitary activities	Meditation, contemplation, relaxation, yoga, reading, music

Table 10: Type of activities that take place in meaningful areas.

A large number of activities take place in common areas of cohousing projects.

Activities that involved interaction with others are most mentioned, specifically dining, socializing, playing, and gardening or working outdoors.

4.3.2.2 Governance

The survey looked at governance and participation as these emerged from interviews and workshop findings. Respondents’ report of their participation in activities connected with the cohousing project showed more variation than expected (11). The

highest rate of participation (100%) was in managing and maintaining facilities and grounds. Less than 50% participated in researching cohousing options, selecting the site or researching legal options. Some participated in activities not listed on the survey, such as updating values and bylaws, recycling, marketing, sitting as a shareholder on the board, accounting, budgeting and selling units.

Participatory Activities	Yes n (%)	No n (%)
Forming the cohousing group	7 (54)	6 (46)
Researching cohousing options	5 (38)	8 (62)
Selecting location	5 (38)	8 (62)
Designing Grounds and/or facilities	8 (62)	5 (38)
Establishing guidelines for decision making	8 (62)	5 (38)
Researching and establishing legal requirements	5 (38)	8 (62)
Managing and maintaining facilities and/or grounds	13 (100)	0 (0)
Renovating or making changes to facilities and/or grounds	8 (62)	5 (38)
Other (updating values and bylaws, recycling, marketing, sitting on board as shareholder, accounting, budgeting, selling units)	4 (31)	9 (69)

Table 11: Participation in development and management activities

4.3.2.3 Decision-Making

The decision-making practices of most (nine of thirteen) respondent’s communities include full consensus decision-making. Others use a modified consensus process such as consensus minus three households or the option to use majority vote if consensus is blocked. Following a majority vote, some communities make compromises to try to fit a decision to the entire group. Others allow decisions to be made by small groups (preferred/natural leaders, founding members, those with money on the line). In many communities, smaller working groups or committees may make decisions about details but the full group of residents makes final decisions. Decision-making practices were often more formal in the early stage of the cohousing community than in later years as the

community matured.

4.3.3 PLACE

To better understand the connection between women and common areas, the survey asks respondents to rate the importance of common areas available in their own cohousing community (Figure 5). The list of common areas selected for this question include common areas noted in the literature review and in the findings of the interviews and design workshop (See Figure 5). These areas are shared kitchen, dining room, meeting room, exercise room, hobby room, guest room, living room, laundry area, office, gardens and outdoor space and outdoor walkways (Question 1, Appendix I). All respondents (n=13) ranked gardens and outdoor spaces as essential. Other areas deemed essential by more than 70% (9 or more) of respondents were shared kitchen facilities, meeting spaces, walkways and guest room(s). Almost half (six and seven respondents, respectively) felt laundry and living areas were essential. Common areas deemed non-essential by approximately half of respondents (six of thirteen) are office, laundry, and exercise areas. Four surveys indicated an area not included in the cohousing project (exercise or meditation area, office, walkways and shared laundry area).

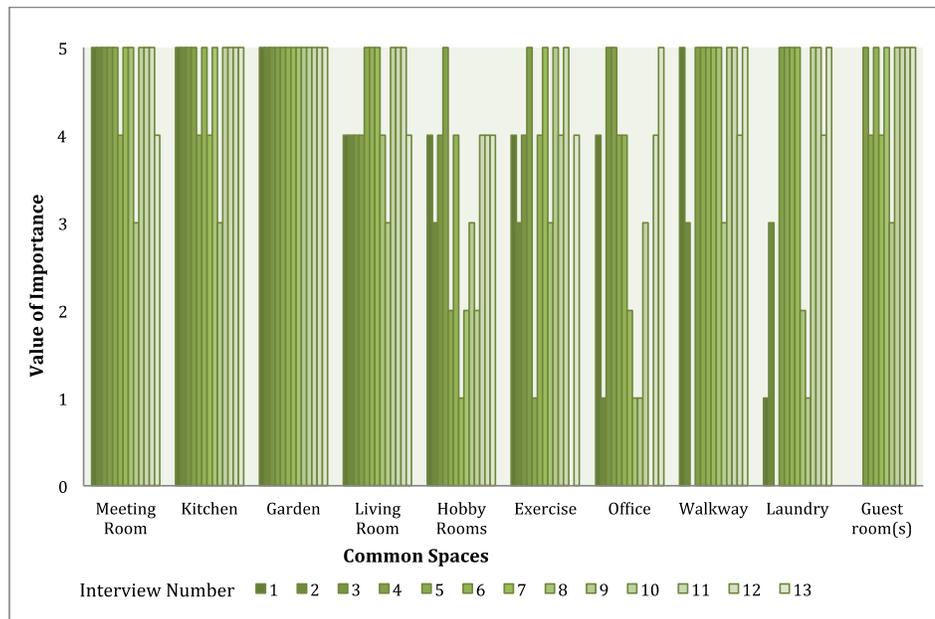


Figure 5: Importance of common areas available to respondents. This chart shows the ranked value of cohousing common areas of survey respondents. Values are: (5) essential, (4) somewhat important, (3) neutral, (2) somewhat un-important, (1) non-essential, and N/A (not available in their cohousing project). Blanks indicate that an answer was not provided for that particular area or that the area is not available to the women answering the survey.

The survey asked women cohousing respondents what areas of their own cohousing they would change. Most suggestions were directed towards improving the function of the areas (i.e. noise reduction) or reducing areas of potential conflict (i.e. noisy games in the common house) as summarized in table 12.

Action	Common Area/Space
Add new space	More adult recreational spaces, i.e. ping pong, pool table, yoga, hobbies Add more/new storage room for shared items in the common house Add more quiet/hang-out areas in the common house Add a designated exercise room Add a designated games area to avoid table tennis set in meeting room. Create play space in parking area for noisy games (table tennis, ball sports) Add storage space in the kitchen area for large shared kitchen tools
Change layout	Make living room separate from dining room. Separate laundry room from kid's play area for aesthetic reasons Find new uses or remove under-used rooms (music room, kids room and conversation lounge on 2 nd floor, multi-purpose room) Design complex around a covered atrium would have been better We've been able to make changes reasonably easily
Change construction	Make walkways soundproof
Change size	Make a larger indoor lounge for socializing Make exercise room bigger Make the common areas smaller to reduce cost and energy Create a larger indoor play space for children Create a lightly larger courtyard to accommodate tables Have larger, nicer guest room

Table 12: Suggested adaptations to existing common areas. This is a summary of changes women cohousing residents would make to existing common areas in their cohousing projects.

4.3.3.1 Defining common and private space

Individual cohousing communities marked the distinction between private and common areas in various ways. These include indicators through design (location), size, objects (fencing, doors) and well-defined zoning. Some common areas are rented or reserved on a short-term basis (i.e. common house rooms) or long-term (gardens) at which point they become private areas. Other communities depend on codes (notes on doors or closed curtains). Some communities ‘just know’ what is private and what is shared through early planning discussions. Others have extensive formal guidelines to

ensure all residents understand the same boundaries. While the boundaries of common and private areas can cause some conflict, findings suggested they could contribute to a sense of community by minimizing potential conflict.

4.3.3.2 Meaning of common areas

The most mentioned indoor areas considered meaningful by women survey respondents were kitchen and dining areas, the meditation area and the meeting room (Full Results Appendix J). The outdoor areas most mentioned as meaningful were gardens, natural areas, and patios/courtyards (Full results Appendix K). Areas were considered meaningful if they support the day-to-day interactions and events of the community, facilitate shared meals and meetings or provide a quiet spot for contemplation. They were described as areas where gatherings, fun, work of the community and play could take place. They are also reminders of enjoyable past events. As one participant said “all shared spaces hold meaning for me.... it’s what makes the building into a community”. Another respondent felt, “These [common] areas are very important to the cohesion of the community, because of the connections that happen...”

4.3.3.3 Sense of belonging

Survey questions addressed the possible relationship between cohousing common areas and a sense of belonging from several perspectives. Conditions women respondents felt facilitate a sense of belonging are:

- Common areas kept in good order;
- Voluntary participation in group events;
- A variety of large and small group activities areas for connecting with others: and
- Rules and boundaries that are agreed upon and respected by all residents.

For example, one respondent said, “I feel more of a sense of belonging when the shared areas are kept in good order.” Survey respondents suggested that when creating cohousing for women over the age of fifty, indoor spaces should include a guest room big enough for families; spacious areas for visitors and guests; space for potential nursing support care or hospice; large buildings with private living space for each woman; shared kitchen and dining room; meditation rooms; activity rooms for clubs and hobbies; indoor and outdoor sitting areas; places to relax and share conversation; and a screen for movie watching.

Respondents also suggested common outdoor spaces provide a good mix of private and shared areas and an easy way for people to get together outside their homes in winter (i.e. by including shared atriums). Outdoor spaces should include private decks or balconies, a shared garden space and play areas for visiting grandchildren. Some participants thought that while cohousing provides a safe place for women to live generally, security should still be considered. Two additional suggestions were that the housing be intergenerational and not women-only as these restrictions are antithetical to community ideals.

When asked what specific common areas they felt would facilitate a sense of belonging for other women over the age of fifty in urban cohousing projects, participants listed a variety of indoor and outdoor areas. The three most often mentioned were a shared kitchen and dining room, activity rooms where people can be together, and large visiting areas for guests and family. Inclusion of space for caregivers and places to connect outdoors were also frequently suggested (Table 13).

Common Area to Include in Cohousing for Women Over the age of Fifty	Number of mentions
Shared kitchen and dining	6
Hobby / activity rooms where people can be together	6
Visiting area for guests, family, support network	4
Unit or room for care-givers	3
Places to physically connect - inside	3
Private and common outside spaces (i.e. Gardens and decks)	3
Space considers security	2
Space matched to individuals (age, role, abilities, et)	2
Integrated into broader community	1
Private residences	1
Private laundry	1
Places to physically connect outside	1
Share vehicle	1
Intergenerational	1
In support of cohousing for women baby boomers generally	1
Opposed to restricting residents (anti-community")	1

Table 13: Common areas to include in cohousing for women to facilitate a sense of belonging.

4.4 Summary

Survey respondents value the variety of people in cohousing, the easy interactions with neighbours and the sense of community they feel from knowing their neighbours. They enjoy the beauty of the place, and the focus on sustainability many communities make. They appreciate the many options for activities that living in cohousing offers. Finally, they appreciate the opportunity for personal growth and learning new skills, the quiet, and the security.

CHAPTER FIVE

DISCUSSION

The interview, workshop and survey findings provide insight into the meaning attributed to common cohousing areas and sense of belonging for women cohousing residents over the age of fifty. This insight, together with the information gathered in the literature review, can answer the study's questions. The discussion that follows is organized in answer to the 4 sub-questions: The identification of common areas, the assignment of meaning to common areas in the cohousing communities of participants, the relationship between meaning and sense of belonging, and the role of the built environment in facilitating a sense of belonging are addressed. The final discussion returns to the primary research to determine how common areas lead to a sense of belonging for women baby boomers living in cohousing.

5.1 Cohousing common areas in cohousing

5.1.1 Indoor common areas

The first research sub-question asks, "What are the intentional and unintentional common areas of some cohousing communities?" One of the distinguishing features of cohousing is the mix of privately owned housing and collectively owned common areas (Durrett, 2009; McCamant & Durrett, 2011). The study findings support the literature in noting that most cohousing projects have a common house and this contains shared kitchen, dining, living room, hobby areas, guest and game rooms, workshops, and play areas. The common house might also include hobby rooms, guest rooms, shared laundry areas, play areas, workshops and amenities such as hot tubs, saunas, pools or games

rooms. The future residents develop each cohousing project, which accounts of the variation of common areas (Durrett, 2009; McCamant & Durrett, 2011). The study findings highlight a similar range of common areas and mention a few others such as a midwifery clinic, and repair areas for bikes, cars and boats.

5.1.2 Outdoor common areas

Respondents mentioned connection to outdoors in all phases of the study. Outdoor cohousing common areas normally include walkways, covered atriums, decks, terraces, central gathering spots, and peripheral parking (Durrett, 2009; McCamant and Durrett, 2011). Findings support the inclusion of similar outdoor areas in the projects of respondents. The findings also indicate a desire for small gathering spots for impromptu socializing and greater access to gardens and natural areas, decks and balconies, lounging/hang-out areas, play space for noisy games, and outdoor storage. Several unique outdoor common areas mentioned in the findings include a labyrinth and private outdoor space for residents without private decks or balconies.

5.1.3 Transitional zones

Between the private residences and common areas in cohousing are transitional zones. These areas blend the private and common areas. Indoor transitional zones noted in the literature include stairways, elevators. Outdoor transitional zones include large porches and areas such as gardens between homes. (Durrett, 2009; Horelli, 2013). Study findings added mechanical rooms, bicycle storage/storage areas, space on either side of fences, decks connected to private residences, and walkways close to homes.

Although transitional zones are not regularly the site of planned activities, one survey respondent noted that even the car park area acted as a transitional zone as it provided the potential for interaction.

The findings suggest that although common areas described in cohousing literature are typically included in most projects, the list is not all-inclusive. The cohousing communities of the women participants include only the common areas that suit the needs of their specific community.

5.2 Meaning(s) attributed to common areas

The second research sub-question asks, “What meanings do women residents of cohousing attribute to common areas?” Study findings show that residents bring their own meanings to common areas based on memories of past events and expectations. New meanings are created through interactions with others. Therefore, common areas can have many meanings (Massey, 2013). As in the literature, some areas are meaningful because they are reminders of past experiences (such as playing with their children when they were young) (Andersson, 2011; Frascari, 2010; McClay, 2014; Rapoport, 1982, Tuan, 1977). For others in the study, the meaning of common areas is as reflection of values of the community or as a symbol of their success forming strong and lasting community bonds. This corroborates the architecture literature on the creation of meaningful places through the attribution of value based on emotional experience, symbolic meanings, and memory (Andersson, 2011; Frascari, 2010; McClay, 2014; Rapoport, 1982, Tuan, 1977).

5.2.1 Common areas with positive meaning

According to the findings, many common areas are associated with positive meaning. The most meaningful indoor areas are the kitchen/dining room, mediation room and meeting room (Appendix J). The most meaningful outdoor areas are patios, walkways and gardens (Appendix K). Many of these areas are the site of activities and events that provide interaction with others or, on a lesser scale, the opportunity for solitary or nature-inspired activities. Joyful activities and successful events taking place in common areas seem to create or strengthen positive meanings for that space. Such activities noted in the findings include meetings, weddings, celebrations, parties, conversations, gatherings, educational activities, community business, and shared meals. Participants noted that meaningful areas bring a sense of comfort and pride, allow escape or connection, and enable planned and spontaneous activities. This would suggest, in support of the literature, that new meanings are being created through experiences within the common areas.

5.2.2 Common areas with negative meaning

Since the creation of meaning of space is based in part on experience with the space, it is expected that some spaces will have negative meanings (Andersson, 2011; Frascari, 2010; McClay, 2014; Rapoport, 1982, Tuan, 1977). Common areas associated with negative meanings from the findings are those that function poorly (they are dark or too small, noisy, hard to maintain, cluttered, or not easily accessible), are the site of conflict, are where work takes place (i.e. laundry room), or are not likely sites for interaction (i.e. mechanical room).

5.2.3. Changes in meaning over time

As suggested by the literature, meaning changes over time (Andersson, 2011; Frascari, 2010; McClay, 2014; Rapoport, 1982, Tuan, 1977). Findings also underscore the dynamic nature of meaning that changes over the lifespan of the residents and the project. Changes in age, life stage, health, mobility, or relationships change the nature of experiences in, and therefore the meaning, of a space. Examples include common areas that become inaccessible as members age, gardens that become difficult to manage as residents become busy with careers, or common areas that become too busy as teens take for older residents seeking a quiet retreat.

5.3 Meaning, sense of belonging and built environment

The third and fourth sub-questions address meaning of common areas, sense of belonging for women in cohousing communities, and the impact of the built environment. These questions ask, “What is the relationship between meaning(s) of space and sense of belonging?” and “Does the built environment facilitate or inhibit a sense of belonging for women in cohousing communities?” The discussion in this section focuses on three inter-related elements of cohousing that arose from the findings: people, process, and place. Findings in all phases of research touched upon the interaction of people in the common areas, the way in which common areas accommodate the activities of the group, and the processes that facilitate interaction. Each of these elements independently was seen as essential to the quality of the cohousing community. Together they represent the elements that create the opportunity for a sense of belonging for the women participants in cohousing communities. In this section, place, people, and process will first be

addressed separately. As these categories are interrelated within the context of co-housing, they will then be addressed as a whole.

5.3.1 People

The category of ‘people’ encompasses findings relating to individuals, the cohousing community, and the surrounding neighbourhood. Interview, survey, and workshop research findings that relate to people are discussed under in each of these subcategories.

5.3.1.1 Within the cohousing community

Cohousing communities are a conglomerate of individuals with different skills, traits, behaviours, and values who work together for the common good of the community (ScottHanson & ScottHanson 2005). In all phases of the study there was discussion about people. Participants articulated the importance of the traits, behaviours, skills, values, of each member in forming and maintaining the community. Tolerance and acceptance were noted as particularly important in balancing the needs and preferences of individuals with the goals of the group. In all phases there was agreement that members require a sense of vision and patience, a commitment to grow with the community, and a desire to act in good faith. Cohousing groups tend to attract those who share similar goals and environmental ideals (Durrett, 2009). In study findings the sharing of causes and living with like-minded neighbours was seen as one aspect contributing to participant’s enjoyment of their cohousing community. The commitment of cohousing members to grow with the group over time establishing the foundation for creating and

maintaining common areas and the processes that keeps the group together.

Not all aspects of cohousing appeal equally to all residents of a cohousing community. Some participants (who self-identified as introverted) noted effort was required to participate in formal or large-group activities but they prefer less formal, smaller events. Residents seeking a quiet lifestyle prefer less active common areas. Similarly, not all residents want or need to participate in shared meals although these are a core expectation of residents in cohousing communities (ScottHanson & ScottHanson, 2005).

A guiding principle of cohousing is a non-hierarchical leadership structure where all adults participate in decision-making (Durrett, 2009). In contradiction, the findings of the interviews and surveys indicate residents fall into a variety of membership types with differing decision-making levels. Cohousing communities can include founding members, funding members, and associate members, among others. Outside members participate in activities of the cohousing community but live outside the community physically and legally. Some communities also have temporary members.

Cohousing intends to offers financial, social, and physical support for members (Brenton, 2013; Durrett, 2009; McCamant and Durrett, 2011; ScottHanson & ScottHanson, 2005; J. Williams, 2005). Findings of the interviews, workshop and survey clearly support this. In particular, single women (with and without children) stated that cohousing offers support not commonly available in a regular neighbourhood. When asked what was they liked most about cohousing, one respondent stated said, “So many interesting conversations. So many interesting people and activities. Never lonely and never dull! Lots to do, if I choose to, or can stay home and be quiet when I want to. Lots

of options. ... Great sense of community.”

Benefits of cohousing pulled from the findings indicate that for the women participants, cohousing allows them to age within a community which provides support at times of significant life events and near the end of life. Participants describe taking care of each other in times of illness or crisis without obligation to do so. In doing so they allow one respondent to feel “...like I am living in a close sharing/caring community/village...” This seems in agreement with the policies of senior cohousing groups that outline the limits of resident co-care (Brenton, 2013).

The financial support offered by cohousing communities is not a solution to poverty for women but rather a means of lightening the financial load of home-ownership for those in a position to purchase a home. In some cases units are rented which allows participation in cohousing for women baby boomers that are not in this position. As one participant pointed out, “We never had enough money to buy, you know, because we wanted to be central so we could use our bike, so we could walk, not a lot of people were interested in driving. So because of that every piece of property we’d find downtown was like millions of dollars. And none of us were rich.” Financing, particularly in the early stages, is a challenge.

5.3.1.2 The surrounding community

There can be resistance from neighbours in surrounding cohousing communities if they don’t understand the cohousing concept or if they are intolerant towards the housing group (Durrett, 2009, p. 20). The study findings indicate that this was the case with at least one community. In such circumstances the conflict can lead either to strengthening

of the community or disintegration. On a personal level, one survey respondent sees such conflict as an opportunity for "...personal growth as I learn to relate to different types of people and resolve conflicts."

5.3.2 Process

The category of 'process' includes informal and formal social interactions and the activities of governance. Social interactions include the planned activities of the community as well as the variety of day-to-day encounters within the cohousing setting. Governance covers the practices of self-management as discussed under the headings of participatory process and decision-making.

5.3.2.1 Social Interaction

Cohousing literature suggests common areas are to support the formal, informal, and spontaneous social interaction of residents (Brenton, 2013; Durrett, 2009; Williams, 2005). Common areas such as the common house provide a focal point for interaction and therefore are sites of community integration or disintegration (Horelli, 2013).

Findings in the study diverged somewhat from the literature in that common areas were seen as important but not essential to support the community. A few participants in the interview and survey expressed the idea that the community could exist without common areas. One participant who said, "Spaces are meaningless on their own - the meaning is in people's commitment to each other", sums this up. While common areas may not be essential to maintaining the community, participants felt it was important, and easier, to have community members in close proximity.

J. Williams (2005) notes that design factors for common areas such as density,

clustering, visibility, peripheral parking, and defensible space are important to encouraging interaction among residents. Cohousing projects may also limit the number of units to achieve appropriate density for good interaction among residents. The number of units suggested ranges from ten to forty households (Christian, 2003; Durrett, 2009). Research findings did not provide conclusive support for the relationship between resident numbers and success of the community. As one long-term community is well below this range, this is likely not the lone factor dictating success of a community.

Research participants describe the social interactions of cohousing members as the “glue” of the community. Literature suggests resident connections are strengthened through participation in activities such as creating and sharing of common meals (Durrett, 2009; McCamant & Durrett, 2011; Vestbro, 2000). Findings in each phase indicated that activities and interactions were the basis of positive relationships with neighbours. These relationships led to feelings of trust, acceptance, support and security.

5.3.2.2 Governance

The participatory process as it relates to design of common areas was discussed earlier. The literature on cohousing also relates the participatory process to building of community. Literature suggests that the group develops a feeling of community during the planning and building stages (Brenton, 2013; Durrett, 2009; McCamant & Durrett, 2011). However, the findings of the study indicate that not all participants were involved in activities in the early stages of their cohousing community. In all cases, extensive focus on developing systems of communication, aligning values, and problem solving took place in the early stages with the intention of developing the community along with

the buildings. Participants were clear that development of the community at this point was as important as the structures and layout.

The participatory process is not static. Study findings suggest that participation changes over time to adapt to changing realities of both the residents and the project. Processes that were lengthy and formalized in the early stages of community building became condensed and less formal over time. For example, detailed procedures for consensus decision-making may later be simplified to simple email notifications of potential changes.

5.3.2.3 Decision-making

To assist in the relationship building required to form a community, groups might pursue training in consensus decision making, conflict resolution, diversity and equality, discussion and definition of core group values, meanings and boundaries, and polices regarding membership, pets, and noise (Brenton, 2013, p. 10). Study findings indicate that the participants' cohousing communities had considered and worked to develop skills in many of these areas.

The participatory process includes developing effective methods for decision-making. In cohousing, one of the founding principles is that decisions are made by consensus (Christian, 2003; Durrett, 2009,). The findings of the research agreed somewhat with the literature in that consensus decision making was employed, particularly in the early stages of the planning and development. Findings show variation in use of consensus decision-making from community to community. Sometimes variations of majority voting is used to avoid the stalling important decisions. The study

findings also indicated that some communities move to less formal decision-making processes over time.

5.3.2.4 Time

Study participants are well aware that changes in the community happen over time. Advancing age, the leaving and arrival of members, the stage of development, and the maturity of the community are all noted as factors that require adaptation. Findings in all phases of the study indicate that communities adapt policies and guidelines as the community focus changes. As noted earlier, groups developing cohousing go through the stages of feasibility study (research and planning), design, and construction with a concurrent process of establishing group and participatory design processes (Durrett, 2009). The study findings provided insight into their participation in each of the areas.

Another aspect of timing is when cohousing residents choose to seek professional assistance in the development process. One survey respondent noted, “It was really important that we decided the scope of shared areas before we got involved significantly with our design team. It was very clear that we needed to build community at the same time as we built our homes.” Other communities indicate working with professional so from the very early stages. This suggest that architects or designers could be involved with cohousing development at various times throughout life-span of the project.

5.3.2.5 Barriers to success

Community building is a process, not an end goal (Horelli, 2013; Talen, 2000). The research points out barriers to the success of establishing a cohousing project: time, money, future residents’ fatigue and burnout, lack of familiarity with the cohousing

model, cost and location of site, lack of will on the part of governments to innovate, lack of skill of future residents, and bureaucratic blockages (Brenton, 2013, p. 8; Durrett, 2009, ScottHanson & ScottHanson, 2005). Physical, bureaucratic, and financial barriers were mentioned in the findings and support the literature in this respect. The findings did show that cohousing residents are aware of their lack of planning and development skills and seek out the knowledge and expertise needed to see the project through to completion.

5.3.3 Place

5.3.3.1 Design of common areas

The cohousing literature is consistent in describing the design of cohousing projects as rooted in a participatory process where future residents make most of the design decisions (Durrett, 2009; McCamant and Durrett, 2011; ScottHanson & ScottHanson, 2005). The findings from all three phases of research supported this in part: some residents active in the community during the planning and building phase were involved in the design of their cohousing projects. However, not all were involved in early research, design, and site selection. The only area of full participation (100%) is the on-going management and maintenance of the project (Table 11). Although not all residents are directly involved in the design process they do participate in final decisions. As members continue to grow and change, their needs for common areas also change. A re-visioning of the project takes place in some communities. This allows residents the opportunity to participate in later stage design processes.

Cohousing common areas are intended to support the formal, informal, and

spontaneous social interaction of residents (Durrett, 2009, McCamant & Durrett, 2011). Interview, survey and workshop findings are congruent with the literature as they indicate a variety of spaces are desired to accommodate a range of activities. These include: indoor/outdoor, shared/private, open/intimate, large group use/small group use, restful/energizing, and active/contemplative areas (Table 10). Respondents expressed the desire for common areas to be easy to use and maintain, uncluttered, free of personal storage, comfortable, attractive, flexible and adaptable. Ideally common areas would provide well-lit open spaces, would be visible from private homes, and would have measure in places to control noise.

Given the opportunity to improve common areas in their own communities, participants would eliminate under-utilized specialized rooms (office, upper floor lounges), in favor of adding more socializing and storage space. Overall, the design of the space remains a reflection of the values, budget, current and anticipated need of the individual communities. Findings show that while many cohousing projects could be improved in some way, residents are generally happy with them as they are. This is in keeping with Tuan's (1977) assertion that accumulated history and sentiment brings meaning to a space. Although not perfect, cohousing common areas contain the history of the group creation process.

Comments about potential changes to common areas bring to light the need to design cohousing for the current and anticipated needs of residents. In each phase of the research the suggestion is made that rooms be adaptable for later use (i.e. playrooms can be converted to teen rooms and later to additional guest rooms) and that be considered early in the design process. The literature addresses the same issue. Durrett (2009)

suggests accessibility is a design consideration best addressed through inclusion of universal accessibility standards early in the design process. As many cohousing residents underestimate their needs for the future, accessible paths, benches, and walkways, a one-story common house, elevators for multi-story units, accessible kitchen and gardens, wide entrances with low thresholds, open floor plans, stairs and balconies indoors, first floor bedrooms and bathrooms, among other items could be included in the initial design (Durrett, 2009, pp. 286-287).

5.3.3.2 Use and function of common areas

Even with well-designed common areas, study results indicate common areas can be a source of conflict. Study participants suggest solutions introduced early in the design and planning stages have the potential to reduce conflict. Adequate indoor and outdoor storage and in-house laundry are specific suggestions for reducing potential conflict. Findings from all phases of research indicate differences in use of space are the topic of ongoing conversation within communities and these test or strengthen the community's conflict resolution processes. This is consistent with the literature, which states that through active conflict resolution to resolve issues, communities are strengthened (Durrett, 2009).

Without common areas, the activities and interactions of the cohousing community still take place, but not as easily as they do if the common areas are available. For example, a community without a common house can still participate in regular shared meals in the homes of residents but spontaneous large group gatherings are inhibited. Findings suggest that to best support the activities of the community, common areas

should be the right size for the size of the group (i.e., not so small that they require constant reorganization or the whole group can't fit, not so big that they feel impersonal or present too large an environmental footprint).

Private ownership of residences and shared ownership of common areas is a defining feature of cohousing. Most cohousing literature includes discussion of the transitions and boundaries between private and common areas (Durrett, 2009; McCamant and Durrett, 2011; ScottHanson & ScottHanson, 2005). Findings in this study found that participants' communities included a variety of transitional spaces: these were natural (gardens) and structural (fences, walkways), or and temporary (note on a door). While the common areas in many cohousing communities begin outside the door of the private residence, some transitional zones are ineffective or inhibit spontaneous interaction (i.e. fences between homes). Some communities indicate private and common areas by the use of the area, rather than the actual location.

Findings from all phases of the study suggest boundaries between private and common areas can facilitate positive interactions with neighbours. When boundaries are specific, articulated, and respected residents can interact with ease. Respondents expressed a sense of freedom from guilt in dealing with neighbours when private and common areas were clearly articulated, as also mentioned in the literature (Durrett, 2009). However, comments from the women respondents on the sense of security and sense of belonging that were strengthened by boundaries were not stated strongly in the cohousing literature (Durrett, 2009; McCamant and Durrett, 2011; ScottHanson & ScottHanson, 2005). The findings show that common areas provide different levels of intimacy for interacting with different people (for example, the common house provides a

safe place to meet with strangers or acquaintances from outside the community).

The findings of interviews, workshop and surveys indicate the women participants have a strong desire for connection to nature. Participants indicated that many of the activities and interaction in their cohousing communities take place out-of-doors in good weather: arcades or covered atriums were suggested as protected outdoor spaces for use in bad weather. To facilitate the connection to outdoors, participants suggested ground-level access to the common house, adjacent outdoor seating areas, and the inclusion of natural areas around the common house and the entire community. A survey participant felt, "... Ideally, everyone would have a little deck or balcony of their own as well as some shared garden space."

5.4 Common areas on sense of belonging

The overall research question was "How do common areas in cohousing communities contribute to a sense of belonging for women residents over the age of fifty?" The findings of the research indicate that common areas provide the opportunity for sense of belonging in combination with the people in the community and the formal and informal processes that take place in the community. Specifically, if common areas are designed and maintained to support interaction, if people have skills, traits and behaviours to create positive interactions, and if processes are in place to support the administration and maintenance of the common areas then a sense of belonging is possible.

McMillan and Chavis' (1998) theory discussed earlier provides a theoretical understanding of the connected elements that contribute to sense of belonging within a

community. The model addresses the security and freedom created by the existence of shared boundaries, the emotional safety of relationships due to established processes and policies, the personal investment in the community, the common symbols associated with common areas and shared activities. Findings from this study also made the connection between the existence of these elements and the effect each had on creating a sense of belonging.

McMillan and Chavis' (1998) theory does not address the design of the community in private or common areas as a mediating factor in sense of belonging (McMillan and Chavis, 1998, p 15). For this, J. Williams' (2005) model (also discussed earlier) includes place as one factor affecting social interaction in cohousing by providing a link between opportunities for social interaction, activities, and the environment. Findings of this study supported Williams' model by indicating that social interaction was easier for groups when the common areas matched the size and expectations of the community.

The influence of time in creating the opportunity for a sense of belonging is a factor that should also be considered. The interactions in cohousing change over time and therefore meaning of spaces (as positive or negative) and the relationships among members will also change over time. Therefore, it is the inter-related influence of time, with meaning, people, interactions/processes and place/common areas that can lead to a sense of belonging.

5.5 Summary

Based on the findings of this study, the following graphic summary is proposed to

represent this interactive relationship (Figure 6). This builds on J. Williams' (2005) model of conditions for social interaction. It differs from Williams' model in that social interaction is not seen as the end goal but rather an additional factor in the creation of conditions in cohousing for women baby boomers to experience sense of belonging. When there is balance or positive relationships between the people in the cohousing community, the processes and the interactions that take place, and the common areas that support the interactions of the group, sense of belonging is possible. When there is an imbalance (for example one of the elements is missing or has taken on negative meaning, these areas move apart, reducing the opportunity for sense of belonging. When the elements come back together, sense of belonging is again a possibility. This process is subject to the reciprocal interaction meaning on the common spaces and the overarching effect of time on all aspects of the cohousing community.

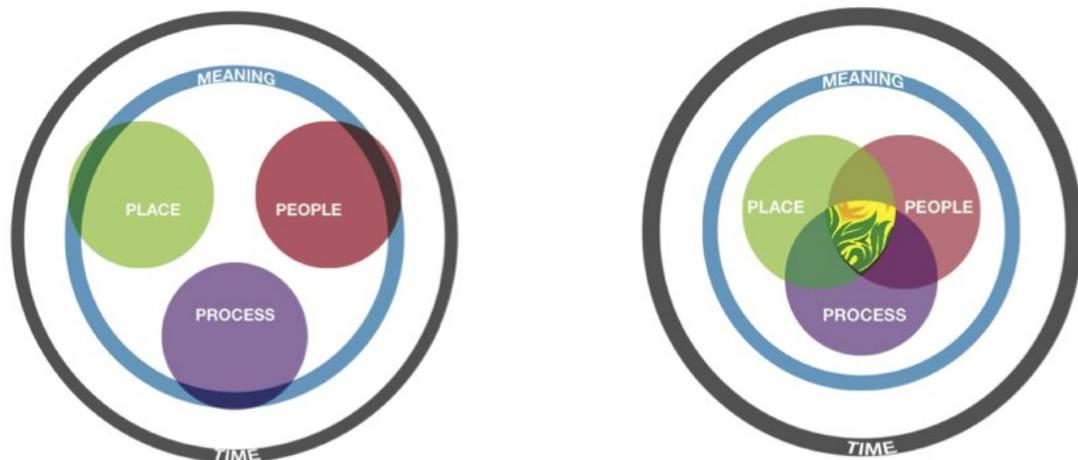


Figure 6: Sense of belonging as a function of positive interaction of people, place, and process. The model on the left represents an imbalance of people, place and process. The model on the right represents a balance of people, place and process with resulting sense of belonging.

Time is an additional factor affecting the meaning associated with common

areas. The stage of community and project development, the life stage of residents, and the amount of time involved in creating a project are factors participants point out as affecting the meaning they bring to activities. Participants bring meaning to the common areas and new meaning is generated over time and through interactions within these common areas.

The study may contribute to some saving of time in the initial design stages by providing a starting point for discussion of common areas that the women participants viewed as most positive and negative and by considering the issues that lead to positive and negative interactions in the space. While the planning-time savings may be limited, the findings will be most helpful over time. Knowing that meaning of spaces change over time, the residents can anticipate future uses of the spaces and future needs in order to create spaces that have the flexibility to adapt to these future needs. With this is the pre-planning of periodic workshops to evaluate the use of common areas and to generate ideas for changes.

Findings of the study highlight the overlap between people and place, people and process, and place and process. These areas represent the commitment to the cohousing community. It is these areas of commitment to the cohousing community, or intention, that distinguishes cohousing from other collective housing. The will of residents to create a community, the development of processes and activities to nurture the community, and the design of common areas to facilitate community interaction make the difference between successful and unsuccessful communities. For instance, a community may have a common house and guidelines/processes in place to allow residents to manage their community. However, without the intention of the group to hold regular

activities in these common areas and jointly manage the space, it may be seldom used and will not likely be the focus of the community. Should a community have people living in close proximity and processes in place to manage property but have no intention of building common areas, they lack an important opportunity for spontaneous and regular interaction and may not form a strong community.

Meaning and sense of belonging are important criteria for cohousing design. Cohousing is unique in that it is developed and designed by the future residents through a participatory process. The project encompasses both the physical environment the residents will occupy and the social components binding the group. The meanings each individual brings to the group as well as the meanings that might be created through interaction in the future project are important considerations for the design. Similarly, to create the opportunity for sense of belonging to the community, the balance between people, places and process, should be considered in the early design and periodically over time.

5.6 Limitations

There are some limitations of this study to be noted. Throughout the study women have been referred to as ‘women baby boomers’, ‘women boomers’, or ‘women over the age of fifty’ which has the tendency to homogenize the population. Class, race, sexuality, and ability, among other things, distinguish women and should be applied in future to recognize a much more diverse populating of women.

This study contains a discrepancy between early discussions of cohousing as a financially supportive housing option for women baby boomers and the study insights

and recommendations. The focus of this study on the interaction of common areas and sense of belonging did not provide insight into the affordability of cohousing for women baby boomers nor did it provide details on the financial profiles of the women participating in the study. Some information on cohousing options that address the issue of affordability for women baby boomers was briefly touched upon (i.e. subsidized units selling below market value and rental units). However, it is recognized that even these options are applicable to women financially able to consider alternative housing options. The financial support of cohousing for women baby boomers is not in providing a solution to poverty or access to low-cost housing but rather is the lessening of the ongoing cost of living for those able to purchase or rent a cohousing unit.

The smaller sample sizes could be seen as a limitation. The numbers were in part a reflection of the scheduling and timeframe of the researcher as well as a reflection of the size of the population of women cohousing residents over the age of fifty in Canada. However, the study was intended as an exploration of the insight of one aspect of cohousing of women baby boomers living in cohousing and this aim was achieved.

The survey questions contain two limitations. One item was added to the Likert scale questions after deployment of the survey and receipt of 3 responses. Although this meant 3 participants received a different survey instrument, this did lead to the ability to gauge the importance of this area, which would not have been possible otherwise. Response to a survey question about 'living space' indicate this was interpreted as living room areas in the common house for the use of all residents rather than the intended on-site living space for care-givers. In future research an additional level of prescreening for possible ambiguity could be added.

The parameters for the design portion of the workshop asked that participants choose the top five design priorities to include in an ideal cohousing project. It's possible that without this stipulation the design could have been different. However, the restriction lead to identification of the highest design priorities from what might have been long list of undifferentiated potential design elements. This stipulation reflects the reality of financial restrictions on design decisions in the cohousing communities of participants.

Some questions regarding processes such as decision-making and conflict resolution were difficult for some participants to answer. It became clear as the research progressed this was because these processes are different at different stages of development of the community and at different life stages of the women themselves. This led to an important insight regarding the interaction of time (life stage, stages of community development, length of time involved in the creation of cohousing) with other aspects of cohousing.

5.7 Proposals for future research

This research focused on a small of group of women cohousing members over the age of fifty. As such, the findings are not generalizable to other cohousing members or to the larger population. As a research probe, the findings suggest many opportunities for future research.

This study could be repeated with a larger and more diverse sample of women in order to compare differences in responses of women in various age groups, income levels, family configurations, life stages etc.

As the affordability of cohousing could be a significant obstacle for some women,

a study of cohousing through the disciplines of economics or business to seek solutions that would allow more women to be involved in cohousing. Solutions might also be researched that could speed up the process of cohousing development by overcoming the difficult of raising early funds to plan for, purchase, and develop a site.

Finally, future research could continue to look at the time involved in the planning and development of cohousing in order that it might be shortened without compromising the important community building that takes place in the early staging of cohousing development.

5.8 Contribution to the fields of design and architecture

As an interdisciplinary research study in the fields of design and architecture, these findings will be of interest to designers and architecture involved with cohousing where women over the age of fifty will be/are residents. While the results of the research are not generalizable, the findings provide insight into the creation of a sense of belonging in cohousing environments for some women baby boomers. These insights can form the basis of discussion about the common areas and facilities to include in cohousing projects. Design workshops like those already being facilitated by architects and cohousing project managers in the early stages of design could be adapted and repeated periodically to re-establish the meaning and use of common areas as the community matures. Designers, architects, and others involved in creating cohousing where women over the age of fifty are residents may also find the insights regarding the creation of negative meaning helpful in anticipating future issues, enabling them to plan

for design interventions in common areas that might affect these women's sense of belonging.

5.9 Recommendations

The insights from the study lead to the following recommendations for designers and architects involved with cohousing:

i) Creating Meaning in Common Areas

Designers and architects could recognize that women cohousing residents over the age of fifty bring meaning to the common areas, and that new meaning is created through interaction in common areas. Therefore, they could consider:

- The design of meaningful common areas be based on the anticipated interactions of residents in the space;
- Cohousing is developed through a unique design process as the future residents make design decisions and these are based on the interactions they anticipate will take place in the common areas;
- The current phase of development of the project, the life stage of the residents, the diversity of future residents, as well as their wishes for how they envision future activities in the design process; and
- Decision-making is not a top-down process, as future residents must make the design decisions.

ii) Changes over Time

Designers and architects could recognize that the meaning of cohousing common areas is not static but changes over time through interaction in these areas and the degree to

which the area supports the activities of the community. Therefore, they could consider:

- The mix of common outdoor and indoor space that best suits the needs of the particular community;
- That the life stage of residents will impact the current and anticipated activities and these could be considered in the design; and
- That flexibility and adaptability be considered as a way to allow space to remain meaningful as interactions change over time.

iii) Ongoing Participatory Process

Designers and architects could recognize the importance of the participatory process in all aspects of cohousing. Therefore, they could consider that:

- The cohousing community represents a unique client highly involved in design in a participatory way;
- Those working with women to create cohousing could be most effective if they have an understanding of the principals of cohousing including the participatory process and the unique group of individuals planning the cohousing community;
- Designer's and architect's knowledge and tools could be valuable in facilitating the participatory process at various stages of development as requested by individual communities. These tools and the ability to facilitate the co-design process are valuable to groups planning a cohousing project in the early stages to save the time it take to educate themselves on such process;
- Each group of future cohousing residents is unique and as a result will require the assistance of professionals at different points in the process. Some prefer collaboration with professionals very early in the design process to explore

potential design options and/or to facilitate the design process. Other communities prefer to establish their design goals independently before interacting with architects or designers;

- Designers and architects may recommend a schedule for revisiting the visioning and design co-design exercises periodically as meaning of common areas changes over time;
- Periodically scheduled design workshops include use of participatory and co-design tools to assist residents in the design and re-design process. These might include (but are not limited to) design exercises such as:
 - collage (with discussion of results),
 - creative toolkits to re-imagining uses of and structures in common areas,
 - critical incident techniques for identifying and suggesting solutions to negative interaction in common areas;
 - experience audits through use of storytelling or photo-storytelling to identify positive and negative changes to the meaning of common areas;
 - temporary ‘graffiti walls’ for anonymous commenting in common areas; and
 - user journey maps for identifying key common areas where issues are occurring.

(Martin and Hanington, 2012)

iv) Sense of Belonging

Designers and architects involved with cohousing could recognize that sense of belonging for women in cohousing is complex. Therefore:

Cohousing for Women Baby Boomers

- All elements of the cohousing community should be considered equally in the design process (the physical environment, the people and the processes) as these create the opportunity for sense of belonging; and
- Meaning of space and the potential for sense of belonging should be considered in the design of common areas.

CHAPTER SIX

CONCLUSION

As a housing option for some women baby boomers, cohousing is distinct in that it contains a mix of private homes and collectively owned facilities and grounds. Shared facilities are intended to support the activities of residents with the goal of creating a strong sense of community. This was an exploratory study to gather insights into the meaning of these common areas for women baby boomer cohousing residents and to identify how the common areas contribute to a sense of belonging to a community. This study was based on the primary research question “How do common areas in cohousing communities contribute to a sense of belonging for baby boomer women residents?”

6.1 Benefits of an interdisciplinary approach to the study

Cohousing encompasses both social and physical principles. This made an interdisciplinary approach to the study practical. The literature review focused on 3 primary areas: cohousing literature from the field of economics, architecture, and design. Cohousing literature provided the benefits of the cohousing model, the principles and foundations of cohousing, and practical guides for developing cohousing. Architectural literature provided a way to understand the relationships between the physical environment of cohousing and the social interaction of cohousing residents and the connection between meaning and sense of belonging. Design literature, particularly the literature related to co-design, provided context for the participatory processes central to cohousing. Looking at the research problem with an interdisciplinary approach added to

the depth of the study and led to insights that might not have been uncovered if the research problem was approached through a single discipline.

6.2 Major insights of the study

The study was directed by 4 sub-questions related to the main research question.

These were:

1. What are the intentional and unintentional common areas of some cohousing communities?
2. What meanings do women residents of cohousing attribute to common areas?
3. What is the relationship between meaning(s) of space and sense of belonging?
4. Does the built environment facilitate or inhibit a sense of belonging for women in cohousing communities?

Through answering these and the main research questions, a number of insights emerged.

6.2.1 Insights regarding meaning of common areas

The study findings highlight that women baby boomers bring meaning to cohousing common areas in the form of memories, experiences and expectations. They also generate new meanings for common areas through the interactions that take place in these areas. New meanings may be positive (i.e. the area is a site of important community events) or may be negative (i.e. the area is a site of conflict over how it is used). The meaning of common spaces is also a factor of how it supports or hinders the activities of the community. Finally, the meaning attributed to common areas changes over time as the interactions of cohousing residents change, as members age, as the community passes through various stages of project development and matures as a community.

6.2.2 Insights regarding common areas and sense of belonging

The findings suggest that common spaces are one aspect of cohousing that creates the opportunity for sense of belonging for women baby boomers. There is a link between the common areas, the activities that take place in common areas, the behaviour and intention of the people interacting in common areas, and the sense of belonging to the community. Sense of belonging appears to be the result of the convergence of these factors. As time affects the meaning attributed to common areas, the sense of belonging can also shift over time.

While the results of the research are not generalizable, the findings provide insight into the opportunity for sense of belonging in cohousing environments for some women baby boomers. These insights can form the basis of discussion about the common areas and facilities to include in cohousing projects

6.3 Relevance of findings for designers and architects

As an interdisciplinary research study, these findings will be of interest to those in the fields of design and architecture as well as women baby boomers planning cohousing. The research findings feature the collective insights about the experience of meaning and sense of belonging of a group of women baby boomers involved in cohousing. The findings could help designers and architects involved in developing cohousing by highlighting potential interactions between meaning of common areas and the sense of belonging for cohousing residents. Armed with this awareness and with an understanding of cohousing principles, designers or architects could potentially shorten the cohousing planning process by providing tools for cohousing residents to incorporate

this knowledge into the design of common areas.

6.4 Primary recommendations for designers and architects

The insights generated from the study are the basis of recommendation for architects and designers interested in cohousing. A primary recommendation is that designers and architects utilize their experience with, and knowledge of, co-design processes and tools to facilitate the cohousing participatory process at various stages of development. This could potentially shorten the overall planning and development phase by alleviating cohousing residents of the need to research and learn to use such tools. Designer and architects could revisit cohousing communities periodically to ensure the common areas fit the changing needs and values of residents over time. They might recommend a schedule for this re-visioning of common areas through use of co-design exercises.

The other insights of the study regarding the interaction of time with meaning of cohousing common areas will be of value to designers and architects working in the emerging field of housing for aging Canadians. Awareness of the significant growth of the senior population as baby boomers enter their senior years and knowing many women in this age group will be seeking alternative housing options such as cohousing means this a significant housing market designers and architects cannot ignore.

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APPENDIX A
Interview Letter of Invitation



Letter of Invitation: Interview

Title: The meaning of shared spaces and the experience of belonging for senior women residents of a multigenerational cohousing community in Ottawa.

Date of ethics clearance: December 23, 2014

Ethics Clearance for the Collection of Data Expires: May 31, 2015

February 3, 2015

Dear Sir or Madam,

My name is Corinna Robitaille and I am a Master's student in the Industrial Design Department at Carleton University. I am working on a research project under the co-supervision of Professors Lois Frankel, Department of Industrial Design and Federica Goffi, Azrieli School of Architecture and Urbanism.

I am writing to you today to invite you to participate in a study on your experience of shared living spaces in your co-housing community and the meaning you attach to these spaces. This study aims to understand if such spaces contribute positively or negatively to a sense of belonging in a cohousing community, if there are specific architectural elements that affect a sense of belonging in a community, and if there is agreement about the meaning of shared spaces by women in cohousing communities.

This study involves a 60-minute interview that will take place in a mutually convenient, safe location. With your consent, interviews will be audio-recorded. At the completion of the project, the audio recording will be destroyed.

While this project may involve minimal professional and/or emotional risks, care will be taken to protect your identity. This will be done by keeping all responses anonymous and allowing you to request that certain responses not be included in the final project.

You will have the right to end your participation in the study at any time, for any reason, up until February 15, 2015. If you choose to withdraw, all the information you have provided will be destroyed.

As a token of appreciation, light refreshments will be provided during the interview. No other compensation will be provided.

All research data, including audio-recordings and any notes will be saved on a password-protected hard drive. Any hard copies of data (including any handwritten notes) and the USB memory stick will be kept in a locked cabinet at the home of the researcher. Research data will only be accessible by the researcher and the research supervisor.

This ethics protocol for this project was reviewed by the Carleton University Research Ethics Board, which provided clearance to carry out the research. Should you have questions or concerns related to your involvement in this research, please contact:

REB contact information:
Professor Andy Adler, Chair
Professor Louise Heslop, Vice-Chair
Research Ethics Board
Carleton University
1325 Dunton Tower
1125 Colonel By Drive
Ottawa, ON K1S 5B6
Tel: 613-520-2517
[\[email address\]](#)

If you would like to participate in this research project, or have any questions, please contact me at [\[email address\]](#)

Sincerely,

Corinna Robitaille
[\[email address\]](#)

APPENDIX B
Interview Consent Form



Consent Form: Interview

Title: The meaning of shared spaces and the experience of belonging for senior women residents of a multigenerational cohousing community in Ottawa.

Date of ethics clearance: December 23, 2014

Ethics Clearance for the Collection of Data Expires: May 31, 2015

I _____, choose to participate in a study on ‘The meaning of shared spaces and the effect on the sense of belonging for senior women residents of a multigenerational cohousing community in Ottawa’. This study aims to understand if such spaces contribute positively or negatively to a sense of belonging in a cohousing community, if there are specific architectural elements that affect a sense of belonging in a community, and if there is agreement about the meaning of shared spaces by women in cohousing communities.

The researcher for this study is Corinna Robitaille in the School of Industrial Design, Carleton University. Corinna is working under the co-supervision of Professors Lois Frankel in the Department of Industrial Design and Federica Goffi in the Azrieli School of Architecture and Urbanism at Carleton University.

This study involves a 60-minute interview. With your consent, interviews will be audio-recorded. Once the research has been completed, the audio recording will be destroyed.

As this project will ask you about your feelings of belonging in this cohousing community there are some potential professional risks to you if your statements are critical of the community. While this risk is expected to be minimal, I will take precautions to protect your identity. Should you choose, this will be done by keeping all responses anonymous and allowing you to request that certain responses not be included in the final project. Should you experience any distress during the interview, you will be provided with contact information for counseling services available nearby.

You have the right to end your participation in the study at any time, for any reason, up until February 28, 2015. You can withdraw by phoning or emailing the researcher or the research supervisor. If you withdraw from the study, all information you have provided will be immediately destroyed.

All research data, including audio-recordings and any transcribed notes will be saved on a password-protected hard-drive and password protected USB memory stick for the duration of the research. Any hard copies of data (including any handwritten notes or USB keys) will be kept in a locked cabinet at the home of the researcher. Research data will only be accessible by the researcher and the research supervisor.

Once the project is completed, all research data on the researcher's hard drive will be securely destroyed. Any hard copies of data (including any handwritten notes and USB memory sticks) will be securely destroyed. (Electronic data will be erased and hard copies will be shredded.)

If you would like a copy of the finished research project, you are invited to contact the researcher to request an electronic copy which will be provided to you if it does not identify other participants.

This project was reviewed by the Carleton University Research Ethics Board, which provided clearance to carry out the research. Should you have questions or concerns related to your involvement in this research, please contact:

REB contact information:
Professor Louise Heslop, Chair
Professor Andy Adler, Vice-Chair
Research Ethics Board
Carleton University
1325 Dunton Tower
1125 Colonel By Drive
Ottawa, ON K1S 5B6
Tel: 613-520-2517
[\[email address\]](#)

Researcher contact information:	Supervisor contact information:
Name : Corinna Robitaille	Name: Lois Frankel
Department: Industrial Design	Department: Industrial Design
Carleton University	Carleton University
Tel: [REDACTED]	Tel: [REDACTED]
Email:	Email:
Do you agree to be audio-recorded:	<input type="checkbox"/> Yes <input type="checkbox"/> No

Signature of participant

Date

Signature of researcher

Date

APPENDIX C
Interview Questions and Prompts



Interview Questions and Probes

Preamble

Thank you for taking the time to participate in this interview. We will spend about 40 minutes discussing the physical cohousing environment. As mentioned, the interview will be audio-recorded and later transcribed.

As this project will ask you about your sense of belonging to this cohousing community, there are some potential risks to you if your statements are viewed as critical of the community. This risk will be mediated by keeping all responses anonymous and allowing you to request that certain responses not be included in the final project. Also, you have the right to end your participation in the study at any time, for any reason, up to June 12, 2015. You can withdraw by phoning or emailing me or the research supervisor. If you withdraw from the study, all information you have provided will be immediately destroyed.

Questions

I would like to ask a few questions about your personal history and background.

Prompts:

- How long have you lived in this cohousing community?
- Did you come to the community on your own or with another/others?
- Where did you live prior to coming to this community?
- What drew you to this particular community at this time?
- What makes you want to stay with this community?

What areas are shared by members of the cohousing community?

Prompts:

- How are cohousing community common areas shared?
- How are the shared spaces managed and maintained?
- Is it possible to make changes to the shared spaces?
- Have you made any changes to community shared spaces?
- How do you know which spaces are intended for use by everyone?
- Are there spaces that are shared that are just for cohousing residents?
- How is the transition between shared community space and personal space marked?

Were you involved in the design of the physical space of the community or did you join the community after the planning and design stages were complete?

Prompts:

- How was it decided which areas would be shared and which would be private?
- Describe the areas that are shared by members of the cohousing community.

Can we talk for a few minutes about the public and private aspects of space?

Prompts:

- Are there spaces that are shared that are open to the public?
- What is the difference to you between private, shared community and public spaces?
- How is the transition between public space and community space marked?
- Is there a sharp distinction or a gradual transition between personal and community space?

What cohousing community spaces do you prefer?

Prompts:

- Of these, what are your favourite spaces of those shared by the whole community?
- Why do you prefer these areas?
- What ties you to these areas?
- Do you think there is something in this space that you feel makes it what it is? (i.e. a shape, piece of furniture, the light, etc.)
- Do these spaces hold any particular meaning for you, such as reminding you of another place, feeling familiar, etc.?
- How would you feel if you did not have these particular spaces available to you? Or to the cohousing community?

Can you tell me about the way space creates or hinders interaction with others?

Prompts:

What kind of interaction do you have with other community members in this space?

Is this the kind of interaction you prefer or would a different interaction be preferable?

Does this interaction in this particular space effect how you feel about your connection to this community? How?

Is it important to you that you feel a connection to this community? Why?

Finally, could you tell me a bit about what you've learned about shared space from living here?

Prompts:

Having lived in the community for some time, what shared spaces are missing that you now feel are important for nurturing the sense of community?

Do you think it would be possible to create a similar space in another place such as a retirement home or apartment building?

- Please tell me if you are under or over the age of 50.

Thank you for taking the time to share your thoughts.

APPENDIX D
Workshop Email Letter of Invitation



Email Invitation: Workshop

Subject: Invitation to participate in a research project on the meaning of shared spaces in cohousing communities.

Dear Madam,

My name is Corinna Robitaille and I am a Master's student in the Department of Industrial Design at Carleton University. I am working on a research project under the co-supervision of Professors Lois Frankel, Department of Industrial Design and Federica Goffi, Azrieli School of Architecture and Urbanism.

I am writing to you today to invite you to participate in a study on your experience of shared living spaces in your community and what meaning you attach to these spaces. This study aims to understand if such spaces contribute positively or negatively to a sense of belonging in a cohousing community, if there are specific architectural elements that affect a sense of belonging in a community, and if there is agreement about the meaning of shared spaces by women in cohousing communities.

This portion of the study involves a 2-3 hour workshop that will explore meanings of shared spaces and how these may be used to create an ideal cohousing setting. The workshop will take place in a mutually convenient, safe location. With your consent, the introduction of the workshop will be audio-recorded and the design activities will be video-recorded. At the completion of the project, the audio and video recordings will be destroyed.

While this project may involve minimal professional and/or emotional risks, care will be taken to protect your identity. This will be done by keeping all responses anonymous and allowing you to request that certain responses not be included in the final project.

You will have the right to end your participation in the study at any time, for any reason, up until **June 12, 2015**. If you choose to withdraw, all the information you have provided will be destroyed.

As a token of appreciation, light refreshments will be provided during the workshop. No other compensation will be provided.

All research data, including audio-recordings and any notes will be saved on a password protected hard drive. Any hard copies of data (including any handwritten notes or USB memory sticks) will be kept in a locked cabinet at the home of the researcher. Research data will only be accessible by the researcher and the research supervisor.

The ethics protocol for this project was reviewed by the Carleton University Research Ethics Board, which provided clearance to carry out the research. (Clearance expires on **May 31, 2016**) Should you have questions or concerns related to your involvement in this research, please contact the REB Chair, Louise Heslop or Vice-Chair, Professor Andy Adler at [email address] or at [phone].

If you would like to participate in this research project, or have any questions, please contact me at [email address].

Sincerely, Corinna Robitaille
[email address]

APPENDIX E
Workshop Consent Form



Consent Form: Workshop

Title: The meaning of shared spaces and the experience of belonging for senior women residents of a multigenerational cohousing community in Ottawa.

Date of ethics clearance: May 8, 2015

Ethics Clearance for the Collection of Data Expires: May 31, 2016

I _____, choose to participate in a study on ‘The meaning of shared spaces and the effect on the sense of belonging for senior women residents of a multigenerational cohousing community in Ottawa’. This study aims to understand if such spaces contribute positively or negatively to a sense of belonging in a cohousing community, if there are specific architectural elements that affect a sense of belonging in a community, and if there is agreement about the meaning of shared spaces by women in cohousing communities.

The researcher for this study is Corinna Robitaille in the School of Industrial Design, Carleton University. Corinna is working under the co-supervision of Professors Lois Frankel in the Department of Industrial Design and Federica Goffi in the Azrieli School of Architecture and Urbanism at Carleton University.

This portion of the study involves a 2-3 hour workshop that will explore meanings of shared spaces and how these may be used to create an ideal cohousing setting. The workshop will take place in a mutually convenient, safe location. With your consent, the introduction of the workshop will be audio-recorded and the design activities will be video-recorded. At the completion of the project, the audio and video recordings will be destroyed.

As this project will ask you about your feelings of belonging in this cohousing community there are some potential professional risks to you if your statements are critical of the community. While this risk is expected to be minimal, I will take precautions to protect your identity. This will be done by keeping all responses anonymous as survey responses will not be linked to respondents. Should you experience any distress during the interview, you will be provided with contact information for counselling services available nearby. You have the right to end your participation in the study at any time, for any reason, up until **June 12, 2015**. You can withdraw by phoning or emailing the researcher or the research supervisor. If you withdraw from the study, all information you have provided will be immediately destroyed.

This document has been printed on both sides of a single sheet of paper.

Please retain a copy of this document for your records.

All research data, including audio-recordings and any transcribed notes will be saved on a password-protected hard-drive and password protected USB memory stick for the duration of the research. Any hard copies of data (including any handwritten notes or USB keys) will be kept in a locked cabinet at the home of the researcher. Research data will only be accessible by the researcher and the research supervisor.

Once the project is completed, all research data on the researcher’s hard drive will be securely destroyed. Any hard copies of data (including any handwritten notes and USB memory sticks) will be securely destroyed. (Electronic data will be erased and hard copies will be shredded.)

If you would like a copy of the finished research project, you are invited to contact the researcher to request an electronic copy which will be provided to you if it does not identify other participants.

This project was reviewed by the Carleton University Research Ethics Board, which provided clearance to carry out the research. Should you have questions or concerns related to your involvement in this research, please contact:

REB contact information:

Professor Louise Heslop, Chair
 Professor Andy Adler, Vice-Chair
 Research Ethics Board
 Carleton University
 1325 Dunton Tower
 1125 Colonel By Drive
 Ottawa, ON K1S 5B6
 Tel: [phone]
 [email]

Researcher contact information:		Supervisor contact information:
Name : Corinna Robitaille		Name: Lois Frankel
Department: Industrial Design		Department: Industrial Design
Carleton University		Carleton University
Tel: [REDACTED]		Tel: [REDACTED]

Email:

Email:

Do you agree to be audio-recorded:

_____ Yes _____ No

Signature of participant

Date

 Signature of researcher

 Date

APPENDIX F
Co-Design Workshop Plan



Co-Design Workshop Script

Total time allotted 2.75 hours

Date and time: Saturday, May 9, 2015 - 9:30am to 12:00 noon

Co-design workshop schedule

Welcome	(3 minutes)
Audio and Video recording/waivers signed and collected	
Overview of the Co-design workshop	(7 minutes)
Slides: Summary of Interview Findings and Discussion	(30 minutes)
Activity One: Collage and discussion	(20 minutes)
Break with refreshments	(15 minutes)
Activity Two: Design the ideal cohousing facilities	(45 minutes)
Debrief/Questions/Conclusion	(20 minutes)

Welcome (3 minutes)

Thank you for taking the time to participate in this co-design session. I'm happy to have the opportunity to share the highlights of the interviews on cohousing with you and to build on your experiences and knowledge to co-design what you feel is the best cohousing shared space (for women?).

Review of waiver form content and collection of signed waivers.

Overview of this session (7 minutes)

I have prepared a short slide presentation to present the highlights of the interviews conducted in February of this year. This will provide an overview of the issues discussed in the interviews that those interviewed felt had an important affect in creating a cohousing community. The presentation will also provide context for the design portion of this workshop by showing examples of shared space in other cohousing/senior housing communities. Not all are cohousing communities but each has been selected to demonstrate a unique way that common/shared spaces have been included in the design of the facility. We'll take a break after this segment to enjoy some refreshments before getting into the design.

The second part of this workshop will focus on design of shared spaces. We'll start with an exercise to define and communicate what community means to you individually. We'll spend some time discussing this to allow us to observe and appreciate the diversity of meaning of community that we hold as group.

Having established meanings of community, you will be asked to work as a group to design cohousing community facility with the type and mix of shared and personal spaces you feel would be ideal for you. This will allow you to build on your combined knowledge of cohousing principals and build on your lived experience of either forming a community for the purpose of starting a cohousing community or living in such a community for an extended period of time. The intention is provide the creative space for you to build on what you feel are priorities for creating and sustaining shared spaces that support a sense of belonging to community for women who live in cohousing.

The introduction to the workshop will be audio recorded. The design portions of the workshop will be video recorded. Both the audio and video recordings will be transcribed and analyzed for insights. These will be combined with the findings of the interviews and included in a survey that will be distributed to women living in cohousing communities across Canada to compare and contrast experiences of others. This will allow comparison of research findings to determine if there are shared meanings for common space and if shared spaces influence whether women in cohousing feel more or less a part of community.

PRESENTATION AND DISCUSSION

(30 Minutes)

Slides: 15 minutes

Discussion: 15 minutes

Questions to prompt discussion

1. Where there any findings that surprised you?
2. Any that you expected?
3. Are other considerations not uncovered in the interviews?
4. What is the most important finding from your perspective?
5. What is the least important finding from your perspective?
6. What findings do you think will be most helpful for others that are interested in starting a cohousing community that will include women over the age of 50?

ACTIVITY ONE: COLLAGE

(30 Minutes)

Creating: 15 minutes

Discussion: 15 minutes

On each table is a variety of materials -- magazines with lots of pictures, word stickers, post-it notes, drawing and writing materials, paper and glue.

Please take 15 minutes to create a visual expression of what community means to you. This might include pictures of spaces that remind you of times you felt a part of community, words that express the important aspects of community. You can express this anyway you see fit. The intention is to represent your experiences,

thoughts and values regarding community in a way that makes sense to you. We will spend a few minutes sharing these before moving to the group activity.

BREAK (15 minutes)
Tea, coffee, water, juice, fruit and cookies are available for participants.

COHOUSING IDEAL DESIGN (60 minutes)

Group Design Activity (40 minutes)

On the table in front of you is a representation of a plot of land that exists within a city. You will notice that there are also a selection of materials which include blocks of various sizes, paper, boxes, drawing materials, glue and tape, etc.

Working with the group and the materials, design what you feel would be the ideal cohousing shared spaces for women who live in a cohousing community. Please consider private space, shared space, transitional spaces and other spaces you feel are important to include. Take the time to define the following as a group:

- location (if urban, define that area of city or suburb)
- surrounding neighbourhood
- type of facilities/structures
- size and location of private and shared spaces relative to the overall community.

While designing, assume that the group has access to financial resources that will allow for the immediate inclusion of the top 5 priorities. Other priorities can be added in the future and should be earmarked for later development.

Focus on the space that will most strongly create the opportunity for you to feel a part of the cohousing community.

Debrief / prompt questions (20 minutes)

- What were the top 5 priorities for inclusion in the ideal cohousing community?
- Was the group able to agree on these?
- Was the group able to include these in the design?
- What were priorities that were to be addressed at a later date?
- Did the group agree on these?
- Was there controversy over any parts of the design?
- What was the most difficult issue to address?
- What was the easiest part of the exercise?
- What surprised you about the process?
- What, if anything, surprised you about the design the group came up with?
- Does any of this differ with your expectations of cohousing based on your own prior knowledge and experience?
- What do you feel is the most important element to be included in cohousing based on this exercise?
- Has this changed what you may have thought prior to working with others on this design?

QUESTIONS AND CLOSING

(20 minutes)

We've come to the end of the planned activities for this workshop. Before we go, I am happy to answer any questions you might have about the research to date or the next steps.

Thank you again for participating in the interviews and in today's session. Your contribution is greatly appreciated.

APPENDIX G
Survey Email Invitation Letter



Email Invitation: Survey

Subject: Invitation to participate in a research project on the meaning of shared spaces in cohousing communities.

Dear Madam,

My name is Corinna Robitaille and I am a Master's student in the Department of Industrial Design at Carleton University. I am working on a research project under the co-supervision of Professors Lois Frankel, Department of Industrial Design and Federica Goffi, Azrieli School of Architecture and Urbanism.

I am writing to you today to invite you to participate in a study on your experience of shared living spaces in your community and what meaning you attach to these spaces. This study aims to understand if such spaces contribute positively or negatively to a sense of belonging in a cohousing community, if there are specific architectural elements that affect a sense of belonging in a community, and if there is agreement about the meaning of shared spaces by women in cohousing communities.

This study involves a short survey of that will take approximately 30 minutes. The survey will be conducted online through Fluid Survey.

While this project may involve minimal professional and emotional risks, care will be taken to protect your identity. This will be done by keeping all responses anonymous and allowing you to request that certain responses not be included in the final project.

You will have the right to end your participation in the study at any time, for any reason, up until submission of the survey. No record of your involvement in the study exists prior to submission of the survey.

All research data, including audio-recordings and any notes will be saved on a password protected hard drive. Any hard copies of data (including any handwritten notes or USB memory sticks) will be kept in a locked cabinet at the home of the researcher. Research data will only be accessible by the researcher and the research supervisor.

The ethics protocol for this project was reviewed by the Carleton University Research Ethics Board, which provided clearance to carry out the research. (Clearance expires on May 31, 2016). Should you have questions or concerns related to your involvement in this research, please contact the REB Chair, Louise Heslop or Vice-Chair, Professor Andy Adler at [email] or at [phone].

Cohousing for Women Baby Boomers

If you would like to participate in this research project, or have any questions, please contact me at [email]

Sincerely,

Corinna Robitaille
[email]

APPENDIX H
Survey Consent Form



Consent Form: Survey

Title: The meaning of shared spaces and the experience of belonging for senior women residents of a multigenerational cohousing community in Ottawa.

Date of ethics clearance: May 8, 2015

Ethics Clearance for the Collection of Data Expires: May 31, 2016

I _____, choose to participate in a study on ‘The meaning of shared spaces and the effect on the sense of belonging for senior women residents of a multigenerational cohousing community in Ottawa’. This study aims to understand if such spaces contribute positively or negatively to a sense of belonging in a cohousing community, if there are specific architectural elements that affect a sense of belonging in a community, and if there is agreement about the meaning of shared spaces by women in cohousing communities.

The researcher for this study is Corinna Robitaille in the School of Industrial Design, Carleton University. Corinna is working under the co-supervision of Professors Lois Frankel in the Department of Industrial Design and Federica Goffi in the Azrieli School of Architecture and Urbanism at Carleton University.

This study involves a short survey of that will take approximately 30 minutes. The survey will be conducted online through Fluid Survey.

As this project will ask you about your feelings of belonging in this cohousing community there may be some potential professional risks to you if your statements are critical of the community. While this risk is expected to be minimal, I will take precautions to protect your identity. This will be done by keeping all responses anonymous, as survey responses will not be linked to respondents. Should you experience any distress during the interview, you will be provided with contact information for counseling services available nearby.

You will have the right to end your participation in the study at any time, for any reason, up until submission of the survey. No record of your involvement in the study exists prior to submission of the survey.

All research data, including audio-recordings and any transcribed notes will be saved on a password-protected hard-drive and password protected USB memory stick for the duration of the research. Any hard copies of data (including any handwritten notes or USB keys) will be kept in a locked cabinet at the home of the researcher. Research data will only be accessible by the researcher and the research supervisor.

Cohousing for Women Baby Boomers

Once the project is completed, all research data on the researcher's hard drive will be securely destroyed. Any hard copies of data (including any handwritten notes and USB memory sticks) will be securely destroyed. (Electronic data will be erased and hard copies will be shredded.)

If you would like a copy of the finished research project, you are invited to contact the researcher to request an electronic copy which will be provided to you if it does not identify other participants.

This project was reviewed by the Carleton University Research Ethics Board, which provided clearance to carry out the research. Should you have questions or concerns related to your involvement in this research, please contact:

REB contact information:
Professor Louise Heslop, Chair
Professor Andy Adler, Vice-Chair
Research Ethics Board
Carleton University
1325 Dunton Tower
1125 Colonel By Drive
Ottawa, ON K1S 5B6
Tel: [phone]
[email]

Researcher contact information:	Supervisor contact information:
Name: Corinna Robitaille	Name: Lois Frankel
Department: Industrial Design	Department: Industrial Design
Carleton University	Carleton University
Tel: [REDACTED]	Tel: [REDACTED]

Email:

Email:

Do you agree to be audio-recorded:

___Yes___No

Signature of participant

Date

Signature of researcher

Date

APPENDIX I
Survey Questions



Survey Questions

Thank you for taking the time to share your experiences of cohousing. This survey should take approximately 20 minutes to complete.

Please consider the shared areas that you have access to in your community. Indicate how important each is to you using the scale below.

	1. Non-essential	2. Somewhat unimportant	3. Neutral	4. Somewhat important	5. Essential	Not applicable
meeting space						
kitchen						
gardens and outdoor spaces						
living area						
hobby area						
exercise or mediation area						
office area						
walkways						
laundry facilities						
guest room(s)						

Given the opportunity, would you change the design of any of the areas noted above?

Please elaborate.

Type here

Are there any shared areas of your current community or home that hold strong meanings or associations for you?

Please identify the meaning(s) or association(s) each area holds.

Type here

What kind of activities take place in areas that are meaningful and/or areas that hold no meaning?

Areas that hold meaning.

Areas that hold no meaning.

How do these areas and/or activities affect or contribute to your sense of belonging to the community?

If you were able to create your cohousing community from scratch, what areas would you be sure to include? Why?

What kind of activities would take place in these areas?

How does your community indicate which areas are private and which are to be shared? Are these effective?

Do you think it's important for your cohousing community to clearly identify which areas are private and which are to be shared? Why or why not?
Please elaborate.

How do you feel it should be decided what shared areas are included in your community?

Please check only the one you most strongly agree with.

- Cohousing community decides by consensus
- Cohousing community decides by majority vote
- Cohousing committee decides (i.e. design committee)
- Architect/planner/designer decides
- Government decides
- Some cohousing community members decide (i.e. founding members)
- Builder/developer decides
- Other, please specify...

Are these methods of decision making effective or do you feel there is a better way to decide what areas are to be shared?

Please indicate any activities you have participated in as a member of your current cohousing community.

- Forming the cohousing group
- Type here _____
- Researching cohousing options
- Type here _____
- Selection of location

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- Type here _____
- Design of facility and/or grounds
- Type here _____
- Establishing guidelines for decision making
- Type here _____
- Researching and establishing legal requirements
- Type here _____
- Ongoing management/maintenance of facility and/or grounds
- Type here _____
- Renovation or changes to facility and/or grounds
- Type here _____
- Other (please specify)
- Type here _____

What do you like the most about living in your cohousing community?

Please elaborate.

How would you envision the creation of shared areas for older women living in urban settings that would facilitate a sense of belonging to a community?

How long have you lived in a cohousing community? Please choose from the drop down list below.

In what region of Canada do you live? Please choose from the drop down list below.

Please check your age and gender category from the drop down list below.

Please add any other comments you feel are relevant to shared spaces in cohousing.
Please specify.

Thank you for taking the time to share your valuable insights about living in cohousing. Your input is appreciated.

Cohousing for Women Baby Boomers

Online Survey Maker powered by FluidSurveys / SurveyMonkey Masthead A
SurveyMonkey Company

APPENDIX J
Indoor common areas with positive and negative meaning

Cohousing for Women Baby Boomers

COMMON AREA	1	2	3	4	5	6	7	8*	9*	10	11	12	13	TOTAL +	TOTAL -
Common House					-M			+M	+M					3	1
Kitchen		+M	+M	+M				+M	+M		+M			6	
Dining Room			+M	+M			+M	+M	+M	+M	+M	+M		9	
Large Lounge		+M						+M	+M					3	
Small Lounge								+M	+M					2	
Small Sitting Area								+M	+M					2	
Kid Space								+M	+M					2	
Large Group Space								+M	+M					2	
Teen Space								+M	+M					2	
Games Area								+M	+M					2	
Workshop						-M		+M	+M		-M	-M		2	3
Hobby Rooms								+M	+M		-M	-M		2	2
Music Room							-M	+M	+M					2	
Exercise Area(s)								+M	+M		-M			2	1
Meditation Area			+M		+M		+M	+M	+M					5	
Office								+M	+M					2	
Visiting Area								+M	+M					2	
Guest Room(s)								+M	+M					2	
Caregiver Area(s)								+M	+M					2	
Hospice								+M	+M					2	
Meeting Room			+M				+M	+M	+M					4	
Laundry								+M	+M				-M	2	1
Recycling Room								+M	+M					2	
TV/Movie Room			+M					+M	+M		-M			3	1
Bike Room								+M	+M					2	
Car Repair Area								+M	+M					2	
Covered Atrium								+M	+M		+M			3	
Storage								+M	+M					2	
Equipment Room(s)								+M	+M					2	
Stairwells			-M					+M	+M					2	1
Elevator/Mechanicals			-M					+M	+M					2	1
Parking Area				-M				+M	+M					2	1

Indoor common areas with positive and negative meaning

Legend:

Column numbers indicate interview number

(+M) Common areas identified as having positive meaning

(-M) Common areas identified as having negative meaning

*Respondents #8 and #9 identified all common areas as meaningful

APPENDIX K
Outdoor common areas with positive and negative meaning

Cohousing for Women Baby Boomers

COMMON AREA	1	2	3	4	5	6	7	8*	9*	10	11	12	13	TOTAL +	TOTAL -
Gardens			+ M					+ M	+ M		+ M	+ M	+ M	6	0
Walkways								+ M	+ M					2	0
Natural Areas						+ M		+ M	+ M			+ M	+ M	5	0
Patio/Courtyard	+ M		+ M				+ M	+ M	+ M					5	0
Deck(s)								+ M	+ M					2	0
Hangout Area								+ M	+ M					2	0
Storage								+ M	+ M					2	0
Laundry Lines								+ M	+ M					2	0
Play Structure								+ M	+ M		+ M			3	0
Side Garden		-M						+ M	+ M					2	1
Parking Lot			-M					+ M	+ M					2	1

Outdoor common areas with positive and negative meaning.

This chart shows outdoor areas specifically identified as meaningful areas by survey respondents.

*Respondents #8 and #9 identified all common areas as meaningful

Legend:

Column numbers indicate interview number

(+M) Common areas identified as having positive meaning;

(-M) Common areas identified as having negative meaning